



University of
**Southern
Queensland**

**SUPPORTING TRANSITION TO RECOVERY
THROUGH OUTPATIENT GROUP THERAPY FOR
PEOPLE WITH SUBSTANCE USE DISORDERS**

A Thesis submitted by

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ABSTRACT

In Australia, and worldwide, substance use disorders (SUDs) contribute to a significant burden of disease including increased healthcare utilisation, increased morbidity and mortality rates, and socioeconomic disadvantage (Glantz et al., 2020). Recovery from SUDs often involves lengthy patterns of lapse and relapse seen in cycles of engagement in treatment and return to patterns of substance use (Dennis & Scott, 2007; Dennis et al., 2005; McHugh et al., 2021; McLellan, Lewis, O'Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005). Currently, most SUD treatment occurs in outpatient settings, with clinician-led group therapy the most prevalent modality (McHugh et al., 2021; Sacks, Banks, et al., 2008; Sacks, McKendrick, et al., 2008; Weiss et al., 2004; Wendt & Gone, 2017, 2018). Despite widespread implementation of group therapies for outpatient substance use treatment, there is a paucity of conceptual frameworks and theoretical underpinnings for group therapy processes in supporting recovery (McHugh et al., 2021; Weiss et al., 2004; Wendt & Gone, 2017, 2018) and understanding the unique experience of recovery for the individual (Anderson, Goodman & Schlossberg, 2022; Stokes et al., 2018; Vanderplassen & Best, 2021; Witkiewitz et al., 2019). This is particularly the case for non-manualised, open-enrolment group programs for SUDs (e.g., groups which allow participant admission at any time and do not have a set length of engagement or treatment program) in comparison to structured closed groups with set admission points, length of treatment, and manualised interventions. The present study aimed to explore the value of Schlossberg's Transition Theory (STT; Anderson, Goodman & Schlossberg, 2022) in supporting and understanding the transition to recovery from SUDs. Further, the current study aimed to examine change in SUD severity via clinician-led open enrolment outpatient groups using an explanatory-sequential mixed methods research design (Creswell & Plano Clark, 2018). The present research found recovery to be a highly individualised process occurring on an individual timeline in a

complex and dynamic way. The findings emphasise the unique and individual experience of recovery for each person with or without abstinence (Anderson, Goodman & Schlossberg, 2022; Stokes et al., 2018; Vanderplasschen & Best, 2021; Witkiewitz et al., 2019), facilitating hope in the recovery process (Kelly et al., 2019; Lo Coco et al., 2019; Witkiewitz et al., 2019) and highlighting the role of, and need for, flexibility and adaptability of intervention in a group setting (Wendt & Gone, 2017, 2018). The research reflected a change process for the individual which was consistent with existing recovery literature and aligned with the STT process. An indication of the need for change in the individual was recognised, consistent with movement through the STT transition process (Streifel & Servanty-Seib, 2006). Change in the individual was described in adapted behaviours beyond abstinence in recovery, in changed patterns of substance use, as well as changed roles, learning, assumptions, and perceptions in recovery (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981, 2011). This alignment of experiences of recovery processes with STT was demonstrated by participants through the development of resources across the 4S domains of *situation*, *self*, *supports* and *strategies* (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981). With assets and liabilities in the 4S domain recognised as assisting or hindering the recovery and transition process (Anderson, Goodman & Schlossberg, 2022). The findings further emphasised that the facilitation approach and interpersonal style of the clinician facilitating the group were crucial in effective group practice, integral in maintaining boundaries and safety of the group, and supportive of the flexible delivery of the group to meet the needs of the individual and the group as a whole (Anderson, Goodman & Schlossberg, 2022). These findings reflect the role that STT models can have for clinicians in tailoring therapeutic service delivery. Finally, the findings of this research provide an important contribution to the STT and SUD literature and extend the use of STT to SUD group interventions.

Keywords: Schlossberg's Transition Theory, substance use disorders, group therapy, recovery, mixed-methodology

CERTIFICATION OF THESIS

I, Rebecca Lane, declare that the Thesis entitled *Supporting Transition to Recovery Through Outpatient Group Therapy for People with Substance Use Disorders* is not more than 100,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references, and footnotes. The thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

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CHAPTER 1

Introduction

Substance use disorders (SUDs) contribute to a significant disease burden worldwide, impacting the affected individual and their networks considerably due to increased morbidity and mortality, mental health impacts, increased treatment utilisation and care needs and socioeconomic disadvantage (Kingston et al., 2017). According to the United Nations Office on Drugs and Crime (UNODC, 2017), approximately 29.5 million people worldwide experience substance use difficulties (UNODC, 2017). Further, the World Health Organization estimates approximately 5.1% of adults, or 283 million people worldwide live with alcohol use disorders (Glantz et al., 2020). Within Australia, alcohol and other drug use are common behaviours, with an estimated 43% of adults engaging in lifetime use of illicit substances and 16.4% having used in the past 12 months (AIHW, 2023b) and 77% of people aged 14 and over having consumed alcohol in the past 12 months (AIHW, 2023a). Current epidemiological estimates suggest that approximately 1 in 30 Australians met criteria for SUDs in the past year to 2019 (AIHW, 2023a). While there is extensive variation in the individual use of substances, use is problematic, disabling, and the cause of psychosocial disadvantage for many (Australian Medical Association, 2017; AIHW, 2023a; Kingston et al., 2017; Wilson & Magor-Blatch, 2017).

Increasingly there is debate within the SUD literature as to the conceptualisation of SUDs as chronic relapsing conditions, or opposingly, conditions for which recovery and remission are possible and achievable (Hagman et al., 2022; Kelly et al., 2019; Lo Coco et al., 2019; MacKillop, 2020; Mumba & Mugoya, 2022; Tucker et al., 2019; White & Kelly, 2010; Witkiewitz et al., 2019; Witkiewitz & Tucker, 2020). Despite the debate, SUDs are chronic conditions for many (Laudet & White, 2010), seen in lengthy patterns of active addiction and treatment. This pattern often involves multiple cycles of treatment followed by return to use

as the norm, particularly with greater symptom severity (Dennis & Scott, 2007; Dennis et al., 2005; McLellan, Lewis, O'Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005). Despite the challenges and difficulties of commencing, engaging with and maintaining recovery for many, a resolution of problematic use is experienced by a proportion of people affected by SUDs (Witkiewitz & Tucker, 2020).

Within the literature, recovery from SUDs is understood to be a long-term process, often requiring multiple treatment episodes and multiple sources of support (Dela Cruz et al., 2023; M. Dennis & C. K. Scott, 2007; Hurlocker et al., 2023), however working definitions of recovery vary widely across studies. Witkiewitz et al. (2019) developed a flexible, conceptual definition of recovery focussed on improvements in areas of functioning adversely affected by substance use which defined recovery as an ongoing and dynamic process of behaviour change characterised by relatively stable improvements in biopsychosocial functioning, including health and social functioning and increases in wellbeing and purpose in life (Witkiewitz et al., 2019). This flexible and holistic definition of recovery, without a sole focus on abstinence from substance use or the absence of symptoms, will be used throughout this research. In understanding recovery, outcomes of treatment and remission of substance use difficulties are improved in the short term by more extended episodes of outpatient care (Moggi et al., 1999; Moos & Moos, 2006; Ouimette et al., 1997a; Ritsher et al., 2002) as time is needed for the acquisition of skills and resources to initiate and maintain the changes required for recovery (Laudet et al., 2009). Currently, most SUD treatment occurs in outpatient settings (Sacks, Banks, et al., 2008; Sacks, McKendrick, et al., 2008) with clinician-led group therapy as the most prevalent treatment modality (Weiss et al., 2004). This format is primarily due to outpatient clinician-led group therapy combining the best components of traditional residential treatments at a lower cost, allowing for effective resource management (Greenwood et al., 2001; Spitz, 2001).

Beyond cost containment, clinician-led group therapy offers individuals several additional benefits. These include the opportunity to analyse motives for behaviour, and allows for social learning, generation of emotional experiences, imparting of information, development of new skills (Stead et al., 2017), and provides both social support and accountability in the change process (Sobell & Sobell, 2011). This process is important in recovery as people with SUDs often require support and practice in identifying and communicating psychological needs to others, identifying and adjusting maladaptive patterns of behaviour and developing, repairing, or sustaining interpersonal relationships (Weiss et al., 2004).

Despite the widespread implementation of group therapies for outpatient substance use treatment, there is a paucity of conceptual frameworks and theoretical underpinnings for group therapy processes for SUDs in supporting movement towards recovery, particularly in non-manualised, open-enrolment group programs. SUD treatment within the literature has been conceptualised by several different theoretical underpinnings, including but not limited to psychodynamic, behavioural, cognitive, and motivational theories of change (Klimas et al., 2014). One of the key behavioural approaches utilised in the literature when conceptualising and treating SUDs is the ‘stages of change’ approach, otherwise known as the transtheoretical model (TTM) (Klimas et al., 2014; Prochaska & Norcross, 2001).

The TTM has demonstrated effectiveness in supporting change for people using substances in an individual setting and stage-matched group-based interventions. With stage-matched group-based interventions being therapeutic interventions that are matched with each person’s current stage of change within the TTM, hence requiring members of a group to be at a similar, if not the same, stage of change (Klimas et al., 2014; Prochaska & Norcross, 2001). However, the TTM demonstrates poorer outcomes when interventions are not stage-matched and is limited in application to open enrolment outpatient groups, that is, groups allow

admission from any participant at any time to an existing group program. These open enrolment outpatient groups are the reality for many group providers, particularly within the private healthcare system in Australia (Hunter, 2023; Laycock, 2023). In these open enrolment settings, participants present for treatment at differing stages of change and at different points in their recovery journey. They are required to integrate with the existing group who are varied in their motivation for change. This format does not allow for the delivery of manualised or stage-based TTM interventions (Lo Coco et al., 2019; Sobell & Sobell, 2011). In this sense, a theoretical and conceptual framework for supporting movement towards recovery for people engaging in open-enrolment outpatient group therapy is needed, to guide treatment and group facilitation in line with a theory-oriented practice and scientist-practitioner model (Strong, 1991).

Study Setting

Data for this research was collected from participants of an outpatient group therapy substance use program in a private psychiatric hospital day program in Greater Western Sydney. All participants held private health care with psychiatric coverage, were voluntary and self-selected into the programs. The group program involved attendance for between 6 and 16 group members for 5 hours weekly, with attendance at up to 3 groups per week funded. Groups are facilitated by a psychologist, social worker, or counsellor, and include 1 hour of weekly psychoeducation delivered to the group by an Addictions Psychiatry Specialist. Typically, group admission follows an inpatient detoxification period. The outpatient groups are open enrolment, and participation is open-ended, with ongoing enrolment based on clinical need and completion of a 3-monthly goal-setting process with the facilitating clinician. The SUD programs within this service are abstinence-based and require the participant to be free from substances on the day of attendance; however, participants are

not discharged from the program for lapse or relapse and are not required to maintain abstinence as a goal.

The group format follows the definition of group therapy by Weiss et al. (2004), referring to two or more unrelated patients and a therapist who meet together regularly to reduce or eliminate substance use or address behaviours related to substance use. The group format involves the five common models of group therapy, including group-based education, recovery skills training, group process models, check-in groups and groups addressing other issues (Lo Coco et al., 2019; Weiss et al., 2004).

Focus of the Research

Current and historical models of change in substance use, including the TTM (DiClemente, 2018; Prochaska & Norcross, 2001), have typically been stage or phase-based and highly individualistic. Whilst these models are effective in understanding change in SUDs on an individual level, they are limited in application as a conceptual framework for change in an open group setting. In this sense, there is no framework within the SUD literature that guides a clinician in assisting group members with movement towards recovery through an open, unstructured group program as they present for treatment with varying levels of commitment to change, readiness, motivation, resources, needs and symptom severity. This lack of framework presents significant challenges for clinicians in practice and is a noticeable gap in the literature supporting theory-oriented practice for this setting.

STT, as developed by Schlossberg (1981) and revised most recently by Anderson, Goodman & Schlossberg (2022), provides a way of conceptualising the process of transition and change which is not stage based, and which may allow for flexible and adaptable delivery of clinician-led group therapy whilst supporting the delivery of a variety of educational, skills training, experiential processes and interpersonal dynamics to address needs of the group across four key processes of change being *situation*, *self*, *strategies* and *support*, known as the

‘4S’s’, to support transition to recovery from SUDs (Stokes et al., 2018; Streifel & Servanty-Seib, 2006). While promising, the published literature on STT is minimal in nature.

To date, the literature applying STT has been exclusively qualitative, with no published literature reporting quantitative or mixed methods data identified in the SUD or broader STT literature. While the literature on STT in SUD recovery remains in infancy (Stokes et al., 2018; Streifel & Servanty-Seib, 2006), no SUD literature has explored the application of STT as a conceptual framework for change in clinician-led open enrolment group programs. Regarding STT and SUD recovery specifically, the application of transition theory in a SUD setting by Streifel (2009) highlights how 12-step peer support recovery programs support the transition to recovery for people with alcohol use disorders. Streifel (2009) demonstrated that STT could provide a theoretical and organisational framework for exploring community SUD recovery programs.

Similarly, the application of STT in exploring and understanding sustained recovery by Stokes et al. (2018) demonstrated the transition process and the 4S system in supporting sustained recovery. It gave weight to the STT model in the transition to recovery from SUDs. In this way, STT has demonstrated good applicability in understanding and supporting the transition to recovery for people with SUDs. However, no research has been identified which extends the application of STT in a SUD context to clinician-led open enrolment outpatient group therapy programs. While the findings by Stokes et al. (2018) explored STT in the experiences of people in sustained recovery, there was no research found documenting the experiences of people across their recovery journey, or understanding transition and change for people prior to achieving sustained recovery such as those earlier in recovery or who remain engaged with treatment. In this sense, the current STT research is limited in application to varied SUD settings and across a breadth of recovery experiences.

Scope of Thesis

Based on the naturalistic nature of this research, several variables could not be controlled for or explored, but warrant identification. Given the open enrolment format and the inability of the service to turn away patients, there was significant variance in participants' gender, cultural background, treatment history, recovery experience, single or polysubstance use, type of substance/s used, and presence or absence of psychiatric or physical health comorbidities. It is recognised within SUD literature that each variable influences the course and severity of the disorder, treatment engagement and outcome, and overall recovery trajectory. The present research aimed to explore STT as a conceptual framework as applied to a mixed group of patients in an open enrolment group in a clinician-led outpatient hospital setting. In this way, these variables cannot be controlled in practice as patients are accepted as they present. As such, clinical models of change need to be flexible for these varying population groups and these variables are not explicitly addressed in this research.

The research aimed to explore STT as a general conceptual framework of change that allowed for the flexible delivery of treatments and interventions as required by the group members. While the specific treatment modality used can vary between clinicians and between groups, the discussion of treatment modality and interventions used to achieve change across STT domains was unable to be assessed by this study and will not be addressed. Additionally, group processes, as described by Yalom and Leszcz (2005) play an integral role in the experience and effectiveness of group therapy, however, while significant, are outside of the scope of this research. Each clinician leading the groups has been trained in the management of group processes. This research aimed to explore a conceptual framework for change, rather than the group processes and how this supports achievement of outcome.

Of note, this research was conceptualised and conducted both pre- and post-Australia's pandemic response to COVID-19, with Study 1 data collected before the pandemic between

2017 and 2019 and Study 2 data following the pandemic in 2022 and 2023. Exploring the impact of the COVID pandemic on recovery is outside the scope of this research, however, the narrative of COVID may be present in the experiences of transition to recovery described within the qualitative interviews.

Research Aims and Objectives

This research sought to address several gaps in the literature relating to conceptual frameworks for SUD group therapy, and novel application of theory to real world clinical settings. Considering this, the following overarching questions were posed: firstly, *do group participants' experiences of movement towards recovery align with or reflect STT?* And secondly, *if so, how can STT support people with SUDs in transitioning towards recovery and inform practice in clinician-led open-enrolment outpatient group therapy programs?*. To address these questions, this research aimed to explore the transition to SUD recovery and understand the transition to recovery through outpatient groups. The current study aimed to explore the value of STT as an alternative to the TTM and recovery capital models of change and to explore the utility of STT in informing clinical practice. Further, by studying STT in a clinician-led outpatient group therapy setting, this research sought to understand the recovery process from SUDs generally, and as facilitated by outpatient group therapy programs.

The present study aimed to extend existing knowledge and investigate how people with SUDs achieve recovery through engagement with outpatient group therapy. The current research aimed to build on knowledge and insights gained by Streifel (2009) by extending the application of transition theory from 12-step programs to clinician-led outpatient group therapy programs. In addition, this research aimed to provide support to, and build upon, the findings by Stokes et al. (2018) on sustained recovery by capturing a greater breadth of recovery experiences including people earlier in their recovery journey, who remain engaged with treatment groups and who may or may not eventually transition to sustained recovery

long-term. Finally, the research aimed to redress the absence of quantitative research on STT in the literature by applying mixed methods to quantitatively explore patterns of change in recovery over time across the 4S domains: *situation, self, support, and strategies*.

In summary, this research aimed to explore if participants experiences of moving towards recovery reflect and align with the STT transition process. To this end, the present research aimed to explore and understand the utility of STT as a conceptual framework for supporting change through open-enrolment SUD group therapy programs.

Study Design

This research utilised a mixed methods design to address the research aims. Mixed methods research has become increasingly popular in the social sciences and has become a legitimate and stand-alone research design (Creswell & Plano Clark, 2006; Hanson et al., 2005). As defined by Hanson et al. (2005), mixed methods research involves collecting or analysing quantitative and qualitative data in a single study. Hanson et al. (2005) noted that in employing this method, the data are collected concurrently or sequentially, given priority, and integrated at one or more stages in the research process. Including quantitative and qualitative data allows researchers to enrich the results in ways that one form of data does not (Creswell & Plano Clark, 2018; Hanson et al., 2005). These methods allow generalisation of results and a depth of understanding of the phenomenon of interest (Hanson et al., 2005). Further, Denzin and Lincoln (2005) suggest the overall validity and credibility of the research findings can be improved by utilising two types of research.

The present research applied a mixed methods approach with an explanatory sequential design. In this case, in employing an explanatory sequential design, as Creswell and Plano Clark (2018) outline, the quantitative phase was completed first, Study 1, and the specific results identified in Study 1 were followed up with a subsequent qualitative phase. The qualitative phase, Study 2, was implemented to explain the initial quantitative results in

more depth and explore the participants' experiences and the process of transition to recovery (Creswell & Plano Clark, 2018). A mixed methods approach allowed for an understanding of the individual and group level experiences of change on multiple variables over time with ongoing attendance at an outpatient group therapy program within Study 1, followed by an in-depth exploration of these patterns and experiences in interviews and qualitative thematic analysis to understand the transition process more deeply in Study 2.

Significance and Contribution to Research

The significance of the current research lies in the novel application of mixed methods research design to theory and through contribution to current knowledge, and quantification of STT process of transition over time. The research offered an alternative theoretical model to stage- or individualistic change theories for treating SUDs in an open outpatient group therapy setting. In doing so the research aimed to extend the application of STT in a SUD treatment setting from a focus on peer support 12-step groups (AA) for alcohol use disorder and sustained recovery, to clinician-led outpatient group therapy program for people with mixed SUDs in a hospital setting and earlier in recovery. This will contribute to further understanding STT in SUD treatment and build on the current literature regarding STT. It will allow for an opportunity to refine Schlossberg's theory in a SUD population. Further, the current research provides an opportunity to extend upon current knowledge, while exploring the transition to recovery for people with SUDs and allowing exploration and understanding of the experiences of people in their recovery while engaged with SUD group therapy.

Structure of Thesis

The introductory chapter, Chapter 1, provides a rationale for the current research and presents an overview of SUDs, treatment, and recovery and is followed by a personal reflection on the development of the research and motivation for the present focus of study. Chapter 2 reviews the literature and outlines the theoretical framework underpinning the

methodology used in this research. A discussion of the relevant factors relating to outpatient group treatment and theoretical substance use treatment models is presented. Chapter 3 outlines the methodology, findings and a brief discussion for the quantitative Study 1 assessing change in the 4S components over time while engaged in SUD outpatient group therapy. Chapter 4 outlines Study 2 including the qualitative methodology, reflexive thematic analysis (RTA) and analysis including integrated results and discussion, which explained Study 1 results and explored SUD group participants' experiences and the process of transition to recovery through group engagement. Chapter 5 presents a general discussion of the main findings from Study 1 and Study 2 and concludes the research, discussing the strengths, limitations, key recommendations, suggestions for future research, and implications for the theory and practice relating to the current research.

Personal Reflection and Motivation for Exploring Theories of Change in Group Treatment

Whilst undertaking clinical psychology training in 2014, I became acutely aware of the extent of disadvantage and marginalisation experienced by many in the community, and the effect of such on their psychological and physical wellbeing. Out of this awareness, and with an interest in theory-oriented practice, I commenced this PhD level research project exploring the Clemente Toowoomba program. Clemente Toowoomba is a blended education program delivered by the Open Access College at the University of Southern Queensland (UniSQ), in partnership with St Vincent de Paul Society in Toowoomba and other community agencies to support people experiencing multiple disadvantage to connect with education and subsequent future pathways.

The research began with the aim of gaining a deep understanding of the stories and experiences of the Clemente Toowoomba students' transition to recovery through education, their aspirations, hopes and pathways for the future. The research aimed to explore how to support Clemente students in developing or accessing the resources required to move towards their future goals and aspirations. In moving to Sydney in 2016, I continued to follow the journeys of Clemente Toowoomba students. I concurrently commenced a clinical role supporting unemployed individuals to move towards employment, many of whom were overcoming significant and multiple disadvantage to do so. Here, I discovered Schlossberg's Transition Theory (STT) in employment and education research and began to conceptualise overcoming multiple disadvantage in the community through a transition lens, be it via education or through gainful and meaningful employment.

My clinical work then took me to a private psychiatric hospital in Greater Western Sydney. When working in group inpatient and outpatient settings with people living with severe and complex mental health challenges and SUDs, I saw further the extent of

disadvantage faced by many within the community. I found myself frequently asking questions about how to best support people in transitioning to recovery from SUDs and how to tailor my work as a clinical psychologist in a group therapy setting to the needs of both the group and the individual while remaining as effective as possible. I developed a keen interest in exploring and investigating how to support people experiencing SUDs in their transition to recovery, wellbeing, hope, social connection, and a sense of fulfilment.

In exploring the literature on SUD group therapy treatment and working to apply theory in practice, I noticed limitations in the current stage-based theoretical models such as the TTM (DiClemente, 2018; Prochaska, 2010; Sharma & Atri, 2006; Velasquez et al., 2016) in understanding and facilitating change in a complex, dynamic and ever-changing open-enrolment group setting. I began considering transition theories' application and clinical utility in this setting. Conceptually, STT (Anderson, Goodman & Schlossberg, 2022) appeared to support group facilitation with a model for conceptualising movement toward change at a group level, with scope to tailor the intervention to the individual, based on history, resources, capacity and readiness for change, acuity of disorder and previous recovery experience. However, the application of transition theory in the SUD field was in its infancy (Stokes et al., 2018; Streifel & Servanty-Seib, 2006), so I sought the opportunity to apply theory in a novel setting, and the original research evolved into the one presented here.

In moving from exploring transition through education, to seeking to understand the role of meaningful employment in overcoming disadvantage, to exploring transition theory in the context of outpatient SUD group therapy, this research has grown to accommodate my adapting clinical interests and personal growth as a clinician and psychology researcher. Doing so has allowed me to utilise the scientist-practitioner framework and provided an opportunity for theory-oriented practice, exploring STT in the context of recovery from SUDs as a model for change through outpatient group therapy. This research was an unfunded study

using clinical data with existing resources in the workplace over several years, hence was significantly limited in resources and scope. The impact of such on the size, power and generalisability of this research is recognised and will be considered in depth in the discussion of results.

CHAPTER 2

Review of the Literature

The experience of disadvantage encompasses any challenge or difficulty that impacts an individual and prevents full engagement within society—such as SUDs, mental health conditions, disability or physical illness (Joseph Rowntree Foundation, 2003; Tanton et al., 2021; Vinson et al., 2015). Disadvantage can be experienced in multiple ways and to varying degrees across the lifespan (Howard et al., 2014) and is often all-encompassing, involving a complex interaction of factors across multiple life domains. Such factors can include poor physical or mental health, SUDs and disabilities (Tanton et al., 2021; Vinson et al., 2015), limited skills, social discrimination, inequitable treatment (Howard et al., 2014), community marginalisation, social deprivation (Joseph Rowntree Foundation, 2003) low income or financial difficulties, underemployment or unemployment (Tanton et al., 2021; Vinson et al., 2015), inadequate housing, and, or homelessness (Vinson et al., 2007).

Despite the far-reaching and negative impact of disadvantage both individually and socially (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012; Goodman et al., 2006), people can be supported to overcome disadvantage by harnessing their strengths, resources, and life experiences (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012; Howard et al., 2014; Vinson et al., 2015; Vinson et al., 2007). Anderson, Goodman and Schlossberg (2022) offer STT as a way to contextualise and understand the experiences of individuals in coping with disadvantage and the mechanisms that assist people in transitioning through disadvantage or any significant life change, expected, unexpected, wanted to unwanted, such as loss of employment or return to civilian life following active deployment in combat veterans (Anderson, Schlossberg & Goodman, 2012; Flink, 2017).

This literature review explores the experience of disadvantage and the subsequent challenges faced by people experiencing SUDs and their experiences in transitioning towards recovery through outpatient substance use group therapy and the lens of SST. This literature review aims to gauge the state of the current literature relating to the prevalence and experience of SUDs, explore recovery from SUDs, followed by literature regarding treatment for SUDs, specifically group therapy for SUDs and outcomes, investigate the theoretical underpinning of change in SUD treatment and investigate and critique the literature relating to STT both generally and concerning SUD treatment. It will then present this research and consider the aims and hypotheses of the first study.

Substance Use Disorders

SUDs can cause considerable and significant physical, psychological, economic, environmental and social disadvantage for many (Australian Medical Association, 2017; Kingston et al., 2017; Wilson & Magor-Blatch, 2017). Conceptualised as multistep conditions, SUDs begin with initial use and can progress towards problematic use influenced by several intrinsic and extrinsic factors, including physical, psychological, and social factors (Borrell-Carrio et al., 2004; Ducci & Goldman, 2012; Engel, 1977). There is no unique and specific known cause of SUDs. Instead, several factors are understood to play a role in development, onset and maintenance (Ferri et al., 2006). Typical diagnosis of SUDs is completed via the Diagnostic and Statistical Manual of Mental Disorders – 5th Edition, Text Revision (DSM 5-TR; (APA, 2022)

SUD is characterised in the DSM-5-TR by a pathological pattern of behaviours related to an individual's substance use. Diagnostic criterion are specific to the class of substance used; however, fit within four overall groupings: impaired control, social impairment, risky use, and pharmacological criteria (APA, 2013, 2022; Wilson & Magor-Blatch, 2017). Impaired control relates to the increased quantity of use or use for longer than intended,

persistent desire to cut down on use, coupled with unsuccessful attempts to decrease use, time spent obsessing, using or recovering from the effects of the substance, and the presence of craving and strong urges to use the substance (APA, 2022). Social impairment relates to failure to fulfil obligations at work, school, or home and continued use despite social or interpersonal problems caused by or exacerbated by, effects of the substance. In some instances, important social, occupational or recreational activities may be given up or reduced because of substance use, and the individual may withdraw from activities and hobbies to use the substance (APA, 2022). Risk relates to recurrent substance use in physically hazardous situations, and continued use despite knowledge of physical or psychological problems caused by, or exacerbated by, the substance (APA, 2022). Pharmacological criteria relate to tolerance and withdrawal. Tolerance is signified by the requirement of a markedly increased dose of the substance to achieve the desired effect, or the experience of a reduced effect when the usual amount of the substance is consumed (APA, 2022). Withdrawal relates to symptoms experienced when blood or tissue concentration of a substance declines in a person who has maintained prolonged heavy use. When withdrawal symptoms occur, the individual will likely consume the substance to relieve symptoms (APA, 2022).

The DSM-5-TR utilises specifiers regarding the severity of SUD and the course of the disorder such as in early remission—full criterion not met for three months but less than 12 months, in sustained remission—where full criterion not met for 12 months or more and in a controlled environment—where the person is in an environment where access to the substance is restricted (APA, 2022). This highlights the recognition of patterns of relapse as inherent to SUD, which may be exacerbated by brain changes relating to craving and exposure to substance-related stimuli (APA, 2022). The Australian Medical Association (2017) holds a similar view, where substance dependence is a chronic brain disease that involves the compulsive or uncontrolled use of one or more substances (Australian Medical Association,

2017). A key similarity in their conceptualisations is that the Australian Medical Association (2017) considers addiction has the potential for relapse and recovery. In line with this, the National Institute on Drug Abuse (2020) defines addiction as “a chronic, relapsing disorder characterised by compulsive drug seeking and use despite adverse consequences” (p. 1) which is further expanded to describe addiction as a brain disorder based on the functional changes in brain circuitry involving reward, stress and self-control, highlighting the chronic and enduring nature of substance use difficulties (National Institute on Drug Abuse, 2020).

The cost of untreated SUDs is considerable for the individual, impacting on a range of life domains including a significantly reduced life expectancy—by almost 14 years—the experience of physical and mental health comorbidities, and the increased likelihood of social isolation as well as financial, career and education disruptions (Australian Medical Association, 2017; AIHW, 2023b; Kingston et al., 2017). For the community, the cost of untreated SUDs includes increased health care costs and utilisation including hospitalisation and treatment of alcohol and drug related conditions (AIHW, 2023a). Healthcare costs associated with substance use includes prevention initiatives, harm reduction and treatment programs, health care utilisation including ambulance and hospitalisation rates, and premature mortality (AIHW, 2023a). Costs further relate to reduced employment and productivity, reliance on social welfare, increased criminal activities, higher rates of incarceration and subsequent increased costs of law enforcement (Australian Medical Association, 2017; AIHW, 2023b; Kingston et al., 2017). The cost of substance use relates further to household expenditure, and decreased productivity with considerable losses relating to absenteeism. Overall, the cost of addiction in Australia estimated at \$80.3 billion in 2021 (AIHW, 2023a). Hence, the need for effective treatment is clear, however an understanding of the desired outcome of recovery is required.

In moving toward a clear understanding of the course and impact of SUDs and providing effective treatment and support for people experiencing SUDs, a sense or understanding of recovery, and its definition, is key. While the recovery-oriented literature is growing, for the public, many service providers, self-help groups, and treating health professionals there has been, and often remains a perception of SUDs as long-term and permanent. That is, a belief that once addicted, always addicted (Stokes et al., 2018). Fortunately, many people with SUDs will eventually resolve their problematic use and enter recovery, either with or without abstinence (Witkiewitz & Tucker, 2020). In line with this perspective, the substance abuse literature has begun to focus on recovery-oriented models of treatment and care, with this becoming central to policy and practice (Duffy & Baldwin, 2013; Laudet, 2008; Laudet & Humphreys, 2013). This is a considerable movement towards recovery as a way out of dependency and away from historical policy and practice which focused on patterns of use, increasing treatment engagement or attendance, and goals of harm reduction as primary outcomes (Duffy & Baldwin, 2013). In understanding this, the concept and operationalisation of recovery must first be discussed.

Recovery from SUDs

Historical Perspectives of Recovery

In understanding the conflicting and varied definitions and conceptualisations of recovery within modern literature, it is important to first consider the historical development of the conceptualisation of SUDs and their treatment for context. Historical definitions of recovery through harm reduction were first developed in the late 1700s with American physician Benjamin Rush highlighting and discussing the effects of alcohol and recommending abstinence from spirits or liquor but allowing and accepting the consumption of beer and wine (Rush, 1785). This perspective was in contrast with the prescribing patterns and societal attitudes at the time which held alcohol in high regard (Barnett, 2017). This

inquiry by Rush (1785) provided significant influence for, and momentum to, the Temperance Movement which initially focussed on generating widespread abstinence from liquor but eventually moved towards lobbying for abstinence of all alcohol (White & Kurtz, 2008). The Temperance Movement focused on eliminating alcohol from society through the 1800s and early 1900s, resulting in the legal prohibition of alcohol (Witkiewitz et al., 2019). The Temperance Movement was closely followed by the development of Alcoholics Anonymous (AA) in the 1930s, which has been and remains a cornerstone of modern understandings of recovery and substance use treatment through the AA model and other 12-step mutual self-help groups (Barnett, 2017; White & Kurtz, 2008).

The philosophy of the creators of AA, Bill Wilson and Bob Smith, held that alcoholics should not be stigmatised but instead considered to be suffering from a treatable, but not curable, illness which could be managed with the 12-step program, regular meetings with peers and submission to a higher power (Barnett, 2017). While modern 12-step programs have broadened beyond a focus on alcohol addiction to problematic use of other substances and addictive behaviours, they remain characterised by an abstinence-based goal. However, the primary 12-step text, the “Big Book” first published in 1939, made it clear that abstinence was insufficient to define recovery (Wilson, 1939; Witkiewitz et al., 2019). Following the development of the AA program, the disease model of addiction began to gain traction through the mid-20th century, a model which had heavy influence from the AA principles and reinforced the role of abstinence in recovery (Barnett, 2017). It was not until the late 1900s when the ground-breaking work of the time by Vaillant (1966) identified that individuals with SUD could recover without treatment.

From here, the modern behavioural conceptualisations which held recovery to be possible began in the 1970s. These conceptualisations moved to replace disease models with understanding substance dependence as a health problem characterised by patterns of use and

adverse physical, psychological, and social consequences (Pattison et al., 1977; Witkiewitz et al., 2019). In their seminal text, Pattison et al. (1977) noted problem development followed variable patterns over time and did not necessarily progress to a fatal condition. This conceptualisation was foundational in behaviour therapy research and practice, and in developing many evidence-based treatments for SUDs used today (Witkiewitz et al., 2019).

Modern Conceptualisations of Recovery

Recent conceptualisations of recovery have built on this and highlight the importance of the whole person, functioning, and wellbeing. The American-based Substance Abuse and Mental Health Services Administration (SAMHSA) defines recovery as “a process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential” (p.1; (SAMHSA, 2012, 2022)). The definition of recovery as developed by the Recovery Science Research Collaborative (Ashford et al., 2019), an interdisciplinary group of recovery researchers and professionals, was “recovery is an individualised, intentional, dynamic, and relational process involving sustained efforts to improve wellness” (p. 5; Ashford et al., 2019). This acknowledges the individual nature of the recovery process, focusing on the intentional and dynamic recovery processes with sustained effort required to improve wellness across broad physical, psychosocial and functional domains. This understanding aligns with SAMHSA’s definition and the original AA Big Book, which recognised abstinence as insufficient for recovery (SAMHSA, 2012; Wilson, 1939).

Definitions for recovery are not just applied to substance use patterns but are used for various health concerns. The definitions by SAMHSA (2012) and Ashford et al. (2019) for SUD recovery differ from recovery as defined for chronic health conditions such as cancer or diabetes which recognises these conditions to be chronic with an acceptance of a lack of cure and do not require an improvement in quality of life or wellbeing (McLellan, McKay,

Forman, Cacciola & Kemp, 2005). Treatment of these chronic conditions lends itself to a continuous treatment involvement with adapting levels of care based on the changing severity of the illness or condition (McLellan, McKay, Forman, Cacciola & Kemp, 2005). In contrast, definitions and management of substance use recovery focus on the recovery of function over an absence or reduction of symptoms, however, are more time-limited and dose oriented in treatment approach (McLellan, McKay, Forman, Cacciola & Kemp, 2005). These definitions are not dissimilar to definitions of recovery from other psychiatric disorders which also focus on supporting an increase in function, quality of life or wellbeing.

The framework by the Australian Health Ministers' Advisory Council (2013) defines personal recovery from mental illness as "being able to create and live a meaningful and contributing life in a community of choice with or without the presence of mental health issues" (pp. 11). The Australian Health Ministers' Advisory Council (2013) consider that recovery approaches vary depending on a person's recovery journey, a presence or absence of an acute phase of illness, and highlight the inherent challenge or struggle for the person in recovery. An emphasis is placed on regaining the capacity for self-determination or deeper engagement as a focus of treatment. Similarly, the NSW Consumer Advisory Group (2012) views recovery as a unique and personal journey, which is about gaining and retaining hope, understanding one's abilities and limitations, engaging in active life, personal autonomy, social identity, meaning and purpose and a positive sense of self. This view holds that the essence of recovery is about a journey to living a meaningful and satisfying life (NSW Consumer Advisory Group, 2012), in line with SUD recovery.

Defining Recovery from SUDs

From an understanding of recovery literature in the chronic health, mental health and substance use fields, recovery from SUDs requires more than just abstinence but also a focus on developing psychological wellbeing, quality of life, and cognitive, social and behavioural

changes (Stokes et al., 2018). Further, a recovery definition that relies on abstinence or the absence of symptomology relating to SUD fails to capture the multidimensional and heterogeneous pathways to recovery evident in the general population and within clinical and acute samples (Witkiewitz et al., 2019). A lack of a clear definition of recovery is reflected in the varied way that recovery is defined, measured and operationalised in the literature and by governments, services, professionals, researchers, policymakers and even those in recovery themselves (Duffy & Baldwin, 2013; Leighton, 2015; Schoenberger et al., 2021; Stokes et al., 2018; Tucker et al., 2020; Witkiewitz et al., 2019; Witkiewitz & Tucker, 2020). This inconsistency presents several issues with the consistency of research, methodology, outcome measures, and defining and operationalising the concept of recovery. The lack of a clear definition of recovery has implications for the development of evidence-based treatment, goals of treatment, and creates difficulties for policymakers and practitioners in sharing a clear view of recovery (Duffy & Baldwin, 2013) across individual and population levels to further research and support development of practice and policy (Witkiewitz & Tucker, 2020).

In working to clarify a definition of recovery, Witkiewitz et al. (2019) completed a comprehensive narrative review of qualitative, quantitative, and mixed methods research examining the varying definitions of current and historical recovery for SUDs. They developed a flexible, conceptual definition of recovery focussed on improvements in areas of functioning adversely affected by substance use (Witkiewitz et al., 2019), which defined recovery as an ongoing and dynamic process of behaviour change characterised by relatively stable improvements in biopsychosocial functioning, including health and social functioning and increases in wellbeing and purpose in life (Witkiewitz et al., 2019). This flexible and holistic definition of recovery, without a sole focus on abstinence from substance use or the absence of symptoms, will be used throughout this research.

A clarified definition of recovery, such as the above, allows for an improved understanding of the symptomology and course of SUDs which in turn supports the adaptation, investigation and evaluation of current programs, allows for the development and revision of treatments, and improves the capacity to research and understand which interventions facilitate short term vs more sustained recovery (Witkiewitz et al., 2019). Clear conceptualisation and definition of recovery further support reducing stigma and facilitating hope for recovery for those experiencing SUDs. Further, it allows for support networks, families, friends, service providers and organisations to gain a better understanding of change, clarify appropriate goals, and set realistic expectations of change and the process (Stokes et al., 2018; Witkiewitz et al., 2019). In the case of the present research, a clear conceptualisation of recovery is crucial in exploring participants' transition and experiences as they move towards recovery through outpatient SUD group treatment programs.

SUD Remission and Recovery

Despite the overwhelming movement towards a recovery framework for SUDs, there remains debate within the SUD literature as to the conceptualisation of SUDs as chronic relapsing conditions, versus conditions for which recovery and remission are possible and achievable (Hagman et al., 2022; Kelly et al., 2019; Lo Coco et al., 2019; MacKillop, 2020; Mumba & Mugoya, 2022; Tucker et al., 2020; White & Kelly, 2010; Witkiewitz et al., 2019; Witkiewitz & Tucker, 2020). SUDs are chronic disorders for many (Laudet & White, 2010) seen in lengthy patterns of multiple cycles of addiction and intensive treatment followed by return to addiction as the norm for many substance users, typically those with more severe difficulties (Michael Dennis & Christy K. Scott, 2007; Dennis et al., 2005; McLellan, Lewis, O'Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005). This is consistent with both the conceptualisation of SUDs as chronic or long-term for a significant

proportion of adults (Lo Coco et al., 2019), and with data on remission rates, lapse and relapse, and treatment utilisation.

Remission rates for SUDs in the literature vary substantially. Fleury et al. (2016) found remission rates to be between 19.6% and 95.7%, with pooled mean estimates of 51.7% for alcohol, 54% for heroin, and 60% for poly-SUDs (Lo Coco et al., 2019). According to data on treatment admissions, approximately 60% of people admitted to publicly funded treatment services have had previous treatment exposure (Grella et al., 2003), lending itself to the notion of a “treatment career” (McLellan, Lewis, O’Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005). Within the Drug Abuse Treatment Outcome Study (DATOS), about half of all subjects were readmissions to treatment, 54% of participants relapsed within 2 years, and 44% returned to treatment within 3 years of the initial admission (Grella et al., 2003). Further, following treatment a substantial number of people return to substance use, experience social difficulties and employment issues related to their use and report psychological distress and ongoing psychiatric symptoms (Drake et al., 2008; Grella et al., 2003; Grella et al., 2010).

In addition to general psychological distress relating to substance use, there is a high comorbidity between SUDs and psychiatric comorbidities including personality disorders (Conner et al., 2009; van Dam et al., 2013; Weiss et al., 2007). The presence of psychiatric comorbidities increases the complexity, reduces outcomes, and prolongs the course of SUDs (McLellan, McKay, Forman, Cacciola & Kemp, 2005). Those who have had more than one prior admission and/or experience significant co-occurring psychiatric and social difficulties are at much higher risk for relapse and return to treatment (National Institute on Drug Abuse, 2014). The prevalence of psychiatric comorbidity has been estimated between 30% and 45% for individuals with alcohol (Farrell et al., 1998) and drug dependence respectively (Worley et al., 2010). Further, the use of more than one substance is common in people with SUDs as

well as co-occurring SUDs (Hassan et al., 2021), with alcohol use disorders detected in 38% of opiate-using treatment seekers (Hartzler et al., 2010) and 45% of stimulant-using treatment seekers (Hartzler et al., 2011). Typically, polysubstance use is associated with a more severe disorder and course of illness with some substance combinations associated with poorer outcomes than others (Hassan et al., 2021). Hence the influence of co-occurring disorders on the chronic and relapsing course of illness is not to be underestimated.

Potential for Recovery

While considering the clear evidence for some experiencing lifetime or chronic and enduring substance use difficulties and the impact on treatment engagement and remission rates, the National Institute of Alcohol Abuse and Alcoholism (NIAAA; 2020) has nevertheless recently argued for the potential for recovery from SUD. This argument is a significant movement away from their previous definition of alcohol use disorder as “a chronic relapsing brain disease characterised by compulsive alcohol use, loss of control over alcohol intake, and a negative emotional state when not using” (p. 41; MacKillop, 2020). Instead, NIAAA contemporary definitions describe an impaired ability to stop or control alcohol use despite adverse social, occupational, or health consequences (National Institute on Alcohol Abuse and Alcoholism, 2020) with the capacity for recovery (Hagman et al., 2022).

This adaptation is in line with a growing view of SUDs beyond the chronic disease perspective to one which highlights the possibility and potential of recovery. In a cross-sectional and retrospective study of more than 2,000 American adults with successful resolution of a substance use problem, an average of five recovery attempts was taken to achieve successful resolution of use, with a median of two to three attempts (Kelly et al., 2019). Notably, a diverse spread of experiences in recovery was documented with a proportion of participants with a higher number of attempts inflating the average and some participants requiring no serious prior attempts (Kelly et al., 2019). In this sense, a large

proportion of those people achieving recovery from drug addiction required only one, to less than five, serious recovery attempts. This is inconsistent with the notion of addiction as a chronic and relapsing condition and suggests that recovery is possible (Kelly et al., 2019; MacKillop, 2020). Further evidence suggests that recovery from SUDs is possible with data from the American-based National Epidemiological Study of Alcohol and Related Conditions (NESARC) (Lopez-Quintero et al., 2011). NESARC found lifetime cumulative probability of remission exceeds 80% for nicotine and above 90% for alcohol, cannabis and cocaine, in line with evidence for the experience of natural recovery, or change in the absence of formal treatment (Cloud & Granfield, 2001; Dawson et al., 2005; Granfield & Cloud, 1999; Tucker et al., 2020; Tucker & Simpson, 2011). This evidence is consistent with the common course of ‘maturing out’ of problematic patterns of use without clinical intervention for adolescents in alcohol use (Lee & Sher, 2018) and across the lifespan in opioid use (MacKillop, 2020), however, does not consider the context of a continuum of use with recovery potential varying depending on severity, presence of mental health comorbidities or psychosocial difficulties, and time in recovery (National Institute on Drug Abuse, 2014; Stokes et al., 2018).

While these statistics are promising, when considering a continuum of severity and varied recovery potential, it is possible that bias may be inherent in the study by Kelly et al. (2019) and others of a similar nature detailing remission and recovery attempts. This is due to the exclusion criteria requiring successful resolution of SUDs (Kelly et al., 2019). Meaning those unable to sustain recovery were not included; thus those with more severe and enduring difficulties, higher acuity, higher service utilisation, and increased likelihood of comorbidity or polysubstance use may not be represented (Conner et al., 2009; Hassan et al., 2021; McLellan, McKay, Forman, Cacciola & Kemp, 2005; National Institute on Drug Abuse, 2014; van Dam et al., 2013; Weiss et al., 2007). Similarly, despite the successful resolution of substance use at the time of participation, the potential for relapse in future is not precluded

(MacKillop, 2020). This emphasises the recovery journey as complex, nonlinear, unique and highly individual, with the process, experience and length of the journey or ‘treatment career’ varying (Duffy & Baldwin, 2013). In line with this, the relationships between symptom severity, treatment seeking and recovery status are complex and heterogeneous (Witkiewitz & Tucker, 2020). A person’s access to, engagement in treatment, and course of illness differs depending on a range of psychosocial factors including help-seeking experience (Lee & Sher, 2018; Schoenberger et al., 2021), socioeconomic status and severity of illness.

Variation in recovery course complicates the research findings and hinders the development of a comprehensive understanding of the recovery and relapse potential of SUDs. In this way, attention needs to be paid to the limitations of each study and the current piecemeal perspectives on chronicity vs recovery in the literature which is suffering what MacKillop (2020) described as the “blind men and the elephant” problem. Whereby different perspectives and answers are gained from differing vantage points, that is, from the chronic and relapsing, or recovery and remission perspectives (MacKillop, 2020). Consistent with this, the majority of people meeting criteria for SUDs never receive formal treatment and their recovery experience is not captured by clinical research samples (Witkiewitz & Tucker, 2020). Whereas, those in treatment are more likely to be captured by clinical studies, and tend to experience a vastly different course of recovery, due to a greater level of condition severity, increased likelihood of comorbidity or psychosocial difficulties, the need for formal or professional treatment services, increased likelihood of patterns of lapse or relapse and multiple treatment episodes (National Institute on Drug Abuse, 2014; Witkiewitz & Tucker, 2020). In working to develop a unified definition for future research, MacKillop (2020) proposed a view of addiction as a chronic relapsing condition with substantial variability in outcome and course ranging from full remission to a chronic relapsing profile (MacKillop, 2020).

To further consolidate the differences in SUDs as chronic and relapsing versus holding potential for recovery with recognition of naturalistic recovery, and to explore more deeply the experiences of people in moving towards and sustaining recovery, it is important to study both treatment-seeking and non-treatment-seeking populations across the spectrum of substance use (Tucker & Simpson, 2011), or to integrate research between clinical and non-clinical samples where possible. While this is outside the scope of the current research, understanding the recovery process described in the literature across treatment-seeking and non-treatment-seeking people with SUDs will be explored. This will be linked with a discussion of treatment programs as they support movement towards recovery.

SUD treatment

Treatment for SUDs has traditionally been delivered in an acute care model with intense episodes of professional treatment followed by a discharge process and reduction in support within a short period (Laudet & White, 2010). As we have seen, recovery from SUDs involves a complex, dynamic and non-linear process of change across a broad range of life domains as well as change across patterns of substance use (Vanderplasschen & Best, 2021). SUD symptomology and subsequent disadvantage are often chronic and do not lend themselves to an acute model of care (McLellan, McKay, Forman, Cacciola & Kemp, 2005; Vanderplasschen & Best, 2021). Whilst our understanding of recovery is broader than abstinence or attendance, the outcome of addiction treatment is typically assessed by a reduction in SUD-related problems, often patterns of substance use, problems that limit personal function, or problems of concern at a societal or public health level (McLellan, McKay, Forman, Cacciola & Kemp, 2005).

Traditional SUD treatment is grounded in rehabilitation-oriented and disease model perspectives consistent with historical perspectives of recovery, which, regardless of theoretical orientation, view that a finite amount, duration or intensity of therapy allows a

person to make and sustain changes in their substance use (McLellan, McKay, Forman, Cacciola & Kemp, 2005). With successful treatment, discharge is possible with recovery sustained for a period, often in the realm of 6 to 12 months (McLellan, McKay, Forman, Cacciola & Kemp, 2005). Based on this perspective, if effective, post-treatment evaluations would reflect the changes made during treatment as sustained post-discharge. As a result, many studies in the literature use a pre-, during and post-test model to assess programs, grounded in this assumption (Gossop et al., 2002; McLellan, Lewis, O'Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005; Moos, 2008; Moos & Moos, 2006; Ouimette et al., 1997; Project MATCH Research Group, 1997).

Much research evaluating programs has considered change during treatment, however, conclusions drawn relate largely to post-treatment outcomes (McLellan, McKay, Forman, Cacciola & Kemp, 2005). When considering relapse rates, independent of type of discharge, patient characteristics or substance used, between 50–60% of patients begin relapsing within 6 months of completion of treatment. This evidence is suggestive of treatment as ineffective in sustaining recovery when interpreting post-treatment abstinence outcomes (McLellan, McKay, Forman, Cacciola & Kemp, 2005), however, does not represent ineffective treatment from a broader recovery perspective. While the immediate goal of reducing substance use and preventing relapse is often necessary in the initial stages of recovery, this is insufficient to achieve longer-term sustained recovery (McLellan, McKay, Forman, Cacciola & Kemp, 2005). Hence, exploration of the individual's treatment or recovery journey is needed during and following help-seeking episodes.

Evaluation of treatment outcomes allows exploration and understanding of the process of moving towards change in recovery including the mechanisms of change in SUDs (Moos, 2008; Vanderplasschen & Best, 2021). While presentation and discussion of all evidence-based substance abuse treatments, including but not limited to Cognitive Behaviour Therapy,

Motivational Interviewing, Relapse Prevention, Acceptance and Commitment Therapy and SMART Recovery is beyond the scope of this literature review, it should be noted that general mechanisms of change in recovery relate to a process or series of events whereby one variable influences or leads to change in another (Moos, 2008; Nock, 2007). Further, these involve an experience of common process mechanisms associated with enhancing self-efficacy, coping, motivation, and developing social networks (Kelly et al., 2009).

Changes in behaviours relating to recovery and substance use are explained by various social, psychological, behavioural, and neurobiological processes with differing mechanisms for behaviour change occurring simultaneously or cumulatively over a recovery journey (Kelly et al., 2009; Witkiewitz et al., 2019). In this sense, no single mechanism accounts for recovery independently, but instead, mechanisms of change develop and adjust over time through a person's recovery journey, with differing mechanisms involved in initiating and maintaining the journey to, and the experience of, recovery at varying times and stages (Vanderplasschen & Best, 2021). As with all chronic conditions, relapse is possible, is likely to occur, and rather than indicating a failure in treatment suggests that treatment and support needs to be adapted (National Institute on Drug Abuse, 2014). Further, movement towards recovery may be taking place through the experience of lapse and relapse (Vanderplasschen & Best, 2021). This process presents challenges both to provide and evaluate treatments from a post-treatment outcome model and requires deeper exploration of experiences through treatment and following discharge.

Factors influencing treatment outcome

Length of Treatment. Recovery is recognised as a long-term process, often requiring multiple episodes of treatment (National Institute on Drug Abuse, 2014). Outcomes and reduction or remission of substance use difficulties are improved short term by extended episodes of outpatient care (Moggi et al., 1999; Moos & Moos, 2006; Ouimette et al., 1997;

Ritsher et al., 2002), as the acquisition of skills and resources necessary to initiate and maintain changes required takes time (Laudet et al., 2009). Further, longer participation in treatment is associated with increased stabilisation and improvement in resources that improve the outcome of treatment up to 15 years later (Laudet et al., 2009). Premature treatment dropout can increase risks to the individual, such as the increased risk of overdose, intoxication-related injuries, dangerous behaviour, or premature mortality (Villafranca et al., 2006). Hence, supporting people in remaining in treatment is critical to support recovery, however the length of time required depends on the individual, severity of problem and psychological or social needs (National Institute on Drug Abuse, 2014).

Treatment Attrition. Attrition from treatment programs, or treatment dropout, is one of the major challenges and persistent problems SUD treatment programs face. Challenges relating to treatment completion and retention are well documented, with completion rates for programs as low as 35-40% (Laudet et al., 2009). Retention-related factors have been explored and relate to the individual and program (National Institute on Drug Abuse, 2014). These can include the quality of the therapeutic alliance between client and counsellor (Connors et al., 1997; Cuijpers et al., 2019; Joe et al., 1999; Villafranca et al., 2006), the individual's level of engagement or participation (Joe et al., 1999), perceived satisfaction with treatment, and the alignment of intervention with the person's treatment or lifestyle needs (Villafranca et al., 2006). While this list is not exhaustive and the empirical data regarding factors associated with treatment attrition has grown, the impact of data on overall retention rates in addiction treatment services has been minimal (Laudet et al., 2009).

Laudet et al. (2009) qualitatively explored self-reported reasons for leaving treatment prematurely. Primary reasons for leaving included disliking the program, interference with other activities, substance use, practical difficulties, not wanting help, personal issues, financial stress, and lack of helpfulness of the program. Unmet social service needs were

reported as a key barrier to engagement, cited by 54% of the dropout participants and identified as a factor which may have increased their retention (Laudet et al., 2009). Given the breadth of impact of SUDs across a person's life, it is unsurprising that many attrition factors and key dropout factors related to social difficulties and unmet social needs (Laudet et al., 2009). Hence, a view of recovery and treatment services that support a person in meeting these needs is key to rebuilding their lives and sustaining change.

When exploring potential adaptations to programs or delivery, Stanick et al. (2008) as cited in Laudet et al. (2009) found that early program experience influences retention as many clients know early on if they are ready to engage in services and complete treatment. Stanick et al. (2008) recommend open dialogue throughout the treatment process from intake, to identify reasons for help-seeking, needs, expectations, experiences, attitudes about treatment, perceived likelihood of completion and to address any barriers to retention (Laudet et al., 2009). This client-focused approach recognises the ongoing and dynamic process of behaviour change and works to support the development and maintenance of improvements in health and social functioning as well as increases in wellbeing and purpose in life as per Witkiewitz et al. (2019) definition of recovery.

Comorbidity. Reduced overall retention and adherence to programs is common with The presence of dual diagnoses, or psychiatric comorbidities compared to SUD only, which is significant when recognising the rates of comorbidity (Conner et al., 2009; Kingston et al., 2017; Lo Coco et al., 2019; van Dam et al., 2013; Weiss et al., 2007). Psychiatric comorbidity prevalence estimates vary between 30% to 40% (Lo Coco et al., 2019) or in some studies between 47% to 100% (Kingston et al., 2017). The most prevalent disorders include mood and anxiety disorders with generalised anxiety disorders ranging up to 75%, depression ranging between 27% to 85%, and estimates of 5% to 66% for PTSD and 16% to 72% for personality disorders (Kingston et al., 2017). Comorbid mental health conditions are

statistically higher in those who seek formal or professional substance abuse treatment and are more likely to result in a more severe clinical profile and complex illness than SUD alone (Kingston et al., 2017). This complex clinical profile can have a substantial impact on wellbeing including physical health, severity of substance use, quality and quantity of social supports and social risks such as instability of housing or homelessness, poorer social and occupational functioning, and increased difficulties in interpersonally or engagement with friends, family and treatment providers (Kelly & Daley, 2013; Schäfer & Najavits, 2007).

Further, complex psychological symptom profiles, common with comorbid substance use and psychiatric difficulties, have the potential to interfere with SUD treatment, particularly if the service is not equipped to manage both conditions or provide integrated care (Kelly & Daley, 2013). Presence of comorbid diagnoses can result in alternate patterns of use, such as self-medication, and influence the long-term outcomes (Kelly & Daley, 2013; Kingston et al., 2017). When considering the prolonged course of treatment, illness and substance dependence in those with comorbid disorders, the potential consequence for clinical care, retention, outcome and treatment provision, it is clear regular screening, assessment and adaptation to appropriate evidence-based interventions is required (Kingston et al., 2017).

Individual Needs and Goals. The experience of the individual can influence treatment outcome beyond length of engagement and the presence of comorbidities. An individual's experience within their social system, access to resources, and disadvantage within their social context can be critically important in their experience of, or capacity for change at any given time (Best & Hennessy, 2022). Witkiewitz et al. (2019) note that the social and cultural systems present for some in the process of recovery are fraught with ongoing experiences of disadvantage and discrimination which is often irresolvable through individual effort or engagement in treatment and exacerbated by the stigma and experience of addiction. In line with this, in a study spanning over 20 years, both Moos and Moos (2006)

and Brennan et al. (2011) found contextual, social, and environmental factors were as critically important in predicting a reduction in drinking over the long term, alongside individual factors such as cognitions, attitudes, and beliefs. This outcome aligns with transition perspectives relating to overcoming disadvantage (Anderson, Schlossberg & Goodman, 2012).

In addition to the experience of disadvantage, the treatment format or goals has an impact on outcomes and movement towards recovery. For example, abstinent recovery is more successful for people with severe alcohol or other SUDs than non-abstinent recovery (Tucker et al., 2020; Witkiewitz & Tucker, 2020). Conversely, non-abstinent recovery is more common in those people who move towards recovery without treatment (Tucker et al., 2020). A combination of treatment approaches, regardless of abstinence focus, for example, initial professional involvement with follow-up participation in community self-help programs, is beneficial in improving long-term outcomes compared to professional treatment or self-help programs alone (Moos & Moos, 2006). This finding is consistent with recovery perspectives emphasising the dynamic process of improving function across life domains with individually relative improvements required for recovery (Witkiewitz et al., 2019), in this sense understanding the experience of the person is key. To understand the nuanced experience of the individual in recovery and their help seeking journey, consideration of the locally available treatments, treatment pathways and funding models is required.

Treatment for SUDs in Australia

Within Australia, most community healthcare is funded through the Government's universal healthcare scheme, Medicare. Medicare provides treatment and rebates for nearly all medical and psychological services according to a scheduled fee (Haber & Day, 2014). Each state funds approximately half of hospital care, and largely funds all the community health care services, including drug and alcohol health services. This means drug and alcohol health

services are a state responsibility, which lends itself to varying approaches and models between states (Haber & Day, 2014). Within New South Wales (NSW), the state in which the present research was conducted, there is a network of hospital-based medical staff specialists in addiction medicine and opioid substitution treatment programs attached to most large hospitals which provide excellent hospital and medical interactions, however, has resulted in the detriment of community-based programs (Haber & Day, 2014) which are in high demand, meaning that often there can be long waitlists with minimal support provided while waiting and that people with less severe difficulties are excluded from accessing these acute substance abuse services altogether. Within NSW, each area is divided into local health districts which manage the local community drug and alcohol counselling and support services (Haber & Day, 2014).

These community services are more accessible than hospital-based programs but suffer from similar waitlists and accessibility limitations for those with low to moderate clinical severity. There are several residential rehabilitation or detoxification services within NSW, and across Australia, which are mostly run by not-for-profit organisations, and which receive partial government funding. These are more accessible however often charge fees to cover ongoing costs (Haber & Day, 2014) which prohibits access for many. From a private healthcare perspective, Medicare provides access to a rebate for 10 private, individual psychology sessions in the community per calendar year following referral by a GP; however, rebate rates mean that many psychologists require clients to pay a gap fee to access services, and 10 sessions per year is insufficient for moderate to severe SUD treatment. In addition to these services, several private, for-profit, psychiatric hospitals offer addiction treatment services within inpatient and outpatient aftercare models (Haber & Day, 2014). The private psychiatric hospital aftercare outpatient groups are the focus of this study, and an in-depth discussion of these hospital services follows.

Private Hospital SUD Treatment

In Australia, and within NSW, private hospitals with an addiction focus are funded by a patient's private health care fund with a possible co-payment required or are privately funded by the clients at a high cost per night. The typical model is a 21-day inpatient stay to support medicated detoxification with addictions specialist review, around-the-clock nursing care and allied health support, typically in the form of clinician-led group therapy.

This inpatient stay aims to provide short-term intensive or acute treatment to stabilise substance use difficulties. Care provision is largely governed by funding agreements with private health fund providers. Typically, funding is tiered with the amount paid to the hospital reducing incrementally beyond the initial 21-day period, hence incentive is present for maintenance of a short-term focus and transition of the client to aftercare or outpatient services as soon as possible. Often this aftercare is provided in the form of 'day programs' which constitute a day hospital admission as an outpatient of 5 hours of clinician-led groups up to three times per week. The provision of evidence-based treatment is required which aligns with varying modalities and cycles through the 5 types of group treatment as outlined by Weiss et al. (2004), covering group-based psychoeducation, recovery skills training, group process models, check-in groups and addressing other issues as required or identified by the group participants. The realities of practice with these private hospital-based groups mean that groups are open-enrolment, hold no definitive timeline of engagement or discharge (Weiss et al., 2004; Wendt & Gone, 2017), they include up to 16 participants but can vary in size depending on attendance which can be variable with this population, and includes participants with a variety of presenting concerns, the severity of illness, comorbidities and at varying stages of readiness to change.

Challenges of Delivering Outpatient SUD Group Therapy

There are significant challenges associated with the realities of practice as described above, as well as delivery of therapy programs. Balancing the needs of the private organisation with the needs of the clients (e.g., maintaining group numbers to be between 12-16) is a challenge, with best practice guidelines recommending a maximum of 8-12 participants per group (Ezhumalai et al., 2018). The role of the clinician leading the group is to ensure the program best serves the participants and supports movement towards recovery. Challenges arise when integrating theory into practice when conducting groups for SUDs, particularly in regards to the mismatch between the manualised and structured programs required for good, well-controlled research and the adaptability and flexibility in approach required for providing treatment in a group setting to address the complex and individual nature of addiction (Lo Coco et al., 2019; Wendt & Gone, 2018). Much of the literature regarding the efficacy of group treatment relates to RCTs with closed groups. Given that open groups are the most frequently delivered service, the generalisability of data from those RCTs to the “real world” groups is limited (Lo Coco et al., 2019; Weiss et al., 2004; Wendt & Gone, 2017). Further, evidence-based guidelines utilised in group settings were largely developed for individual therapy, with only some later extended and validated in group formats (Lo Coco et al., 2019; Sobell & Sobell, 2011).

Beyond the difficulties of delivering individual-based treatment in a group setting, the evidence for many group models, such as stages of change, requires participants to be in a similar stage of change or recovery. This requirement is challenging with patterns of lapse and relapse impacting on motivation for change through recovery, and being par for the course (Lo Coco et al., 2019). Further, management of stage-matched groups is not possible for open enrolment group programs (Lo Coco et al., 2019). These challenges with provision of care highlight the need for alternate models of transition to recovery and will be discussed in more

depth in later sections. As SUD treatment is chiefly delivered in a group-based setting in Australia, a discussion of the literature regarding group therapy follows.

Group Therapy

As identified, treatment for SUDs occurs most frequently in outpatient settings (Sacks, Banks, et al., 2008; Sacks, McKendrick, et al., 2008) with clinician-led group therapy the most prevalent modality (Weiss et al., 2004). This is due to outpatient clinician-led group therapy combining the best components of traditional residential treatments at a lower cost than residential treatment (Greenwood et al., 2001; Spitz, 2001), coupled with the influence of Mutual Support Groups such as AA in treatment programs for SUDs (Brown et al., 2002; Donovan & Wells, 2007; Lo Coco et al., 2019). Beyond cost containment, clinician-led group therapy offers several benefits. These include the opportunity to analyse motives for behaviour, provides an opportunity for social learning, allows generation of emotional experiences, allows for the imparting of information, the development of new skills (Stead et al., 2017) and provides a level of social support and accountability for change (Sobell & Sobell, 2011). This social support is important in supporting recovery as people with SUDs require assistance and practice in identifying and communicating psychological needs to others, identifying and adjusting maladaptive patterns of behaviour and developing, repairing or sustaining relationships (Weiss et al., 2004).

Evidence for Group Therapy

Group therapy has been demonstrated to be a highly effective form of treatment, equal to individual psychotherapy in its ability to provide meaningful benefit and change (Yalom & Leszcz, 2005) with several reviews and RCTs on the efficacy of group therapy in comparison to individual therapy conducted (Lo Coco et al., 2019). Group therapy is more effective than self-help and other less intensive interventions for smoking cessation (Stead et al., 2017).

Comparable outcomes were found for individual and group treatment for alcohol and drug use

disorders (Sobell et al., 2009) and smoking cessation (Stead et al., 2017). Further equivalence was found between individual and group therapies in students (Burlingame et al., 2016). Burlingame et al. (2013) reviewed the evidence for group therapy in SUDs and found post-moderate positive effects in adolescent and adult populations. Minor differences were found in effectiveness between specific formal change theories, however, these disappeared over time (Burlingame et al., 2013). Weiss et al. (2004) reviewed group treatment outcomes for SUDs, which supported the efficacy of group treatment compared to treatment as usual or waitlist controls, like other research (Burlingame et al., 2016; Sobell et al., 2009; Yalom & Leszcz, 2005), minimal difference was found between individual and group treatments. The efficacy of groups in supporting improvement in substance use was replicated by Sobell and Sobell (2011).

Lo Coco et al. (2019) completed a systematic review of the literature surrounding group therapy for SUDs with a primary outcome of abstinence and secondary outcomes of frequency of substance use and symptoms of SUD, anxiety, depression, general psychopathology, and attrition. Thirty-three studies found small significant effects of group therapy on abstinence compared to no treatment, individual treatment, and other treatments (Lo Coco et al., 2019). Lo Coco et al. (2019) completed a meta-analysis of RCTs for group therapy for SUDs. Moderate significant effects for mental state change in group therapy were found in comparison to no treatment, however effect on substance use frequency and SUD symptoms was not significant (Lo Coco et al., 2019). No differences in abstinence rates between group therapy and control groups were noted. Preliminary evidence suggests group therapy supports improved abstinence compared to no treatment, individual therapy, or other treatments. Further, findings suggested group therapy can be effective for difficult-to-treat populations (Lo Coco et al., 2019).

It is of note that most studies included in the reviews and meta-analyses above are studies completed on clinical trials with closed groups compared to control conditions. While this makes for strong research, it presents challenges when generalising to open enrolment group programs in practice (Wendt & Gone, 2017), particularly when considering the flexibility required in treating complex SUDs in an open group (Lo Coco et al., 2019).

Format of Group Therapy

Further challenges with generalising outcomes relate to the broad banner of treatments that fall under the term ‘group therapy’. As Weiss et al. (2004) describes, traditional group therapy was a process group of adults where the interaction between participants was the primary therapeutic factor (Yalom & Leszcz, 2005), however group therapy has now broadened to describe more didactic skills groups as well as psychoeducational group programs (Weiss et al., 2004). For the current research, the term group therapy will be defined in line with Weiss et al. (2004), where group therapy refers to two or more unrelated patients and a therapist who meet together regularly intending to reduce or eliminate substance use or associated behaviours. Group therapy as defined by Weiss et al. (2004) encompasses the five common models of therapy including group-based education, recovery skills training, group process models, check in groups and groups addressing other issues (Lo Coco et al., 2019; Weiss et al., 2004). Typically, in an open outpatient group these five common models are used flexibly and interchangeably as per the needs of the group members at any given point (Wendt & Gone, 2017, 2018).

Open outpatient group treatment, as aftercare delivered in private hospitals in Australia, aims to maintain the gains made following inpatient hospitalisation and supports the development of skills as well as the resolution of substance use difficulties (Brown et al., 2002) more cost-effectively than intensive individual treatment (Marques & Formigoni, 2001). Program engagement aims to support the individual in recovery by maintaining

stabilisation of use and quality of life improvements, and improving long-term capacity for recovery (Foster et al., 2000). The focus is supporting the individual through the high-risk 6-month period following acute treatment where the risk of return to baseline functioning or major relapse episodes is increased (Foster et al., 2000). The length of engagement with aftercare programs can vary. Often engagement lasts from 3-6 months or even upwards of 12 or 24 months dependent on the individual's experience of recovery, recommendations by the treating team and patterns of stabilisation of SUDs, however high initial attrition rates are seen (Wendt & Gone, 2018; Yalom & Leszcz, 2005).

Length of Group Therapy

The length of treatment and engagement in outpatient groups is varied across services and models, based on desired outcomes, the cost of programs (Marshall et al., 2011; Wendt & Gone, 2018) and the capacity to provide an appropriate dose of treatment (Brown et al., 2002). Some programs follow a short-term format over several weeks, others utilise an open-ended approach with discharge or treatment termination guided by the group leader or the individual, and in other groups participation can be open-ended with no clear view to cease engagement, such as 12-step programs (Lo Coco et al., 2019). The ongoing nature of outpatient group programs is consistent with research on the length of treatment engagement in supporting recovery and improved post-treatment outcomes (Brown et al., 2002; Laudet et al., 2009; Moggi et al., 1999; Moos & Moos, 2006; Ouimette et al., 1997; Ritsher et al., 2002). These programs aim to maintain gains made, allow for implementation of skills and learning in the community and home environment, support recovery and reliably reduce patterns of use, and support improvements in psychosocial and physical health in the long term, in line with evidence suggesting length of treatment as facilitatory of ongoing gains (Brown et al., 2002).

Brown et al. (2002) found open aftercare groups to offer benefits to clients with SUD, with benefits seen in therapeutic gains and positive post-treatment outcomes. Further, Brown et al. (2002) identified frequency of attendance as an important factor in gains made, with the stability of change influencing long-term outcomes. Participants who made the most significant change through group engagement were more likely to maintain changes at 6-months (Brown et al., 2002). This outcome is in line with the current understanding of recovery, the benefit of ongoing and lengthier treatment engagement and the conceptualisation of SUD as both a chronic condition but which change and recovery is possible (Brown et al., 2002).

Research has varied in determining the minimum dose of group treatment required for long-term sustained effects. Moos and Moos (2006) explored the duration of participation in professional treatment and AA for previously untreated individuals with alcohol use disorders. Using a self-report inventory at baseline, and then 1, 3, 8 and 16 years follow up they found that 27 weeks or more of treatment in the first year led to improved outcomes at 16 years follow-up in comparison to those who remained untreated (Moos & Moos, 2006). Further, greater levels of professional treatment in the second and third year of treatment increased the likelihood of 16-year abstinence, however, increased professional treatment from 4 years onwards did not. This finding may relate to increased acuity of disorder and poorer prognoses leading to re-engagement in treatment after year 3 (Moos & Moos, 2006). Interestingly, greater AA engagement was associated with improved abstinence long term, but this was not true for professional treatment (Moos & Moos, 2006).

Formal Change Approaches and Common Factors in Group Therapy

While the general format of group treatment and length of programs have been discussed, it should be noted that significant variability exists within the literature on formal

change approaches classified under group therapy, and having demonstrated effectiveness in treating SUDs in adults (Lo Coco et al., 2019).

Some formal change approaches include Cognitive Behaviour Therapy (CBT) which supports group members in identifying and understanding the connections between thoughts, feelings and behaviours and how these influence recovery and substance use behaviours (Magill & Ray, 2009). CBT is often used both as a monotherapy or as part of a combination of treatment strategies (McHugh et al., 2010). Relapse prevention is based on a cognitive behavioural model aimed at supporting safe coping with high-risk situations which may lead to lapse or relapse, and a focus on global skills including behavioural and communication skills to cope with challenging or risky situations (Marlatt et al., 2007). Motivational groups are based on Motivational Interviewing and aim to increase readiness for change by shifting behaviour towards activities or alternatives that are more rewarding, motivating, and values and goal congruent in the long-term (Sobell & Sobell, 2011). Mindfulness-based approaches enhance coping by bringing space and awareness into automatic behaviours (Witkiewitz et al., 2005). Other psychosocial interventions have demonstrated effectiveness in supporting change for SUDs within a group setting including Contingency Management, Coping Skills Training and Motivational Enhancement Therapy (Lo Coco et al., 2019).

With a multitude of treatment approaches available, and varying theoretical underpinnings of each, it is crucial to consider both the common factors and independent effects of treatment programs and the real-world implementation of treatment. This requires considerable flexibility in the integration of treatment approaches depending on the needs of the group. Literature on the common factors in psychotherapy suggests mechanisms for change beyond the modality or treatment approach itself and includes aspects of the relationship, and belief in the treatment modality (Cuijpers et al., 2019; Moos, 2008; Nock, 2007). Further, change in recovery relates to a process of events where one variable

influences or leads to change in another, and involves common mechanisms associated with enhancing self-efficacy, coping, motivation, and developing social networks (Kelly et al., 2009).

Changes in behaviours relating to recovery and substance use are explained by various social, psychological, behavioural, and neurobiological processes (Kelly et al., 2009). Differing mechanisms for behaviour change occur simultaneously or cumulatively over a person's recovery journey (Kelly et al., 2009) and are facilitated and developed by each treatment approach. In this sense, no single mechanism will account for recovery independently. Instead, mechanisms of change develop and adjust over time, through a person's recovery journey or "treatment career", with differing mechanisms involved in initiating and maintaining the journey to sustained recovery at varying stages of the recovery journey (Vanderplasschen & Best, 2021). Hence, exploration into the recovery process, and the experiences of individuals as they move towards recovery and engage with formal change processes, treatment groups of varying design or length, and supports or activities is of value. This would assist in understanding the complex and individual process of recovery, improving quality of life, and sustaining change (Vanderplasschen & Best, 2021).

Challenges with Evaluating Group Treatment for SUDs

Outcome Measures

Despite the widespread implementation of outpatient group therapy for SUDs and acceptance of the clinical benefit, to date, primary outcome measures have been centred on attendance or substance-related outcomes such as abstinence, and urinalysis (Burlingame et al., 2013; Weiss et al., 2004). These outcomes do not allow for a broader conceptualisation of change through group therapy programs for SUDs, nor do they allow for consideration of change across a wider view of health and recovery, including physical, mental, and social wellbeing (Goodman et al., 2013). Further, evaluation of outpatient group therapy programs in

line with recovery perspectives has been limited (Burlingame et al., 2013; Goodman et al., 2013; Weiss et al., 2004) as evaluation of programs which consider only substance-related or attendance measures is inadequate in understanding recovery (Witkiewitz et al., 2019). This limited monitoring relates in part to unique methodological and logistical challenges in assessing group therapy for SUD (Goodman et al., 2013; Weiss et al., 2004), particularly in an open group setting without manualised treatment (Lo Coco et al., 2019; López et al., 2021; Wendt & Gone, 2017, 2018).

Chronicity and Comorbidity

In addition to the challenges of outcome measures, the literature on treatment for SUDs has focussed on individuals with severe and chronic SUDs who have had one or more episodes of treatment (Moos & Moos, 2006). Alternatively, many studies do not control for or consider chronicity or engagement with previous treatment (Moos & Moos, 2006). This is consistent with the complex nature of SUDs, treatment, and SUD recovery (MacKillop, 2020; McLellan, McKay, Forman, Cacciola & Kemp, 2005; Schoenberger et al., 2021; Tucker & Simpson, 2011; Vanderplasschen & Best, 2021; White & Kelly, 2010) however makes it challenging to delineate effective treatment for those individuals with more severe, chronic and enduring substance use challenges, in comparison to those with less severe or acute disorders, who may respond more effectively to initial treatment or support. In this sense, most of the outcome literature for SUDs is based on studies of individuals who have relapsed or have not responded to prior episodes of care (Moos & Moos, 2006). Further, reduced overall treatment retention and adherence to treatment programs are reported in those experiencing dual diagnoses or psychiatric comorbidities compared to individuals with SUD difficulties only, which is significant when recognising the high rates of comorbidity (Conner et al., 2009; Kingston et al., 2017; Lo Coco et al., 2019; van Dam et al., 2013; Weiss et al., 2007). In this sense, the effect of individual comorbid psychiatric diagnoses can be significant

when considering engagement, severity and complexity of presentation and symptomology, presentation, and overall treatment outcome at an individual and group level.

Treatment Attrition

High rates of attrition or treatment dropout complicate the evaluation of group therapy outcomes. Attrition rates from SUD group programs are often high, at between 34% to 40% or higher commonplace for SUDs (Lo Coco et al., 2019; National Institute on Drug Abuse, 2014), and higher than other psychotherapy programs (Swift & Greenberg, 2012). Brown et al. (2002) found that participants lost to attrition were younger, less educated, had less time at current place of employment, had poorer employment functioning, reported more prior treatment for alcohol use disorder and had spent less money on drugs in the month prior than those who were retained in the study. No difference in gender, marital status, or employment status was found (Brown et al., 2002). Further research is needed to understand what strategies can improve engagement and treatment adherence (Lo Coco et al., 2019). In addition, high attrition rates from treatment programs and research studies mean that the experiences of those who prematurely cease treatment are underrepresented. When considering the high rates of dropout, the question of how to best identify, and assist those most at risk of dropout to maintain engagement and move towards sustained recovery becomes of relevance to any clinician.

Statistical Evaluation of Treatment Programs

An additional underlying challenge in evaluating outcomes in groups and within SUD recovery is the use of statistical methodology, chosen methods and inferences drawn. Typical recovery studies in the substance use field use a nomothetic approach which involves directly aggregating data from all individuals, generalizing pooled results to the entire population or across time and focusing on between-individual analyses (Molenaar, 2004; Zheng et al., 2015). From a nomothetic perspective, group-level data is important, however as outlined

previously, research in the substance use setting is challenged by comorbidity, attrition, and sample size, meaning significant challenges are present when conducting research within this setting (Weiss et al., 2004). Further, this approach involves the use of group-level data to track variables such as attendance or abstinence or by tracking mean change in scores on outcome measures (Burlingame et al., 2013; Goodman et al., 2013; Weiss et al., 2004), statistical methodology which does not capture variability in individual recovery trajectories (Busch et al., 2011) and makes inferences about individual recovery processes difficult to draw (Busch et al., 2011; Molenaar, 2004; Molenaar & Campbell, 2009; Zheng et al., 2015).

When assessing mean change through parametric group-level tests, between-persons data is used to infer within-person effects. Group effect across persons is used to infer an overall casual effect (Blampied, 2016) which is not group based, but rather located within the individual (Blampied, 2016; Zheng et al., 2015). This nomothetic approach combines data across all individuals and generalises the mean results to an entire population. Despite the wide use and apparent generalisability of results, such results may not fit any specific individual experience at all (Blampied, 2016; Hoepfner et al., 2007; Molenaar, 2004; Ridenour et al., 2013; Zheng et al., 2015). Zheng et al. (2015), applied an idiographic method to examining substance abuse recovery as an alternative framework to the typical assumption of population homogeneity seen in most nomothetic literature. They found significant individual heterogeneity in recovery experiences. Zheng et al. (2015) recommended an idiographic and individual approach to assessing and understanding recovery with attention paid to subgroups of individuals in recovery as response patterns can provide valuable information in developing, evaluating, and providing individualised and appropriate treatment and support (Zheng et al., 2015).

Zheng et al. (2015) suggested individual assessment of recovery trajectories and individual differences to the same intervention may explain why some people leave treatment

and build successful recovery, while others relapse, in contrast to a group-level “one size fits all” approach to assessing outcome in recovery (Zheng et al., 2015). These differences may not be solely due to patient differences but to how well individuals are fit to the treatment they receive (Dimeff & Marlatt, 1998; Larimer & Cronce, 2007; McKay & Weiss, 2001). Busch et al. (2011) applied reliable change index (RCI) to the experience of depression symptoms through smoking cessation treatment. They noted that using reliable and clinically significant change criteria led to different conclusions than tracking mean changes in depressed mood over time. Specifically, there was no evidence of group mean change in symptoms of depression while engaged in smoking cessation treatment, however at an individual level with RCI analysis, a quarter of participants experienced an increase in depressed mood and a quarter of participants who were not depressed at baseline developed depressive symptoms to a diagnosable severity through the study (Busch et al., 2011). These findings highlight that while important to consider group-level mean changes, this practice can overlook nuanced and clinically valuable information at an individual level, which can guide research, treatment planning and practice in future (Busch et al., 2011; Jacobson & Truax, 1991; Molenaar, 2004).

These challenges in applying nomothetic analysis to any individual and their experience have led to discussion and growing focus on idiographic approaches within the literature (Blampied, 2016; Busch et al., 2011; Hoepfner et al., 2007; Iraurgi et al., 2020; Jacobson & Truax, 1991; Molenaar, 2004; Pusswald et al., 2019; Ridenour et al., 2013; Zahra & Hedge, 2010; Zheng et al., 2015). While it remains important to use group-level statistical analyses from a nomothetic perspective, an understanding of the individual case and meaningful change over time is needed from an idiographic perspective (Blampied, 2016), particularly when considering the importance of relative and dynamic improvements in biopsychosocial functioning for the individual in recovery (Witkiewitz et al., 2019) and the

challenges in gaining power and managing methodological issues in research within the substance use field (Burlingame et al., 2013; Goodman et al., 2013; Weiss et al., 2004).

Understanding nomothetic and idiographic data is key to improving understanding of within-person and group-level changes and recovery processes. In this sense, more research regarding reliable or clinically significant change made by an individual in recovery which reflects the individual, dynamic, and relative nature of change is needed. Hence, the use of statistical methods such as RCI is of value (Blampied, 2016; Jacobson & Truax, 1991; Zahra & Hedge, 2010)

Theoretical Models of SUD treatment.

SUD treatment within the literature has been conceptualised by many different theoretical underpinnings (Klimas et al., 2014). One of the key behavioural approaches is the ‘stages of change’ approach, otherwise known as the TTM (Klimas et al., 2014; Prochaska & Norcross, 2001). A second key model in the recovery literature is the concept of recovery capital developed originally by Granfield and Cloud (1999), which has continued to develop ongoing support in the literature (Best & Hennessy, 2022; Gavriel-Fried, 2018; Hennessy, 2017b; Patton et al., 2022). The TTM and recovery capital models and their limitations in group therapy will be discussed here.

The Transtheoretical Model of Change (TTM)

The TTM (Prochaska & Norcross, 2001) is a framework for understanding intentional behaviour change. It proposes that individuals move sequentially through a discrete series of motivational stages including (DiClemente, 2018; Prochaska & Norcross, 2001):

1. Precontemplation which involves no perception of substance use as a problem and no intention of quitting in the next 6 months.
2. Contemplation where the individual is aware of their substance use as a problem and is considering changing behaviour within the next six months.

3. Preparation where individuals are taking action within the next month to change their use.
4. Action where the individual makes overt behavioural changes to stop using substances.
5. Maintenance where the now ex-substance user works to prevent relapse, and finally,
6. Termination where the individual has completed the process of change with a high level of confidence and no temptation to relapse.

Stage of change in the TTM is a strong predictor of treatment dropout, progression through stages with treatment improved outcomes, and when treatment was matched with participants' stage-of-change, that is, treatment was stage matched—the outcome of treatment interventions was improved (DiClemente, 2018; Prochaska & Norcross, 2001).

The stages of change are the organising components of the TTM, with the TTM further describing processes of change, markers of change and context of change (DiClemente, 2018; Velasquez et al., 2016). The processes of change include internal and external experiences allowing movement from one stage to the next, such as the cognitions and activities that people engage in to alter emotion, thinking, behaviour or relationships related to problem behaviours (DiClemente, 2018; Velasquez et al., 2016). The markers of change are two key signposts that indicate where someone stands in relation to change-related areas, firstly 'decisional balance' which includes the pros and cons of changing behaviour and related decision making, and secondly 'self-efficacy/temptation' or perceived ability in avoiding use vs the temptation to use (Nidecker et al., 2008; Velasquez et al., 2016). More recently, and following the commencement of this project in 2016, the 'context of change' has been included in the TTM as per the 2nd edition of the text by DiClemente (2018). The context of change acknowledges the life context in which the change process occurs, which surrounds

and interacts with the change process. The context includes five broad functioning areas: current life situation, beliefs and attitudes, interpersonal relationships, social systems, and enduring personal characteristics, which can help or hinder movement through the stages of change (DiClemente, 2018).

The TTM and SUD Treatment. The TTM has been one of the most popular and cited models in psychology (Sharma & Atri, 2006), it is well established in research and practice for general behaviour change and has been actively utilised in the substance use field for decades (Connors et al., 2013). The TTM is one of the most influential models with many concepts having become part of the regular language and clinical toolbox of many substance abuse providers (Velasquez et al., 2005). A large body of research has been developed in support of the use of the TTM for behaviour change (Velasquez et al., 2005). The TTM is relevant for change processes among primary substance users, with majority of literature relating to smoking cessation (Pollak et al., 1998; Prochaska et al., 1988; Stotts et al., 1996), some relating to alcohol use (Project MATCH Research Group, 1998), and cocaine use (Carey et al., 1999). A large narrative review of the TTM (Spencer et al., 2002) concluded that the TTM applies well to tobacco cessation, with stage-matched interventions more effective than non-matched in promoting forward-stage movement and cessation of use (Spencer et al., 2002). Similarly, tailored stage-based interventions have a slight benefit at a small effect size in a meta-analysis of health behaviour interventions for smokers (Noar et al., 2007). Velasquez et al. (2016) developed a tailored stage-based manualised group treatment program for SUDs, effective in supporting a reduction and cessation of cocaine use (Velasquez et al., 2016). Norcross and Lambert (2011) found the stages of change to predict outcomes reliably and robustly in psychotherapy across a large range of target behaviours. No research has been published on non-stage matched TTM group interventions for SUDs in open groups.

Despite the widespread implementation of the TTM in substance use difficulties, the application of the TTM to other therapeutic settings and the TTM's influence on the development of current guidelines for clinical practice (Klimas et al., 2014). The conceptual validity and practicality of the TTM has been challenged (Cahill et al., 2010; Littell & Girvin, 2002) with the model creating significant debate (Prochaska, 2010) and polarisation within the scientific community (Sharma & Atri, 2006). Bridle et al. (2007) completed a systematic review of the effectiveness of stage-based interventions for facilitating change, finding limited evidence for the effectiveness of stage-based interventions compared to other interventions or usual care. Herzog (2008) and Littell and Girvin (2002) both concluded that the proposed stages of change are not discrete and the stages of change lack consistent evidence as a model for behaviour change. Sutton (2001, 2005) and West (2005) call for review and encourage caution when utilising and integrating the TTM in research and practice, with West (2005) going so far as to call for the model to be laid to rest due to lack of coherent and stable patterns of stages over time (Migneault et al., 2005). The revised text by DiClemente (2018) has addressed some of the noted concerns, however, a number of limitations and challenges remain within the TTM.

Limitations of the Transtheoretical Model. Building on recent challenges and considering the literature debate, the TTM is further limited in application to open outpatient group therapy. This limitation is due to the individualistic nature of the TTM, focus on substance use as the key outcome of change rather than recovery, the finality of movement between stages (Herzog, 2008) and the need for specific interventions to be tailored to stage in order to maximise outcome, minimise the potential for disengagement and mitigate consequences of mismatched stage intervention (Noar et al., 2007). When considering the delivery of SUD programs in outpatient group-based settings, consistency in the stage of change for each group member is highly improbable, especially over time (Wendt & Gone,

2018). Thus, tailoring group interventions to each participant's stage is near impossible. This difficulty is primarily due to the open enrolment nature of the groups in outpatient settings, that is, patients admitting into and discharging from the group frequently (Wendt & Gone, 2018) and patterns of lapse and relapse. A person's stage of change changes following maintenance of abstinence or with lapse or relapse, meaning frequent stage changes occur for each person, especially in early recovery. Hence, matching the group intervention to the stage of change of each patient in open outpatient group therapy is near impossible. This counters the utility of the TTM model and many other manualised treatments in this setting (Wendt & Gone, 2018).

In addition, the TTM is primarily individualistic and does not consider broader determinants of health and factors influencing motivation for, and capacity to, change such as social, physical, and psychological factors (Bridle et al., 2007; Cahill et al., 2010). In this sense, the TTM is limited as it does not encompass the biopsychosocial model of clinical care and perspectives on recovery. The recent revision of the model to include social context by DiClemente (2018) has begun to include the individual's broader context and biopsychosocial perspective, however, this remains absent from TTM-based research and programs. When considering outpatient group therapy programs for SUDs, a less individualistic model of change that considers wider contextual factors for change is proposed.

Alternative to the Transtheoretical Model. STT has been proposed to facilitate interventions that allow for the development of strengths for an individual within a group context, rather than requiring specific stage-based interventions (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 2011). Without a stage-based focus, or the need for tailored individual interventions at specific stages of the change process, STT offers a way to consider strengths and challenges faced by the individual and group across broader determinants of health and recovery (Stokes et al., 2018), which may support the delivery of relevant and

appropriate interventions more readily within a group setting. Hence, the application of STT to the understanding and treatment of SUDs via an outpatient group therapy program, as an alternative to the commonly used TTM is explored.

Recovery Capital

The concept of recovery capital has received growing discussion in the literature regarding substance use treatment. It relates to contributors to recovery in the absence of or following treatment (Duffy & Baldwin, 2013). Based on an ecological model, recovery capital has been defined as the resources and capacities that enable human flourishing (Best & Ivers, 2022). It refers to an individual's ability to recover from SUD based on the resources they can draw from to initiate and maintain recovery (Best & Hennessy, 2022; Duffy & Baldwin, 2013; Timpson et al., 2016) and focuses on building and using these internal resources over time (Witkiewitz et al., 2019). Recovery capital resources are broadly categorised into internal and external resources in social, physical, cultural and community domains (Witkiewitz et al., 2019). Cloud and Granfield (2008) describe four forms of recovery capital. The first is described as human capital, which includes a person's strengths for facing recovery challenges such as coping skills, insight, and self-awareness. The second, social capital, includes various interpersonal relationships, including family and social relationships that support recovery, and access to or engagement with mutual self-help groups such as AA or formal treatment services. The third form, physical capital, includes financial assets and status, employment, housing, clothing, and food, and the fourth form which is cultural capital, includes a person's beliefs and behaviour which result from membership in a cultural, religious or socioeconomic group (Best & Ivers, 2022; Cloud & Granfield, 2008; Gueta & Addad, 2015). Recovery capital resources can be considered as a way to conceptualise factors which can support or challenge a person's movement towards or maintenance of recovery (Best & Hennessy, 2022). Recovery capital accumulates over time with abstinence or

continuation of recovery (Duffy & Baldwin, 2013). The varied aspects of recovery capital work together to support the recovery process. In this way, recovery capital is dynamic with changes over time related to circumstances and conditions (Best & Hennessy, 2022).

Individual people are considered to have varying levels of recovery capital which creates the individual experience, and trajectory of recovery (Best & Hennessy, 2022; Hennessy, 2017b)

From a strengths-based perspective, recovery capital integrates a broad biopsychosocial understanding of recovery by meeting an individual where they are within their contextual environment and building capacity by incorporating supports and services (Best & Hennessy, 2022). The recovery capital concept was developed in a naturalistic recovery setting, that is, with those who recovered from SUD without engaging in treatment, but has since been utilised in research regarding mental health (Tew, 2013; Von Greiff et al., 2020), gambling (Gavriel-Fried, 2018; Gavriel-Fried et al., 2019, 2020), youth (Hennessy, 2017a) and in long term sustained recovery for women recovering from SUDs (Gueta & Addad, 2015). Duffy and Baldwin (2013) found recovery capital resources across domains were key in supporting sustained recovery, particularly stable housing, and positive social supports. Further, people with greater levels of recovery capital are more likely to overcome substance use difficulties without treatment and ‘self-remit’ by choosing to abstain from ongoing substance use (Granfield & Cloud, 1999; Witkiewitz & Tucker, 2020). These findings suggest that those in sustained recovery have greater recovery capital and that recovery capital resources are crucial to the recovery process (Best & Hennessy, 2022; Best & Ivers, 2022; Cloud & Granfield, 2008; Gavriel-Fried, 2018; Laudet & White, 2008).

Illustrating the need for movement away from models of pathology, illness and removal of risk factors in the lives of people with SUDs and towards supporting recovery by enhancing the strengths and resources of the individual to enrich their lives and sustain recovery beyond symptom management and patterns of use (Gavriel-Fried, 2018; Tew, 2013).

Hence, in translating recovery capital to practice, assessing substance-using clients for recovery capital can assist treating providers in making informed decisions and developing patient-focused treatment interventions (Cloud & Granfield, 2001). An understanding of an individual's recovery capital in practice can assist in identifying strengths to use towards recovery, developing and encouraging links with support and addressing any gaps where resources may be lacking (Best & Hennessy, 2022). The recovery capital approach is focused on the tools and resources available to support growth and change rather than the growth itself, in this sense it does not outline goals, endpoints or required achievements in recovery (Best & Hennessy, 2022). This approach is aligned with an individual and dynamic perspective of recovery as an ongoing process as per Witkiewitz et al. (2019) and has applicability across services with varying treatment frameworks (Best & Hennessy, 2022; Hennessy, 2017b).

Negative Capital. In addition to exploring, identifying, and understanding a person's recovery capital resources, understanding the notion of 'negative capital' within the model is beneficial in a clinical practice setting (Patton et al., 2022). The concept of negative recovery capital posits that recovery capital is on a continuum with zero between negative and positive (Cloud & Granfield, 2008). Where positive recovery capital facilitates recovery, negative recovery capital reflects factors that impede capacity to successfully make changes in or terminate patterns of substance use (Cloud & Granfield, 2008). Negative recovery capital can include age, gender, mental illness, history of or current incarceration, lack of social support and other limiting factors (Duffy & Baldwin, 2013), and poor physical health (Cloud & Granfield, 2008). Recognition and management of negative capital components, such as the physical health impacts of SUD, is important in facilitating recovery capital resources.

Negative capital seen in poorer health at initial treatment has predicted poorer physical health at follow-up and impacted upon recovery from SUD (Friedmann et al., 2003), hence

interventions which consider both the physical and psychological health of the individual are needed (Cao et al., 2011). Challenges to recovery can also include competing recovery goals, taking on too much too soon, difficulties reintegrating into the community, or exacerbation of underlying mental health symptomology in the context of reduction or cessation of use (Duffy & Baldwin, 2013). The management of ‘negative capital’ has only more recently been highlighted within the literature as a consideration in supporting recovery. This consideration is important given the prevalence of comorbid mental health difficulties, and increased risks of relapse, suicide and incarceration with comorbidity (Best & Hennessy, 2022; Duffy & Baldwin, 2013; Florez-Salamanca et al., 2013; Pettersen et al., 2019).

Limitations of Recovery Capital Model in outpatient group settings. While the recovery capital concept has gained momentum in the literature both in conceptual and applied development (Best & Hennessy, 2022), touted as an emerging international construct for the addiction field (Hennessy, 2017b), there remain many gaps in understanding and operationalising the recovery capital model, this is seen in insufficient clarity in domains, limited best practice research and limited application of the concept in practice (Best & Hennessy, 2022). In the first systematic literature review of recovery capital, Hennessy (2017b) concluded that while the recovery capital model allows for a global understanding of the recovery process and has the potential to make significant contributions to understanding recovery, the current literature is lacking in a coherent and operationalised model to support use in practice (Hennessy, 2017b). As an example, six different recovery capital models were identified in the literature with no primary model consistently chosen. However, promisingly, each utilised similar domains and factors, lending some weight to the consistency of processes and understanding (Hennessy, 2017b).

A lack of discussion as to the precipitating events for initiating change in recovery is a limiting factor in the recovery capital concept. While the model explores and discusses the

balance of positive and negative capital which assists in facilitating or inhibiting movement toward recovery, no discussion of what precipitates and maintains sustained recovery is had. In this sense, it does not answer the question of what led this person to make these changes at this time. Further, the recovery capital literature has focussed on understanding the factors that support someone to move toward or sustain recovery (Hennessy, 2017b). Yet, no research has applied the recovery capital concept to clinical practice for people with SUDs as a framework for supporting recovery. Nor has it been applied to supporting recovery through a group process rather than an individual-based assessment of positive vs negative factors (Best & Hennessy, 2022; Hennessy, 2017b). Hence, an alternative to the recovery capital model, which considers a similar dynamic interplay and balance of personal resources in moving towards change, is proposed in STT.

Schlossberg's Transition Theory

Schlossberg's (1981) transition theory provides context for understanding transitions and how people can be supported in moving out of disadvantage (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981, 2011). By integrating theories such as grief and loss, physics chaos theory, and stage theories, Schlossberg's (1981) transition theory aims to provide context for understanding transitions (Schlossberg, 2011). Additionally, STT incorporates counselling models to understand the behaviour of adults in transition as they deal with challenges of living and allows for the provision of support and interventions (Anderson, Schlossberg & Goodman, 2012; Bussolari & Goodell, 2009; Evans, Forney, Guido, Patton & Renn, 2010). The requirement of work from the individual to effect change and a process of creativity, strategy and adaptation is highlighted, with transition integral to personal growth and transformation (Anderson, Schlossberg & Goodman, 2012)

According to Schlossberg’s theory, depicted in Figure 1, transitions are any event or non-event that results in changed behaviours, roles, learning, assumptions, and perceptions (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981, 2011). STT is centred on the notion that transitions are continually experienced throughout life, defined by the person experiencing them, with the meaning relating to the type, context and impact of the transition (Goodman et al., 2006). The perception of the transition is important, as the appraisal influences the how a person feels about the change, and subsequent coping (Anderson, Schlossberg & Goodman, 2012; Goodman et al., 2006; Schlossberg, 1981). STT suggests that there is no end to transition, rather, “the transition processes is continual and includes phases of assimilation and continuous appraisal” as people move in, through, and out of life challenges over time (Anderson, Schlossberg & Goodman, 2012; p. 59).

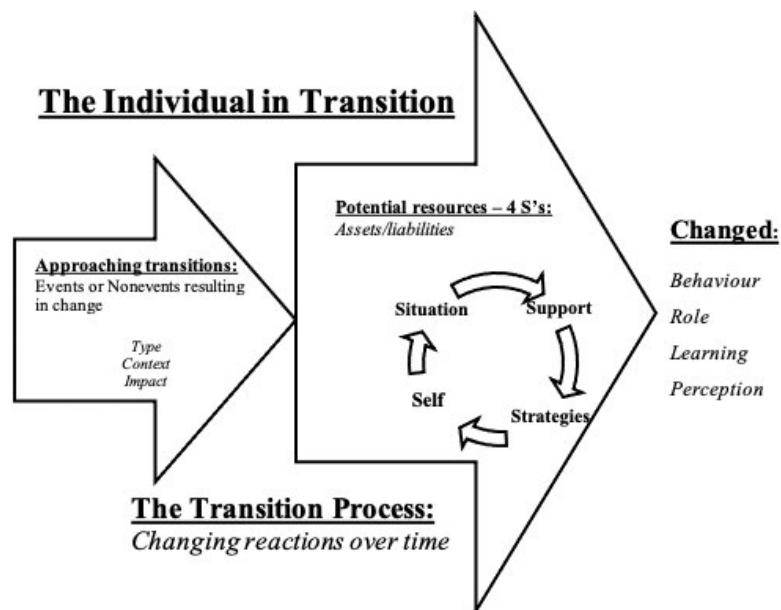


Figure 1: Schlossberg's Transition Theory

A core tenant of the STT model is that between people and over time transitions differ but the structure for understanding transition is stable (Anderson, Schlossberg & Goodman, 2012). Anderson, Goodman and Schlossberg (2022) highlight that STT has three parts, the first being ‘approaching transitions’ which includes transition identification and transition

process, the second being ‘taking stock’ of coping resources through the 4S system, where the 4S system divides the individual’s resources into the categories of *situation* which encompasses context and environmental resources, *self*, including psychological and spiritual resources, *support* which is family and support groups, and *strategies* or coping resources to deal with life problems (Stokes et al., 2018). The third component of the model is ‘taking charge’ with the autonomous and ongoing use of coping strategies resulting in sustained changes for the person in behaviour, role, learning and perception (Anderson, Goodman & Schlossberg, 2022). When considering taking charge in recovery, a triggering or catalyst event may initiate the process of seeking support, making changes in coping or self and moving towards change (Stokes et al., 2018).

Approaching Transition

The capacity to cope with transition depends on the type of transition, perceptions of the transition, the context in which it occurs, and its impact on life, that is the extent of change required as a result of the transition (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981). Within STT transitions are defined as any event or non-event which requires change or a reauthoring of life. Transitions are considered in terms of their type, as well as perspective, context and impact (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012), each of which will be discussed.

Type of Transition. Types of transitions within the STT can result in subtle, significant or life altering changes for a person and include anticipated, unanticipated or non-events. Anticipated transitions include normative gains or losses which predictably occur in the course of the life cycle, these are expected events and include marriage, the birth of a child, leaving home or starting a job (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012; Rall, 2016). With anticipated transitions there is often the capacity or opportunity to plan, self-initiate and consider multiple options for action to

manage or cope. Unanticipated transitions include unpredictable or unscheduled events, or those which involve crisis or other unexpected occurrences (e.g., divorce, natural disasters, premature loss of a child or loved one, or experiencing a crime; Anderson and colleagues (2022). Unanticipated transitions differ from anticipated transitions in the lack of opportunity to prepare and need for decision making in less-than-ideal conditions, hence involve a depletion of coping capacity and resources (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012; Goodman et al., 2006).

Non-event transitions include those which were expected to occur but did not. These transitions can be personal, ripple or resultant. Personal transitions relate to individual aspirations, ripple relate to the transition experience due to a non-event of another person, and resultant are caused by an event which includes the anticipation of a non-event which still may happen (Anderson, Schlossberg & Goodman, 2012; Evans, Forney & Guido, 1998). In linking the recovery process to transition process, for many people with SUDs the commencement of transition to recovery follows a trigger or catalyst which initiates treatment and self-commitment, assisting in the transition to recovery with changes in coping and self and with resulting benefit of positive outcomes and change aided by supports (Stokes et al., 2018).

Perspective of Transition. STT highlights an individual's appraisal of transition as impacting capacity and coping responses elicited (Evans, Forney & Guido, 1998). Anderson, Goodman and Schlossberg (2022) reiterate the importance of a person's appraisal of change and transition, the perceived challenges, meaning held, and needs required for coping.

Context of Transition. Within STT, context of transition refers to an individual's relationship to the transition and the setting in which it takes place (Evans, Forney & Guido, 1998). Contextual factors can directly and indirectly influence a transition and an individual's perception of available resources. Context relates to the relationship of the individual to the

event or non-event (i.e., does the transition relate directly to the person, for example, an illness, or to someone else?). It also relates to whether the transition is personal or interpersonal, for example, a loss of employment vs. conflict in the workplace. Finally, context considers whether the transition is related to public or community in the sense of impacting on the social standing or relationship with a community (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012; Stokes et al., 2018).

Consideration of the context of transition allows for an understanding of the utilisation of resources for the transition or problem, or impact on multiple roles, as the impact of the transition and resources required will be greater with multiple roles impacted. Both positive and negative transitions can produce stress, when multiple transitions occur simultaneously, coping becomes especially difficult, as is seen in the multiple and often broad changes occurring with recovery (Schlossberg, 2011). Coping with any change involves the person, the environment and the relationship between them (Wheeler, 2012b).

Impact of Transition. For the person experiencing transition, the impact, or the degree to which the transition alters daily life, is a vital part of the transition experience, beyond the event itself (Anderson, Schlossberg & Goodman, 2012; Evans, Forney & Guido, 1998). STT posits that the more a transition alters a person's life, the greater the impact, the more coping resources it requires and the longer the process will take to move in, through and out of transition (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012; Rall, 2016). Further, assessment of the impact of a transition on relationships, routines, assumptions and roles is critical in understanding response and transition experience (Anderson, Schlossberg & Goodman, 2012; Binks & Cambridge, 2018).

Transition Over Time. While transitions may be linked to an identifiable event or non-event, a transition is considered a process that extends over time and can be lengthy (Anderson, Schlossberg & Goodman, 2012). Initially in transition people are consumed by

their new role, however, begin to separate from the past, and establish new relationships, routines, and assumptions as they move through the transition (see Figure 1). The process of transition evolves with changing perspectives and reactions to the transition over time. In this way the experience of transition is non-linear and complex, with growth opportunities presented alongside risks of psychological decline (Anderson, Schlossberg & Goodman, 2012). The process of transition takes time and involves an emergent growth process of leaving behind the old and moving on to the new, which requires a self-reorganisation experience (Bussolari & Goodell, 2009).

STT endorses transitions as having three phases, moving in, through and out. People ‘moving in’ to a situation must familiarise themselves with the new system's rules, norms, and expectations. Once in a new situation, or ‘moving through’ a transition, individuals must learn to balance other areas of their lives, and to feel supported and challenged through their journey as they ‘move through’. The process of moving through transition can be lengthy, hence energy and commitment are needed to sustain the process. Questions and doubts may arise about the transition and may change through this process with re-evaluation occurring (Anderson, Goodman & Schlossberg, 2022). ‘Moving out’ can be seen as ending one transition and thinking about what comes next. This is a broadening of perspective, integrating change and opening up to new experiences following transition (Kay & Schlossberg, 2006).

Taking Stock of Coping Resources: The 4S's of Transition

Schlossberg identified four key factors influencing a person's ability to cope with transition: *situation*, *self*, *support*, and *strategies*, known as the “4S's” (Anderson, Goodman & Schlossberg, 2022). A balance of resources across these four areas, described as assets and liabilities can help or hinder the transition process. For example, strengths or ‘assets’ in any or all of the 4S's make adjustment and transition easier. In contrast, greater ‘liabilities’ or deficits

across these four areas make the transition process more difficult. This process is not dissimilar to the recovery capital model, with the presence of resources across human, social, physical, and cultural capital either facilitating or hindering recovery (Cloud & Granfield, 2008). Schlossberg and colleagues (2012) considered an individual's balance of resources across these four domains and the interrelationships between them, conceptualising a ratio of assets to liabilities, which provides insight into an individual's response to a transition. They argued for a model incorporating resources and deficits, over a degree of impairment model, given the variety and number of strengths and limitations experienced (Anderson, Schlossberg & Goodman, 2012). The variable nature of assets and liabilities across the 4S's explains the differences in coping and performance between people with the same transition, and the differences in response to a transition by the same person at different times (Thupayagale-Tshweneagae et al., 2012). The four domains of resources will be discussed here.

Situation. Anderson, Goodman & Schlossberg (2022) refer to *situation* as an individual's assessment of the circumstances surrounding the transition, such as their sense of control, their view of the transition as positive, negative or neutral, the trigger of the transition, the timing and duration of the transition, their role in the change, any previous experience with a similar transition and overall stress experienced (Anderson, Schlossberg & Goodman, 2012; Thupayagale-Tshweneagae et al., 2012). Triggers for transition may be unrelated to the transition itself, for example, in a transition from SUD to recovery, the trigger may be divorce or loss of relationship, but the transition relates to changed status from SUD to recovery. Timing of the transition relates to the experience occurring at a "good" or "bad" time or being on or off a person's social clock. The sense of control relates to the degree to which the transition is an internal or deliberate decision by the individual, one motivated by external factors or one forced upon the person by others or external circumstances. Role change relates to the expectations of behaviour for the person and can be experienced as

positive, or negative and involves expectations and norms. Duration relates to the relative ease or difficulty of moving through and out of transition, particularly if viewed as temporary or permanent (Evans et al., 1998). Previous successful experience with a similar transition supports the navigation of another successful transition of a similar nature, conversely a negative experience can increase vulnerability (Kay & Schlossberg, 2006). Concurrent stress can impair resources and exacerbate other stresses or transitions, similarly an absence of stress can alleviate this, and finally a person's assessment of the *situation* explores who or what is seen as responsible for the transition which impacts a person's attributions of *self* and *situation* to explain and motivate change (Anderson, Goodman & Schlossberg, 2022; Evans, Forney & Guido, 1998; Schlossberg, 2011).

Self. *Self* encompasses the individual's experience, personal factors and demographic factors which increase vulnerability to difficult transitions or serve to protect them, and their personal strengths and weaknesses (Anderson, Goodman & Schlossberg, 2022; Rall, 2016). The domain of *self* is divided broadly into two domains, the first being personal and demographic characteristics which includes socioeconomic status, gender and sexual orientation, age and stage of life, health status, ethnicity, and culture, and the second domain including psychological resources of ego development, outlook including optimism and self-efficacy, commitment, and values as well as spirituality and resilience. Psychological resources are defined as the personality characteristics that people draw upon to respond to threats, overcome adversity and lead happier and more successful lives, they include the belief in one's ability for change, or self-efficacy (Anderson, Schlossberg & Goodman, 2012; Kay & Schlossberg, 2006).

Support. Social support is a key factor in coping with and handling stress which impacts the ability to adapt to a transition. Within the STT *support* is operationalised as anything available to the individual including people, institutions or abstract concepts from

which the individual feels a sense of support (Anderson, Goodman & Schlossberg, 2022; Goodman et al., 2006; Wheeler, 2012a). In this way, *support* can come from families, friends, intimate relationships, institutions or communities (Kay & Schlossberg, 2006). The key functions of *support* are considered to include affect which encompasses being liked, feeling respect or love, affirmation which relates to expressions of agreement or acknowledgements of appropriateness or correctness of behaviour, or statement of another person, aid which relates to the exchange of things such as money, information or time and honest feedback which refers to reactions offered which can be both positive and negative (Anderson, Schlossberg & Goodman, 2012).

Strategies. *Strategies* relate to ways of coping and the approach taken by the individual, including *strategies* that change the situation, change the meaning of the situation, or manage the stress of the situation (Anderson, Schlossberg & Goodman, 2012; Thupayagale-Tshweneagae et al., 2012). Individuals who want to change their situation and reduce their stress can choose among four coping modes, information seeking, direct action, inhibition of action and intrapsychic behaviour. The coping strategies employed relate to psychological resources available and the most suitable coping strategy can vary from situation to situation, with individuals coping best with transitions when they remain flexible and use multiple strategies as an effective strategy in one situation may not be in another (Evans, Forney, Guido, Patton & Renn, 2010; Goodman et al., 2006).

The 4S coping resources, embedded within the STT transition process, assist in understanding the relative ease or difficulty of the process of transition. While primarily used to conceptualise individual change processes, more recently the use of group therapy processes to support the balance of 4S assets and liabilities for the individual has been discussed (Anderson, Goodman & Schlossberg, 2022).

STT and Groups

Within the recent revision of STT, seen in the fifth edition of the text by Anderson, Goodman & Schlossberg (2022), particular attention has been paid to the use of the STT model within group therapy, recognising that adults in transition require support, information and therapeutic factors, all of which can be provided in a group counselling format (Anderson, Goodman & Schlossberg, 2022). In exploring group process and their role in supporting transition, Anderson, Goodman & Schlossberg (2022) discuss the common processes of group therapy as they support transition, such as instillation of hope, universality, information provision, altruism, interpersonal learning and development of social skills, imitative behaviour, group cohesiveness and catharsis (Yalom & Leszcz, 2005). In exploring the use of group therapy to support transition Anderson, Goodman & Schlossberg (2022), highlight that while each group member may hold very different resources in terms of their 4S's, STT can support the individual, group members and facilitator in identifying and enhancing their unique resources both at a group and individual level without the need for stage or phase based interventions, but rather with an understanding of the STT process (Anderson, Goodman & Schlossberg, 2022).

Application of Transition Theory

Within the existing literature, the application of transition models has primarily focussed on understanding the transition experience to assist people in improving both their experience, and the outcome of the transition (Kralik et al., 2006). STT has been applied broadly across several qualitative studies and a range of settings, including education, employment (Anderson, Schlossberg & Goodman, 2012), sustained recovery from SUD (Stokes et al., 2018), 12-step-based addiction programs (Streifel & Servanty-Seib, 2006), veteran education studies (DiRamio et al., 2008; Flink, 2017; Rumann & Hamrick, 2010; Schiavone & Gentry, 2014; Wheeler, 2012a), the transition for combat veterans returning to

civilian life (Dyar, 2016; Wheeler, 2012b) and across the lifespan—from adolescents (Rall, 2016; Thupayagale-Tshweneagae et al., 2012) to older adults (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 2011). Increasingly, these studies support the utility of STT as providing a context for understanding change in lifestyle, roles, behaviour and assumptions (Dyar, 2016).

STT and SUD Recovery.

Transition Theory and Substance Use Patterns. Within the literature, exploration of general transition theories in SUD treatment has primarily focused upon transition to sustained recovery, life stage transitions and the impact of these upon the outcome of recovery. Dawson et al. (2006) explored the effects of transitional life events on the likelihood of recovery from alcohol dependence, measured by sustained abstinence. They found major and transitional life events to both positively and negatively affect recovery. Life events such as entering or exiting a first marriage increased the risk of non-abstinence. Becoming a parent, maintaining full time work and completing schooling increased the likelihood for sustained abstinence (Dawson et al., 2006).

Satre et al. (2012) found the effects of life transitions on SUD treatment outcomes to vary by age group. They found that losing a partner and getting married were associated with poorer treatment outcomes, as was the involuntary loss of employment and poorer self-reported health. Conversely, improved health status and gaining employment was associated with improved outcomes. Identifying social supports for recovery and having no people influencing the use of drugs or alcohol was found to help maintain recovery. Satre et al. (2012) suggested that supporting people to learn how to mitigate social influences would benefit long-term recovery, as is developing skills and plans for the potential negative impact of relationship transitions, or unexpected changes in employment or health status.

In line with research on transition and substance use, Schlossberg's (1981) theory of transition takes a holistic approach to identify factors impacting on the success of a transition, considering individual strengths, resources, life experiences and challenges (Thupayagale-Tshweneagae et al., 2012). The ease and likelihood of transition can be assisted by tailoring interventions and programs to build personal strengths and resources across the 4 S domains, improving the interplay between, and the balance of, strengths and deficits of an individual (Schlossberg, 2011). In line with STT, recovery from SUD encompasses several changes in roles, relationships, perspective, learning and behaviours (Streifel & Servanty-Seib, 2006). With recovery described as an ongoing process requiring support (Timpson et al., 2016).

The Process of SUD Recovery. Movement towards recovery often occurs following a trigger or catalyst that initiates change and creates a commitment to recovery, aided by changes in perspectives, thinking, and behaviour alongside support from family and friends, resulting in positive outcomes (Stokes et al., 2018). Recovery is contingent upon several factors including acceptance, changes in self-identity, supports, coping strategies, and perspective of the problem (Streifel & Servanty-Seib, 2006). The experience and process of change is highly individual (Witkiewitz et al., 2019) consistent with STT (Thupayagale-Tshweneagae et al., 2012). Further, recovering from SUDs is often a daunting task that requires individuals to make significant changes in their lives, such as changes in roles, employment, relationships and self-identity and sustain these over time (Brewer, 2006; Lewis & Allen-Byrd, 2007).

Schlossberg's Transition Theory and Recovery Processes

Recovery from SUDs and the movement towards sustained recovery is very similar to and may follow, the transition process of STT. People with SUD difficulties are likely to experience deficits in one or more of the 4 S domains, either as a predisposition to substance use, as a result of their use, or in addition to problematic use patterns, leading to difficulty

with initiating or sustaining the transition to recovery (Schlossberg, 2011). Therefore, tailoring programs to develop an individual's strengths across the 4S's, would likely see improvement and further success in recovery. To date, STT has been applied specifically to SUDs in only two qualitative studies (Stokes et al., 2018; Streifel & Servanty-Seib, 2006).

Streifel and Servanty-Seib (2006) were the first to apply STT to SUDs when exploring how peer support groups in the form of 12-step based AA meetings support the transition from alcohol use to recovery. In their innovative study, Streifel and Servanty-Seib (2006) used a qualitative narrative approach to theoretically apply STT to AA program outcomes. They noted the parallels between STT and how participation in AA programs supports people in the process of transition from alcohol use disorder to recovery. As part of their application of theory, Streifel and Servanty-Seib (2006) explored each component of STT with a particular focus on how AA addresses each aspect of transition and assists with improving the ratio of a person's assets to liabilities across the 4S's.

When exploring the 4S's, 12-step AA programs were found to influence *situation* by assisting individuals to believe they have control over their lives and situation, encouraging learning of what is within their locus of control and utilise tools available to them to effect positive change (Streifel & Servanty-Seib, 2006). Streifel and Servanty-Seib (2006) considered AA to increase the ratio of assets to liabilities by supporting the development of psychological resources and instil hope, thereby building assets in the S of *self*. They suggested that AA programs assist the development of assets within *supports* by allowing the development of a support network and a sense of social acceptance which also assists in affect regulation, affirmation, aid and feedback (Streifel & Servanty-Seib, 2006). Finally, regarding the fourth S—*strategies*—Streifel and Servanty-Seib (2006) suggested that the AA program builds assets relating to healthy coping via information-seeking, help-seeking and direct action regarding recovery. AA further assisted in management, avoidance or changing of

challenging or high-risk situations relating to alcohol use to assist with sustained transition (Streifel & Servanty-Seib, 2006). Streifel and Servanty-Seib (2006) found 12 step AA program engagement increased resources in the 4 areas identified by Schlossberg as key to an individual's ability to cope with a life transition. While an effective and novel application of theory to practice, the strength and generalisability of conclusions is limited due to the theoretical nature of the study. To strengthen and validate the conclusions made by Streifel and Servanty-Seib (2006) further research into the STT as supporting transition to recovery for people with SUDs is needed.

In the second published work on STT and SUDs, Stokes et al. (2018) utilised transition theory as a framework for understanding their findings from a narrative-based study with a phenomenological qualitative research design exploring the sustained recovery from SUDs in South Africa. Through individual face to face interviews with 15 participants, Stokes et al. (2018) developed a thorough and in-depth understanding of how a diverse range of people recovering from SUDs experienced and sustained recovery. They identified six key themes from their interviews (Stokes et al., 2018), these were; (a) the transitions that put [the participants] on a journey of sustained recovery, (b) the need for a psychological mindset change and a commitment to a new way of living in moving towards sustained recovery, (c) social support, (d) external and environmental changes, (e) helping others and (f) work environment.

The themes and findings from Stokes et al. (2018) presented a view of sustained recovery as consistent with STT in that one's entry into recovery, or the transition experience, is triggered by an internal or external crisis relating to substance use. Entry into recovery was motivated by internal or external factors, consistent with moving in, through and out of transition as described by STT. Stokes et al. (2018) further concluded that recovery was sustained through increased assets or strengths across each of the 4S's. The perception of *self*

and shift in mindset including self-attitude, improvement in self-esteem were noted as integral in sustaining recovery. The benefits of helping others per the fifth theme included increased tranquillity, improved self-worth, greater optimism, improved self-esteem and reduced depression and helplessness. Overall implementation of *strategies* included accepting the “disease” or connection with faith, changing meaning attached to the problem through adjusting perspective, developing coping strategies for areas of challenge such as stress management and communications, and maintaining a positive or hopeful outlook. Spirituality was a common and strong theme and mapped across the self and strategy domains of the 4S’s. Further *strategies* included ‘environmental control’ which included avoiding high-risk places, triggers or events that may increase vulnerability to relapse, an effective strategy consistent with literature on relapse prevention (Marlatt et al., 2007; Stokes et al., 2018).

The S of *support* was central to the change process, sustained recovery, and encouraged effective coping. These supports were seen in both close individual relationships and more removed supports such as community or institutional support (Stokes et al., 2018). Themes of the importance of purposeful and meaningful activity in strengthening a sense of pride, competence and achievement were highlighted in the fifth and sixth themes (Stokes et al., 2018). The fifth theme described as the act of helping others fits across *supports* in increasing social connection, *self* in developing a sense of achievement and purpose and further fits across *strategies* in providing a way of coping as well as *situation* as it can serve as a reminder of the experience of active use and the consequences of use when working with people who may be early in recovery (Stokes et al., 2018).

The research by Stokes et al. (2018) presented various pathways to recovery in the sense of treatment programme or modality, however, noted that regardless of the pathway taken, all participants sustained their recovery through the resources and supports offered to them. Hence, development of assets in the 4S’s facilitated transition and allowed for sustained

recovery. These findings were consistent with those from Streifel and Servanty-Seib (2006) which suggested STT has clinical relevance in framing and supporting understanding of experiences in the ongoing process of recovery. While consistent with existing STT literature in other research areas, and adding weight to the research by Streifel and Servanty-Seib (2006), the research by Stokes et al. (2018) was limited by sample size, research methodology and generalisability to other SUD treatment approaches and the experiences of people in early recovery. Hence further research is required employing quantitative or mixed methodological approaches and in alternate SUD treatment settings, with people across their recovery journey.

Limitations of Current STT and SUD Literature. Whilst the two studies described above demonstrate the applicability of STT to SUD recovery and highlight the potential of understanding recovery as a transition process, both studies are small and marred by several significant limitations. Both are qualitative and do not allow for generalisability across populations or treatment frameworks. The study by Stokes et al. (2018), while demonstrating the transition process and the role of assets across the 4S's in the process of sustained recovery, interviewed only those people who had transitioned to recovery and sustained it. Hence, further exploration of the transition process and how to facilitate an increase in assets over liabilities is of value. Further, the participants in both studies were largely gathered from faith-based support programs. Looking at a range of secular support groups or clinician-led programs would increase generalisability and assist in understanding strategies and adaptations to *self* and *strategies* beyond spirituality. The study by Streifel and Servanty-Seib (2006) theoretically applied the concepts of STT to positive recovery outcomes experienced by people with alcohol use disorders only through 12-step AA programs but did not utilise clear data to test application of theory. Further, STT has not been applied to open enrolment clinician-led cognitive behavioural outpatient group therapy programs for SUDs. Additionally, to date, no quantitative analysis of STT had been published in the literature in any field.

Recovery from SUDs and the 4S's

Whilst the qualitative literature with SUDs and STT has demonstrated an alignment of recovery experiences with the STT process, no published literature has explored this quantitatively, nor over time. Given the understanding of recovery as an ongoing and dynamic process of change resulting in changed thoughts and behaviours (Stokes et al., 2018) with improvements in biopsychosocial functioning (Witkiewitz et al., 2019), there is a body of literature regarding SUD treatment outcomes relevant to each of the 4S domains. This existing data assists in supporting the quantitative methodological approach used by this research and application of theory to practice. The literature regarding outcomes across each of the 4S domains and SUD recovery will be discussed here.

Situation

As described previously, the S of *situation* refers to an individual's assessment of the circumstances surrounding their transition, such as their sense of control, the trigger of the transition, their role in the change, and overall stress experienced (Anderson, Schlossberg & Goodman, 2012; Thupayagale-Tshweneagae et al., 2012). A person's reason for entry into recovery and personal circumstances are encompassed within the S of *situation*, as well as any changes in attitudes or perceptions across the transition journey. Across several theoretical and conceptual frameworks, change in perspective or view of substance use, motivation and pathways of entry into recovery are key in initiating and maintaining engagement with recovery (Abiola et al., 2015; Burrow-Sanchez & Lundberg, 2006; Connors et al., 2013; De Ruyscher et al., 2017; DiClemente, 2018; Kelly et al., 2009; Velasquez et al., 2016).

Processes relating to the S of *situation* have been discussed in line with triggers of change and individual variances. Stokes et al. (2018) explored the transition experiences and entry into recovery, and, consistent with broader literature (Orford et al., 2006) confirmed that often entry into recovery was triggered by an internal or external crisis due to substance

abuse. Stokes et al. (2018) further identified a range of circumstances motivated by both internal factors including crises such as “rock bottom” and “burn out” and external factors such as interventions from friends or key social supports, as initiating factors for transition and movement towards sustained recovery. This perspective is consistent with literature highlighting the turning points or “rock bottom” experiences as a catalyst for change and shift in perception of the *situation* (Bellaert et al., 2022; Dekkers et al., 2020; DePue et al., 2014; Machado, 2005; Patton et al., 2022; Tucker & Simpson, 2011).

Isenhardt and Van Krevelen (1998) found discouragement and frustration with self and circumstances to motivate action and the decision to make changes. The contexts which support the initiation and maintenance of change varied between genders, with women entering transition and recovery more often due to reasons relating to poor mental health, their children and abusive or unsupportive partners (von Greiff & Skogens, 2017). In contrast, men tend to present in the context of supportive relationships and work or housing stressors (von Greiff & Skogens, 2017), highlighting the individual and varying nature of transition to recovery and the role of the context or *situation* in this change process.

In further support of the role of the S of *situation* in the recovery journey, Orford et al. (2006) conceptualised a model of change in substance use from a client’s perspective following professional treatment. Where substance use treatment supports and facilitates change in a person’s view of their situation, perception of supports and an increase in support of various kinds from family, friends, and organisations, as well as changes in thinking, behaviours related to both drinking and life. Orford and colleague’s (2006) model strongly emphasised that professional treatment is one piece of the recovery process, with recovery requiring shift in perspective or awareness away from active patterns of use and the benefits of using, and toward an understanding of the benefits of recovery (Orford et al., 2006). This understanding is consistent with the STT conceptualisation of *situation*, particularly role

change. In addition, the requirement for movement towards an understanding of the need for self-directed change and of alcohol related harms, triggering situations for risk of use, as well as triggers for entering treatment voluntarily or with external influence following a catalyst or event was outlined (Orford et al., 2006).

Self

The S of *self* encompasses an individual's previous experience, personal and demographic factors that increase or reduce vulnerability, and personal strengths and weaknesses (Anderson, Schlossberg & Goodman, 2012). The domain of *self* is divided broadly into two components, the first being personal and demographic characteristics, including socioeconomic status, gender and sexual orientation, age and stage of life, health status, ethnicity and culture (Anderson, Goodman & Schlossberg, 2022). The second, psychological resources, consisting of ego development, outlook including optimism and self-efficacy, commitment, and values as well as spirituality and resilience. These psychological resources relate to the characteristics drawn on to overcome adversity and lead happier and successful lives (Anderson, Goodman & Schlossberg, 2022)

Personal and Demographic Characteristics. The S of *self* in personal and demographic characteristics is consistent with the physical capital from the recovery capital model which includes financial assets and status, employment, housing, clothing, and food (Best & Ivers, 2022; Cloud & Granfield, 2008; Gueta & Addad, 2015). Age and gender can be facilitators and barriers to recovery and engagement with treatment programs (Kearns & Brown, 2016; Kurtz & Fisher, 2003). People with substance use difficulties presenting for treatment often experience multiple physical, medical and psychosocial comorbidities (Mumba & Mugoya, 2022), many of which improve over time through recovery. These elements are often viewed as a by-product of recovery rather than a focal point, such as physical health improvements (Timpson et al., 2016), however whilst physical health is an

insufficient measure of recovery success, it is a vital component of overall recovery and wellbeing (Timpson et al., 2016). Consistent with this and the S of *self*, the National Institute on Drug Abuse (2014) highlights the need for treatment to address not just patterns of use, but any medical, psychological, social, vocational, and legal problems, while also ensuring that treatment is appropriate to age, gender, ethnicity, and culture. In this way, the National Institute on Drug Abuse (2014) emphasises the need to address multiple factors across the S of *self*, to support the individual, building assets while addressing liabilities.

Beyond social, physical and vocational issues, poorer recovery outcomes have been associated with poorer quality of life (QOL). The environmental domain of the WHOQOL-Bref explores financial resources, freedom, physical safety and security, home environment, pollution, noise, traffic and climate, accessibility and quality of health care, transport, opportunities for acquiring new information and skills, and opportunities for recreation or leisure. Witkiewitz et al. (2020) and Witkiewitz and Tucker (2020) highlight that despite reduction in alcohol consumption, three year recovery outcomes for those with lower environmental WHOQOL-Bref scores at baseline lag behind other groups, suggesting liabilities in this area, or a lack of assets, have an influence on functional recovery outcomes over time, consistent with STT (Witkiewitz et al., 2020).

Psychological Resources. The development of psychological resources through recovery, including assets across the S of *self*, aligns with much of the recovery focussed literature as well as the ‘human capital’ concept of recovery capital (Cloud & Granfield, 2008; Duffy & Baldwin, 2013). The development of these resources is central to the success of treatment episodes, in building confidence and sustaining recovery (Duffy & Baldwin, 2013). Human capital encompasses a person’s strengths for facing recovery challenges such as mental health, insight, and self-awareness (Cloud & Granfield, 2001, 2008). Recovery can improve mental wellbeing, confidence, and a sense of purpose and belonging (Timpson et al.,

2016). When considering change over time through recovery, improved mental health has been consistently documented as an outcome (Dekkers et al., 2020; Duffy & Baldwin, 2013; Sacks, Banks, et al., 2008; Sacks, McKendrick, et al., 2008; Witkiewitz et al., 2020). Specifically, improved mental health as seen in reduction of psychiatric symptoms, depression, anger and an increase in purpose in life at 1 year following treatment is positively associated with higher functioning at 3 years following treatment (Witkiewitz et al., 2020).

For some people entering recovery, the cessation of substance use relates to an improvement in mental health, as substance use was the primary cause of their mental health issues (Duffy & Baldwin, 2013). In contrast, for others, mental health can be exacerbated in recovery due to the masking or self-medicating function of use (Duffy & Baldwin, 2013). For either of these groups, increased self-awareness, an improved ability to regulate and manage emotions, and an increase in effective communication are central to the recovery process and sustained recovery (Duffy & Baldwin, 2013). Despite improvements in mental health through engagement with recovery, the process can be lengthy, with emotional recovery from SUDs occurring in waves over an extended period of 5 to 10 years or more (Weaver et al., 2000).

An additional complicating factor in building and managing mental health and psychological resources is age of first use. Many people with SUDs commence use at an early age, inhibiting skill acquisition regarding emotion regulation, communication and in the educational, vocational, and social arenas (Duffy & Baldwin, 2013; Marlatt et al., 2007; Martindale et al., 2013; Weaver et al., 2000). Research has suggested that aftercare and substance use treatment supports the development of confidence in managing high risk situations, as well as improved self-efficacy (Brown et al., 2002). Improvements in self-efficacy relate positively to abstinence outcomes at 6 and 12 month follow up (McKay et al., 1993), replicated across multiple studies (Brown et al., 2002). The support to develop assets in *self* via skills gained from treatment and recovery builds assets in emotional regulation

which compliments the S of *strategies* (Duffy & Baldwin, 2013; Marlatt et al., 2007; Martindale et al., 2013; Weaver et al., 2000).

Within the literature defining recovery, non-substance related domains are consistently highlighted as important areas of functioning to consider (Kaskutas et al., 2014; Neale et al., 2014; Witbrodt et al., 2015; Witkiewitz et al., 2020). These areas of functioning include self-care, self-growth and personal development, outlook on life, coping with negative feelings and thoughts, and changing one's relationship to substances to sustain changes in recovery (Kaskutas et al., 2014; Neale et al., 2014; Witbrodt et al., 2015; Witkiewitz et al., 2020). This perspective is consistent with the view of developing assets in the 4S's as supporting transition to recovery, particularly across the S of *self* (Anderson, Goodman & Schlossberg, 2022).

Support

The S of *support* as defined by STT includes anything available to the individual including people, institutions or abstract concepts from which the individual feels a sense of support (Anderson, Schlossberg & Goodman, 2012). Supportive relationships with peers, families, and communities are critical for ongoing recovery (Duffy & Baldwin, 2013; Vigdal et al., 2022). Particularly when considering recovery beyond abstinence and including improvement in psychosocial functioning (Witkiewitz et al., 2019). Most commonly, *support* encompasses social supports, such as family members, intimate partners, friends, social relationships, or connections with others in recovery. However, the role of agencies, support services, faith, and spirituality have been noted as key for some in recovery (Duffy & Baldwin, 2013).

Overall, the role of *supports* and relationships within recovery is well documented and can represent a predisposing mechanism resulting in SUD, a maintaining factor in chronic substance use with increased social isolation and social avoidance, and an opportunity for

therapeutic intervention (Pomrenze et al., 2022). In the experience of moving towards and maintaining recovery, consistent with the STT assets and liabilities model (Anderson, Goodman & Schlossberg, 2022), social support can be seen as a strength, with greater social supports reflecting improved recovery outcomes at 3 years follow up, as well as a barrier with greater social support for continuation of drinking associated with higher levels of drinking at follow up (Witkiewitz et al., 2020). Further, poorer social support is a strong predictor for poorer QOL across other domains for people in active addiction and recovery for SUDs and a crucial variable in treatment and outcome (Muller et al., 2019).

Social supports and relationships are necessary for good quality of life (Muller et al., 2019) and as a motivator for recovery. Specifically, strong motivators for continued recovery for many include the impact of addiction on family members or the collapse of relationships (Duffy & Baldwin, 2013). While sustained recovery often allows for repair of these relationships, challenges can present for the individual in rebuilding trust and relationships with family and friends (Duffy & Baldwin, 2013; Strawbridge, 2007). These challenges present both opportunities for strengthening recovery through overcoming challenges and repairing relationships, and risks to recovery through negative outcomes of relational repair attempts or negative interpersonal experiences (Duffy & Baldwin, 2013; Strawbridge, 2007).

Beyond family, intimate partner or social supports, peer support in recovery increases commitment to, and intention for change in substance use patterns, improved self-efficacy, functioning and overall quality of life (Best et al., 2012; Best & Lubman, 2012; Duffy & Baldwin, 2013). The role of peer support and social community is recognised as integral in the recovery process by participants as well as the literature (Groh et al., 2008; Wnuk, 2022). Groh et al. (2008) completed a literature review on the role of social network and supports through AA on outcomes of alcohol use. Support from others was found to be of significant value in recovery, and social support a likely mechanism in the efficacy of AA, with

individuals with harmful social relationships benefitting most. Groh et al. (2008) found various types of social support were available through AA, including structural support, functional support, general support, alcohol-specific support, and recovery helping, consistent with the broad definition of *support* through STT (Anderson, Goodman & Schlossberg, 2022). Further, the benefit of *support* is consistent with the literature regarding social identity, social recovery and social capital (Bathish et al., 2017; Best & Hennessy, 2022; Cloud & Granfield, 2008; Vigdal et al., 2022), as well as the ‘social contagion’ concept developed by Best and Hennessy (2022). This is evident in the role of support in sustaining and maintaining recovery and in the reinforcing aspect of peer support and mutual aid self-help groups (Best & Hennessy, 2022).

Consistent with negative capital (Patton et al., 2022; Pomrenze et al., 2022) and in line with the assets and liabilities in STT (Anderson, Goodman & Schlossberg, 2022), social stigma, both from others and *self* is a significant liability in *support* and recovery (Vigdal et al., 2022). Stigma associated with SUDs is an obstacle to recovery, resulting in disadvantage and exclusion (Best et al., 2016), impacting on the development of interpersonal relationships (Vigdal et al., 2022) and reintegration with community (Roche et al., 2019). Vigdal et al. (2022) highlighted the need for organisations to foster a sense of safety and support alongside a sense of citizenship to facilitate overcoming of stigma through regaining social dignity via voluntary work and giving back to society. In this sense, safe, non-stigmatising communities which support change and foster acceptance contribute to positive self-change and create an arena for self-exploration, development of relationship skills (Vigdal et al., 2022), opportunity for vulnerability (Abram & White, 2021) and reintegration into community (Vigdal et al., 2022), consistent with development of assets in the STT S of *support* (Anderson, Goodman & Schlossberg, 2022).

Strategies

The S of *strategies* relates to coping strategies used and the approach taken by the individual to cope with the challenges of transition, including strategies that change the situation, change the meaning of the situation, or manage the stress of the situation (Anderson, Schlossberg & Goodman, 2012; Thupayagale-Tshweneagae et al., 2012). The literature on SUD recovery highlights the need for adaptations in coping and movement away from coping via substance use, and towards active and adaptive coping (Martindale et al., 2013). Effective coping is a core element of change in SUD recovery, and this is reflected in mechanisms of change across therapeutic models including relapse prevention (Marlatt et al., 2007) and cognitive behavioural approaches (Kuper et al., 2010; Ouimette et al., 1997).

Substance abuse is recognised as a maladaptive or avoidant coping mechanism, with avoidant coping positively associated with substance use difficulties (Weiss et al., 2014), hence, much literature has focussed on patterns of avoidant coping (Moos et al., 1990; Valtonen et al., 2006). Additionally, people with SUDs utilise higher levels of emotion-focused coping, and less problem-focused coping (Kuper et al., 2010; Madden et al., 1995). This finding is significant when coupled with the knowledge of the influence of avoidant and problem-focused coping on symptoms of anxiety, depression and alcohol use (Weaver et al., 2000) as well as self-harm (Tait et al., 2014). Avoidant coping is a significant positive predictor for anxiety and depression in alcoholic patients, and problem-focused coping a negative predictor, indicating the value of adaptive coping (Spangenberg & Campbell, 1999). Further, stress and ineffective coping are precipitants to relapse, and effective coping is supportive of sustained recovery (Duffy & Baldwin, 2013; Martindale et al., 2013; Weaver et al., 2000). Hence, *strategies* are critical to understand when supporting people on their recovery journey (Duffy & Baldwin, 2013).

Coping strategies used and perception of the efficacy of coping strategies changes across the recovery journey (Madden et al., 1995; Martindale et al., 2013; Moos et al., 1990). Weaver et al. (2000) explored changes in coping before and during recovery. Before recovery, passive or negative coping strategies were frequently used, such as procrastinating, keeping feelings to themselves, complaining, over/undereating, blaming others, and criticising themselves (Weaver et al., 2000). Through recovery, use of active coping increased, such as developing plans to handle problems, reading, writing for pleasure, expressing feelings, using humour, prayer, meditation, seeking help and exercise (Weaver et al., 2000). This finding is consistent with research suggesting adaptive coping increases with treatment (Shadowen et al., 2022; Valtonen et al., 2006), inpatient stays (Martindale et al., 2013) and AA or 12-step programs (Moos, 2008; Moos et al., 1990; Wnuk, 2022). Nevertheless, whilst a significant increase in active coping occurred overall, many participants continued using maladaptive coping in recovery (Weaver et al., 2000).

Patterns of Change Over Time

While the literature relating to STT and SUDs has not explored the change process across the 4S's over time with engagement in recovery, literature relating to recovery capital suggests the relative importance of recovery capital factors at differing stages of recovery varies (Duffy & Baldwin, 2013). Emphasis and focused attention to different aspects of recovery can vary between programs, mental or physical health concerns are readily addressed by treatment programs and the current models of acute treatment. However, financial and employment concerns are often not addressed despite recognition of their role in sustaining a recovery journey (Duffy & Baldwin, 2013), this can sustain liabilities in some areas well into recovery. Initially, the development of stable and secure accommodation and rebuilding of a support network was found to be most important (Duffy & Baldwin, 2013).

A pattern of deterioration in some areas of the 4S's may also be seen across time, with some aspects often becoming worse in recovery, before improving. Most notably, happiness and self-esteem deteriorate during the initial few months followed by a gradual increase between 6 to 12 months of recovery (Kelly et al., 2018). Interestingly, Kelly et al. (2018) found the same patterns of improvement were not observed for all individuals across the first five years of recovery, consistent with a complex, dynamic and individual view of recovery (Witkiewitz et al., 2019). These individual differences were seen across several areas including gender differences, with men showing consistently higher quality of life and lower psychological distress compared to women, between cultural and racial groups with people belonging to racial minority groups showing persistent challenges following substance use problem resolution likely related to ongoing disadvantage, and finally between substances used with those people using opioid, stimulants or other substances commencing their recovery journey with significant disadvantage in recovery capital or 4S assets compared to those with alcohol or cannabis problems (Kelly et al., 2018). In this way, recovery is complex, dynamic, non-linear, and experienced in an individually relative way, dependant on a person's circumstances and resources.

Measuring the 4S Domains

As no quantitative literature has been published on STT to date, no prior measures have been used in assessing the 4S domains. This research aimed to quantify and assess each of the 4S domains via the use of existing measures in the SUD literature which map across the 4 domains. The measures chosen, rationale, and relevant literature are discussed.

Assessing Change in Situation

To understand and quantify patterns of change over time in the S of *situation*, the Personal Drug Use Questionnaire (SOCRATES 8; (Miller & Tonigan, 1996), and the Severity of Dependence Scale (SDS; (Gossop et al., 1995) were used.

The Personal Drug Use Questionnaire (SOCRATES 8; (Miller & Tonigan, 1996) was chosen to assess change in recognition, ambivalence and taking steps. Where high recognition reflects a person's acknowledgement of problems related to their substance use, an expression of desire to change and recognition of continuing harms if changes are not made, and low scores indicate a denial of problems with use, rejection of diagnostic labels and lack of desire for change. Ambivalence reflects a person's pattern of wondering or uncertainty regarding their sense of control over their substance use, concern with quantity of use and harm caused to others. High scores on taking steps indicate movement towards change in a positive way regarding use, whereas low scores indicate no changes have been made or no changes made recently. In this way, the three domains of the SOCRATES-8 (Miller & Tonigan, 1996) assess and reflect changes in the S of *situation* through an indication of sense of control over substance use (ambivalence), an individual's assessment of the situation or circumstances and impact (recognition), their role in the change and steps taken (taking steps) (Miller & Tonigan, 1996). An increase in recognition and taking steps scores would be expected to indicate an increase in assets across the *situation* domain. Ambivalence is interpreted alongside the recognition score, as a person may score low on ambivalence either because they understand that their substance use is causing problems, which would be seen in high recognition scores, or because they perceive they do not have substance use related problems reflected by low recognition scores (Miller & Tonigan, 1996).

The SOCRATES-8 has been used to understand motivation for change within a substance use setting and reflects change over time. Taking steps scores on the SOCRATES have been negatively associated with relapse for patients seeking outpatient treatment for substance use difficulties (Gossop et al., 2007; Miller et al., 1996). Conversely, high scores on taking steps predicts the maintenance of alcohol abstinence in the year post treatment (Isenhardt & Van Krevelen, 1998). Further, ambivalence and taking steps scores of the

SOCRATES-8 at baseline relate to increased alcohol use at 9-month follow up in people with severe and persistent comorbid mental health issues (Zhang et al., 2006), and increased substance use throughout treatment in polysubstance users (Henderson et al., 2004). An increase in *situation* assets across the 4S's would reflect an increase in recognition, a reduction in ambivalence relative to taking steps, and an increase in taking steps across time.

In addition to understanding and assessing change in perception of *situation* through the SOCRATES-8, the SDS was used to explore severity of psychological dependence and dependence related patterns of behaviour over time (Gossop et al., 1995). The SDS is a brief scale that assesses the behavioural patterns of substance use related to dependence. The measure assesses the psychological components of dependence, specifically the compulsion to use (Gossop et al., 1995). It addresses feelings of impaired control over substance use, preoccupation with use and anxieties about substance use (Bruno et al., 2009; Gossop et al., 1997; Gossop et al., 1995). Research has found an increasingly clear link between physiological and psychological dependence and the exacerbation of stress experienced by an individual (Wand, 2008), as well as a greater severity of substance related problems, a wider range of problems and increased concurrent stressors related to higher levels of dependence (Gossop et al., 2002). Gossop et al. (2002) noted that reducing dependence improves health and psychiatric wellbeing, consistent with the interplay between the 4S domains. Further, Lawrinson et al. (2003) found significant improvements in SDS scores 3, 6 and 9 months from baseline for people engaged in substance use treatment and receiving opioid maintenance pharmacotherapy. In keeping with the S of *situation*, it would be expected that over time, with sustained movement towards recovery, psychological dependence patterns of behaviour as measured by the SDS would reduce (Gossop et al., 1995) as assets in the *situation* component build, and as reflected by the substance use literature and clinical cut-off

scores reflecting change over time with movement towards recovery (González-Sáiz et al., 2009; Gossop et al., 2002; Kaye & Darke, 2002; Lawrinson et al., 2003).

Several elements of the *situation* domain of the STT are not readily assessed by quantitative measures. STT model considers the role of concurrent stressors experienced by the individual in transition (Anderson, Schlossberg & Goodman, 2012). Specifically, variables relating to concurrent stressors can inhibit or facilitate transition. Further the individual's perception of control, namely voluntary or involuntary admission, and while all participants in this research were voluntary admissions to treatment, there can be situations where voluntary admissions can be due to the pressure or requirement of external people. Finally, the individual's perception of the *situation* through their recovery experience is likely to be rich, nuanced and not readily understood through psychometric tools. Hence, qualitative methods were used to explain the psychometric data and to further explore the aspects of *situation* experienced by the participants as they transitioned to recovery through group therapy. Namely, those which were not readily measured by existing psychometric tools, including participants perception of change over time and the situation on their experience of substance use, their role in the change, and concurrent stress experienced through their journey of transition to recovery.

Assessing Change in Self

In measuring and assessing change in *self*, data relating to personal demographics and health, psychological wellbeing, self-efficacy, and quality of life was used. The aspects of *self* which relate to personal and demographic characteristics were assessed through the physical and environmental health domains of the WHO-QOL BREF (The WHOQOL Group, 1998; World Health Organization, 1996). The physical health domain includes questions relating to mobility, daily activities, functional capacity, energy, pain, and sleep (The WHOQOL Group, 1998; World Health Organization, 1996). The environmental domain includes questions

relating to financial resources, safety, health and social services, living environment, opportunities to acquire new skills and knowledge, recreation, general environment and transportation (The WHOQOL Group, 1998; World Health Organization, 1996). The psychological resources aspect of the *self* was assessed by the psychological domain of the WHO-QOL BREF (The WHOQOL Group, 1998; World Health Organization, 1996), the Kessler Psychological Distress Scale (K10;(Andrews & Slade, 2001), and the General Self Efficacy Scale (GSE; (Schwarzer & Jerusalem, 2010). It would be expected that development of assets across these domains would represent an improvement in scores, however, it may also be anticipated that an individual response would occur depending on other resources and vulnerabilities across the first few years following problem resolution. This is consistent with findings of happiness and self-esteem dropping during the early recovery, followed by a gradual increase beginning after 6 to 12 months (Kelly et al., 2018). To explain the data collected, to allow in-depth exploration of the role of assets and liabilities across *self* in recovery and to understand the individual recovery journey, qualitative interviews were completed (Anderson, Goodman & Schlossberg, 2022).

Assessing Change in Support

To measure change in the S of *support* over time with engagement with the outpatient group therapy program the social support domain of the WHO-QOL BREF will be used (The WHOQOL Group, 1998; World Health Organization, 1996). Social support as measured by the WHO-QOL BREF has reflected positive change in perceptions of *support* and social connection from baseline to follow-up in alcoholics (Witkiewitz et al., 2020) and other substance use populations (Kelly et al., 2018; Muller et al., 2019; Patra et al., 2015) with a lack of social support predicting poorer quality of life across the other three WHOQOL-Bref domains (Muller et al., 2019). It would be expected that with an increase in assets across the S of *support*, consistent with the building of social supports or social capital, an improvement in

the WHOQOL-Bref social support domain would be expected. To further explain the data gained, and to understand this in the context of the individual experience of multiple sources of support, qualitative analysis was conducted to provide a nuanced depth of exploration regarding the individual experience of support and recovery.

Assessing Change in Strategies

To measure and assess change in the coping *strategies* used by the participants, the coping orientation to problems experienced inventory (Brief COPE) will be used (Carver, 1997). The Brief COPE is often used in healthcare and counselling settings to understand how people are responding to circumstances or challenges across three key subscales of problem focussed coping, emotion focussed coping and avoidant coping (Carver, 1997; NovoPsych, 2021). The measure provides further detailed facets to explore an individual's coping more deeply. It includes facets of self-distraction, denial, substance use, behavioural disengagement, emotional support, venting, humour, acceptance, self-blame, religion, active coping, use of instrumental support, positive reframing, and planning (Carver, 1997; NovoPsych, 2021). It would be expected that over time through engagement with the outpatient group program, an increase in problem-focused coping and adaptive coping would occur, consistent with the literature (Martindale et al., 2013; Weaver et al., 2000). However, cessation of all unhelpful or maladaptive coping patterns would be unlikely (Weaver et al., 2000; Weiss et al., 2014).

Further, from a STT perspective, it would be expected that movement towards adaptive or active coping strategies would build assets in the S of *strategies*, which would likely increase ease of transition, and a downshift towards less adaptive coping would increase liabilities and negatively impact transition. In this way, we would expect an increase in adaptive coping as someone transitions to recovery, however, given the complex, dynamic and individually relative experience of recovery for the individual (Witkiewitz et al., 2019), a

change in the balance of coping styles over time for the individual may be seen (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012; Schlossberg, 2011). This complex and dynamic individual pattern in *strategies* may not be readily understood through group-level statistical analyses. Hence, qualitative exploration allowed an explanation of data and depth of understanding of the individual's experience of relative change in the use of strategies and shed further light on the Brief-COPE data overall.

Research Gaps and Aims

This literature review has highlighted the current state of the research regarding recovery and treatment of SUDs, evidence for movement toward recovery through group therapy, discussed conceptual frameworks for change in SUDs, introduced the literature regarding STT and transition to recovery from SUDs and considered the literature regarding the 4S's of transition. In doing this, this literature review has identified several knowledge gaps for further research.

Current and historical models of understanding change in substance use, such as the TTM (DiClemente, 2018; Prochaska & Norcross, 2001), while evidence-based and highly effective, are typically stage or phase based and highly individualistic. Whilst these models are effective in understanding change in SUDs at an individual level, they are inadequate in application to an open group-based treatment setting. As a result, there is an absence of an effective and appropriate conceptual framework within the literature for open enrolment groups. The absence of a conceptual framework presents significant challenges for clinicians in practice when supporting people with varying levels of commitment to change, readiness, motivation, resources, needs and symptom severity to move towards recovery through open, unstructured group programs.

STT provides a way of conceptualising the process of transition and change which is not stage based and may allow for flexible and adaptable delivery of clinician-led group

therapy whilst supporting the delivery of a variety of educational, skills training, experiential processes, and interpersonal dynamics to address needs of an individual and group. However, to date, the literature regarding STT and SUD has not applied STT as a conceptual framework for change in clinician-led open group therapy programs. Hence the current research aims to explore STT as an alternative to the TTM and recovery capital models of change in understanding transition to recovery and explore the efficacy of the STT in informing clinical practice with open group therapy programs. Further, to date, the literature applying STT to SUD recovery and other fields has been solely qualitative, hence the present research aimed to add to and extend upon the literature through the use of an explanatory sequential mixed methods design (Creswell & Plano Clark, 2018).

Regarding STT and SUD recovery, the application of transition theory in a SUD setting by Streifel and Servanty-Seib (2006) considered how 12-step peer support recovery programs support transition to recovery. They indicated STT can provide a theoretical and organisational framework for exploring SUD recovery programs. Similarly, the application of STT in exploring and understanding sustained recovery by Stokes et al. (2018) demonstrated the transition process and the 4S system in supporting sustained recovery. It gave weight to the STT model in the context of transition to recovery from SUDs. In this way, STT has demonstrated promising applicability in understanding and supporting the transition to recovery for people with SUDs. The current research aimed to build on knowledge and insights gained by Streifel and Servanty-Seib (2006) by extending the application of transition theory in a SUD context. In addition to extending STT to clinician-led groups, this research aimed to provide support to, and build upon, the findings by Stokes et al. (2018) which explored people's experiences in sustained recovery. This research aimed to do this by studying the experiences of people earlier in their recovery journey, who remain engaged with treatment groups and who may or may not transition to sustained recovery to capture a greater

breadth of recovery experiences and explore the experiences of transition through an outpatient group setting.

By applying theory to practice and with STT in a clinician-led outpatient group therapy setting, the present research sought to understand the process of transition to recovery from SUDs generally and as facilitated by outpatient group therapy programs. In turn, by applying STT to SUD settings, the current research sought to test the fit of the theory with a new setting and population. The research aimed to do this by quantitatively exploring patterns of change over time for people with SUDs with engagement in an outpatient group therapy program across the 4 S domains: *situation*, *self*, *support*, and *strategies*. Further, through thematic analysis of individual interviews, the present research aims to deeply explore the experiences of transition to recovery from SUD through group therapy.

In summary, the present research aimed to extend existing knowledge and investigate how people with SUDs achieve recovery through treatment and engagement with outpatient group therapy. It also aimed to explore if their experiences of moving towards recovery reflect and align with the transition process outlined by STT. To this end, the present research aimed to explore and understand the utility of STT as a conceptual framework for supporting change through open-enrolment SUD group therapy programs.

Research Questions and Hypotheses.

To address these aims and knowledge gaps, this research addressed the following Research Questions through a mixed methods approach utilising two studies in an explanatory-sequential design. The overarching questions of this research were, do group participants' experiences of movement towards recovery align with or reflect STT? and, if so, how can STT be used to support people with SUDs in transitioning to recovery and inform practice in clinician-led open-enrolment outpatient group therapy programs? To address these questions, the following sub-questions for Study 1 were explored.

Research Questions - Study 1

1. Do SUD outpatient group therapy programs facilitate change in perception of *situation* to assist with the process of transition to recovery aligned with STT? Specifically, does change occur on a group and/or individual level over time on measures of substance dependence via the SDS (Gossop et al., 1995), and readiness for change via the SOCRATES-8 (Miller & Tonigan, 1996).
2. Do SUD outpatient group therapy programs facilitate change in the domain of *self* to assist with the process of transition from SUD to recovery as aligned with STT? Specifically, do changes occur on a group and/or individual level over time on measures relating to psychological wellbeing via the K10 (Andrews & Slade, 2001), self-efficacy via the GSE (Schwarzer & Jerusalem, 2010) and quality of life via the psychological, physical and environmental domains of the WHO-QOL BREF (The WHOQOL Group, 1998; World Health Organization, 1996).
3. Do SUD outpatient group therapy programs facilitate change in participants' *supports* to assist with the process of transition from SUD to recovery as aligned with STT? Specifically, do changes occur on a group and/or individual level across time via change in perception of *support* as measured by the support domain of the WHO-QOL BREF (The WHOQOL Group, 1998; World Health Organization, 1996).
4. Do SUD outpatient group therapy programs facilitate change in use of coping *strategies* to assist with the process of transition from SUD to recovery as aligned with STT? Specifically, do changes occur on a group and/or individual level over time on a measure relating to the type of coping strategies used via the Brief COPE inventory (Brief COPE; (Carver, 1997).

5. Do SUD outpatient groups facilitate movement towards recovery as defined by Witkiewitz et al. (2019) as an ongoing and dynamic process of behaviour change characterised by relatively stable improvements in biopsychosocial functioning, as well as increases in wellbeing and purpose in life on a group and/or individual level?

Hypotheses

Further to the Research Questions above, if the STT model were to hold true, (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981, 2011), the following hypotheses were developed for Study 1.

Previous qualitative literature regarding the *situation* domain suggests that change in perception of *situation* assists with the process of transition from SUDs to recovery (Stokes et al., 2018; Streifel & Servanty-Seib, 2006). Further, decreases in severity of dependence assists recovery processes and increases a sense of control over the situation (Gossop et al., 1995; Gossop et al., 2002; Gossop et al., 2007), increases motivation for change, reduces ambivalence and increases recovery based actions related to improved outcomes (Henderson et al., 2004; Isenhardt & Van Krevelen, 1998; Miller & Tonigan, 1996; Zhang et al., 2006). In this way, it was hypothesised that over time a reduction in severity of dependence and an increase in recognition and reduction in ambivalence reflecting motivation would be seen on a group and individual level with transition towards recovery.

Previous qualitative literature regarding the S of *self* suggests that the development of assets and reduction in liabilities assists with the process of transition from active substance use to recovery (Stokes et al., 2018; Streifel & Servanty-Seib, 2006). Further, reduction in physical and mental health difficulties and development of strengths in psychological resources, and improvement in personal and demographic situation has been recognised as an outcome of recovery (Dekkers et al., 2020; Duffy & Baldwin, 2013; Kaskutas et al., 2014;

Marlatt et al., 2007; Martindale et al., 2013; Neale et al., 2014; Sacks, Banks, et al., 2008; Sacks, McKendrick, et al., 2008; Timpson et al., 2016; Weaver et al., 2000; Witbrodt et al., 2015; Witkiewitz et al., 2020). In line with this, it was hypothesised that over time an improvement in QOL as measured by the WHO-QOL BREF (The WHOQOL Group, 1998; World Health Organization, 1996) across the psychological, physical and environmental domains, an increase in self-efficacy seen in the GSE; (Schwarzer & Jerusalem, 2010) as well as an improvement in psychological wellbeing as measured by the K10 would be seen (Andrews & Slade, 2001). However, it was hypothesised that there may be a deterioration across these measures initially, with small and gradual improvements seen from the 6- and 12-month time points as per literature on early recovery experiences (Kelly et al., 2018).

Previous qualitative literature regarding the *support* domain of the 4S's suggests that an increase in support is a key factor in the process of transition from SUD to recovery (Stokes et al., 2018; Streifel & Servanty-Seib, 2006), with supportive relationships critical for ongoing recovery from substance use difficulties (Duffy & Baldwin, 2013; Vigdal et al., 2022). Within the literature, social support as measured by the WHO-QOL BREF has reflected positive change in perceptions of support and social connection from baseline to follow-up in alcoholics (Witkiewitz et al., 2020) and other substance use populations (Kelly et al., 2018; Muller et al., 2019; Patra et al., 2015) with a lack of social support predicting poorer quality of life across the other three WHOQOL-Bref domains (Muller et al., 2019). Hence, it was hypothesised that an increase in QOL scores through the WHOQOL-Bref would be seen over time at both a group and individual level with some variance between individuals. It was hypothesised that social supports may increase sooner than other domains of QOL, due to their role in sustaining recovery (Duffy & Baldwin, 2013).

Previous qualitative literature regarding *strategies* in STT suggests that change in *strategies* used may assist with the process of transition from SUD to recovery (Stokes et al.,

2018; Streifel & Servanty-Seib, 2006). Further, literature on SUD recovery highlights the need for adaptations in coping and movement away from coping with stressors via substance use and towards active and adaptive coping (Martindale et al., 2013) with effective coping seen as a core element of change in SUD recovery. It was hypothesised that consistent with the literature, an increase in problem-focused coping and adaptive coping facets would occur over time both at a group and individual level through engagement with the outpatient group program (Martindale et al., 2013; Weaver et al., 2000), as measured by the Brief COPE (Carver, 1997). However, it would be unlikely that a cessation of all unhelpful or maladaptive coping patterns would occur (Weaver et al., 2000; Weiss et al., 2014).

Previous research regarding recovery suggests that group therapy following acute treatment can lead to engagement in recovery seen through a process of behaviour change and improvement in biopsychosocial functioning (Kelly et al., 2018; Kelly et al., 2019; Witkiewitz et al., 2019). In line with this it was hypothesised that SUD outpatient groups would facilitate movement towards recovery through relatively stable improvements in biopsychosocial functioning across time points on a group and individual level.

Summary

This chapter reviewed the literature relating to SUD, recovery, and treatment with a focus on group-based therapy and models of change. The theoretical framework underpinning this research, STT (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981) was introduced and discussed. The application of STT to SUD recovery was explored and applied to the present research. The next chapter, Chapter 3 presents the methodology employed to test the hypotheses in Study 1. It describes the demographics of the participants, measures of each construct and data collection protocols employed.

CHAPTER 3 – STUDY 1

Methodology

Participants

Participants were recruited from drug and alcohol outpatient group therapy programs running in a private psychiatric hospital in Western Sydney. The study included 54 participants, however, 7 did not complete a significant portion of the questionnaires and were excluded. 47 participants completed the questionnaires at baseline, these participants were between the ages of 23 and 77 ($M = 48.72$; $SD = 14.31$). The participants comprised 29 males and 18 females. At baseline, all participants had a primary diagnosis of substance use disorder, such as alcohol or cocaine use disorder. The number of day program groups attended each week varied, ranging from one group to three per week ($M = 1.46$; $SD = 0.62$). Current employment status varied between participants, with 45% unemployed, 30% in full-time employment, and the remainder either self-employed (2%) or involved in casual (11%) or part-time (11%) employment. Participants' level of education varied significantly; all participants completed Year 10, with highest level completed being postgraduate qualifications at a tertiary level. Of the participants, there was a significant variation in the length of time since the initial commencement of substance use disorder treatment, ranging from 0 months to 26 years ($M = 5.82$; $SD = 5.95$). There was significant variation in treatment approaches previously undertaken, such as 12-step groups or SMART recovery, number of previous admissions to rehabilitation clinics, marital status, and accommodation. As participants self-selected into the study, treatment history, employment status, level of education, socioeconomic status, and ethnic and racial backgrounds varied, consistent with the variety in presentation in open enrolment groups. All participants held private health insurance coverage to be eligible for the group program.

Measures

Quantitative data was collected via written self-report questionnaires, which included demographic questions, The Severity of Dependence Scale (SDS), The Personal Drug Use Questionnaire (SOCRATES 8), The World Health Organization Quality of Life Scale - Brief (WHO-QOL BREF), The Kessler Psychological Distress Scale (K10), The General Self-Efficacy Scale (GSE), and The Brief COPE Inventory (Brief COPE). Other measures were collected as part of a larger study. Demographic questions and measures as presented to the participants are listed in Appendix A and were used to determine age, employment status, education level, occupation, living situation, marital status, frequency of attendance, treatment approaches, length of treatment history, previous treatment history, and length of abstinence. At the time of data collection, all measures identified were public domain. A description of each measure follows.

The Severity of Dependence Scale (SDS)

The SDS is a measure of the psychological components of dependence. It is a 5 item measure based on a four-point Likert scale measuring the degree of dependence experienced by users of different types of drugs in the month prior to assessment (Gossop et al., 1995). The SDS focuses specifically on the individual's feelings of impaired control over their drug taking (e.g., "do you think your use of (drug) was out of control?"), preoccupations with drug taking (e.g., "Did the prospect of missing a fix (drink, or dose) make you anxious or worried?") and anxieties about drug taking (e.g., "did you worry about your use of (drug)?"). Respondents indicate their agreement with the statements on a scale of 0 to 3 (where 0 = never/almost never and 3 = always/nearly always). The theoretical range of scores is 0-15, with higher scores indicating higher levels of dependence. The SDS has been assessed for structural and construct validity across multiple countries and drugs of dependence. SDS scores were collected for each substance used, with the score from each participant's primary

or main illicit drug used in analysis, consistent with methods Gossop et al. (2002) used in assessing dual-dependence. Gossop et al. (1995) found the SDS to display good structural and construct validity in samples of Australian heroin and amphetamine users and British heroin and cocaine users. Cronbach's α for the Australian heroin sample was 0.90, for two Australian amphetamine samples was 0.89 and 0.81, Cronbach's α for the British heroin sample was 0.84 and cocaine was 0.84 (Gossop et al., 1995). van der Pol et al. (2013) found good reliability for the SDS in young adult frequent cannabis users, with Cronbach's α of 0.70. The SDS was found to have good reliability as a measure of alcohol dependence ($\alpha = 0.85$), cannabis ($\alpha = 0.78$), crack cocaine ($\alpha = 0.73$), and powder cocaine ($\alpha = 0.83$) and good concurrent and construct validity (Ferri et al., 2000). Test-retest reliability coefficients are good ($\alpha = 0.89$) in one-day intervals for heroin users (Gossop et al., 1995), they were found to be excellent ($\alpha > 0.75$) for crack cocaine, snorted cocaine and alcohol, and good for cannabis (ICC = 0.74) (Ferri et al., 2000). Further, Gossop et al. (2002) found high reliability ($\alpha = 0.94$) for the SDS as a measure of alcohol dependence. A cut-off score of ≥ 3 was optimal for alcohol and cocaine dependence in Australian studies, with optimal sensitivity (67%) and specificity (93%) for males and females (Kaye & Darke, 2002; Lawrinson et al., 2003). See Appendix A for a copy of the SDS as presented in the participant questionnaire.

The Personal Drug Use Questionnaire (SOCRATES 8)

The SOCRATES-8 is a self-report measure designed to assess readiness for change in alcohol and drug abusers (Miller & Tonigan, 1996). It consists of 19 items across three levels: recognition (7 items), ambivalence (4 items), and taking steps (8 items). The recognition domain assesses an individual's awareness or consciousness of the link between substance use and their current problems and acknowledgement of the same (e.g., "If I don't change my drug use soon, my problems are going to get worse"). Ambivalence provides information about an individual's certainty of either having or not having a substance use problem (e.g.,

“Sometimes I wonder if my drinking is hurting other people”). The ambivalence domain indicates the time or energy the individual spends thinking about the change process and should be interpreted with the recognition score. Taking steps assesses the level of change that is or is not yet underway. That is, the amount of action an individual takes to change their substance use behaviour (e.g., “I am actively doing things now to cut down or stop my use of drugs”). Respondents indicate their agreement with the statements on a scale of 1 to 5 (1 = *NO!/Strongly disagree* and 5 = *YES!/Strongly agree*). The theoretical range of scores is 19-95, with subscale scores of 7-35 for recognition, 4-20 for ambivalence and 8-40 for taking steps. Where higher scores indicate higher levels of recognition, ambivalence and taking steps.

The SOCRATES 8 has been assessed for structural and construct validity, and internal reliability estimates seen in Cronbach alpha of 0.60 - 0.88 for ambivalence, 0.85 - 0.95 for recognition and 0.83 - 0.96 for taking steps (Miller & Tonigan, 1996). The three scales measure distinct constructs with very little overlap, ambivalence was unrelated to recognition ($r = .03$) and taking steps ($r = .03$) however taking steps and recognition were positively and modestly related ($r = .33$; (Miller & Tonigan, 1996). Abiola and colleagues (2015) found moderately high concurrent validity between recognition and taking steps ($r = 0.694$) and moderate concurrent validity (0.460) with ambivalence. A moderate relationship (0.444) was found between taking steps and ambivalence (Abiola et al., 2015). Further, the SOCRATES 8 was found to have high test-retest reliability for ambivalence ($p = .04$), recognition ($p = .00$), and taking steps ($p = .82$) (Miller & Tonigan, 1996). See Appendix A for a copy.

The World Health Organization Quality of Life Scale - Brief (WHO-QOL BREF)

The WHO-QOL BREF is a 26-item self-report scale that assesses the subjective perception of quality of life (World Health Organization, 1996). The 26 items on the WHO-QOL BREF map across four broad domains: physical health (7 items), psychological health (6 items), social relationships (3 items), and environment (8 items). Responses are provided on a

5-point Likert scale, scored from 1 to 5. Domain scores are scaled positively (higher scores denote better quality of life). Raw scores are transformed to a theoretical score range of 4-20 that can be transformed to a 0-100 scale to allow comparison with the WHOQOL-100 (World Health Organization, 1996).

The WHOQOL-BREF has been shown to display good discriminant validity, content validity and test-retest reliability across several studies (Barros Da Silva Lima et al., 2005; Fu et al., 2013; Skevington et al., 2004; World Health Organization, 1996; Zubaran et al., 2012) with Cronbach alpha for domain scores ranging from 0.78 to 0.89 (Barros Da Silva Lima et al., 2005; Fu et al., 2013; Zubaran et al., 2012). The WHOQOL-Bref was found to have good to excellent internal consistency (Skevington et al., 2004) at Cronbach alpha of > 0.9 (Kirouac et al., 2017). Cronbach's alpha was reported specifically for the domains of physical health ($\alpha = 0.79$), psychological health ($\alpha = 0.78$), social relationships ($\alpha = 0.86$), and environment ($\alpha = 0.87$) (Fu et al., 2013). Domain scores produced by the WHOQOL-BREF have been shown to correlate at 0.9 with The WHOQOL-100 domain scores (World Health Organization, 1996). See Appendix A for a copy.

The Kessler Psychological Distress Scale (K10)

The K10 is a 10-item self-report questionnaire intended to yield a global measure of distress based on questions about anxiety and depressive symptoms a person has experienced in the most recent 4-week period (Andrews & Slade, 2001). Questions include “during the past month, how often did you feel hopeless?” and “during the past month how often did you feel restless or fidgety?”. Responses are provided on a 5-point Likert scale (1 = *none of the time* and 5 = *all of the time*). The theoretical range of scores is 10-50 with higher scores indicating higher levels of distress (Andrews & Slade, 2001). Suggested score categories are: 10–19 (the individual is likely well), 20–24 (mild mental disorder), 25–29 (moderate mental disorder) and 30–50 (severe mental disorder) (Australian Bureau of Statistics, 2012).

The K10 has been shown to have good construct and criterion validity across sociodemographic subsamples (Kessler et al., 2002). Reliability and validity testing of the K10 in an Australian injecting drug user sample found satisfactory psychometric properties for use as a measure of non-specific psychological distress (Brooks et al., 2006; Hides et al., 2007). Hides et al. (2007) found the K10 to demonstrate high levels of reliability and validity for detecting an affective disorder at a cut-off score of 27, finding it to hold a high level of internal consistency in substance-using populations (Cronbach's alpha = 0.84). The K10's specificity is moderate relative to its sensitivity, this is consistent with the findings of previous studies in cohorts of people experience SUDs (Hides et al., 2007). Recent normative data have been published for the K10 in an Australian population, including mean K10 scores for substance use disorder populations ($M = 18.0$; $SE = 0.5$; Slade et al., 2011). See Appendix A for a copy of the K10.

The General Self-Efficacy Scale (GSE)

The GSE is a 10-item self-report psychometric scale designed to assess a general sense of perceived self-efficacy, that is, an optimistic self-belief in one's ability to cope with various difficult demands in life. Responses are provided on a 4-point Likert scale (Schwarzer & Jerusalem, 2010). Questions on this scale address the domain of *self* in the 4S's. The GSE focuses on successful coping and implies an internal attribution of success. Questions include "I can solve most problems if I invest the necessary effort" and "I can usually handle whatever comes my way". Respondents indicate their agreement with the statements on a scale of 1 to 4 (1 = *not true at all* and 4 = *exactly true*). The theoretical range of scores is 10-40, with higher scores indicating higher levels of self-efficacy. The GSE has been assessed for reliability and validity across over 23 countries and multiple populations. Cronbach's alpha ranged from 0.76 to 0.96 with the majority in the high 0.80s (Schwarzer & Jerusalem, 2010). Test-retest reliability values have been reported to be between 0.74 and 0.85 (Ohno et al.,

2017) with acceptable levels ≥ 0.70 . *The* smallest detectable change for the GSE scale was found to be 1.56 (Ohno et al., 2017), hence a change in score of ≥ 5 represents significant change at an individual level. Validity is documented in several correlation studies where correlations were found with emotions, dispositional optimism, and work satisfaction. Negative correlations were also found with depression, anxiety, stress, burnout, and health complaints (Schwarzer & Jerusalem, 2010). See Appendix A for a copy of the GSE.

The Brief COPE Inventory (Brief COPE)

The Brief COPE is a 28-item self-report measure designed to assess the varying coping strategies used in response to stress, developed from the full 60 item version COPE inventory (Amoyal et al., 2016; Carver, 1997). The Brief COPE is comprised of 14 facets collapsed into 3 subscales, each of which assesses the degree to which an individual utilizes a specific coping strategy. Several studies in the literature have collapsed the 14 facets into subscales, with varying approaches taken to this (DeDios-Stern et al., 2017; Kannis-Dymand et al., 2020) and published factor models ranging from two to 11 factors (Carver, 1997; Kannis-Dymand et al., 2020). Most literature divides the scale into three factors, emotion-focused, problem-focused and avoidance coping (DeDios-Stern et al., 2017; Dias et al., 2012; Hegarty & Buchanan, 2021; NovoPsych, 2021; Poulus et al., 2020; Tait et al., 2014).

The 14 facets include active coping, planning, positive reframing, acceptance, humour, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, behavioural disengagement, and self-blame. Each facet comprises 2 items, which are propositions for example, “I’ve been taking action to try to make the situation better” and “I’ve been getting help and advice from other people”. Responses are provided on a on a 4-point Likert scale, where respondents are asked to rate their degree of agreement with each statement on a scale of 1–4 (1 = *I haven’t been doing this at all* and 4 = *I’ve been doing this a lot*; (Carver, 1997). Subscale and facet scores are calculated by dividing the total

score by the number of items to gain a score between 1 and 4 (Carver, 1997; Hegarty & Buchanan, 2021; NovoPsych, 2021).

Complicating the factor structure, psychometric properties and validation data of the Brief-COPE, is the complex nature of coping dimensions on different types of stressors and populations leading to inconsistent validation results (Abdul Rahman et al., 2021). The Brief COPE has good internal consistency when grouped in a three-factor model as emotion-focused, problem-focused and avoidant coping strategies, with Cronbach's alpha ranging from 0.72 to 0.84 (DeDios-Stern et al., 2017). Further, adequate test-retest reliability was found, alongside adequate criterion validity (DeDios-Stern et al., 2017). When grouped in this three-factor model, the Brief COPE has good internal consistency and reliability, and established concurrent validity (Dollen et al., 2015). Adequate test-retest reliability has been identified ranging from 0.44 to 0.72 (DeDios-Stern et al., 2017). Hence, the three-factor model was used for statistical analysis. See Appendix A for a copy of the Brief COPE.

Procedure

Human Research Ethics approval was obtained from the Northside Group Human Research Ethics Committee (No approval number provided, see Appendix B for copy of approval) and The University of Southern Queensland Human Research Ethics Committee (Approval number: H21REA166) prior to beginning research. Participants were recruited via information sessions in their outpatient group programs and posters and information placed around the hospital (Appendix C). Following this, the participants were provided with an information sheet outlining the proposed research which indicated participation and time requirements (Appendix D). If required, the group facilitator assisted participants to read and understand the information sheet. Capacity to provide informed consent was determined verbally on-site, following this, participants volunteered to participate by completing a consent form and returning it to the principal researcher (Appendix E). Participants who

could provide informed written and verbal consent were deemed eligible to participate and invited to complete the questionnaire.

The questionnaire was administered to participants individually via pen and paper with each participant completing the questionnaire in a private space of their choosing within the hospital. The questionnaire was administered via a personal file at the start of the outpatient groups. The questionnaire took approximately 15-30 minutes to complete (see Appendix A) and was completed at a suitable time for the participant before group, during breaks or following the group session. Whilst the participant was completing the questionnaire, a group facilitator or principal researcher remained present for support, clarified any difficulties, or questions the participant may have had, and assisted in the administration of the questionnaire in the case of participants with limited literacy capabilities, greater need for support, or any experience of distress. As per group attendance requirements, participants were not undergoing detox or under the influence of substances at completion.

Upon completing the questionnaire, participants placed the booklet in a sealed envelope to ensure anonymity of responses. The participants received a questionnaire booklet to complete at five-time points—upon admission to the day program, at 4 weeks post-admission, 3 months post-admission, 6 months post-admission, and 12 months post-admission. These time points were chosen based on data suggesting that 1-year post-treatment 40-60% of patients remain abstinent, with outcomes more favourable if treatment is sustained for 6-12 months (McLellan, Lewis, O'Brien & Kleber, 2000). Further, existing data from the hospital highlighted a high patient dropout rate from the group program between 4-12 weeks, hence a shorter initial time point was utilised to capture participants. Participation was voluntary, with no incentives, payment or remuneration made to participants. Due to the exploratory and cohort nature of the study, no control group or randomisation was used.

Results

Data Analyses

The Statistical Package for Social Science Version 28.0.1 (IBM, 2021) was used to conduct statistical analyses and data screening. Analyses sought to determine whether time attending outpatient substance use disorder group therapy impacted the balance of resources across the 4S's seen in severity of dependence, motivation for change in substance use via measures of recognition, ambivalence and taking steps, quality of life (QOL) across domains of physical, psychological, social and environmental QOL, mental health, general self-efficacy and coping styles seen in problem focussed coping, emotion-focused coping and avoidance.

Descriptive statistics were completed initially to screen and interpret data. All variables were checked for coding errors and scoring ranges, and no problems were observed. Due to sample size relating to high attrition rates and consequent small sample size, non-parametric statistics in the form of a Friedmans ANOVA were employed to assess the mean difference over time across all variables at a group level. Hence, no tests of normality were completed (Field, 2018). An alpha value of .05 was used for all significance tests.

Following initial group-level analyses, to understand individual patterns of change across each variable, 4S domain and over time, Reliable Change Index (RCI) was employed. Reliable change is change considered to be larger than expected if due to measurement error alone (Blampied, 2016). In the case of pre-, post- and follow-up measures, reliable change is change which is larger than the standard error of difference between the two scores (Jacobson & Truax, 1991), or if this is unknown, scores after intervention should fall more than 1.96 standard deviations outside the range of the clinical population (Morley & Dowzer, 2014). Change scores were computed for each participant as compared to baseline (Morley &

Dowzer, 2014) with positive change scores for all measures indicating improvement and negative change scores deterioration.

Reliable Change Index Analyses

Reliable Change Index was used to understand individual-level change across each of the 4S domains. To calculate reliable change for all measures at each time point compared to baseline, the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was employed using criterion A or B. RCI calculated by criterion A is based on a pre-change to post change comparisons of at least 2 standard deviations from the original mean, and Criterion B is where RCI is calculated based on change which moves the post-test score to within 2 standard deviations of a normative sample mean (Evans, Margison & Barkham, 1998). Decision to use criterion A or B was made based on normative data available with the following information used for each measure. This was based on the statistical methods by Jacobson and Truax (1991).

The Severity of Dependence Scale (SDS). To calculate reliable change over time for the SDS, the reliability of the SDS was reported as $\alpha = .76$ (Lawrinson et al., 2003) with a pre-treatment clinical mean of $M = 10.70$ and standard Deviation $SD = 2.28$ (Lawrinson et al., 2003). Criterion A of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was used, with improvement in the dependence severity indicated by a decrease in score.

The Personal Drug Use Questionnaire (SOCRATES 8). To calculate reliable change over time for the ambivalence domain of the SOCRATES 8, reliability was reported as $\alpha = .60$ and clinical population sample mean of $M = 14.35$ and standard deviation $SD = 3.82$ (Miller & Tonigan, 1996). Criterion A of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was used. RCI for ambivalence was considered alongside recognition and taking steps for best understanding, as a person may score low on

ambivalence either because they understand that their substance use is causing problems, which would be seen in high recognition scores, or because they perceive they do not have substance use related problems reflected by low recognition scores (Miller & Tonigan, 1996).

To calculate reliable change over time for the recognition domain of the SOCRATES 8, reliability was reported as $\alpha = .81$ and clinical population sample mean of $M = 31.0$ and standard deviation $SD = 3.8$ (Gossop et al., 2007). Criterion A of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was used, improvement was indicated by higher scores.

To calculate reliable change over time for the taking steps domain of the SOCRATES 8, reliability was reported as $\alpha = .88$ and clinical population sample mean of $M = 34.0$ and standard deviation $SD = 5.0$ (Gossop et al., 2007). Criterion A of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was used, improvement was indicated by higher scores.

The World Health Organization Quality of Life Scale – Brief (WHOQOL-Bref).

To calculate RCI for the four domains of the WHOQOL-Bref, scores were transformed from the 4-20 range of scores to the 0-100 transformed scores using the conversion tables and method outlined by the World Health Organization (1996). This conversion was to allow comparison with normative data.

To calculate reliable change over time for the physical domain of the WHOQOL-Bref, reliability was reported as $\alpha = .79$ (Fu et al., 2013), clinical population mean was $M = 53.60$ and standard deviation as $SD = 17.00$ (Barros Da Silva Lima et al., 2005). Criterion A of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was used, with improvement indicated by increased scores. To calculate reliable change over time for the psychological domain of the WHOQOL-Bref, reliability was reported as $\alpha = .78$ (Fu et al., 2013), clinical population mean was $M = 48.70$ and standard deviation as $SD = 15.40$ (Barros

Da Silva Lima et al., 2005). Criterion A of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was used, with improvement indicated by increased scores.

To calculate reliable change over time for the social domain of the WHOQOL-Bref, reliability was reported as $\alpha = .86$ (Fu et al., 2013), clinical population mean was $M = 58.30$ and standard deviation as $SD = 14.20$ (Barros Da Silva Lima et al., 2005). Criterion A of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was used, with improvement indicated by increased scores. To calculate reliable change over time for the environmental domain of the WHOQOL-Bref, reliability was reported as $\alpha = .87$ (Fu et al., 2013), clinical population mean was $M = 51.80$ and standard deviation as $SD = 13.30$ (Barros Da Silva Lima et al., 2005). Criterion A of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was used, with improvement indicated by increased scores.

The Kessler Psychological Distress Scale (K10). To calculate RCI over time for the K10, the reliability of the K10 was reported as $\alpha = .84$, SUD mean as $M = 18.00$, with standard error of the mean as $SE = 0.50$ (Slade et al., 2011). Criterion A of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was used, with improvement indicated by a decrease in scores.

The General Self-Efficacy Scale (GSE). To calculate RCI over time for the GSE, the reliability was reported as $\alpha = .79$ and clinical population mean of $M = 6.12$, standard deviation of the mean as $SD = 3.76$ (Ohno et al., 2017). Criterion A of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was used, with improvement indicated by an increase in GSE scores.

The Brief COPE Inventory (Brief COPE). To calculate RCI over time for the Brief COPE, clinical sample normative data of mean and standard deviation data for the three-factor model was derived from Hegarty and Buchanan (2021) as identified by NovoPsych ($N = 3635$; Problem focussed $M = 2.76$, $SD = 0.65$; Emotion focussed, $M = 2.34$, $SD = 0.44$;

Avoidance, $M = 1.97$, $SD = 0.51$). Reliability estimates and comparison population data were derived from Poulus et al. (2020). Cronbach's alpha for the problem-focussed domain was $\alpha = .81$, for the emotion-focussed domain $\alpha = .73$ and the avoidance domain reliability was $\alpha = .68$ (Poulus et al., 2020). Comparison normative data was $N = 316$; Problem focussed $M = 2.47$, $SD = 0.63$; Emotion focussed, $M = 2.23$, $SD = 0.49$; Avoidance, $M = 1.64$, $SD = 0.45$ (Poulus et al., 2020). Criterion B of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) was used, with improvement indicated by an increase in scores for problem-focused and emotion-focused coping and a decrease in avoidance-focused coping.

RCI for the 14 individual facets of the Brief Coping was explored to further understand patterns of change from a clinical and treatment-oriented perspective. RCI data here gave an in-depth look at the change in the types of adaptive and maladaptive coping strategies used by participants over time and can be found in Appendix F.

Reliability Estimates

Reliability estimates were variable across each measure and domain. Each of the SDS ($\alpha = .98$), K10 ($\alpha = .90$) and GSE ($\alpha = .91$) scales showed excellent internal consistency. All three domains of the SOCRATES-8 demonstrated acceptable reliability, these being recognition ($\alpha = .74$), ambivalence ($\alpha = .75$) and taking steps ($\alpha = .77$). Reliability estimates for the WHOQOL-Bref were variable across the four domains, with good reliability for the psychological ($\alpha = .87$) and environmental ($\alpha = .80$) domains, acceptable reliability for the physical ($\alpha = .73$) domain and questionable reliability for the social ($\alpha = .67$) domain. Reliability estimates for the social domain of the WHOQOL-Bref, whilst relatively low, were consistent with reliability estimates identified in the literature (World Health Organization, 1996) and deemed acceptable to include.

Similarly, reliability estimates for the Brief Coping were variable with the problem-focused coping domain demonstrating good internal consistency ($\alpha = .80$), the avoidance

domain demonstrating acceptable reliability ($\alpha = .70$). The emotion-focused domain of the brief cope had low internal reliability ($\alpha = .49$), falling just outside of the acceptable range of .5 as detailed by Davis (1964) for a sample size between 25 and 50. While the apparent low internal reliability of the emotion focussed domain was a concern, the pairwise Pearson Correlations were considered, and it was noted similar to other studies this domain typically displayed lower reliability within the literature (Carver, 1997; Dias et al., 2012; Dollen et al., 2015; Kannis-Dymand et al., 2020; NovoPsych, 2021; Poulus et al., 2020). The decision was made to retain the measure in the analyses, with caution taken.

Pairwise Pearson Correlations

All Pairwise Pearson correlations were considered when screening items within measures used in the study. Pairwise Pearson Correlation Coefficients for all SDS, K10, and GSE items were within the identified appropriate range, with r between .20 and .90 (Mukaka, 2012). The SOCRATES ambivalence domain, WHOQOL-Bref psychology and social domains were within these limits. Domains of taking steps on the SOCRATES, environment on the WHOQOL-Bref, and problem-focused coping on the Brief Cope were found to have greater than 70% of the correlation matrix of pairwise correlations within appropriate limits which was deemed to be acceptable given Cronbach alpha reliability estimates for each of these measures, no correlations were greater than $r = .90$. Further, the domain of recognition on the SOCRATES, and the physical domain of the WHOQOL-Bref had over 60% of the correlation matrix of pairwise correlations within identified appropriate limits, with all outside limits being less than .20 and none greater than .90. Exclusion of any one item did not improve Cronbach's alpha for any of these measures to a degree which warranted removal of items.

Of greatest concern was the correlation matrix for the avoidance and emotion-focused domains of the Brief Cope. The avoidance domain had just over 50% of the matrix

within limits, Cronbach's alpha was acceptable at .70, and the removal of any one item on the measure would not have improved the reliability estimate significantly (improvement to $\alpha = .73$ from $\alpha = .70$). To allow for comparisons with normative data and existing literature at a group and individual level, no items were removed.

Additionally, the emotion-focused domain of the Brief Cope had just under 70% of the correlation matrix of the pairwise Pearson Correlations lower than .20, which suggests a limited relationship between the items on the scale. Further, as described above, domain Cronbach's alpha was below the acceptable range ($\alpha = .49$). Estimates suggested exclusion of one individual item would have improved Cronbach's alpha to .50. Based on this minimal predicted improvement, and previous research finding relative lower reliability for this domain, the decision was made to maintain the integrity of the construct without removing items to allow direct comparison with normative data and previous literature. It was noted that any interpretation of data based on this domain should be done with caution.

Descriptive Statistics

A summary of descriptive statistics of key variables in Study 1 is detailed in Table 1 and Table 2. As shown the ratio of males to females was roughly even across time points. The mean age increased across time points with the mean being 5 years older than baseline ($M = 48.72$; $SD = 14.31$) at 12 months follow up ($M = 48.72$; $SD = 14.31$). All participants were either on or above clinical cut-off of ≥ 3 on the SDS at baseline, and at 12 months follow-up. K10 scores across all time points indicated that all participants across all time points were experiencing a mild mental disorder at a minimum or worse (mild mental disorder signified by K10 scores of between 20-24). No statistically significant difference was seen in mean scores over time. Mean and standard deviation data is summarised in Tables 1 and 2.

Table 1

Descriptive statistics: Baseline to 3 months

Variable		Baseline					1 Month					3 Months							
N		47					30					24							
Gender		Male		Female			Male		Female			Male		Female					
		29		18			18		9			16		7					
		<i>M</i>		<i>SD</i>		Range		<i>M</i>		<i>SD</i>		Range		<i>M</i>		<i>SD</i>		Range	
Age (years)		48.72		14.31		23 77		47.70		13.81		24 77		51.17		12.40		29 78	
		<i>M</i>		<i>SD</i>		Median		<i>M</i>		<i>SD</i>		Median		<i>M</i>		<i>SD</i>		Median	
		36.70		7.51		36.00		37.74		6.50		39.00		38.27		7.47		39.00	
		29.61		5.25		30.00		31.61		4.84		32.00		30.53		4.37		30.00	
		2.82		0.62		2.88		2.86		0.48		2.88		2.84		0.58		2.94	
		2.41		0.39		2.42		2.54		0.46		2.50		2.50		0.49		2.42	
		1.79		0.52		1.63		1.91		0.60		1.63		2.00		0.75		1.63	
SDS		10.15	3.12	11.00	3.00	15.00	9.33	4.45	10.00	0.00	15.00	10.95	4.41	12.00	0.00	15.00	0-15		
SOCRA TES	Re	31.73	4.19	34.00	21.00	35.00	30.40	4.60	31.00	20.00	35.00	30.32	3.77	30.50	21.00	35.00	7-35		
	Amb	15.59	4.37	16.00	4.00	20.00	13.20	4.94	15.00	4.00	20.00	12.73	4.96	13.00	4.00	20.00	4-20		
	TS	37.59	3.43	39.50	24.00	40.00	36.48	4.57	39.00	28.00	40.00	37.29	3.04	39.00	31.00	40.00	8-40		
WHOQOL- Bref	Phys.	14.43	2.72	14.86	8.67	19.43	14.91	2.42	15.43	9.14	20.00	14.54	3.10	14.86	8.00	20.00	4-20		
	Psych.	13.09	3.56	13.00	4.67	20.00	13.54	3.08	13.33	7.33	19.33	13.25	3.61	13.33	8.00	19.33	4-20		
	Social	12.62	3.40	13.33	4.00	20.00	13.45	3.79	14.67	4.00	20.00	13.33	3.83	13.33	8.00	20.00	4-20		
	Enviro.	15.43	2.63	16.00	9.50	20.00	15.50	2.24	16.00	10.50	20.00	15.96	2.14	16.00	13.00	20.00	4-20		
K10		36.70	7.51	36.00	22.00	50.00	37.74	6.50	39.00	26.00	48.00	38.27	7.47	39.00	25.00	48.00	10-50		
GSE		29.61	5.25	30.00	19.0	40.0	31.61	4.84	32.00	23.00	40.00	30.53	4.37	30.00	20.00	40.00	10-40		
Brief COPE	PF	2.82	0.62	2.88	1.13	4.00	2.86	0.48	2.88	2.00	3.75	2.84	0.58	2.94	1.50	3.75	1-4		
	EF	2.41	0.39	2.42	1.50	3.17	2.54	0.46	2.50	1.83	3.50	2.50	0.49	2.42	1.67	3.92	1-4		
	AV	1.79	0.52	1.63	1.00	3.38	1.91	0.60	1.63	1.00	3.13	2.00	0.75	1.63	1.13	3.38	1-4		

Note: Re = Recognition; Amb = Ambivalence; TS = Taking Steps; PF = Problem-focused; EF = Emotion-Focused; AV = Avoidance

Table 2

Descriptive statistics: 6 months to 12 months

Variable		6 Months					12 Months					
N		17					12					
Gender		Male		Female			Male		Female			
		11	4				9	3				
				Range					Range			
		<i>M</i>	<i>SD</i>	Min	Max	<i>M</i>	<i>SD</i>	Min	Max			
Age (years)		54.47	11.31	29	78	55.91	12.38	29	79			
		6 Months					12 Months					
				Range					Range			
		<i>M</i>	<i>SD</i>	Median	Min	Max	<i>M</i>	<i>SD</i>	Median	Min	Max	Score range
SDS		9.50	4.64	10.00	0.00	15.00	11.80	3.76	12.00	3.00	15.00	0-15
SOCR ATES	Re	30.13	3.81	31.00	23.00	35.00	30.09	5.17	32.00	30.00	35.00	7-35
	Amb	13.80	4.14	14.00	4.00	20.00	14.18	5.56	15.00	4.00	20.00	4-20
	TS	37.47	3.25	39.00	31.00	40.00	34.64	6.55	36.00	19.00	40.00	8-40
WHOQOL -Brief	Phys.	15.14	2.38	14.86	10.29	19.43	14.39	1.91	13.71	12.00	17.14	4-20
	Psych.	14.71	1.76	14.67	11.33	18.67	13.93	1.58	13.67	12.00	16.00	4-20
	Social	14.10	3.08	13.33	9.33	20.00	13.33	3.27	12.67	9.33	20.00	4-20
	Enviro.	16.46	1.71	16.50	14.5	20.00	15.45	1.99	15.50	12.00	19.50	4-20
K10		40.40	4.76	40.00	32.00	48.00	38.33	4.25	38.00	30.00	44.00	10-50
GSE		30.80	4.93	29.00	24.00	40.00	29.92	1.68	30.00	26.00	33.00	10-40
Brief COPE	PF	3.02	0.43	3.13	2.38	3.63	2.92	0.35	3.00	2.38	3.50	1-4
	EF	2.47	0.39	2.42	1.83	3.42	2.63	0.43	2.50	1.75	3.33	1-4
	AV	1.69	0.43	1.63	1.13	2.75	1.87	0.75	1.63	1.25	3.63	1-4

Note: Re = Recognition; Amb = Ambivalence; TS = Taking Steps; PF = Problem-focused; EF = Emotion-Focused; AV = Avoidance

Hypothesis Testing

Hypothesis 1: Situation

Group Level Change. At a group level, the participants SDS scores did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 4.44, p = .35$. Therefore, results did not support the hypothesis that engagement with an outpatient SUD group program over 12 months results in reduced severity of dependence on primary substance of use at a group level.

At a group level, the participants recognition scores on the SOCRATES-8 did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 5.00, p = .29$. Therefore, the results did not support the hypothesis that that ongoing engagement with an outpatient SUD group program over 12 months results in improved recognition of the impact of substance use at a group level, hence null hypothesis is retained.

The participants ambivalence scores on the SOCRATES-8 did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = .59, p = .96$. Therefore, the results did not support the hypothesis that that ongoing engagement with an outpatient SUD group program over 12 months results in reduced ambivalence towards substance use at a group level, hence the null hypothesis is retained.

The participants taking steps scores on the SOCRATES-8 did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 7.21, p = .13$. Therefore, the results did not support the hypothesis that that ongoing engagement with an outpatient SUD group program over 12 months results in increased action taken towards a change of substance use patterns at a group level, hence the null hypothesis is retained.

Individual Level Change. Reliable change indices for the measures reflecting the S of *situation* - the SDS, and the SOCRATES-8 are presented in Tables 2, 3, 4 and 5 respectively, for participants who completed the questionnaires to 3 months and beyond.

Visual inspection of Table 2 outlining RCI for the SDS demonstrates reliable change occurs for a proportion of participants (10 of 23; 43%) at any time point compared to baseline. Of this, 22% of participants demonstrated an improvement in SDS scores (5 of 23), and 26% of all participants deteriorated in relation to their severity of dependence at any given time point (6 of 23). This indicates change is occurring to a reliable level in symptoms of dependence over time for over a third of participants while engaged in treatment, with change occurring for the greatest number of participants between 3 and 6 months.

Interestingly, when exploring the ratio of RCI improvements to deterioration, that is, the ratio of those experiencing a reduction in dependence to an increase in dependence, the ratio was roughly balanced at each time point. A closer visual inspection of individual change pattern demonstrates improvements were maintained for participant 25 from 3 to 12 months, and for participants 15 and 30 improvements were maintained between 6 and 12 months, where 12 months scores returned to baseline. Consistent with this pattern, participant 20 maintained improvements until 12 months where a deterioration past baseline was seen. For participants experiencing an increase in dependence (i.e., deterioration overall; participants 35 and 17), this was sustained over data collected. Participants 31, 23 and 40 who experienced increased dependence returned to baseline following RCI deterioration. This reflects patterns of change to a reliable level across dependence and over time, relative to the individual for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, this finding provides some support for Research Question 1 relating to the presence of change in the S of *situation* over time while engaged in outpatient group therapy programs. However, while the data obtained from RCI analysis of the SDS over time reflects individual and dynamic patterns of change, the data is inconclusive regarding the reduction in severity of dependence over time and alignment of change on the SDS with the STT.

Table 3

Reliable Changes in Severity of Dependence for primary substance used with baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline score	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	11	8	No		10	No		10	No		9	No	
15	6	4	No		1	Yes	IMP	1	Yes	IMP	3	No	
20	6	0	Yes	IMP	0	Yes	IMP	0	Yes	IMP	10	Yes	DET
25	13	10	No		9	Yes	IMP	9	Yes	IMP	9	Yes	IMP
26	11	10	No		14	No		14	No		14	No	
27	9	8	No		10	No		11	No		12	No	
30	15	13	No		9	Yes	IMP	10	Yes	IMP	13	No	
31	9	10	No		12	No		15	Yes	DET	12	No	
34	10	11	No		10	No		10	No		11	No	
35	8	15	Yes	DET	14	Yes	DET	14	Yes	DET	15	Yes	DET
43	12	12	No		15	No		10	No		15	No	
70	14	14	No		12	No		13	No		15	No	
6	9	8	No		10	No		7	No				
7	14	13	No		15	No		15	No				
13	12	12	No		11	No		11	No				
19	13	12	No		11	No		11	No				
23	7	7	No		13	Yes	DET	6	No				
2	8	8	No		7	No							
17	9	15	Yes	DET	15	Yes	DET						
21	15	15	No		15	No							
28	15	4	Yes	IMP	15	No							
40	4	13	Yes	DET	6	No							
68	3	4	No		6	No							
<i>M</i>	10.13	9.83			10.43			9.82			11.50		
<i>SD</i>	3.52	4.06			4.24			4.33			3.48		
%RCI IMP				9%					17%				
%RCI DET				13%					13%				
% RCI				22%					30%				

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Visual inspection of Table 3 outlining RCI for the recognition subscale of the SOCRATES-8 demonstrates reliable change occurs for over a third of participants (10 of 23; 43%) at any time compared to baseline. Of this, 17% of participants demonstrated an improvement in recognition scores compared to baseline (4 of 23), and 26% of all participants deteriorated in relation to their recognition scores compared to baseline at any given time point (6 of 23). This indicates change is occurring to a reliable level in symptoms of dependence over time for over a third of participants while engaged in treatment, with change occurring for the greatest number of participants between 3 and 6 months. This indicates change is occurring to a reliable level in recognition of problems with substance use, their assessment of the situation or circumstances and recognition of the impact of substance use while engaged in treatment, either in a positive or negative direction.

When considering direction of RCI change, visual inspection indicates that the proportion of participants who demonstrated a deterioration in recognition vs improvement in recognition of substance use difficulties varied over time, at 1 month and 12 months there was a higher proportion of deterioration, however at 3 and 6 months the balance of improvement from baseline was greater than deterioration. When inspecting Table 3 for individual patterns, there was no movement between improvement or deterioration for any one participant, those who demonstrated RCI improvements, sustained this though to 12 months or discharge, except for participant 20 who returned to baseline at 12 months from RCI improvement sustained from 3 to 6 months.

Similarly, for participants demonstrating RCI deterioration, deterioration was sustained consistently over time points, or to discharge from group or dropout of the study. Participant 17 was the exception here with a return to baseline at 3 months, Participant 7 also returned to baseline at 3 months, however deteriorated to a reliable level again at 6 months and sustained this at 12 months follow up. This reflects patterns of change to a reliable level

across SOCRATES-8 recognition and over time, relative to the individual, for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, provides some support for Research Question 1 relating to the presence of change in the S of *situation* over time while engaged in outpatient group therapy programs. However, while the data obtained from RCI analysis of the SOCRATES-8 recognition subscale over time reflects individual and dynamic patterns of change, the data is inconclusive regarding Hypothesis 1 and motivation for change as measured by the recognition subscale over time and alignment of change with the STT process of transition.

Table 4

Reliable Changes in SOCRATES-8 Recognition Subscale for primary substance used at baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline score	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction							
4	29	28	No		27	No		25	No		27	No								
15	32	20	Yes	DET	21	Yes	DET	23	Yes	DET										
20	23	27	No		31	Yes	IMP	32	Yes	IMP	20	No								
25	35	34	No		33	No		34	No		34	No								
26	34	34	No		35	No		34	No		35	No								
27	33	32	No		29	No		29	No		27	Yes	DET							
30	35	34	No		31	No		32	No		31	No								
31	21	22	No		25	No		32	Yes	IMP	35	Yes	IMP							
34	30	25	Yes	DET	28	No		28	No											
35	28	31	No		33	No		32	No		32	No								
43	35	34	No		35	No		31	No		32	No								
70	34	31	No		33	No		34	No		35	No								
6	23	35	Yes	IMP	35	Yes	IMP	32	Yes	IMP										
7	31	22	Yes	DET	31	No		23	Yes	DET	23	Yes	DET							
13	35	34	No		30	No		31	No											
19	35	35	No		32	No		31	No											
23	21	35	Yes	IMP	35	Yes	IMP	35	Yes	IMP										
2	29	28	No		29	No														
17	32	25	Yes	DET	28	No														
21	35	35	No		35	No														
28	35	30	Yes	DET	29	Yes	DET													
40	28	29	No		25	No														
68	33	29	No		30	No														
<i>M</i>	30.70	29.96			30.43			30.47			30.09									
<i>SD</i>	4.73	4.69			3.73			3.71			5.17									
%RCI IMP					9%				13%				24%				9%			
%RCI DET					22%				9%				12%				18%			
% RCI					30%				22%				35%				27%			

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Visual inspection of Table 4 outlining RCI for the ambivalence subscale of the SOCRATES-8 demonstrated minimal patterns of reliable change across participants with 7 of 23 (30%) participants demonstrating reliable change compared to baseline. Of this, 17% of participants demonstrated an improvement in ambivalence scores compared to baseline (4 of 23), and 13% of all participants deteriorated in relation to their ambivalence scores compared to baseline at any given time point (3 of 23). This indicates that for a third of participants, change is occurring to a reliable level in their sense of control over substance use, either in a positive or negative direction. When considering direction of RCI change, visual inspection indicates a balanced proportion of participants demonstrated deterioration vs improvement in their sense of control over their substance use over time. Changes in ambivalence scores were considered in line with recognition scores on Table 3 and recommendations by Miller and Tonigan (1996), however, no pattern was identified.

RCI data reflects change to a reliable level in participants' sense of control over use over time, relative to the individual, for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, this provides some support for Research Question 1 relating to change in the S of *situation* over time while engaged in outpatient group therapy programs. However, while data obtained from RCI analysis of the SOCRATES-8 ambivalence subscale reflects individual and dynamic patterns of change, the data is inconclusive regarding Hypothesis 1 and the increase in sense of control over change as measured by the ambivalence subscale over time and alignment of change with the STT process of transition.

Table 5

Reliable Changes in SOCRATES-8 Ambivalence Subscale for primary substance used at baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	17	15	No		15	No		15	No		15	No	
15	5	5	No		4	No		4	No				
20	4	4	No		8	No		14	Yes	IMP	9	No	
25	20	20	No		15	No		10	Yes	DET	7	Yes	DET
26	19	8	Yes	DET	9	Yes	DET	13	No		20	No	
27	14	12	No		15	No		14	No		13	No	
30	14	17	No		10	No		13	No		14	No	
31	10	10	No		12	No		16	No		20	Yes	IMP
34	15	15	No		16	No		11	No				
35	16	19	No		18	No		19	No		20	No	
43	18	19	No		20	No		15	No		15	No	
70	17	18	No		18	No		19	No		19	No	
6	15	16	No		16	No		13	No				
7	8	12	No		19	Yes	IMP	8	No		4	No	
13	19	16	No		10	Yes	DET	13	No				
19	18	17	No		16	No		19	No				
23	15	20	No		20	No		20	No				
2	12	13	No		14	No							
17	10	7	No		4	No							
21	17	18	No		12	No							
28	16	4	Yes	DET	8	No							
40	13	15	No		8	No							
68	7	9	No		8	No							
<i>M</i>	13.87	13.43			12.83			13.88			14.18		
<i>SD</i>	4.57	5.19			4.87			4.20			5.56		
%RCI IMP			0%				4%			6%			9%
%RCI DET			9%				9%			6%			9%
% RCI			9%				13%			12%			18%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Visual inspection of Table 5 outlining RCI for the taking steps subscale of the SOCRATES-8 demonstrates reliable change occurs for 8 of 23 participants (35%), or approximately a third of participants at any time while engaged with treatment. Of this, 17% of participants demonstrated an improvement in taking steps scores compared to baseline (4 of 23), and 17% of all participants deteriorated in relation to their taking steps scores compared to baseline at any given time point (4 of 23). This indicates change is occurring to a reliable level for a proportion of participants in changes being made either positively regarding substance use, or a reduction in changes or low to no changes being made in relation to substance use difficulties over time while engaged in outpatient group treatment.

When considering direction of RCI change, visual inspection indicates that the ratio of participants who demonstrated a deterioration vs improvement in actions made towards or away from management of substance use difficulties was roughly even across each time point. When inspecting Table 5 for individual patterns, except for participant 27, all those who demonstrated RCI deterioration in steps taken, returned to baseline at the following time point. Participant 27 maintained deterioration in steps taken from 3 months, through 6- and 12-month time points. Similarly, those who improved demonstrated a return to baseline at subsequent time points, apart from participant 35 who returned to baseline at 3 months after improvement at 1 month, and then maintained improvements at 6 and 12 month follow ups. This reflects patterns of change to a reliable level across the SOCRATES-8 taking steps subscale in participants' recovery-based actions over time, relative to the individual, for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, this provides partial support for Research Question 1 relating to the presence of change in the S of *situation* over time while engaged in outpatient group therapy programs. However, while the data obtained from RCI analysis of the SOCRATES-8 taking steps subscale reflects individual and dynamic patterns of change, the data is inconclusive regarding Hypothesis 1

and an increase in recovery related actions as measured by the taking steps subscale over time and alignment of change with the STT process of transition.

Table 6

Reliable Changes in SOCRATES-8 Taking Steps Subscale for primary substance used at baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline score	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	35	32	No		32	No		37	No		32	No	
15	40	38	No		40	No		40	No				
20	24	32	Yes	IMP	40	Yes	IMP	36	Yes	IMP	19	No	
25	40	40	No		38	No		37	No		38	No	
26	34	40	Yes	IMP	39	No		32	No		40	Yes	IMP
27	37	33	No		31	Yes	DET	31	Yes	DET	27	No	DET
30	39	40	No		39	No		39	No		35	No	
31	38	40	No		40	No		40	No		40	No	
34	40	40	No		39	No		38	No				
35	33	39	Yes	IMP	38	No		40	Yes	IMP	40	Yes	IMP
43	39	40	No		40	No		40	No		35	No	
70	37	40	No		34	No		32	Yes	DET	39	No	
6	40	40	No		40	No		38	No				
7	40	40	No		40	No		40	No		36	No	
13	40	37	No		35	No		39	No				
19	40	40	No		38	No		40	No				
23	40	40	No		40	No		40	No				
2	40	38	No		36	No							
17	37	29	Yes	DET	36	No							
21	26	28	No		40	Yes	IMP						
28	40	40	No		39	No							
40	37	29	Yes	DET	35	No							
68	34	29	Yes	DET	32	No							
<i>M</i>	36.96	36.70			37.43			37.59			34.64		
<i>SD</i>	4.41	4.53			2.95			3.10			6.55		
%RCI IMP				13%				9%				12%	18%
%RCI DET				13%				4%				12%	9%
% RCI				26%				13%				24%	27%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Hypothesis 2: Self

Group Level Change. The participants' scores on the Physical Health domain of the WHOQOL-Bref did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 2.88, p = .58$. Therefore, the results did not support the hypothesis that that ongoing engagement with an outpatient drug and alcohol group program over 12 months results in improved physical quality of life at a group level, hence the null hypothesis is retained.

The participants' scores on the Psychological Wellbeing domain of the WHOQOL-Bref did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 3.69, p = .45$. Therefore, the results did not support the hypothesis that that ongoing engagement with an outpatient drug and alcohol group program over 12 months results in improved psychological wellbeing and quality of life at a group level, hence the null hypothesis is retained.

The participants' scores on the Environmental domain of the WHOQOL-Bref did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 1.25, p = .87$. Therefore, the results did not support the hypothesis that that ongoing engagement with an outpatient drug and alcohol group program over 12 months results in improved environmental quality of life at a group level, hence the null hypothesis is retained.

The participants General Self Efficacy scores on the GSES did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 1.01, p = .91$. Therefore, the results did not support the hypothesis that that ongoing engagement with an outpatient drug and alcohol group program over 12 months results in improved general self-efficacy at a group level, hence the null hypothesis is retained.

The participants psychological distress scores on the K10 did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 3.59, p =$

.46. Therefore, the results did not support the hypothesis that that ongoing engagement with an outpatient drug and alcohol group program over 12 months results in reduced psychological distress at a group level, hence the null hypothesis is retained.

Individual Level Change. Reliable Change Indices for measures reflecting the S of self, including the WHOQOL-Bref domains of physical health, psychological health and environment, as well as the K10 and GSE are presented in Table 6, 7, 8, 9, and 10 respectively for participants who completed the questionnaires to 3 months and beyond.

Visual inspection of Table 6 outlining RCI for the physical domain of the WHOQOL-Bref demonstrates reliable change occurred most frequently at 3 months and 12 months compared to baseline. This may be related to a delayed onset of change in either direction. Reliable change occurred for 7 of 23 participants at any given time, or 31% of the study. Of this, 17% of participants demonstrated an improvement in physical QOL scores compared to baseline (4 of 23), and 13% of all participants deteriorated in relation to their physical QOL compared to baseline at any given time point (3 of 23). This indicates change is occurring to a reliable level in changes being made either positively or negatively in relation to physical health over time while engaged in outpatient group treatment.

When considering the direction of RCI change, visual inspection indicates that the ratio of participants who demonstrated a deterioration vs improvement in physical health quality of life measures made was roughly even across each time point, except for the 6-month mark where only improvements occurred. When inspecting Table 6 for individual patterns, no consistent patterns were identified, it was noted some participants maintained improvements (participant 26 and 7), and one improved and then returned to baseline at 6 months (participant 15). Regarding deterioration, movement between deterioration and baseline was noted as per participants 34 and 70. No clear pattern of change was noted across the participants.

RCI analysis reflects patterns of change to a reliable level across the WHOQOL-Bref physical health domain, relative to the individual, for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, this finding provides some support for Research Question 2 relating to the presence of change in the S of *self* over time while engaged in outpatient group therapy programs. While the data obtained from RCI analysis of the WHOQOL-Bref physical health domain over time reflects individual and dynamic patterns of change for a third of participants, the data is inconclusive regarding the hypothesis of improved physical health and quality of life over time at an individual level and is inconclusive regarding alignment of change with the STT process of transition.

Table 7

Reliable Changes in WHOQOL-Bref Physical domain scores at baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline score	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction				
4	63	56	No		69	No		63	No		56	No					
15	56	81	Yes	IMP	81	Yes	IMP	38	No								
20	63	69	No		56	No		69	No		50	No					
25	69	69	No		63	No		69	No		63	No					
26	44	50	No		31	No		69	Yes	IMP	69	Yes	IMP				
27	81	63	No		88	No		81	No		81	No					
30	69	69	No		63	No		69	No		75	No					
31	69	63	No		56	No		63	No		50	No					
34	56	50	No		31	Yes	DET	56	No								
35	38	50	No		56	No		56	No		56	No					
43	63	69	No		69	No		63	No		81	No					
70	81	56	Yes	DET	56	Yes	DET	69	No		56	Yes	DET				
6	81	69	No		69	No		63	No								
7	56	75	No		94	Yes	IMP	94	Yes	IMP	94	Yes	IMP				
13	75	75	No		81	No		81	No								
19	94	94	No		81	No		94	No		81	No					
23	88	81	No		69	No		81	No								
2	31	31	No		25	No											
17	75	69	No		81	No											
21	100	100	No		100	No											
28	81	81	No		88	No											
40	31	31	No		63	Yes	IMP										
68	75	81	No		44	Yes	DET										
<i>M</i>	66.91	66.61			65.83			69.29			67.67						
<i>SD</i>	18.61	17.17			20.10			13.97			14.57						
%RCI IMP				4%					13%					12%			17%
%RCI DET				4%					13%					0%			8%
% RCI				9%					26%					12%			25%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Visual inspection of Table 7 outlining RCI for the environmental domain of the WHOQOL-Bref demonstrates reliable change occurred relating to aspects of financial resources, safety, health, and social services, living environment, opportunities to acquire new skills and knowledge, recreation, general environment, and transportation. RCI frequency of change began to commence at the 3-month mark and increased in frequency across the 6- and 12-month marks. In total 11 participants out of 23 (48%) of participant experienced some reliable change across the time points in either a positive or negative direction. Of this, 22% of participants demonstrated an improvement in environmental QOL scores compared to baseline (5 of 23), and 26% of all participants deteriorated in relation to their environmental QOL scores compared to baseline at any given time point (6 of 23).

When considering direction of RCI change, visual inspection indicates that the ratio of participants who demonstrated a deterioration vs improvement in psychological wellbeing and quality of life was roughly even across each time point. It was noted that those who experienced an improvement in RCI sustained this improvement over time until cessation of study or discharge/dropout. In contrast three of the 5 participants who experienced a deterioration returned to baseline functioning in the environmental domain before cessation of the study, with 2 participants maintaining deteriorated RCI scores at 12 month follow up.

RCI analysis reflects patterns of change to a reliable level across the WHOQOL-Bref environmental domain, relative to the individual, for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, this finding provides some support for Research Question 2 relating to the presence of change in the S of *self* over time while engaged in outpatient group therapy programs. While the data obtained from RCI analysis of the WHOQOL-Bref environmental domain over time reflects individual and dynamic patterns of change for almost half of participants, the data is inconclusive regarding the hypothesis of improved environmental status over time and regarding alignment with the STT.

Table 8

Reliable Changes in WHOQOL-Bref Environmental domain scores at baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	63	56	No		69	No		63	No		56	No	
15	81	81	No		81	No		81	No				
20	69	63	No		75	No		69	No		50	Yes	DET
25	75	69	No		69	No		69	No		81	No	
26	69	75	No		63	No		69	No		69	No	
27	81	75	No		75	No		69	Yes	DET	75	No	
30	75	81	No		75	No		81	No		75	No	
31	69	56	No		56	No		69	No		69	No	
34	81	69	No		63	Yes	DET	88	No				
35	81	69	No		81	No		69	Yes	DET	69	Yes	DET
43	69	69	No		88	Yes	IMP	88	No	IMP	81	Yes	IMP
70	81	75	No		81	No		69	Yes	DET	75	No	
6	75	75	No		94	Yes	IMP	88	Yes	IMP			
7	88	94	No		100	No		94	No		100	Yes	IMP
13	69	69	No		75	No		81	Yes	IMP			
19	100	100	No		94	No		100	No		100	No	
23	81	69	No		63	Yes	DET	75	No				
2	44	50	No		56	No							
17	38	63	Yes	IMP	75	Yes	IMP						
21	100	100	No		100	No							
28	81	81	No		88	No							
40	75	69	No		63	No							
68	75	81	No		69	No							
<i>M</i>	74.78	73.43			76.22			77.76			75.00		
<i>SD</i>	14.02	12.77			13.13			10.80			14.82		
%RCI IMP				4%					13%				
%RCI DET				0%					9%				
% RCI				4%					22%				

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Visual inspection of Table 8 outlining RCI for the psychological wellbeing domain of the WHOQOL-Bref demonstrates reliable change occurred with minimal frequency until 12 month follow up where 31% of participants experienced reliable change in psychological quality of life in either a positive or negative direction. Change was noted for 8 out of 23 (35%) of participants at any one time point across the study, of this, 13% of participants demonstrated an improvement in psychological wellbeing QOL scores compared to baseline (3 of 23), and 22% of all participants deteriorated in relation to their psychological wellbeing QOL scores compared to baseline at any given time point (5 of 23). Change was sustained for only one participant (participant 7) prior to 12 months, with four participants experiencing their first reliable change at the 12-month mark while engaged in outpatient group treatment. When considering direction of RCI change, visual inspection indicates that the ratio of participants who demonstrated a deterioration vs improvement in psychological wellbeing and quality of life was roughly even across each time point. When inspecting Table 8 for individual patterns, no consistent patterns were seen.

RCI analysis reflects patterns of change to a reliable level across the WHOQOL-Bref psychological health domain, relative to the individual, for a proportion of participants. Hence, this provides some support for Research Question 2 relating to change in the S of *self* over time. While the data obtained from RCI analysis of the WHOQOL-Bref psychological domain over time reflects individual and dynamic patterns of change for a third of participants, the data are inconclusive regarding the hypothesis of improved psychological wellbeing and quality of life over time and inconclusive regarding alignment of change with the STT process.

Table 9

Reliable Changes in WHOQOL-Bref Psychological domain scores at baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline score	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	56	56	No		56	No		56	No		50	No	
15	94	94	No		94	No		75	No				
20	69	44	Yes	DET	69	No		69	No		50	No	
25	56	56	No		50	No		56	No		56	No	
26	44	44	No		25	No		56	No		69	Yes	IMP
27	69	69	No		75	No		69	No		63	No	
30	69	69	No		69	No		69	No		75	No	
31	56	50	No		31	No		44	No		50	No	
34	56	63	No		44	No		63	No			Yes	DET
35	81	63	No		69	No		63	No		56	Yes	DET
43	50	56	No		69	No		69	No		75	Yes	IMP
70	63	44	No		44	No		69	No		56	No	
6	75	75	No		81	No		69	No				
7	56	75	No		94	Yes	IMP	94	Yes	IMP	69	No	
13	56	56	No		69	No		69	No				
19	69	75	No		69	No		75	No		69	No	
23	69	56	No		31	Yes	DET	56	No				
2	25	25	No		31	No							
17	19	31	No		31	No							
21	94	94	No		94	No							
28	56	56	No		56	No							
40	50	31	No		44	No							
68	69	69	No		31	Yes	DET						
<i>M</i>	60.91	58.74			57.65			65.94			61.50		
<i>SD</i>	17.75	17.94			22.18			10.93			9.64		
%RCI IMP				0%					4%	6%	15%		
%RCI DET				4%					9%	0%	15%		
% RCI				4%					13%	6%	31%		

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Visual inspection of Table 9 outlining RCI for the K10 which reflects levels of psychological distress demonstrates reliable change occurred for 10 of the 23 participants, or 43% of total participant at some point in the study. Of this, 26% of participants demonstrated an improvement in K10 scores compared to baseline (6 of 23), and 17% of all participants deteriorated in relation to their K10 scores compared to baseline at any given time point (4 of 23). RCI first occurred mostly at the 3-month mark with 35% of participants experiencing reliable change in either direction. Two additional participants first experienced improvements in change at the 12-month mark (participants 20 and 19). To commence at the 3-month mark and continued to increase in frequency across the 6- and 12-month marks.

When considering the direction of RCI change, visual inspection of Table 9 indicates that the ratio of participants who demonstrated a deterioration vs improvement in psychological wellbeing and quality of life was roughly even across each time point apart from the 12-month mark where all change was improvement. It was noted that change in either direction was not consistently sustained, with most participants returning to baseline (i.e., no reliable change) at the next follow-up time points, with two exceptions, participants 13 and 17 who maintained deterioration RCI from 3 months to 6 months and 1 month to 3 months, respectively.

RCI analysis reflects patterns of change to a reliable level across the K10 relative to the individual, for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, this finding provides partial support for Research Question 2 relating to the presence of change in the S of *self* over time while engaged in outpatient group therapy programs. While the data obtained from RCI analysis of the K10 over time reflects individual and dynamic patterns of change for 43% of participants, the data are inconclusive regarding the hypothesis of psychological distress over time at an individual level and inconclusive regarding alignment of change with the STT process of transition.

Table 10*Reliable Changes in K10 psychological distress scores at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	33	32	No		33	No		39	No		35	No	
15	47	48	No		48	No		44	No				
20	40	34	No		44	No		44	No		30	Yes	IMP
25	45	44	No		43	No		42	No		42	No	
26	36	36	No		26	Yes	IMP	37	No		36	No	
27	38	40	No		36	No		44	No		44	No	
30	45	45	No		46	No		45	No		44	No	
31	35	33	No		35	No		33	No		42	No	
34	43	40	No		31	Yes	IMP	40	No				
35	35	41	No		48	Yes	DET	42	No		35	No	
43	36	39	No		43	No		36	No		39	No	
70	32	26	No		25	No		32	No		37	No	
6	40	45	No		46	No		37	No				
7	41	39	No		34	No		43	No		40	No	
13	29	34	No		39	Yes	DET	39	Yes	DET			
19	47	46	No		46	No		48	No		36	Yes	IMP
23	41	34	No		30	Yes	IMP	45	No				
2	24	26	No		28	No							
17	24	34	Yes	DET	43	Yes	DET						
21	44	45	No		46	No							
28	44	43	No		42	No							
40	24	28	No		39	Yes	DET						
68	45	39	No		33	Yes	IMP						
<i>M</i>	37.74	37.87			38.43			40.59			38.33		
<i>SD</i>	7.34	6.43			7.34			4.49			4.25		
%RCI IMP				0%					17%	0%	17%		
%RCI DET				4%					17%	6%	0%		
% RCI				4%					35%	6%	17%		

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Visual inspection of Table 10 outlining RCI for the GSE which reflects a general sense of perceived self-efficacy, or an optimistic self-belief in one's ability to cope with a variety of difficult demands in life. RCI of the GSE scale scores showed reliable change occurred for 7 of the 23 participants, or 30% of the total participants at some point in the study, and in either direction of change. Of this, 22% of participants demonstrated an improvement in GSE scores compared to baseline (5 of 23), and 8% of all participants deteriorated in relation to their GSE scores compared to baseline at any given time point (2 of 23). No clear pattern was identified with onset of reliable change across time, with minimal change at each individual time point, seen in 9%, 14%, 12% and 8% at each of the 1-month, 3-month, 6-month and 12-month marks, respectively.

When considering direction of RCI change, visual inspection of Table 10 indicates that the ratio of participants who demonstrated a deterioration vs improvement in psychological wellbeing and quality of life was roughly even across each time point apart from the 3-month mark where all change was improvement. It was noted that change in either direction was not consistently sustained by participants over time, with the exception of one participant (participant 20) returning to baseline (i.e., no reliable change) at the next follow up assessment. Participant 20 maintained deterioration in GSE scores from 6 to 12 months.

RCI analysis reflects patterns of change to a reliable level across the GSE, relative to the individual, for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, this provides some support for Research Question 2 relating to the presence of change in the S of *self* over time while engaged in outpatient group therapy programs. While the data obtained from RCI analysis of the GSE over time reflects individual and dynamic patterns of change for just under a third of participants, the data are inconclusive regarding the hypothesis of increased self-efficacy over time at an individual level and inconclusive regarding alignment of change with the STT process of transition.

Table 11*Reliable Changes in GSE scores at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction	
4	29	30	No		29	No		29	No		30	No		
15	37	38	No		39	No		38	No					
20	37	33	No		33	No		30	Yes	DET	30	Yes	DET	
25	30	32	No		33	No		32	No		33	No		
26	30	33	No		30	No		29	No		30	No		
27	31	30	No		28	No		37	No		29	No		
30	31	33	No		30	No		33	No		31	No		
31	30	23	Yes	DET	25	No		26	No		26	No		
34	21	24	No		20	No		26	No					
35	25	28	No		30	No		28	No		30	No		
43	27	29	No		29	No		28	No		31	No		
70	33	28	No		32	No		28	No		29	No		
6	29	31	No		36	Yes	IMP	35	No					
7	31	32	No		32	No		40	Yes	IMP	31	No		
13	27	26	No		27	No		24	No					
19	31	30	No		30	No		33	No		29	No		
23	23	26	No		30	Yes	IMP	26	No					
2	19	21	No		24	No								
17	21	25	No		28	Yes	IMP							
21	38	40	No		40	No								
28	34	35	No											
40	24	24	No		30	No								
68	29	38	Yes	IMP	30	No								
<i>M</i>	29.00	29.96			30.23			30.71			29.92			
<i>SD</i>	5.14	5.03			4.48			4.67			1.68			
%RCI IMP				4%					14%					0%
%RCI DET				4%					0%					8%
% RCI				9%					14%					8%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Hypothesis 3: Support

Group Level Change. The participants' scores on the social domain of the WHOQOL-Bref did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 3.15, p = .53$. Therefore, these results did not support the hypothesis that ongoing engagement with an outpatient drug and alcohol group program over 12 months results in improvements in perception of social supports on a group level.

Individual Level Change. Reliable Change Indices for measures reflecting the S of *support* were computed for the social domain of the WHOQOL-Bref and is resented in Table 11 for participants who completed the questionnaires to 3 months and beyond. The religion, emotional support, and instrumental support facets of the Brief COPE were also considered, representing reliable change in participant's use of key supports over time, with RCI data presented Appendix F.

Visual inspection of Table 11 outlining RCI for the social domain of the WHOQOL-Bref demonstrates reliable change occurred relating to perceptions of support and social connection. RCI frequency of change began to commence at the 3-month mark for most participants, with onset at 6 months for some and was largely sustained over time in either direction. In total, 9 participants out of 23 (39% of total participants) experienced reliable change across the time points in either direction. Of this, 26% of participants demonstrated an improvement in social QOL scores compared to baseline (6 of 23), and 13% of all participants deteriorated in relation to their social QOL scores compared to baseline at any given time point (3 of 23). When considering direction of RCI change, visual inspection of Table 11 indicates that roughly two thirds of the participants experienced improvements in the social domain, with only 3 of 9 participants who experienced reliable change in the social domain doing so in a negative way. It was noted that participants who experienced reliable change in

the social domain in either direction tended to sustain this over time or until cessation of study or discharge/dropout.

RCI analysis reflects patterns of change to a reliable level across the social domain of the WHOQOL-Bref, relative to the individual, for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, this finding provides some support for Research Question 3 relating to the presence of change in the S of *support* over time while engaged in outpatient group therapy programs. While the data obtained from RCI analysis of the social domain of the WHOQOL-Bref reflects individual and dynamic patterns of change for close to 40% of participants, the data are inconclusive regarding the hypothesis of increased *support* over time at an individual level and regarding alignment with the STT process.

Table 12*Reliable Changes in WHOQOL-Bref Social domain scores at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	50	50	No		31	No		44	No		44	No	
15	56	69	No		75	No		81	Yes	IMP			
20	56	19	Yes	DET	25	Yes	DET	56	No		50	No	
25	31	44	No		31	No		31	No		44	No	
26	31	50	No		44	No		44	No		31	No	
27	56	75	No		75	No		69	No		81	Yes	IMP
30	44	56	No		56	No		50	No		44	No	
31	56	56	No		56	No		44	No		56	No	
34	56	69	No		50	No		56	No				
35	44	50	No		81	Yes	IMP	75	Yes	IMP	69	Yes	IMP
43	31	44	No		56	Yes	IMP	69	Yes	IMP	44	No	
70	56	75	No		69	No		56	No		75	No	
6	75	75	No		94	No		94	Yes	IMP			
7	100	94	No		100	No		100	No		100	No	
13	69	69	No		69	No		75	No				
19	56	69	No		69	No		56	No		69	No	
23	50	44	No		25	Yes	DET	31	Yes	DET			
2	44	50	No		69	Yes	IMP						
17	6	0	No		25	No							
21	100	100	No		100	No							
28	69	75	No		75	No							
40	50	69	No		44	No							
68	56	75	No		25	Yes	DET						
<i>M</i>	54.00	59.87			58.43			60.65			58.92		
<i>SD</i>	20.66	22.12			24.29			20.02			19.99		
%RCI IMP				0%					13%	24%	17%		
%RCI DET				4%					13%	6%	0%		
% RCI				4%					26%	29%	17%		

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

To further understand and explore the use of *support*, RCI for the Brief COPE facets of use of emotional support, use of instrumental support and religion were considered. These are included in Appendix F. RCI for the emotional support facet of the Brief COPE which reflects that the use of emotional supports and seeking comfort or understanding from others was the most significant. This showed reliable change occurred for 17 of the 23 participants, or 74% of the total participants at some point in the study, in either direction of change, with 7 participants (30%) experiencing consistent or stable deterioration from baseline and 10 (43%) experiencing either isolated or sustained improvements, with only two participants returning to baseline following an improvement.

RCI for the instrumental support facet of the Brief COPE which reflects the use of supports and advice from others showed reliable change occurred for 9 of the 23 participants, or 39% of the total participants at some point in the study. The ratio of participants who demonstrated a deterioration vs improvement in use of instrumental supports was roughly even across each time point, with change in either direction not consistently sustained over time, with all participants either returning to baseline or only achieving reliable change at the last data collection point completed. RCI for the religion facet of the Brief COPE which reflects the use of emotional supports and seeking comfort or understanding from others showed reliable change occurred for 7 of the 23 participants, or 30% of the total participants at some point in the study. All participants who demonstrated reliable change in use of religion as a support improved in their use of this strategy. It was noted that change was consistently sustained by only one of the participants across time, with the remainder returning to baseline following improvements.

Hypothesis 4: Strategies

Group Level Change. The participants' scores on the problem-focussed coping domain of the Brief COPE did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 2.10, p = .72$. Therefore, the results did not support the hypothesis that that engagement with an outpatient drug and alcohol group program over 12 months results in improvements in the use of problem focused coping at a group level, hence the null hypothesis is retained.

The participants' scores on the emotion-focussed coping domain of the Brief COPE did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 7.81, p = .10$. Therefore, the results did not support the hypothesis that that ongoing engagement with an outpatient drug and alcohol group program over 12 months results in improvements in the use of emotion focused coping at a group level, hence the null hypothesis is retained.

The participants' scores on the avoidance coping domain of the Brief COPE did not significantly change over the 12 months of engagement with the outpatient group program, $\chi^2(4) = 2.05, p = .73$. Therefore, the results did not support the hypothesis that that ongoing engagement with an outpatient drug and alcohol group program over 12 months results in reduction in the use of avoidance based coping patterns at a group level, hence the null hypothesis is retained.

Individual Level Change. Reliable Change Indices for measures reflecting the S of *strategies* via the Brief COPE 3 factors of emotion-focused coping, problem-focused coping and avoidance are presented in Tables 12, 13 and 14 for participants who completed the questionnaires to 3 months and beyond.

Visual inspection of Table 12 outlining RCI for emotion-focused coping on the Brief COPE demonstrates reliable change occurred in use of emotion-focused coping strategies. For

those participants who experienced reliable change, onset commenced at the 3-month or 6-month mark and was largely sustained over time in either direction. In total 12 participants out of 23 (52% of total participants) experienced reliable change across the time points in either direction. Of this, 39% of participants demonstrated an improvement in emotion focussed coping compared to baseline (9 of 23), and 13% of all participants deteriorated in relation to emotion focussed coping compared to baseline at any given time point (3 of 23).

Of note, when considering direction of RCI, visual inspection of Table 12 indicates that three-quarters of participants who experienced change experienced this in a positive direction, that is increased use of emotion focussed coping strategies. Further, this change was largely sustained across time points for participants who experienced reliable change prior to cessation of study or completion of their research participation, with only two participants returning to baseline following an improvement in use of emotion-focused coping (participants 30 and 7).

Overall, RCI analysis reflects patterns of change to a reliable level across the emotion-focused coping on the Brief COPE, relative to the individual, for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, this result provides some support for Research Question 4 relating to the presence of change in the S of *strategies* over time while engaged in outpatient group therapy programs. While the data obtained from RCI analysis of the emotion-focused coping on the Brief COPE reflects individual and dynamic patterns of change for over half of participants, the data are inconclusive regarding the hypothesis of increased emotion focussed coping over time at an individual level and inconclusive regarding alignment of change with the STT process.

Table 13

Reliable Changes in 3 Factor Brief COPE scores for emotion-focused coping at baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	2.42	2.50	No		2.17	No		2.33	No		2.50	No	
15	2.67	2.50	No		2.50	No		2.42	No				
20	2.25	2.58	No		2.33	No		2.58	No		3.00	Yes	IMP
25	2.33	2.33	No		2.42	No		2.33	No		2.42	No	
26	2.75	3.08	No		2.75	No		2.50	No		2.83	No	
27	2.33	3.42	No		2.92	Yes	IMP	2.92	Yes	IMP	3.33	Yes	IMP
30	2.50	2.50	No		3.08	Yes	IMP	2.50	No		2.42	No	
31	1.75	1.83	No		1.67	No		1.83	No		1.75	No	
34	2.58	2.42	No		2.33	No		2.42	No				
35	1.58	2.17	No		3.92	Yes	IMP	3.42	Yes	IMP	3.33	Yes	IMP
43	2.75	2.75	No		2.50	No		2.08	Yes	DET	2.50	No	
70	2.08	2.50	No		2.50	No		2.67	Yes	IMP	2.83	Yes	IMP
6	2.00	2.00	No		2.00	No		2.25	No				
7	2.50	3.00	No		2.42	No		3.42	Yes	IMP	2.33	No	
13	1.67	1.67	No		1.83	No		2.42	Yes	IMP			
19	2.92	2.67	No		2.67	No		2.75	No		3.00	No	
23	2.58	2.33	No		2.92	No		1.92	Yes	DET			
2	2.42	2.42	No		2.42	No							
17	1.50	2.42	No		2.17	Yes	IMP						
21	2.50	2.50	No		3.17	Yes	IMP						
28	3.25	3.25	No										
40	2.67	1.83	No		2.08	Yes	DET						
68	2.50	2.17	No		2.33	No							
<i>M</i>	2.37	2.47			2.50			2.51			2.69		
<i>SD</i>	0.44	0.44			0.49			0.44			0.46		
%RCI IMP				0%				23%				29%	33%
%RCI DET				0%				5%				12%	0%
% RCI				0%				27%				41%	33%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Visual inspection of Table 13 outlining RCI for problem-focused coping on the Brief COPE demonstrates reliable change occurred relating to use of problem-focused coping strategies. For those participants who experienced reliable change, onset was staggered, with some commencing at 1 month and sustaining change, others commencing reliable change at 3 and 6 months respectively.

In total 9 participants out of 23 (39% of total participants) experienced reliable change across the time points in either a positive or negative direction. Of this, 30% of participants demonstrated an improvement in problem focused coping compared to baseline (7 of 23), and 9% of all participants deteriorated in relation to problem focused coping compared to baseline at any given time point (2 of 23). Majority of change in problem focussed coping was in a positive direction, reflecting an improvement in adaptive strategies used for approximately 80% of participants experiencing change, with only 2 out of 9 participants demonstrating a deterioration (participants 20 and 2) and participant 20 demonstrating a return to baseline by the 12-month mark. Both positive and negative change in coping was sustained across time points or before cessation of study or completion of research participation, with only two improving participants returning to baseline levels, participants 25 and 7.

Overall, RCI analysis reflects patterns of change to a reliable level across the problem-focused coping on the Brief COPE, relative to the individual, for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, this finding provides some support for Research Question 4 relating to the presence of change in the S of *strategies* over time. While the data obtained from RCI analysis of the problem-focused coping on the Brief COPE reflects individual and dynamic patterns of change for 39% of participants, the data are inconclusive regarding the hypothesis of increased problem-focused coping over time at an individual level and regarding alignment of change with the STT process.

Table 14

Reliable Change in 3 Factor Brief COPE scores for problem-focused coping at baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction	
4	2.75	2.75	No		2.88	No		3.25	No		2.50	No		
15	3.75	3.75	No		3.38	No		3.63	No					
20	3.38	2.75	No		2.63	Yes	DET	2.63	Yes	DET	3.00	No		
25	2.13	2.88	Yes	IMP	3.13	Yes	IMP	2.75	No		2.50	No		
26	2.88	2.88	No		3.13	No		2.75	No		3.13	No		
27	3.38	3.63	No		3.00	No		3.00	No		3.50	No		
30	3.00	2.75	No		3.63	No		3.25	No		2.88	No		
31	2.38	2.13	No		2.38	No		2.38	No		2.38	No		
34	2.75	3.00	No		2.63	No		2.63	No					
35	1.88	2.25	No		3.38	Yes	IMP	3.63	Yes	IMP	3.38	Yes	IMP	
43	2.75	2.63	No		2.63	No		2.38	No		2.88	No		
70	3.25	2.88	No		2.88	No		2.63	No		3.13	No		
6	2.25	3.25	Yes	IMP	3.13	Yes	IMP	3.25	Yes	IMP				
7	2.88	2.75	No		2.88	No		3.63	Yes	IMP	3.00	No		
13	1.50	1.50	No		2.00	No		3.25	Yes	IMP				
19	3.13	2.88	No		2.88	No		3.50	No		3.25	No		
23	3.50	3.00	No		3.13	No		3.13	No					
2	2.38	2.13	No		1.50	Yes	DET							
17	1.13	2.00	Yes	IMP	2.38	Yes	IMP							
21	2.88	2.88	No		3.25	No								
28	3.38	3.38	No											
40	3.00	3.00	No		3.75	Yes	IMP							
68	2.50	2.38	No		1.88	No								
<i>M</i>	2.73	2.76			2.84			3.04			2.96			
<i>SD</i>	0.65	0.52			0.56			0.43			0.35			
%RCI IMP				13%					23%					8%
%RCI DET				0%					9%					0%
% RCI				13%					32%					8%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Visual inspection of Table 14 outlining RCI for avoidance-based coping on the Brief COPE demonstrates reliable change occurred relating to use of maladaptive avoidance coping strategies. For those participants who experienced reliable change, onset occurred largely at either 1 or 3 months, with one participant at 12 months.

In total 8 participants out of 23 (35% of total participants) experienced reliable change across the time points, all of whom experienced change in a negative direction, demonstrating an increase in maladaptive or avoidant-based coping strategies. Visual inspection of Table 17 shows deterioration was largely sustained over time as seen in participants 27, 35, and 68. Some participants demonstrated reliable deterioration at the last data point collected (participants 20, 2 and 40. However, two participants (7 and 23) demonstrated a return to baseline coping by the following time point.

Overall, RCI analysis reflects patterns of change to a reliable level across the avoidant coping subscale on the Brief COPE, relative to the individual, for a proportion of participants engaged in outpatient substance use disorder group therapy. Hence, this result provides some support for Research Question 4 relating to the presence of change in the S of *strategies* over time while engaged in outpatient group therapy programs. While the data obtained from RCI analysis of avoidant coping on the Brief COPE reflects individual and dynamic patterns of change for over a third of participants, the data does not support the hypothesis of reduced avoidance-based coping over time at an individual level due to an increase in avoidant based coping for a third of participants. Further, data are inconclusive regarding alignment of change with the STT process of transition.

Table 15

Reliable Changes in 3 Factor Brief COPE scores for avoidance coping at baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	1.75	2.50	No		2.13	No		2.00	No		2.00	No	
15	1.63	1.63	No		1.50	No		1.25	No				
20	1.25	1.88	No		1.63	No		1.75	No		3.00	Yes	DET
25	1.63	1.50	No		1.50	No		1.63	No		1.63	No	
26	1.50	1.25	No		1.75	No		1.38	No		1.50	No	
27	1.88	3.13	Yes	DET	3.00	Yes	DET	2.75	Yes	DET	3.63	Yes	DET
30	1.50	1.63	No		1.25	No		1.38	No		1.25	No	
31	2.13	1.88	No		1.50	No		1.88	No		1.50	No	
34	1.75	1.63	No		1.63	No		1.63	No				
35	1.75	2.75	Yes	DET	3.13	Yes	DET	3.38	Yes	DET	3.63	Yes	DET
43	1.50	1.63	No		1.50	No		1.63	No		1.63	No	
70	1.63	1.50	No		1.88	No		1.63	No		1.63	No	
6	1.50	1.38	No		1.13	No		1.25	No				
7	1.38	2.50	Yes	DET	1.63	No		2.13	No		1.38	No	
13	1.25	1.50	No		1.25	No		1.50	No				
19	1.00	1.13	No		1.25	No		1.13	No		1.50	No	
23	2.50	2.63	No		3.38	Yes	DET	2.13	No				
2	1.88	2.50	No		3.25	Yes	DET						
17	2.00	1.63	No		1.50	No							
21	1.25	1.13	No		2.00	No							
28	1.63	1.63	No										
40	1.63	2.25	No		3.13	Yes	DET						
68	1.63	2.75	Yes	DET	2.63	Yes	DET						
<i>M</i>	1.63	1.91			1.98			1.79			2.02		
<i>SD</i>	0.32	0.58			0.74			0.57			0.87		
%RCI IMP				0%			0%			0%			0%
%RCI DET				17%			27%			12%			25%
% RCI				17%			27%			12%			25%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorated

Hypothesis 5

Research Question 5 asked if SUD outpatient groups facilitate movement towards recovery defined by Witkiewitz et al. (2019) as an ongoing and dynamic process of behaviour change characterised by relatively stable improvements in biopsychosocial functioning, as well as increases in wellbeing and purpose in life on a group and individual level with hypothesis 5 considering that engagement in group therapy following acute treatment, can lead to behaviour change and improvement in biopsychosocial functioning and recovery. Hypothesis 5 stated that SUD outpatient groups would facilitate movement towards recovery through relatively stable improvements in biopsychosocial functioning across time points on group and individual levels.

On a group level, visual inspection of mean changes and statistical analysis of Friedman's ANOVA as presented in descriptive interpretation and discussion of the four prior hypotheses did not support the hypothesis of group-level change or improvements in biopsychosocial functioning over time with engagement with outpatient groups. With individual-level analysis, RCI data for each measure did not conclusively indicate improvement in functioning for all participants on an individual level as predicted by Hypothesis 5. However, the presence of reliable change, coupled with the inconsistency in direction of reliable change observed and variation in length of time change was sustained for any given measure, highlighted the individual, ongoing, dynamic, and complex patterns of change for any individual in recovery. This aligned with the definition of recovery by Witkiwitz (2020) rather than a conceptualisation of recovery as a constant linear process, and which offered partial support to Hypothesis 5. Further, RCI was largely sustained or followed by a return to baseline indicating an individually relative and stable pattern of recovery (Witkiwitz, 2020), hence supporting hypothesis 5 at an individual level. Hence, based on contrasting support for Hypothesis 5 by group and individual data, testing of this hypothesis is

inconclusive, and further exploration of the individual experience of recovery across the recovery is required.

Discussion

Study 1 aimed to apply STT to SUD outpatient group therapy as a conceptual framework for change and to extend upon existing SUD and STT literature by utilising quantitative methods to test participants' outcomes and recovery experience with STT. This discussion will focus on the interpretation of findings concerning the overarching Research Question of 'do group participants' experiences of movement towards recovery align with or reflect STT?'. This overarching question was addressed by five Research Questions and related hypotheses.

Research Question 1: Situation

Research Question 1 asked if SUD outpatient group therapy programs facilitate change in perception of *situation* to assist with the transition to recovery aligned with STT on a group and individual level over time. This change was measured via measures of substance dependence (SDS; Gossop et al., 1995), and readiness for change (SOCRATES-8; Miller & Tonigan, 1996). The related hypotheses indicated an expected improvement across all measures with engagement in recovery on a group and individual level for *situation* measures. Each hypothesis will be discussed in turn.

Related Hypotheses

Hypothesis 1a - Over Time a Reduction in Severity of Dependence and an Increase in Recognition and Reduction in Ambivalence Reflecting Motivation was Hypothesised on a Group Level with Transition Towards Recovery. It was hypothesised That improvements in levels of dependence, recognition, reduction in ambivalence and increase in recovery-related actions would occur for group participants over time. Results on a group level did not support this hypothesis with no significant difference found between time

points for the SDS or three SOCRATES-8 subscales encompassing recognition of the impact of substance use, ambivalence towards use, and sense of control or action taken concerning substance use difficulties. This finding is in contrast with the literature suggesting that recovery processes are reflected in increased sense of control and reduced dependence processes (Gossop et al., 1995; Gossop et al., 2002; Gossop et al., 2007) as well as increases in motivation for change and increased recovery based outcomes (Henderson et al., 2004; Isenhardt & Van Kreveken, 1998; Miller & Tonigan, 1996; Zhang et al., 2006). The lack of support for this hypothesis may reflect a lack of improvements across the group, potentially due to limited treatment efficacy or issues with treatment fit (McLellan, McKay, Forman, Cacciola & Kemp, 2005). Alternatively, the results may represent chronicity of presentation within the group (Lo Coco et al., 2019), issues with lapse or relapse (McLellan, McKay, Forman, Cacciola & Kemp, 2005), or may be due to the presence of psychiatric comorbidities for participants which increases the complexity, reduces outcomes, and prolongs the course of SUDs, reducing efficacy and outcome of treatment (McLellan, McKay, Forman, Cacciola & Kemp, 2005). Additionally, the lack of significant results may reflect challenges in data collection, sample size, and power (Weiss et al., 2004), or reflect the complex, dynamic and individually relative process of recovery (Witkiewitz et al., 2019), which is not represented by group level statistical analysis (Blampied, 2016; Zheng et al., 2015).

Hypothesis 1b - Over Time a Reduction in Severity of Dependence and an Increase in Recognition and Reduction in Ambivalence Reflecting Motivation was Hypothesised on an Individual Level with Transition Towards Recovery. On an individual level, that is when exploring individual reliable change for each measure across time, the results regarding this hypothesis were inconclusive. On the measure of dependence (SDS), almost half (43%) of participants made reliable changes, with 22% of participants demonstrating an improvement in SDS scores and a movement towards recovery. In addition

to those experiencing RCI improvements on SDS scores, several participants' SDS scores increased from baseline. That is, dependence severity increased, then returned to baseline levels, representing a relative improvement in dependence from deterioration, rather than sustained deterioration. These relative improvements and overall improvements in SDS scores were in line with Lawrinson et al. (2003) who found significant improvements at 3, 6 and 12-month follow-ups on SDS scores with SUD treatment. Further, positive change in SDS scores reflects movement towards recovery (González-Sáiz et al., 2009; Gossop et al., 2002; Kaye & Darke, 2002; Lawrinson et al., 2003).

Conversely, almost a third (26%) of total participants experienced a deterioration on the SDS, that is an increase in their levels of dependence. For those individuals experiencing deterioration in scores, this change may be related to movement away from recovery or may reflect greater stress experienced overall by the individual (Wand, 2008). Further, the individually relative change in severity of dependence and hence experience of recovery is consistent with definitions of recovery by Witkiewitz et al. (2019), as well as conceptualisations of SUDs as chronic or long-term (Lo Coco et al., 2019). This may represent an alignment with balance of assets across the S of *situation* in STT (Anderson, Goodman & Schlossberg, 2022; Evans, Forney & Guido, 1998; Schlossberg, 2011), however, this could not be conclusively determined by Study 1 data.

On measures relating to motivation for change (SOCRATES-8), reliable change in scores on the domain of recognition occurred for almost half of participants (43%) in either direction demonstrating relative changes at an individual level over time on recognition scores. Almost one third (26%) of participants demonstrated a deterioration on the recognition subscale of the SOCRATES-8 and 17% of participants demonstrated an improvement. Patterns of change on recognition varied across time with a higher likelihood of improvements between 3 and 6 months and an increased likelihood of deterioration in

recognition levels at the 12-month mark. This pattern may be due to a decline in recovery-related actions, or recovery fatigue along a person's time engaged with treatment (McLellan, Lewis, O'Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005) at the later data collection points. Both deteriorations and improvements in recognition scores on the SOCRATES-8 were sustained over time, reflecting sustained change on an individual level over time compared to baseline functioning rather than a variance in change and experience across an individual's recovery journey.

SOCRATES-8 domains of ambivalence and taking steps followed a similar pattern with a balance of participants experiencing improvements vs deterioration. A smaller proportion of participants experienced change for these two domains, with just under a third (30%) in either direction for ambivalence and 35% for taking steps measures. A total of 17% of participants increased in taking steps scores and 17% deteriorated. On measures of ambivalence, 13% of participants demonstrated a deterioration, with this more likely to be sustained over time and across time points. Conversely, 17% of participants demonstrated improvements in ambivalence scores, with any change in ambivalence more likely to return to baseline than be sustained over time points. The increased likelihood of sustained deterioration and relative increase in ambivalence when returning to baseline from a reliable improvement in scores may be related to the individual's experience in recovery and other external factors at play in their experience of recovery moment to moment representing a potential relapse or movement away from active treatment and commitment to recovery (Grella et al., 2003; McLellan, Lewis, O'Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005). This finding may highlight the need of the individual to re-develop and sustain perspective on use and active implementation of change actions (Orford et al., 2006). Sustained change vs return to baseline was variable between individuals on the taking steps measure related to the recovery actions implemented over time with no clear pattern

identified, potentially reflecting the individual needs (Vanderplasschen & Best, 2021) and commitment to recovery-related actions, movement away or towards commitment to recovery (McLellan, McKay, Forman, Cacciola & Kemp, 2005) and natural ebbs and flows of treatment engagement (Grella et al., 2003; McLellan, Lewis, O'Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005).

While not specifically supporting the hypothesised individual improvements across all measures related to *situation*, these results offer insight into the occurrence of individually relative changes by participants in recovery over time which may assist (via improvements in measures) or hinder (via deteriorations) a person's experience of transition to recovery. In this sense the results partially support the Research Question and may align with STT processes, however, this cannot be conclusively determined from the current data.

Research Question 2: Self

Research Question 2 asked if SUD outpatient group therapy programs facilitate change in the domain of *self* to assist with the process of transition from SUD to recovery as aligned with STT via measures of quality of life via the psychological, physical and environmental domains of the WHO-QOL BREF (The WHOQOL Group, 1998; World Health Organization, 1996), self-efficacy via the GSE (Schwarzer & Jerusalem, 2010) and psychological wellbeing via the K10 (Andrews & Slade, 2001). The related hypotheses indicated an expected improvement on a group and individual level for measures relating to the S of *self*.

Related Hypotheses

Hypothesis 2a - It was Hypothesised that Over Time an Improvement in WHO-QOL BREF Psychological, Physical and Environmental Domains, Increase in Self-Efficacy (GSE) and an Improvement in Psychological Wellbeing (K10) Would be Seen at a Group Level. A Potential Deterioration Across These Measures May Occur Initially, with Small and Gradual Improvements Seen from 6- and 12-Months. It was hypothesised that improvement would occur across all measures with ongoing engagement with the outpatient group program and hence recovery at a group level over time, however, group level data analysis did not support this. It was expected that improvement in outcome may be delayed for 6- to 12-months, with potential deterioration in psychological wellbeing from baseline to 6-months (Kelly et al., 2018), however, no significant pattern of change was seen over time at a group level across any of the WHOQOL-Bref domains of psychological QOL, Environmental QOL or Physical health. Nor was change seen across measures of general self-efficacy or psychological wellbeing.

The lack of significant data to support the hypothesis is inconsistent with literature reflecting improvements in domains of physical, personal and psychological wellbeing with sustained recovery or engagement with treatment (Brown et al., 2002; Cloud & Granfield, 2008; Dekkers et al., 2020; Duffy & Baldwin, 2013; Sacks, Banks, et al., 2008; Sacks, McKendrick, et al., 2008; Timpson et al., 2016; Witkiewitz et al., 2020). However, is not inconsistent with literature suggesting that poor QOL can inhibit the recovery process (Witkiewitz et al., 2020) and physical health concerns can hinder outcomes in recovery (Timpson et al., 2016). Hence, findings may be related to variable experiences of the individuals within the group program leading to lack of significant group level change reflecting the nuanced, complex, dynamic and individually relative process of recovery (Witkiewitz et al., 2019), which is not easily represented by group level statistical analysis

(Blampied, 2016; Zheng et al., 2015), particularly with a small sample. Additionally, the lack of support for the hypothesis may relate to the study's small sample size, limited power, and methodological challenges (Weiss et al., 2004).

Hypothesis 2b - It was Hypothesised that Over Time an Improvement in WHO-QOL BREF Psychological, Physical and Environmental Domains, Increase in Self-Efficacy (GSE) and an Improvement in Psychological Wellbeing (K10) Would be Seen at an Individual Level. A Potential Deterioration Across These Measures May Occur Initially, with Small and Gradual Improvements Seen from 6- and 12-Months The results were inconclusive when exploring change across measures relating to *self* on an individual level via RCI. While they did not provide clear support for the hypothesis of improvements on all measures from the 6- to 12-month mark, the RCI data indicated that reliable change did occur for a proportion of participants on each of the measures relating to *self* over time in both positive and negative directions. Overall, on measures of *self* generally, between 30% (GSE) to 48% (WHOQOL-Bref Environmental) of participants demonstrated reliable change across the study at any given time point. On measures relating to the personal and demographic aspects of *self* (WHOQOL-Bref physical and environmental domains), the balance of participants who demonstrated improvements to deterioration was approximately even across participants. 17% of participants demonstrated improvements on the physical QOL domain and 22% on the environmental QOL domain. On both measures, improvements were sustained over time to the cessation of research participation. Conversely, 13% of participants demonstrated a deterioration on the physical QOL domain and 26% deteriorated on the environmental QOL domain. Regarding deterioration on both of these measures, any reliable deterioration was more likely to return to baseline level of functioning at subsequent time points rather than being sustained over time. No pattern was seen in initial deterioration or delayed improvement as hypothesised.

These findings on the personal and demographic aspects of *self* via the physical and environmental domains of the WHOQOL-Bref is suggestive of relative individual improvements in these areas of functioning rather than sustained deterioration in resources over time, suggesting that improvements occur in these areas overall, consistent with recovery literature (Timpson et al., 2016; Tucker et al., 2020; Witkiewitz et al., 2019; Witkiewitz & Tucker, 2020). The fluctuation in change in these measures may be reflective of the multiple physical, medical and psychosocial comorbidities experienced by people with SUDs (Mumba & Mugoya, 2022; Timpson et al., 2016), or may be reflective of a balance of assets and liabilities across the STT. Overall, the data is inconclusive and further research is needed.

On measures of psychological resources, a similar pattern is seen with a proportion of participants experiencing reliable change in either direction over time on all measures, including the WHOQOL-Bref Psychological health, where 35% of participants experienced reliable change, K10 (43%), and GSE (30%). Improvements in scores were seen on each of these measures for 13%, 26% and 22% of participants on the WHOQOL-Bref psychological domain, K10 and GSE respectively. Improvements were largely sustained to end of research participation or over time with a return to baseline. Deterioration was seen on these three measures for 22%, 17% and 8% of all participants at any given time. Participants experiencing deterioration either maintained this change or returned to baseline.

Interestingly, there was no movement beyond baseline in the opposite direction on any of the three measures of psychological *self* (i.e., no participant both improved and deteriorated to a reliable level at any time on the study), suggesting change was relatively stable and relative to the individual, consistent with literature relating to individual processes of recovery (Kelly et al., 2018; Kelly et al., 2019; Witkiewitz et al., 2019).

Time for onset of change varied between the psychological domain, K10 and GSE, with the K10 and GSE both having the most participants experiencing reliable change onset at

the 3-month mark in either direction of improvement or deterioration. Deterioration at this time point is consistent with literature (Kelly et al., 2018; Kelly et al., 2019), however improvements in GSE and psychological wellbeing (K10) were not expected until later time points. The onset of change in the WHOQOL-Bref psychological health domain was skewed later, with the majority occurring at 12-months. This change may relate to a pattern of exacerbation of symptoms before improvement consistent with Kelly and colleague's (2018) findings relating to change in psychological wellbeing initially worsening before improving after 6 to 12 months. However, the results do not reflect improved mental health because of treatment, in contrast to previous literature and hypotheses held (Dekkers et al., 2020; Duffy & Baldwin, 2013; Sacks, Banks, et al., 2008; Sacks, McKendrick, et al., 2008; Witkiewitz et al., 2020). This result may relate to the treatment itself, the acuity of the presentation for participants seeking private hospital psychiatric care and potential exacerbation of mental and other psychological difficulties in the context of reduction of use (Duffy & Baldwin, 2013). Further, these results are only partially consistent with recognised patterns of improvements in self-efficacy (Brown et al., 2002) at 6 and 12-month follow-up (McKay et al., 1993).

While not specifically supporting hypothesised individual improvements across all measures related to both physical and demographic and psychological resources under the S of *self*, these results offer insight into the occurrence of individually relative changes in *self* by participants in recovery over time which may assist or hinder a person's experience of recovery. In this sense the results partially support the Research Question of change occurring across the S of *self* in recovery and may align with STT, however, this cannot be concluded from data available.

Research Question 3: Support

Research Question 3 asked if SUD outpatient group therapy programs facilitate change in participants' *support* to assist with the process of transition from SUD to recovery

as aligned with STT via change in social supports as measured by the social domain of the WHO-QOL BREF (The WHOQOL Group, 1998; World Health Organization, 1996). The related hypotheses indicated an expected improvement for measures relating to *support*. Each hypothesis will be discussed in turn.

Related Hypotheses

Hypothesis 3a - An Increase in QOL Scores on the WHOQOL-Bref Social Domain was Hypothesised Over Time at a Group Level, with Social Support Increasing Sooner than Other Domains of QOL. It was hypothesised that improvements would be evident in the domain of social *supports* for the group participants over time. Group level statistical analysis did not support this hypothesis with no significant difference from baseline to follow up time points found on the WHOQOL-Bref social domain measure. Further, it was expected that this would occur sooner than other domains, however, this was not supported by data. The lack of support for Hypothesis 3 at a group level may reflect methodological issues in small sample size and limited power (Weiss et al., 2004), mixed experiences in *supports* for the group participants overall at an individual level with social supports understood to offer both strong protective factors and challenges in recovery (Duffy & Baldwin, 2013; Strawbridge, 2007). Alternatively they may represent a deterioration in wellbeing (Witkiewitz et al., 2020), predict poorer outcomes (Muller et al., 2019) or be reflective of strained or challenged social relationships (Duffy & Baldwin, 2013). A lack of development of support through recovery and the change process which is of concern when considering social supports in recovery are critical for ongoing recovery (Duffy & Baldwin, 2013; Vigdal et al., 2022) for a multitude of reasons including opening an arena for self-exploration and positive self-change, and is unsurprisingly a crucial variable in treatment and recovery (Muller et al., 2019).

Hypothesis 3b – An Increase in QOL Scores on the WHOQOL-Bref Social Domain was Hypothesised Over Time at an Individual Level with Some Variance Between Individuals. It was Hypothesised that Social Supports may Increase Sooner than Other Domains of QOL. On an individual level, that is when exploring individual Reliable change for each measure across time, the results regarding this hypothesis were inconclusive. On the social domain of the WHOQOL-Bref, 39% of participants made reliable changes in either direction at some point during the study. In total, 26% of participants made reliable change in the positive direction, reflecting improvements in social supports, and with improvements sustained across time points. Most of the onset of RCI occurred at the 3- and 6-month time points rather than earlier, as anticipated based on literature on the role of social support in sustaining recovery (Duffy & Baldwin, 2013).

Overall improvements in social support are consistent with literature reflecting improved social support on the WHOQOL-Bref through recovery for alcoholics (Witkiewitz et al., 2020) and other substance use populations (Kelly et al., 2018; Muller et al., 2019; Patra et al., 2015). While the origins of this change cannot be determined from the current data, based on existing literature this may be reflective of recovery as beneficial in the repair and rebuilding of relationships (Duffy & Baldwin, 2013; Strawbridge, 2007), may reflect social community, peer support or AA relationships (Groh et al., 2008; Wnuk, 2022), or the reinforcing aspect and support of groups (Best & Hennessy, 2022). A total of 13% of participants demonstrated a deterioration of scores in the social domain of the WHOQOL-Bref. For those participants who experienced a deterioration of *support*, this may be in line with negative social capital (Patton et al., 2022; Pomrenze et al., 2022), conflict of challenges in relationships (Vigdal et al., 2022) or presence of stigma leading to disadvantage or exclusion (Best et al., 2016).

Data relating to the use of specific social supports via the 3 of the 14 Brief-COPE facets was considered (Appendix F), notably 74% of participants experienced RCI for the use of emotional supports, 39% of participants experienced RCI for the use of instrumental supports and 30% experienced RCI for use of religion as a coping strategy. This highlights that change occurs in an individual's pattern of use of supports for coping through engagement with SUD outpatient group therapy and with recovery over time. This change is consistent with the recovery capital model (Patton et al., 2022; Pomrenze et al., 2022), and the understanding of social supports as crucial factors involved in change and recovery processes (Duffy & Baldwin, 2013; Groh et al., 2008; Roche et al., 2019; Vigdal et al., 2022; Wnuk, 2022).

While not specifically supporting the hypothesised individual improvements for *supports*, the individual RCI data results offer insight into the occurrence of individually relative changes by participants in recovery over time which may assist or hinder a person's experience of transition to recovery. In this sense the results partially support Research Question 3 and may align with STT processes, however, this cannot be conclusively determined, and further research is needed.

Research Question 4: Strategies

The fourth Research Question in Study 1 asked if SUD outpatient group therapy programs facilitate change in the use of coping strategies to assist with transitioning from SUD to recovery as aligned with STT and measured via the Brief COPE inventory (Brief COPE; Carver, 1997). The related hypotheses indicated an expected improvement in adaptive coping and a reduction in maladaptive coping with ongoing engagement in recovery. Each hypothesis will be discussed in turn.

Related Hypotheses

Hypothesis 4a - It was Hypothesised that an Increase in Adaptive Coping Would Occur Over Time at a Group Level Through Engagement with the Outpatient Group Program However, Unlikely that Cessation of All Maladaptive Coping Patterns Would Occur. It was hypothesised that improvement would occur across all measures of coping reflecting recovery on a group level over time. That is, an increase in adaptive problem-focused and emotion-focused coping and reduction in maladaptive avoidance coping was hypothesised with engagement with outpatient group therapy. Data analysis was not significant, hence group-level analysis did not support this hypothesis.

The lack of significant data to support or reject the hypothesis is inconsistent with literature reflecting coping changes as a result of substance use disorder treatment as a core component of change in SUD recovery (Kuper et al., 2010; Marlatt et al., 2007; Ouimette et al., 1997). It is further inconsistent with findings of coping changes with increased adaptive coping alongside SUD treatment (Shadowen et al., 2022; Valtonen et al., 2006; Weaver et al., 2000), inpatient admissions (Martindale et al., 2013) and 12 step programs (Moos, 2008; Moos et al., 1990; Wnuk, 2022). The literature indicate that increases in adaptive coping were more substantial recovering from inpatient admission to inpatient discharge (Martindale et al., 2013). These gains were sustained when subsequently admitted to the outpatient group. Non-significant findings like these tend to reflect a continuation of changes made as a result of inpatient stays, however, this was unable to be determined from data and further research considering change across inpatient admission and sustained change following discharge to outpatient aftercare is needed. The lack of significant findings may further be related to variable experiences of the individuals within the group program. These varied and variable experiences may leading to a lack of significant group-level change reflecting the nuanced, complex, dynamic and individually relative process of recovery (Witkiewitz et al., 2019),

which is not easily represented by group-level statistical analysis (Blampied, 2016; Zheng et al., 2015), particularly with a small sample size. Additionally, the lack of support for the hypothesis may relate to limited power, and methodological challenges in assessing group level change in open enrolment group programs (Weiss et al., 2004).

Hypothesis 4b - It was Hypothesised that an Increase in Adaptive Coping Would Occur Over Time at an Individual Level Through Engagement with the Outpatient Group Program However, Unlikely that Cessation of All Maladaptive Coping Patterns Would Occur. On an individual level, that is when exploring individual RCI for domains of Coping over time, the results regarding this hypothesis were inconclusive. Overall, reliable change in either direction was seen in 52% of participants on the emotion-focused domain, 39% on the problem-focused domain, and 35% on the avoidance domain. For both emotion-focused and problem-focused coping, the adaptive coping domains, change occurred in a positive direction, reflecting increased use of coping strategies for the majority of participants. Improvements were seen in 39% and 30% of all participants for emotion-focussed and problem-focussed domains respectively. Further, participants who experienced RCI in these domains largely sustained their improvements over time. This finding indicates that for participants experiencing change in coping, adaptive coping increased at an individually relative level, consistent with boarder literature identifying increase in adaptive coping with treatment engagement (Shadowen et al., 2022; Valtonen et al., 2006; Weaver et al., 2000), and improving beyond that gained by inpatient stays (Martindale et al., 2013). It is further consistent with the adaptation and change in coping strategies across the recovery journey (Madden et al., 1995; Martindale et al., 2013; Moos et al., 1990), seen in onset of reliable change occurring in adaptive coping at the 3 and 6 months.

Two participants experienced a reliable change in a negative direction on the emotion-focused domain (9%), and two on the problem-focused domain (9%). Interestingly, these 4

participants demonstrated an increase in use of avoidance coping over time, consistent with literature relating to risks and patterns of adaptive and maladaptive coping in recovery (Spangenberg & Campbell, 1999; Weaver et al., 2000) and ongoing use of maladaptive coping beyond recovery and treatment (Weaver et al., 2000). Overall, the use of avoidance coping increased for all participants who experienced reliable change from baseline with majority of onset of change occurring at 1 or 3 months and sustained over time. This change was represented by increased use in avoidance coping by 35% of participants across all time points. This may represent change from baseline after discharge from inpatient unit to admission to the outpatient group (Martindale et al., 2013). Patterns of avoidance are challenged in an inpatient setting with direct focus on SUD patterns, hence avoidance may be more possible upon discharge (Martindale et al., 2013; Spangenberg & Campbell, 1999; Weaver et al., 2000). In addition to this, this increase in avoidance may relate to the use of cognitive efforts to disengage with the stressor, in this case with substance use. This may relate overall to integrated strategies in recovery for managing and avoiding high risk situations or in participants finding a way to distance from the challenges over time (NovoPsych, 2021). The domain of avoidance on the Brief-COPE includes the facets of self-distraction, denial, substance use, and behavioural disengagement. The patterns of increased avoidance may relate to either an increase in use of denial or substance use, or may also reflect strategies of coping relating to distraction and disengaging in recovery (NovoPsych, 2021).

The results relating to Research Question 4 and Hypotheses 4a and 4b do not specifically support hypothesised individual improvements across in adaptive coping and maladaptive coping under the S of *strategies*. However, these results do offer insight into the occurrence of individually relative changes in *strategies* by participants in recovery over time which may assist or hinder a person's experience of recovery over time. Thus, the results

partially support Research Question 4 of change occurring across the S of *strategies*.

Suggesting a possible alignment with STT, however, this cannot be concluded from data available, and more research is required.

Research Question 5: Recovery Process

Research Question 5 asked if SUD outpatient groups facilitate the movement towards recovery as defined by Witkiewitz et al. (2019) as an ongoing and dynamic process of behaviour change characterised by relatively stable improvements in biopsychosocial functioning and increases in wellbeing and purpose in life. The related hypothesis specified relatively stable improvements in biopsychosocial functioning with engagement in SUD group programs, this will be discussed in turn.

Related Hypothesis

Hypothesis 5 - It was Hypothesised that SUD Outpatient Groups Would Facilitate Movement Towards Recovery Through Relatively Stable Improvements in Biopsychosocial Functioning Across Time Points on a Group and Individual Level.

Overall, the hypothesis of relatively stable improvements in measures of biopsychosocial functioning at a group level was not supported, with analysis finding no significant difference in participants' results between time points. This result may have been related to a lack of change experienced by the participants due to limited efficacy of treatment or issues with treatment fit (McLellan, McKay, Forman, Cacciola & Kemp, 2005) or research design (Weiss et al., 2004). Alternatively, the results may reflect the individual and complex nature of change in recovery (Witkiewitz et al., 2019) which is not represented by group-level statistical analysis (Blampied, 2016; Zheng et al., 2015). Alternatively, the results may represent chronicity of presentation within the group (Lo Coco et al., 2019), issues with lapse or relapse (McLellan, McKay, Forman, Cacciola & Kemp, 2005), or may be due to the presence of psychiatric comorbidities for participants which increases the complexity, reduces

outcomes, and prolongs the course of SUDs, reducing efficacy and treatment outcomes (McLellan, McKay, Forman, Cacciola & Kemp, 2005).

Results were inconclusive when measures of biopsychosocial functioning were analysed at an individual level via RCI analysis. While not representing expected improvement consistently across measures of biopsychosocial functioning, RCI data reflected change for participants in either direction at any time. Changes were predominantly sustained, with no movement patterns above and below baseline seen for any participants, reflecting stability of change. There were no clear patterns of change consistent across all participants for any measures of biopsychosocial function. Many participants, while sustaining change on some measures over time, also varied in biopsychosocial improvements and challenges across measures, this reflected the ongoing and dynamic process of recovery as per Witkiewitz et al. (2019). Further, the presence of frequent changes in individual improvements and deterioration on measures of biopsychosocial function in conjunction with the lack of group level sustained change reflects the chronic, complex, and dynamic nature of recovery (Lo Coco et al., 2019; McLellan, McKay, Forman, Cacciola & Kemp, 2005; Witkiewitz et al., 2019).

In this sense, while the individual RCI data across measures of biopsychosocial functioning did not support the hypothesis of improvements across all domains and was overall inconclusive, it provides partial support to the conceptualisation and definition of recovery by Witkiewitz et al. (2019) as an ongoing and dynamic process of behaviour change characterised by relatively stable improvements in biopsychosocial functioning, including health and social functioning, and increases in wellbeing and purpose in life at an individual level.

Limitations

There were several limitations to Study 1. Of most significance is the small sample size which impacted on the power and overall research design. The sample size impacted chosen statistical analysis, seen in non-parametric tests, the strength of statistical analysis completed, and the generalisability of the conclusions drawn from the data. The sample size was contributed to by logistical challenges within the hospital with staffing difficulties and closure of several day program groups over the recruitment period, aligned with reduced admission numbers. Further impacting sample size was rates of attrition within the study, 54 participants provided consent to complete the study, with 47 complete responses provided at baseline, 36% attrition was seen within the 1-month follow-up with only 30 responses completed due to treatment dropout. Similar attrition rates of 20%, 29% and 29% were evident between 1 to 3, 3 to 6, and 6 to 12 months, respectively.

A further limitation of the research is that beyond the 1-month mark, reasons for discharge from the program were not monitored, and provisions for follow-up of participants and ongoing research engagement were unable to be completed due to the need to collect personal contact data and hospital privacy policy. Hence, it is unclear if the discharge from group program and research was related to planned discharge due to symptom reduction, work or personal commitments, or dropout due to readmission to the inpatient unit or relapse, limiting interpretation and conclusions drawn from individual data and follow up data collection. While not adding weight to the group-level data, understanding reasons for dropout and ongoing follow-up after discharge to complete subsequent data collection measures would provide valuable information on the individual change experience and recovery journey.

Practical Implications and Directions for Future Research

Practical Implications

Implications of data collected via Study 1 are twofold. Firstly include the novel application of quantitative analysis to the STT model. No identified literature has attempted to quantify change over the STT process or the 4S domains. While no clear conclusions have been drawn relative to the STT process, the results highlight individual patterns of change occurring relative to an individual's personal strengths and challenges in recovery, consistent with definitions of recovery. These findings present some preliminary support as to the potential alignment of the STT transition process in SUD recovery. These findings provide some indication that experiences may align with the STT process, however, how and to what degree are unclear, with further research and exploration needed. Secondly, the findings, whilst inconclusive in result, contribute to the wider SUD literature by highlighting and adding weight to the conceptualisation of SUDs as dynamic and complex conditions. These findings further highlight the lack of a linear process of recovery and emphasise the highly personal nature of recovery as experienced by an individual over time.

Future Research

As noted above, further quantification of the STT process and 4S system is needed to understand the process, both in alternate SUD settings and within the same setting with a larger sample size, ideally using a control group. Additionally, refinement of measures utilised to clearly assess the domains of the 4Ss may assist with increasing the relevance of outcome measures with the STT process. Further, given the data gathered demonstrated patterns of individual change rather than a clear pattern of group-level change, a future case study research design would be beneficial to allow analysis of individual experiences of change over time.

Summary

Study 1 assessed change over time from baseline to 12-month follow-up for participants engaged in a clinician-led outpatient group therapy program for SUD from the framework of STT and the 4S's. The evidence indicated no significant change across the 4 domains of *situation*, *self*, *support* or *strategies* at a group level with outpatient group engagement over time. However, individual level data analysis reflected frequent change occurring, relative to the individual, across time and measures of the 4 S domains. Individual RCI data highlighted the complex, dynamic, and individual process of change in recovery, both positive and negative, in wellbeing, and biopsychosocial functioning for those engaged in group programs. Hence, provided partial support for the key Research Questions overall, reflecting a complex, dynamic and highly individualistic picture of recovery. What remains to be understood is if, or how, this aligns with the STT and participants' experiences as they engage with outpatient SUD group programs.

A Premise for Study 2

Qualitative interviews were undertaken in Study 2 in line with an explanatory sequential mixed methods research design. The function of these interviews was three-fold. Qualitative interviews were developed and conducted to firstly address the outstanding questions from Study 1 aligned with understanding the complex and dynamic individual experience of recovery. Secondly, to understand and explain the data obtained in Study 1, and thirdly, to explore change for the individual in line with assets and liabilities of the 4S's of the STT. Qualitative interviews allow for an in-depth exploration of the experience of outpatient group therapy programs by participants and provide an opportunity to explore the individual nature of change in recovery. This process assists in explaining results obtained in Study 1 and provides an opportunity to understand if the experiences of people engaged with

clinician-led outpatient group therapy align with the STT process of change in a transition to recovery.

Research Questions and Hypotheses - Study 2

Study 2 utilised the overarching Research Questions of the research to guide qualitative data collection, analysis and interpretation. The questions used in Study 2 were firstly, do group participants' experiences of movement towards recovery align with or reflect STT? And if so, can STT be used to support people with SUDs in transitioning to recovery and inform practice in clinician-led open-enrolment outpatient group therapy programs?

Regarding Study 2, no a priori hypotheses were made for qualitative exploration, however based on qualitative and narrative research, the hypothesis held is that the described experiences of movement towards recovery may align with STT.

CHAPTER 4 – STUDY 2

Introduction

The second phase of this research was conducted as per an explanatory sequential mixed methods design (Creswell & Plano Clark, 2006, 2018). This phase involved the collection and analysis of qualitative data. As highlighted in the literature review in Chapter 2 and reinforced from results in Study 1, the experience of recovery is a highly individual, dynamic and complex process involving relative improvements across biopsychosocial domains over time (Witkiewitz et al., 2019; Witkiewitz & Tucker, 2020). Hence, group-level analysis quantitative data do not offer an in-depth picture of an individual's recovery experience. Further, based on the inconclusive results from Study 1, further exploration of STT in the context of individuals' recovery experiences through outpatient SUD group therapy is needed to understand the processes more deeply.

This chapter aimed to understand these processes and participants' experiences by exploring the broad overarching Research Questions of this thesis. To this end, a key question is 'Do group participants' experiences of movement towards recovery align with or reflect STT?', and, if so, 'How can STT be used to support people with SUDs in transitioning to recovery and inform practice in clinician-led open-enrolment outpatient group therapy programs?'. The experiential and exploratory typology of these questions was deemed suitable for reflexive thematic analysis (Braun & Clarke, 2022) and considered a starting point for analysis with the evolution of Research Questions occurring through the process of reflexive thematic analysis (RTA; (Braun & Clarke, 2021, 2022; Terry et al., 2017).

Methodology

Reflexive Thematic Analysis

Conceptual Underpinnings of the Research

Researcher Orientation and Experience. As the primary researcher and the single coder and analyst of RTA for this data set, I acknowledge that I do not come to this research as a blank slate. I recognise my perspective, theoretical frame, and lived experience, both personal and professional, in the process of RTA. With over 30 years of life experience and close to 10 years practising within the psychology field, I bring my own subjective perceptions, understandings, and biases to this analysis. Which, when considered and acknowledged, are a resource for research within RTA where knowledge generation is inherently situated within the subjective (Braun & Clarke, 2021, 2022).

As the eldest child of middle-class 6th generation Caucasian Australian parents, raised within a position of privilege in the inner-city Sydney suburb of Redfern in the early 1990s, I witnessed significant socioeconomic disadvantage. I observed the impact of addiction and substance use difficulties in many ways. From not so patiently waiting for the broken bottles, needles, and drug use paraphernalia strewn across parks and play equipment to be searched for and disposed of by my parents and guardians before being allowed access as a child, to the frequent and often successful home and car invasions undertaken to fund a person's use, to witnessing people significantly affected by substance use or actively under the influence behaving erratically on the street daily. Over time I saw the impact of parental substance use on my peers through my local primary school. I observed the onset of intergenerational use patterns with many peers commencing substance use in late primary or early high school. I watched from the sidelines, observing their change in self and the impact on their childhood dreams, education, and wellbeing.

The experiences of witnessing the direct and ripple effects of substance use evoked feelings of compassion towards those I saw struggling. These personal life experiences nurtured a determination to help others overcome disadvantage, alongside an implicit motivation to assist in interrupting patterns of intergenerational trauma, substance use, and abuse. These experiences developed in me a left-of-centre political view focusing on supporting the disadvantaged. They drove me to find a way to do what I could to help people regain control over their lives and move through disadvantage. Hence, I felt compelled to enter a helping profession.

Upon completing undergraduate psychology studies, I knew that moving towards a professional helper role was my calling, leading to Master's level studies in Clinical Psychology. My training was grounded in theory-oriented scientist-practitioner models focusing on providing evidence-based care. Through my training, practicum experience and in early roles, my clinical work was predominantly individual, with basic training in group processes and group-based treatment. This individual work allowed for clear direction in practice with evidence-based treatments available across various presenting concerns consistent with the training and theoretical orientation I had learned and developed.

In commencing a role in a private psychiatric hospital with minimal provision for any individual-based treatment across the inpatient detox and outpatient drug and alcohol group programs, I found myself quickly learning the limitations of adapting evidence-based individual practice to open enrolment group-based settings and seeking to understand how I could best help the patients in my groups. I sought an understanding of group processes and evidence-based conceptual frameworks to move towards recovery, limited by the challenges of the realities of open enrolment group programs. I felt lost in my approach, left unguided and unsupported by the solace I had previously found in clear evidence-based treatment guidelines. This was central in the development of this study and underpins my attitude and

approach, hence is essential to recognise here namely, the drive to seek clarity and understanding of the experiences of those seeking recovery through group programs and how I, as a clinician can support them in their journey. I come at this RTA with a clinical and personal stance of curiosity and from a strength-based, patient-focused, recovery-oriented perspective aligned with the theoretical frame of STT.

Orientation to Reflexive Thematic Analysis. Reflexive approaches to thematic Analysis prioritise the values of qualitative paradigms, emphasise the inevitable subjectivity of data coding and analysis processes and recognise the researcher's active role in coding and theme generation (Braun & Clarke, 2022). An RTA approach recognises the active role of the researcher in analysis and knowledge production, with RTA considered a reflection of the researchers' interpretive analysis of data and research conducted with the intersection of the dataset, assumptions of the analysis and the analytical skills or resources of the researcher themselves (Byrne, 2022). Given the active role of the researcher in RTA analysis, true inductive orientation to RTA is impossible, based on the philosophical, metatheoretical and personal self inevitably brought to the analysis (Braun & Clarke, 2021, 2022). Hence a combined approach with a predominantly deductive orientation to RTA was taken with an inductive underpinning, working to allow data to be open-coded and respondent/data meanings emphasised. Deductive analysis was utilised to ensure that the open-coding process remained true to the Research Questions, conceptual framework of STT, and study aims with meaning emphasised relevant to the Research Questions (Byrne, 2022). This was via a 'theory driven approach' in developing organisation of research questions and the focus of the research, with deductive codes developed around theory which fed back into the analysis, research questions and hypotheses (Byrne, 2022; Neale, 2016). In order to avoid limiting the richness of analysis and description of the dataset beyond the theoretical frame, an inductive approach utilising an open coding method when analysing the data was then used (Byrne,

2022). This inductive process was employed to best reflect the meaning as communicated by participants free from preconceived theory (Neale, 2016). This process was undertaken to expand understanding of the data and theory as aligned with participants narratives (Byrne, 2022; Neale, 2016). This combined approach considered researcher subjectivity a resource for the analysis and research rather than a problem to be managed, with RTA utilising pre-existing theory as a lens to interpret the data rather than testing a specific hypothesis (Braun & Clarke, 2022).

Ontological and epistemological perspectives were considered from the outset of the development of the research and were reconsidered in depth before commencing the qualitative analysis component of this thesis. A social constructivist epistemology was adopted, with meaning of information considered not only in the importance of recurrence of information or themes but the meaningfulness, salience and degree of conviction in participant's responses as influential in development and interpretation of codes and themes (Braun & Clarke, 2021, 2022; Byrne, 2022). From a social constructivist stand point, meaning and experience were interpreted as produced and reproduced via the interplay of subjective and inter-subjective construction and meaning making understood to be the result of lived experience and communication of the same (Byrne, 2022).

The present research adopted an experiential orientation to data interpretation to emphasise the experiences of the participant and their meaning and meaningfulness ascribed, rather than holding a critical orientation which seeks to interrogate patterns and meaning created by language from a social construction of the topic (Braun & Clarke, 2022; Byrne, 2022). An experiential orientation was deemed most appropriate given the study's aim to explore participants' experiences as they move towards recovery with engagement with outpatient group therapy programs (Byrne, 2022). In RTA, codes are developed from a semantic or latent perspective, with semantic coding relating to the explicit meaning of the

data, representing the content of data only as presented by the participant. Conversely, latent coding involves interpretive analysis of the meaning, assumptions, ideas or ideologies shaping the data (Byrne, 2022). Latent coding allows an increased interpretative process in analysis to interpret deeper levels of meaning and meaningfulness (Braun & Clarke, 2021). This research used semantic and latent coding with semantic codes alongside meaningful semantic information and vice versa for latent coding. As such, information could be double-coded in line with semantic and latent meanings. Coding in this way reflects the theoretical assumptions of the analysis with the meaning constructed and communicated by the participant and subjective interpretation by the researcher reflected in the constructive and interpretive epistemology and ontology of the study (Braun & Clarke, 2021; Byrne, 2022).

Dataset

Dataset Size

A thorough analysis of literature relating to desired sample size was completed. It was noted that recommendations for dataset size varied substantially in the literature, with varied approaches to developing an understanding of dataset size utilised. These approaches include quantitative tools for assessing dataset size (Fugard & Potts, 2015) and saturation estimates. Literature relating to saturation estimates suggest 80% of themes to be identified at six interviews and 80-92% of concepts identified within the first ten interviews (Guest et al., 2006; Macqueen et al., 2008; Namey, 2017). However, within RTA guidelines, discussions of saturation are contested and discouraged (Braun & Clarke, 2021, 2022; Terry et al., 2017), including calculations of saturation (Guest et al., 2020). RTA guidelines emphasise and recognise limitations of the concept of saturation (Terry et al., 2017) and highlight challenges with clear guidance on best dataset size relating to data depth, richness, complexity and topic (Braun & Clarke, 2021). More recently, Braun and Clarke (2021) have recommended using information power concepts over saturation, allowing the researcher to reflect on the richness

of the dataset in line with their study aims and requirements. Similarly, Terry et al. (2017) reflected on the debate within qualitative research fields as to sample size, instead emphasising the importance of rich, complex and quality data to a quantity which produces accounts of patterns within the dataset, rather than a focus on quantity of interviews overall. Hence, calculations of saturation as per Guest et al. (2020) were not completed to align with RTA guidelines and methodology as specified by Braun and Clarke (2022).

Most recent guidelines on determining data set size in RTA by Braun and Clarke (2022) recognise there is no failsafe or precise way to determine dataset size, as information richness in conjunction with the aims and requirements of the research is needed. Based on this perspective, Braun and Clarke (2022) suggested that a study with a narrower aim, a specific population and dataset focus, with a somewhat deductive approach requires fewer data items than a study with a broad aim, nonspecific inclusion criteria, an inductive and exploratory approach, thinner data generated by each participant which requires a more extensive data set. Given the present study relates to a specific SUD outpatient group therapy program in a private psychiatric hospital in greater western Sydney, held specific inclusion criteria for SUD diagnoses and minimum 6 months engagement with the program, the study held a narrow aim in exploring and understanding recovery experiences and alignment with STT, a predominantly deductive approach with inductive reasoning was used, alongside thicker or in-depth individual interviews conducted, it was deemed that a smaller sample size of between 5-15 participants was appropriate for RTA.

Challenges with Dataset and Recruitment

The original design conceptualisation of the research aimed to undertake three to four focus groups with approximately 20-25 participants in total. Additionally, a focus group with the outpatient group facilitators was planned. However, due to COVID-19 related policy changes, focus groups were unable to be completed within the hospital setting. Amendments

were made to the research to allow for individual interviews to take place via phone and Zoom. Additionally, following several years of COVID-19 lockdowns, management and staff changes and subsequent group closures, what was a healthy and saturated day program involving over nine groups per week with 10 to 14 participants per group and over seven facilitators, had been reduced to a total of three group programs per week and two facilitators at the time of recruitment and data collection. Unfortunately, only one facilitator was willing to participate in the research during recruitment. Hence, no interviews with facilitators were completed and this research component was abandoned.

Participants

Qualitative data for RTA was collected via individual interviews with a selected sample of substance use disorder outpatient group therapy program participants who had been attending the group program for a minimum of 6 months. Participants were informed that the group interview was to explore their experience of recovery and the role of the substance use disorder outpatient day program in this.

Participants were recruited via flyers (Appendix G) and self-selected by placing their first name and best contact on an expression of interest form in their day program groups. These participants were subsequently followed up to provide further information on the study, ensure eligibility, clarify willingness to participate and time imposition, gain consent, and arrange a time and format suitable for completion. Two waves of recruitment were completed six months apart to allow capturing of participants who had remained engaged with the program. Through recruitment, 14 participants expressed interest in engaging with the study, when followed up, four were uncontactable, two declined to participate, and one had passed away. A total of seven individual interviews were conducted with four men and three women. Five interviews were completed via phone and two via video conference. Each interview lasted between 38 and 65 minutes.

All participants had a primary diagnosis of substance use disorder, such as alcohol use disorder, cocaine use disorder or polysubstance use disorder. Length of engagement with the outpatient program varied between a minimum of 6 months and several years but was not specifically clarified. Of the participants, there was a variation in treatment approaches utilised, such as 12-step, or SMART recovery, variation in the number of previous admissions to rehabilitation clinics, participant marital status and accommodation status. Participants further varied in treatment history, level of education, socioeconomic status, employment status, and ethnic and racial backgrounds. This was deemed to reflect the variation in the open enrolment outpatient group programs, and no further exclusion criteria were applied. All participants held private health insurance cover to be eligible for the group program.

Procedure

Human Research Ethics approval was obtained from The Ramsay Health Care NSW | VIC Human Research Ethics Committee (Approval number: RHC NSW | VIC 2019-014) and The University of Southern Queensland Human Research Ethics Committee (Approval number: H20REA237) before beginning research.

Following initial contact after expressing interest and before the interview, participants were provided with an information sheet outlining the proposed research indicating participation and time requirements (Appendix H). The principal researcher queried understanding of the information sheet and interview process to ensure understanding. Participants' capacity to provide informed consent was determined verbally; following this, participants volunteered to participate by agreeing to a follow-up interview, completing a consent form, and returning it to the principal researcher (Appendix I). Once consent was received, an appropriate and convenient time was arranged with participants, and the session was conducted in their chosen format.

The interviews were held via Zoom or telephone, based on the participant's preference, and were completed at a convenient time for participants outside of their group and other personal commitments. The interviews followed a semi-structured format involving discussion of the participant's perspective of their personal recovery journey, their transition to recovery and their involvement and experience with the outpatient group therapy program. While the interviews adhered largely to a set of core interview questions, questions were designed to be broad to allow for deep and natural exploration of experiences (Braun & Clarke, 2021; Stokes et al., 2018). To this end, discussions were guided by the interviewee's stories, with order of questions and topic of discussion varying based on their responses, the development of relationship with the interviewer, and what was deemed meaningful to the individual. Hence, the interviews would often weave in and out of different topic areas in line with the interview questions (Byrne, 2022).

Core interview questions were developed to address the Research Questions, in line with the process used by Stokes et al. (2018) to explore sustained recovery from SUD through the STT lens. Core interview questions included tell me the story of your recovery journey? Who or what has helped or supported you in your recovery journey? What did you find easy in your recovery journey, and what did you find hard? How have you changed or grown through your recovery? How has life changed for you in recovery? Tell me about the role of day program in your recovery? and what do you see as most important in sustaining your recovery? Full questions and prompting questions used are outlined in Appendix J.

Process of Analysis

RTA was used to identify and understand themes arising from group member's interview responses to investigate and provide deeper insights into the experience of transition to recovery through outpatient SUD group therapy programs. Thematic analysis followed the six-phase guidelines by Braun and Clarke (2021). This six phase process involves (Braun &

Clarke, 2021) initial familiarisation with the data through transcription and reading the data multiple times, followed by the generation of initial codes by identifying and coding features of the data in a systemic fashion, followed by collating data relating to each code. Once this is completed, a process of searching for themes is undertaken by collating codes into potential themes and gathering relevant data to each theme. Themes are then reviewed and exploration of the themes identified to ensure alignment with both coded extracts and the data set while also developing a thematic ‘map’ of the analysis. A process of defining and naming themes via ongoing analysis to refine the specifics of each theme and the overall story of the analysis with the generation of clear definitions of the themes and theme name for each is completed. This is followed by a development of a final analysis section where a selection of extract examples representing each theme and relating to the analysis of the Research Question and literature is presented.

In following these guidelines, each interview transcript was read several times, with interesting or significant points noted by hand and reflections documented after and before each reading. Initial codes were assigned by coding each interview by hand three times. These were then synthesised and refined using the MS Word comment function. Codes in comments were exported to MS Excel and an additional refining and collating process was undertaken to review, clarify and refine codes developed. On completion of transcription coding, connections were identified between the codes with shared ideas and patterns of meaning clustered together to create initial theme groupings. Themes were then further developed with candidate themes generated, initial and revised theme maps produced, and themes revised until final key themes and subthemes were refined in line with the Research Questions. Themes continued to shift and develop with revision and review until final manuscript was produced (Braun & Clarke, 2021). A handwritten reflexive journal was kept while completing each review and reading of the transcripts, with the reflexive journal reviewed between

reading of each transcript and each interview revision. This reflexive process is discussed in depth shortly. As this was a phenomenological study, no a priori hypotheses were posited.

It should be noted that in addition to the process outlined above, methods of rigor and trustworthiness (Lincoln & Guba, 1985) in qualitative methods and their impact on data were considered in the development of this study and in the process of analysis (Smith & McGannon, 2018; Sparkes & Smith, 2009; Stahl & King, 2020). Reflexivity was the primary method of rigor used as per Braun and Clarke (2021, 2022) and aligns with dependability as per Lincoln and Guba (1985). In depth discussion of reflexivity in analysis follows.

Additional rigor methods used included confirmability and triangulation. Methods of confirmability were employed in the use of journaling and documentation of research and qualitative analytic process (Lincoln & Guba, 1985; Stahl & King, 2020). Triangulation was intended though both theoretical triangulation, and was planned through via clinician interviews (Lincoln & Guba, 1985; Stahl & King, 2020), however due to the nature of the process of recruitment, reduction of size of the program following COVID in conjunction with staffing changes this was not possible. Further the process of RTA was followed closely to maintain methodological standards.

Reflexivity in Analysis

As noted, a reflexive process was considered throughout the research process to remain deep, critical, and engaged in the RTA process. A reflexive journal was kept by the researcher from the outset of the commencement of this research in 2016 with open reflection on interrogation of personal values, perspectives, positioning, experiences with the research as it developed over time, personal and professional assumptions, expectations of the topic and research outcome, and design and methodological choices. This reflexivity was adapted when moving into the RTA process, whereby considerations of conceptual and personal underpinnings were revisited. Once the six-phase process of RTA was commenced, an

additional reflexive journal was kept for recording and documenting reflections and insights arising while transcribing the interview and reviewing the transcripts, reading and re-reading the transcripts, and engaging with the initial coding process, through to development of themes, writing of discussion and production of final manuscript. It was recognised that in line with recommendations by Braun and Clarke (2021, 2022), good quality coding and themes result from dual processes of immersion or depth of engagement and distancing, with quality, complex, and nuanced coding resulting organically from deep and prolonged engagement with the data as insight shifts and changes (Braun & Clarke, 2022). In line with this, provisions were made to allow the researcher time and space for reflection, insight, and inspiration to develop to avoid early identification of themes leading to analytic foreclosure or superficial findings (Braun & Clarke, 2022). Hence, analysis continued over a lengthy period of time with initial review and production of transcripts followed by multiple periods of breaks and immersion with the dataset to allow complex interpretation of the dataset rather than simple identification of codes and subsequent themes.

Analysis

Following the RTA process described above, seven themes were developed within the transcripts that were considered essential in furthering the research and addressing the research aims of this study. These seven identified themes were: the recovery journey, changed perspective and mindset, successful recovery requires hard work, sacrifice and vigilance, support and connection as key in recovery, changed ways of coping, recovery as more than abstinence and the requirements of group. Overall, these themes reflected and aligned with the three stages of the STT transition process (Anderson, Goodman & Schlossberg, 2022), were consistent with literature on STT and SUD (Stokes et al., 2018; Streifel & Servanty-Seib, 2006) as well as with the broader SUD treatment and recovery literature (Dekkers et al., 2021; Kelly et al., 2019; SAMHSA, 2022; Tucker et al., 2020;

Vanderplasschen & Best, 2021; Witkiewitz et al., 2019), and group process frameworks (Anderson, Goodman & Schlossberg, 2022; McHugh et al., 2021; Yalom & Leszcz, 2005).

The first theme of the recovery journey reflected the individual and complex experiences of recovery, including experiences of progression of use, the lead-up to initiation of change, patterns of change attempts and treatment engagement with successes and failures across this time as consistent with definitions and conceptualisations of recovery (Witkiewitz et al., 2019). Within the theme of the recovery journey, five subthemes were identified, including the individual experience of recovery, functions of substance use, life in active addiction, reasons for change, and lapse and relapse as par for the course. These subthemes reflected existing literature on recovery and change in SUDs (Laudet & White, 2010), and aligned with the change process in STT (Anderson, Goodman & Schlossberg, 2022), particularly the experience of moving in, through and out of transition.

The second theme of changed perspective and mindset reflected on how mindset and perspective of change influenced participants recovery experience in the areas of acceptance of self, others and the influence of mindset and perspective on their engagement with and capacity for change in recovery, consistent with literature (Abiola et al., 2015; Burrow-Sanchez & Lundberg, 2006; Connors et al., 2013; De Ruyscher et al., 2017; DiClemente, 2018; Kelly et al., 2009; Velasquez et al., 2016).

The third theme of successful recovery as requiring hard work, sacrifice and vigilance encompassed participants' reflections on their recovery experience as requiring sustained effort to achieve but holding positive benefits when sustained and maintained (Kelly et al., 2009).

The fourth theme of support and connection as key in recovery encompassed a sense of the importance and protective role of support in making and sustaining change in the long term, consistent with the understanding of support as critical for ongoing recovery (Duffy &

Baldwin, 2013; Vigdal et al., 2022). Theme four included three key subthemes which related to the variety and types of supports needed and utilised, the experience of repair of relationships in recovery and the role of group in recovery as a source of connection, support and learning. The discussion of types of support and their role in change was consistent with literature (Stokes et al., 2018) and with the transition process within STT (Anderson, Goodman & Schlossberg, 2022).

The fifth theme of changed ways of coping described and reflected upon changes in participants approach to coping with challenges and adversity compared to pre-recovery and over time across their recovery journey, consistent with literature reflective of change in coping and the efficacy of coping strategies across the recovery journey (Madden et al., 1995; Martindale et al., 2013; Moos et al., 1990) and with the STT process (Anderson, Goodman & Schlossberg, 2022). These changes were highlighted as resulting from experiences in recovery and as a direct response to group participation.

The sixth theme of recovery as more than abstinence reflecting the challenges, struggles and components of recovery from a biopsychosocial perspective which require management to support and facilitate ongoing and sustained change (Witkiewitz et al., 2019). The theme of recovery as more than abstinence encompassed three subthemes. First, recovery does not resolve life's stressors, secondly recovery requires a new way of being and thirdly, becoming a better person. The theme of recovery as more than abstinence and associated subthemes is consistent with literature regarding the intentional effort required to improve wellness across broad physical, psychosocial and functional domains (Ashford et al., 2019). It is further consistent perspectives of abstinence as insufficient for recovery (SAMHSA, 2012; Wilson, 1939) and aligned with SUD recovery perspectives recognising recovery requires more than abstinence including psychological wellbeing, quality of life, and cognitive, social and behavioural changes (Stokes et al., 2018). Additionally, this theme and subtheme were

consistent with STT transition perspectives of change as requiring and resulting in changed behaviours, roles, learning, assumptions, and perceptions (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981, 2011).

The seventh and final theme of the requirements of group explored perceptions of the components of group required for growth, for effective group functioning and effective engagement in the group and process (Yalom & Leszcz, 2005). The theme of the requirements of group was underpinned by two subthemes including the minimum requirements for effective group process and responsibilities of the group facilitator. The exploration of the minimum requirements of group as supporting and facilitating, or potentially hindering recovery was consistent with literature regarding group processes (Yalom & Leszcz, 2005) and discussions of the use of STT in group settings (Anderson, Goodman & Schlossberg, 2022). Further the responsibilities of the group facilitator highlighted the challenges present for clinicians in an open-enrolment group setting and the need for flexible delivery of clinical intervention, as consistent with literature (Lo Coco et al., 2019; Wendt & Gone, 2018).

In line with recommendations for RTA by Braun and Clarke (2022), results and discussion are presented below in a combined analysis section. Each theme and interrelated subthemes will be presented and discussed in detail in the analysis, with a general discussion of Study 2 to follow. It should be noted that each theme and sub-theme is explored and illustrated by relevant interview quotes from the participants. Given the limited dataset size and highly personal nature of information shared, to reduce the potential of re-identification of participants by readers through recognition of personal narrative via interview quotes, the decision was made to not attribute participant ID numbers to quotations through the analysis.

The Recovery Journey

The theme of the recovery journey reflected the individual and complex experiences of recovery, including experiences of progression of use, the lead-up to initiation of change,

patterns of change attempts and treatment engagement with successes and failures across this time as consistent with definitions and conceptualisations of recovery (Witkiewitz et al., 2019). Within the theme of the recovery journey, five subthemes were identified, including the individual experience of recovery, functions of substance use, life in active addiction, reasons for change, and lapse and relapse as par for the course. Each of these subthemes will be explored following discussion of the recovery journey.

The Individual Experience

The Individual Experience: Personal Experience. All participants interviewed explored their personal recovery journey and timeline, which, for the majority had been a multi-year or multi-decade process with progression of patterns of use, periods of escalation and reduction in use, and multiple change attempts across their journey and experience of recovery, consistent with existing literature on recovery and change in SUD (Laudet & White, 2010). Participants reflected on previous and current change attempts, describing their experiences, varying readiness for change at each attempt and engagement with personal change strategies and professional treatment. Most participants articulated complex and lengthy recovery journeys of substance issues intertwined with mental health and psychosocial issues:

Back over 20 years ago, I felt a little bit, you know, depressed and unwell, whatever. Saw a doctor, doctor said OK you're a bit depressed, here's some antidepressants, that was in 2000. So you know it went on for, for a year or two. something like that. Then when it comes to the question do I drink, and I said of course, do I drink! And so it led up to the point that I had my first admission [to clinic] in July 2002 ... when I was drinking almost on a daily basis, work stress, relationship stress, etc., etc. but you know, trying to cope with things, whatever ... I've been, I've been drinking sort of all my life since my teenage years ... my

drinking became worse and worse as well as my depression, so I had my first admission in 2002 and you know, sort of was released afterwards and had, you know, I had a few years off, a few years of sobriety, then back in 2008. Unfortunately, you know I started drinking again but as well my depression went down quite hard and so I had another admission in 2008 and then had one admission for alcoholism. I, I didn't, didn't drink, but had various admissions for depression, tried all the antidepressants you know there were, you know, sort of, I think I've, I've tried all of them at that time and it got that bad that I had started to have been treated with ECT, electroconvulsive therapy, had the treatment from 2010 and in 2012 had my last treatment ... Yes, so I recovered, but unfortunately with ECT, I suffered with a memory loss. I lost, my lost, my job etc, etc, [became] almost sort of a vegetable, put on disability pension, so I got on my merry way and slowly but surely recovered but like then in ... 2015/16 had some problems with my family, with my son. I started drinking again at you know it came to the point that I was drinking 24/7. You know just to, to hopefully cope with you know my situation, so you know I woke up in the night. I had a had a drink. I woke up in the morning, first thing I had a drink, during the day and so while my drinking was absolutely, you know, went, you know from bad to worse. So, you know to the point, you know I was bitter, angry, full of guilt, shame, and remorse. I was all depressed, I was suicidal etc, etc, until I made that made the call and as well got admitted again in the beginning of 2019. You know, into [clinic] and that's how my recovery started.

In considering their journey and experiences, participants explored historical patterns of active use, which were often lengthy, prolonged and nonlinear, highlighting the recovery journey as individual and requiring learning, adaptation and adjustment over time, consistent

with recovery-oriented perspectives on the dynamic and complex experience of recovery (Witkiewitz et al., 2019). Participants' narratives relating to their treatment journeys reflected progression over time, consistent with existing substance use models of change, such as moving from pre-contemplation to contemplation and action or maintenance through the TTM (DiClemente, 2018; Prochaska & Norcross, 2001). The narratives of change also reflected and aligned with the individual transition process in STT with movement in, through and out of transition described across the recovery journey, and with consideration of the three components of transition, including the approach to transition, the transition process itself, and moving out of transition with changes noted in reactions and self (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981, 2011). These patterns were highlighted in explorations of lengthy and complex recovery experiences and treatment engagement:

I've been a druggie for 30 years right, and I'm, I'm a poly-user, but opiates or heroin is my drug of choice, yeah, and I've gotten off the heroin before, but I've always drank and smoked pot, but then I'll get back to using the heroin and then I, I've used recreational drugs between cocaine and ecstasy and speed so.. But mostly on the heroin and then so 18 years ago, I, I done heaps of geographicals, going overseas, and over my cousins to detox and, I'd get better, but I'll start drinking and using marijuana and then and then I'll come back to using the opiates again. About 18 years ago I probably started my journey into rehab first, I I I went to public ones, then I discovered the private hospitals because I had health insurance. So, I decided to use my health insurance and that introduced me to NA and AA. That's the 12 steps and I was reluctant to do it. I thought I didn't want to hear people's war stories. No, I didn't. And I wasn't courageous to give my story out, so I thought ... What's this? I know how to live! like I just get into a routine hang around the right people maybe get on a diet, hobby, get a job.

I thought I had the common sense to do all that, but I didn't. So, through all the times that I've relapsed, they [then] introduced me to day therapy. When I first went to day therapy, it's a check in, and again I thought... I Know how to live! and I was very like, reluctant to do it you know. But really, I didn't know how to live. I just knew how to survive. So now I'm all for it, through continuing relapse and hitting rock bottom.

The Individual Experience: Individual Approach. The unique and personal nature of the substance use and recovery journey was highlighted through the interviews with some participants describing a lengthy period of substance use with relatively short treatment engagement, others reflecting on a shorter period of problematic use with intensive treatment support received, describing multiple admissions with lapse and relapse processes following the onset of problematic use within a recent period with the goal of stabilising patterns of problematic use. Whereas others reflected on more discrete periods of difficulty with substance use over time:

I never used to even drink and then I don't know. It just got a bit out of control and so I went straight into a rehab and then for 10 years I managed to drink like a normal person ... [then] when it got out of control [again], that's why I quickly, you know, got onto it, I addressed it quickly because I knew I had the potential to get out of control.

The exploration of recovery and the individual and unique personal recovery journey reflects that for participants engaged in outpatient drug and alcohol group programs, their experience of SUDs is chronic (Laudet & White, 2010), characterised by multiple cycles of use and treatment followed by return to use (Michael Dennis & Christy K. Scott, 2007; Dennis et al., 2005; McLellan, Lewis, O'Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005), and is consistent with data on remission rates and patterns of

treatment utilisation (Lo Coco et al., 2019). The narratives and themes explored by participants further reflect a complex, dynamic and individualised pattern of recovery consistent with current biopsychosocial definitions (Witkiewitz et al., 2019), as well as reflecting recovery as a lengthy and extended process of change over time (Anderson, Schlossberg & Goodman, 2012).

Participants consistently highlighted the highly individual and personal nature of recovery, noting that while there may be similarities, their recovery experience is unique, individual, and personal:

You know everybody's doing it a bit differently... it's not a standard format, about how you do it [recovery]. You can see this person doing this or this person doing that, and you know some person saying oh I've done this or that and I can recommend it.

Participants highlighted the need to find what works for them individually in their recovery journey: “[counting days] *doesn't work for everyone. Some people don't even want to count the days, it's depressing for them, but for me, that.. that's what's helping me the most*”, considering further individual approaches to goals in recovery such as controlled use vs abstinence.

The personalised approach to recovery described is consistent with recovery perspectives emphasising the dynamic process of improving function across life domains (Witkiewitz et al., 2019). Recovery in this sense is consistent with the need for individualised treatment and recovery approaches (Moos & Moos, 2006; Tucker et al., 2020), as well as individually relative considerations of personal strengths and challenges in recovery, in line with positive and negative recovery capital (Best & Ivers, 2022; Cloud & Granfield, 2008; Gueta & Addad, 2015), and a ratio of assets to liabilities as requiring management to support recovery within the STT framework (Anderson, Goodman & Schlossberg, 2022). This is

consistent with, and adds explanation to, the findings from Study 1 of limited group level change, with complex patterns of individual improvements and deteriorations occurring across the recovery change journey in a relative and nuanced way. It highlights recovery as an individual process occurring on an individual timeline and the need for a flexible and adaptable approach to recovery.

The Individual Experience: Trial and Error and Adaptation Required. Similar to the individual process of the recovery journey, participants noted an experience of trial and error in their recovery, with adaptation needed over time. Particularly as the nature of their broader social context and personal experiences changed. Recognition of the need for ongoing adaptation in their future recovery process and reflective practice in assessing the benefits of varying approaches at varying times was made: *“I wonder - if this is adding to my recovery ... So, you're kind of questioning where you're at and what needs to happen [in recovery]”*, with the need for revision and adjustment to recovery approach over time highlighted: *“for now while [a particular recovery approach] is working and while it's adding value then that's important to keep there I think”*. Reflecting a dynamic process of change and adaptation in recovery, rather than a static approach to change implementation over time (Witkiewitz et al., 2019). In line with this, participants described the need for adaptations to previous recovery attempts and approaches that had not been sustained and highlighted a revision of their recovery plan as remaining important in their recovery and assisting in progress made to date.

The process of ongoing adaptation over the change journey in recovery is consistent with existing substance use models, particularly the movement between stages of change in the TTM as facilitated by internal and external experiences and processes allowing movement from one stage to the next (DiClemente, 2018; Velasquez et al., 2016). This narrative is reflected by the ongoing changing reactions and responses over time as described by STT and the transition process (Anderson, Goodman & Schlossberg, 2022; Goodman et al., 2006), as

well as in the assets and liabilities ratio of the 4S's within STT as holding capacity to provide support for or inhibit transition and change progression within the STT model (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 2011; Thupayagale-Tshweneagae et al., 2012).

Recovery Journey: Future Thinking. In addition to exploring their journey to date, participants reflected on their hope for the future as their journey progresses and as they begin to integrate recovery into their day-to-day life: *“With recovery, I like to think that you’re moving on”* and hope in life in recovery *“For me to get to a stage where it’s not a situation [of] being in recovery anymore and I can just live, where it’s organic”* with a sense of imagining life and what it can hold in recovery in the future: *“it’s not about building empires or anything like that. It’s actually about making changes and achieving, you know, levels of contentment and simplicity and, you know, working out what are things that make me happy”*.

Hope for change and integration of new behaviours and recovery into life aligns with recovery-oriented perspectives of change (Stokes et al., 2018; Witkiewitz et al., 2019; Witkiewitz & Tucker, 2020), and the moving out process of transition in the STT model. In STT, in transition, people are initially consumed by their new role. However, they begin to separate from the past and establish new relationships, routines, and assumptions as they move through transition within the STT framework, with the transition or change, in this case, recovery, becoming integrated as part of their way of life (Anderson, Goodman & Schlossberg, 2022; Stokes et al., 2018). Additionally, it is consistent with perspectives of SUD recovery as holding hope for recovery (Kelly et al., 2019; MacKillop, 2020), and the TTM reflecting a “termination” stage of completion of change (DiClemente, 2018; Prochaska & Norcross, 2001).

Function of Substance Use

Within the recovery journey theme, the notion of substance use serving a function or purpose for the individual was explored across the interviews, consistent with literature on

patterns of use (Best & Hennessy, 2022; Kelly et al., 2009; Witkiewitz et al., 2019). The function of use was considered broad but also shared across participants, with substance use described as a way of coping with significant challenges and struggles in life: *“Fear of authority and all these things I could numb with alcohol and I could function a lot better”*. Including day to day stressors: *“If I was stressed out, I had a drink ... I used it as a coping mechanism”*. Substance use was described as a way of self-medicating and managing mental health or trauma symptoms: *“I’ve been on antidepressants, and I used to think these aren’t working so I had decided to be my own doctor and I tried to use drugs in moderation to just do it but that didn’t work either”*, and was recognised as a way of managing adjustment to loss and other challenges in life: *“I ended up in [inpatient detox] due to prolonged stress and grief, and poor management of that by using alcohol”*. Substance use was further explored as a way of avoiding difficulties and responsibilities, as well as avoiding or escaping psychological pain: *“What drugs do is they take away that pain. They take away that pain, so I used to self-medicate”*, including suppression of difficult emotions.

A personal vulnerability to substance use was considered in the context of the recovery journey and in line with substance use as self-medication over time and triggers for increased or problematic patterns of use and consistent with literature (Vanderplasschen & Best, 2021):

when it came to the age of drinking, I took it up with great gusto ... As I got older, a lot of my insecurities and my self-esteem and my self-doubt and a lot of other things that came with the trauma kept bubbling back at me

Beyond trauma, other mental health presentations were considered as impacting function of use and triggers for use, including bipolar, depression and trauma. Further, a number of participants highlighted the impact of triggers relating to grief and loss both in

terms of bereavement “*I never used to drink and then my mum died in 2004*” and relationship breakdowns.

The concept of the function of substance use, while a distinct presenting theme in interviews with the participants, spans many aspects of transition and substance use theory and fits within the conceptualisations of SUDs and the recovery model. Reflection of function of use is consistent with conceptualisations of SUDs as multistep conditions with progression of use relating to internal and external physical, psychological, and social factors (Borrell-Carrio et al., 2004; Ducci & Goldman, 2012; Engel, 1977). Within the context of STT, the experience of the function of substance use as a way of coping, self-medicating, avoiding pain or responsibilities or as a result of managing personal vulnerability of *self* can be considered as impacting the approach to transition particularly regarding the perspective of transition, context and impact (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981). The function of use impacts the balance of assets to liabilities in taking stock of coping resources in the 4S context, seen in patterns of liabilities across the 4S’s where support is needed, for example, the self-medication of trauma, mental health and grief process as reflecting deficits, or liabilities in the S of *self*, and highlighting the areas are needing support and assistance to facilitate and support ongoing recovery (Anderson, Goodman & Schlossberg, 2022), as well as liabilities or skills deficits in the S of *strategies* with the use of substances as a way of avoiding responsibility of difficulties in life (Anderson, Goodman & Schlossberg, 2022). This is consistent with the recovery capital perspective of positive and negative capital, seen in negative personal capital of trauma or mental health difficulties (Patton et al., 2022).

STT further posits that the more a transition alters a person’s life, the greater the impact, the more coping resources it requires, the longer the process will take to move in, through and out of transition (Anderson, Schlossberg & Goodman, 2012). Hence, as changes in substance use patterns and reduction in use mean the original function of use is no longer

provided, a significant change is required in a person's life, which impacts globally the relationships, routines, assumptions, roles and the overall change experience (Anderson, Goodman & Schlossberg, 2022; Anderson, Schlossberg & Goodman, 2012).

Life in Active Addiction: Progression Over Time and Consequences of Use

The participants spoke about their experience of life in active addiction, reflecting on their progression of substance use over time, including triggers and reasons for increased use as part of the recovery experience, routines and behaviours that were commonplace through active use and the consequences or effect of their substance use and associated behaviour and lifestyle, consistent with literature highlighting varying mechanisms or reasons for initiating or maintaining change in recovery over time (Vanderplasschen & Best, 2021).

Life in Active Addiction: Progression Over Time. Consistent with the individual experience of the recovery journey, the triggers for progression or escalation of substance use were highly individualised and yet patterned across the dataset, with participants describing environmental factors as triggers for use:

I realised that I just, I just wasn't happy ... there was something else that was missing. This was not how I wanted to live, whether its sober or not sober, there's these things in my life that needed to change.

Others noted environmental stressors triggering the onset of problematic or escalated use included boredom and isolation, as well as personal stress which included financial or occupational stressors: *"The stress I was under ... I think that sort of led to me just, you know, heading for the bottle, so to speak"*. These environmental stressors were noted as significant triggers for use, or at the very least, factors that have served to escalate patterns of use for participants. Beyond initial triggers, participants explored the progression or escalation of their patterns of substance use over time, noting and reflecting on turning points of

progression or escalation of use, and environmental experiences playing into these changes, including COVID-19 isolation requirements.

Consideration of turning points, aspects of life and stressors serving to increase patterns of use reflects the negative recovery capital concept regarding factors impeding the capacity to make changes or cope effectively (Cloud & Granfield, 2008; Duffy & Baldwin, 2013). Additionally, consideration of turning points reflects patterns of limited insight into the negatives of use initially in the pre-contemplative and contemplative stages of the TTM (DiClemente, 2018; Prochaska & Norcross, 2001), as well as the chronic and progressing nature of SUDs overall, further complicated by comorbidity and other factors (McLellan, Lewis, O'Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005).

Life in Active Addiction: Daily Routines. When exploring life in active addiction, participants reflected on routines and behaviours that facilitated their substance use and described their impact on life and patterns of use. They described daily routines as requiring planning and problem-solving in active addiction, recognising daily routine in this process:

[I was] *kind of living my life around [my use]. [Thinking] OK, I'm at work today, on my days off I'm going to be drinking so I need to do my shopping on the way home, I need to organise this, that and the other while I'm sober, because I know I can't go out on the weekend and drive*

Participants reflected on the day-to-day process and pattern of use, with variability depending on the day of the week or other personal circumstances: “*Funnily enough, weekends were when I drank less because I slept in and sort of had a proper lunch*”. While exploring the routine and regular patterns of active addiction and use, the participants highlighted the consequences of these routines and use overall, reflecting on active addiction as exhausting: “*All that stuff is just, you know, consuming, and it's all gone now [in recovery], it's like Oh! *relieved sigh**”. The discussion of roles, behaviours and life in active addiction

as requiring change through recovery reflects STT's approaching transition process with an increased impact of the transition, as well as an increased need for change in self, day-to-day behaviour, role, and perspective, which can serve to hinder, impede or challenge the commencement of the transition and recovery process. This can lead the transition to require greater resources due to the increased changes required for sustained and successful change in recovery (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981).

Life in Active Addiction: Consequences of Use. Beyond exploration of routines in active addiction, participants explored the widespread impact of their substance use leading to loss and change:

Look at what I've lost already ... I thought was kicking goals and everything was great. Over 32 years I built what I did. Look at some of the major businesses I've worked with, I've got my children, I've been married, I've run multiple companies, I've flown round the world. I travelled all the time ... it was the best life. And you know, look at all of those things, and I've lost all of those things as a result of the last 6-12 months of rapid mental health and addiction decline. Just in months.

Reflecting on impacts across specific domains, including relationships, health and wellbeing and financial and occupational changes, active patterns of addiction were viewed as limiting access to best self and valued action “*If anyone's in active addiction, they won't be able to be the best person they can be, for whatever it is, it steals your life away*”. Participants described significant losses resulting from their substance use in relationships, with most participants describing significant impact of active use on their familial and intimate partner relationships “*I put her [wife] and the family through hell*” including relationship breakdowns “*that relationship fell over, I would say in part because of alcohol*”. Further, participants reflected on the impact of their use and behaviours on their familial relationships and

significant others describing behavioural changes observed in their partners: *“My husband, we've been together 40 years and he used to follow me in the bedroom and ... he'd follow me to see if I was going there to drink”*. They described increasing patterns of isolation through the progression of their active substance use: *“I did not talk to anybody. I didn't want to communicate with anybody, I just wanted to be, you know, on my own”*. Participants identified that relationship impacts were not confined to personal relationships, describing the effect on reputation at work, while recognising this as a consequence of changed behaviours and reliability in active addiction: *“I was sort of getting to the point where I was taking too much time off work, being really unreliable, and ... I was sort of in danger of losing my job, everything was falling apart”*. Several participants noted significant changes in financial, occupational and social status as a direct result of their substance use and behaviours in active addiction:

Financially, ah, the way I am now is, you know, nothing in comparison, you know, I used to be quite successful. Used to have, you know, quite senior positions work wise whatever, and now I'm on, now I'm on a pension, you know, sort of, I'm not wealthy, but I can get by.

These financial impacts are consistent with definitions and diagnostic perspectives of substance use as chronic and progressing with significant impacts on areas of functioning including physical, psychological, occupational and social (APA, 2022).

Interestingly, the patterns of impact and detrimental changes in active substance use, while clearly highlighting loss, challenges, and deterioration of function and wellbeing, were insufficient to initiate change in substance use patterns for the individual alone. This is consistent with diagnostic perspectives of SUD highlighting the persistence of use despite negative consequence (APA, 2022), as well as perspectives of change through the TTM which reflect a need for adjustment in the decisional balance to initiate and assist change

(DiClemente, 2018; Prochaska & Norcross, 2001). It aligns with the STT perspective which highlights the need for a balance of factors and timeliness of onset of either event or non-event as initiating the transition process (Anderson, Goodman & Schlossberg, 2022).

Understanding the persistence of use despite consequences lends itself to understanding the individual recovery process as being complex and dynamic, with each person entering and undertaking recovery from a unique and personal standpoint (Witkiewitz et al., 2019) – potentially with significant challenges or from a place of strong support and assets. In this way, the balance of assets and liabilities as per the STT varying between individuals (Anderson, Goodman & Schlossberg, 2022), or recovery capital resources (Best & Ivers, 2022), can support or hinder recovery. This is reflective in the results of Study 1, whereby recovery was highlighted as an individual process on an individual timeline by RCI data, consistent with individually relative definitions of recovery (Witkiewitz et al., 2019).

Reasons for Change

All participants reflected on their reasons for making a change and entering treatment. While the exact triggering event/s were slightly different for each person, there was a reflection on timing, readiness and the motivating factors that encouraged them to step towards recovery or reflected turning points for change as consistent with STT (Anderson, Goodman & Schlossberg, 2022). For some it was a lack of sustainability of patterns of active addiction “*I knew I was running out of the ability to sort of hold it together*”; physical health: “*I think I just realised that if I don't stop, I'm gonna die. It's going to kill me*”, mental health: “*I was, you know, depressed and unwell*” or masking of the problems at hand “*I couldn't keep putting up this front of the bloke that I felt that I needed to be or was supposed to be and the expectations I had on myself, it was just crazy*”, for others it was the inconvenience of ongoing use. The range of individual triggers for change are consistent with and reflect events

or non-events which result in change as per the STT model (Anderson, Goodman & Schlossberg, 2022).

Many participants reflected on the multitude of reasons that may have been presented for making a change in recovery before they were ready for change, consistent with literature on variability in change initiation in recovery (Vanderplasschen & Best, 2021). However, noted that despite these compelling reasons, these were not sufficient to trigger changed behaviour or help-seeking: “*Even that [diagnosis of atrial flutter and alcohol-related cardiomyopathy] didn't stop me drinking, being hospitalised twice and the factors risking my life*”. With a reflection on increasing readiness for change over time:

[it] was getting to the point where I was sort of in danger of losing my job and everything was falling apart, I've known for a while.. Probably 5 to 10 years that I had a problem and I needed to do something about it, but I think I just went well.. I've gotta do it. I've got to sort this out.

For some, it was external supports intervening which prompted change, be it a partner, family member or workplace and encouragement from family following ongoing deterioration in mental health and escalation of use, with a sense of acceptance and readiness from the individual required.

Reflections on triggers for change highlight diagnostic perspectives and conceptualisations of SUDs as being characterised by persistent active substance use despite negative consequences (APA, 2022). These reflections are consistent with the STT perspective highlighting the nature of events or non-events as initiating change and transition with consideration of the need for a balance of assets and liabilities as well as the context, perspective and impact of transition, coupled with timeliness of onset of change as facilitating the transition process (Anderson, Goodman & Schlossberg, 2022). These understandings of the change process are reflective of the S of *situation* within the STT 4S model, with a

person's reason for entry into recovery and personal circumstances are encompassed within the S of *situation*, as well as any changes in attitudes or perceptions across the transition journey (Anderson, Schlossberg & Goodman, 2012; Thupayagale-Tshweneagae et al., 2012). Conversely, concepts of reasons for change are reflected in perspectives of change through the TTM, which highlight a need for adjustment in the decisional balance to initiate and assist the change process (DiClemente, 2018; Prochaska & Norcross, 2001). Consideration of these experiences of recovery in theoretical perspectives emphasises the individual process of recovery as complex and dynamic (Witkiewitz et al., 2019), with each person entering and undertaking recovery from a unique and personal standpoint.

Lapse and Relapse as Par for the Course

All participants recognised the potential for lapse and relapse over their recovery journey, with all but one participant having described a personal experience of lapse or relapse, and most participants describing recurrent experiences of lapse and relapse with varying intensity, severity and frequency over their recovery, as consistent with existing research (Lo Coco et al., 2019). Participants described a sense of learning through the lapse and relapse process: *"I've done a lot of research, research is relapsing, and going out there trying to do things my way and it just doesn't work"*. With respect for the possibility and likelihood of lapse or relapse over recovery: *"I know there's a really high rate of relapse with alcohol, I suppose there is with everything, but you know it happens"*. This was coupled with a sense of fear and uncertainty of a lapse or relapse occurring and a recognition of the difficulty in returning to recovery following a relapse:

It's my addiction now, I've got another drink in me, you know, within 5 minutes I can have a drink and go somewhere, to a shop to do it, but I don't think I'll have another recovery if I ever pick up again.

For participants who had a pattern of lapsing or relapsing or for those who were continuing to experience lapse or relapse in their recovery, a change in frequency, intensity or severity was viewed as either a positive or negative, with reduction across any of the parameters of frequency, intensity or severity considered an improvement as consistent with relapse prevention models (Marlatt et al., 2007):

I have frequent lapses and or relapses, but I'm much better.. when I say frequent, I mean like.. so maybe every month or two yeah and they're, and they're much more controlled and less significant, less sizeable and like less lengthy than they used to be.

Participants reflected on the need for vigilance required in maintaining behavioural change in recovery and avoiding lapses or relapses: “*You can put in 99% effort 99% of the time in recovery and sobriety but still.. that 1% is far heavier and easier.. You know the slip-up. It's so hard to maintain recovery and so easy to lose it*” and noted the need for awareness of triggers for lapses and relapses, such as personal stressors: “*The place I was renting was getting sold and I had a small relapse*”, or relationship difficulties “*I had some problems with my family, my son. I started drinking again and you know it came to the point that I was drinking 24/7*”.

Lapse and relapse is considered characteristic of SUD (APA, 2022) and is well attended to in some change models, including the TTM (DiClemente, 2018; Prochaska & Norcross, 2001) and Relapse Prevention (Marlatt et al., 2007). When framing recovery from a biopsychosocial perspective, the experience of lapse and relapse is not as consequential with a focus on an ongoing process of learning and adaptation in recovery alongside symptom reduction (Marlatt et al., 2007; McLellan, McKay, Forman, Cacciola & Kemp, 2005; SAMHSA, 2012), and with an understanding of the need for movement away from ongoing

abstinence as the most desirable outcome of recovery (Stokes et al., 2018; Witkiewitz et al., 2019).

STT does not explicitly discuss the experience of lapse or relapse within the change process. The absence of lapse and relapse processes is a limitation of the model, particularly in application to the SUD and recovery domain (Anderson, Goodman & Schlossberg, 2022; Stokes et al., 2018). Based on the narratives presented by the participants, it could be conceptualised that lapse or relapse within the STT journey may reflect an increase in liabilities within the transition process and taking stock of coping resources stage across the 4S process. In this way, an increase in assets and return of commitment to recovery may facilitate further progression in recovery and ongoing facilitation of the transition experience (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981; Stokes et al., 2018).

Changed Perspective and Mindset

Across the interviews, all participants explored changes in their perspective and mindset to varying degrees in their recovery journey and as a result of treatment. The participants reflected on how mindset and perspective of change influenced their recovery experience and capacity for change in recovery, consistent with literature (Abiola et al., 2015; Burrow-Sanchez & Lundberg, 2006; Connors et al., 2013; De Ruyscher et al., 2017; DiClemente, 2018; Kelly et al., 2009; Velasquez et al., 2016).

Participants reflected on attitudes related to life beyond active substance use which developed over time in recovery: *“instead of having a rebellious life and thinking it's cool to not care, these simple things in life are starting to ring home for me, it's starting to be fulfilling ... I'm opening my mind to a new life”*. They considered an adjustment in perspective which allows an appreciation of smaller things in life: *“There's fun in the simple things”*.

Changed Perspective and Mindset: Self-Acceptance

When coupled with an acceptance of self, change in mindset and appreciation of the small things allows for adjustment in what is seen as meaningful and valued: *“It’s a big shift from trying to be this person that you thought you needed to be, to being OK with who you are, taking joy from the little things and small things in life that are important and meaningful”*. The concept of self-acceptance was explored in relation to change in mindset through recovery:

It's changing slowly. I don't have to care if I'm liked or not. Like you know what I mean, and this is a big step. I don't have to please. I gotta please myself, and what I truly want, not try to be something I'm not

With acknowledgement of the need for a recalibration of a sense of self-identity and the need for authentically being one’s self rather than seeking approval from others: *“I’m not trying to fit in now, I’m just trying to find who I am so I don’t have to try hard to be something I’m not. So, to be genuine to myself, and I don’t need to fit in”*.

The participants’ descriptions of adjustment in perspective and acceptance of self and a recalibration of meaning in life is reflective of increasing assets in the S of *self* in the 4S model. This is further reflective of the changed perception, behaviour, and learning resulting from transition within STT as an individual moves in, through and out of the transition process over time (Anderson, Goodman & Schlossberg, 2022; Stokes et al., 2018). Additionally, this process is reflective of increased personal or human capital within the recovery capital framework (Cloud & Granfield, 2008).

Changed Perspective and Mindset: Acceptance of Others

The participants described an increased acceptance of others in addition to acceptance of self. Mindset changes were described as protective when based on acceptance of others, and assisting in putting own personal struggles into perspective: *“I guess human nature is to*

think that your problems are worse than anyone else's" however participants highlighted a sense of wariness of gradual changes in their perspective and thinking towards old mindset and thinking as an early warning sign for potential lapse, relapse or regression in recovery: *"I'm going to meetings or go into groups or and other [places] you know, where the thought comes out that 'I'm not as bad as them'"*.

Adjustment to insight, self-reflection and perspective over the recovery journey is consistent with existing research (Abiola et al., 2015; Burrow-Sanchez & Lundberg, 2006; Connors et al., 2013; De Ruyscher et al., 2017; DiClemente, 2018; Kelly et al., 2009; Velasquez et al., 2016). Change in perspective may further reflect adjustment of the S of *situation* and *self*, relative to an individual's ratio of assets and liabilities within the 4S model. Changed perspective and perception of the recovery process, context and impact of change may further reflect the changed behaviour, assumptions, learning, roles and perception aligned with STT as a result of the recovery process (Anderson, Schlossberg & Goodman, 2012; Goodman et al., 2006; Stokes et al., 2018).

Changed Perspective and Mindset: Role in Recovery

Participants reflected on changing perspectives and mindset over their recovery journey and considered the role that mindset had in lapses and relapses that had taken place: *"In different stages [of recovery] I had you know different attitudes, different ways. I'm quite certain as well, during my recovery sometimes when I failed I believe my ego has quite had quite a lot to do with it"*. They considered an increased commitment to recovery through mindset and values change: *"I have a different, you know, value on things now and I think it's why I take things a lot more serious this [time] than I did before"*, reflecting on mindset changes relating to their own knowledge and understanding of change and seeking help in recovery: *"Now I know I'm, you know, I'm hardly right, and you know, as well, I, I knew everything, but now I can say the longer I'm recovering, the less I know"* and highlighting the

need for insight and self-reflection: “*The assessment you’re making of the situation and your experience has an impact*”.

Participants described a positive change in their mindset over their recovery and treatment journey and described this as assisting in their recovery:

If you put the mindset, you know, I want to do it [recovery]. Not, I have to do it..

I want to do it and I'm committed to it. Then you know it's a routine and it becomes, you know, a quite nice, a nice routine.

They noted the need for new ways of thinking and seeing life in recovery and the need for adaptations to old behaviour and addiction mindset: “*Maybe this whole neural pathway thing is true, now I know I don't drink and now that I know I don't resort to drinking, then new ways of thinking have popped up*”, with a sense of respect for the protective and supportive role of mindset and perspective in their approach to recovery and associated challenges: “*I was never a great believer in the power of the mind, I, I've changed my mind about that*”, highlighting that this allows for the access of and receipt of help: “*To have the mindset [of] yes, I need help, I need to do something about it*”.

Participant’s descriptions of positive mindset change with new perspectives on life and thinking in recovery, alongside adaptations to behaviour, a sense of respect and appreciation for the role of mindset in openness to help-seeking is consistent with both models of recovery (Witkiewitz et al., 2019) and the STT transition process (Stokes et al., 2018). Within the STT process, transition evolves with changing perspectives and reactions over time. In this way, the transition experience is non-linear and complex, with growth opportunities presented alongside risks of psychological decline (Anderson, Schlossberg & Goodman, 2012). The transition process in STT is recognised as taking time, consistent with participant narratives, and involves an emergent growth process of leaving behind the old and moving on to the new, which requires a self-reorganisation experience as described here (Bussolari & Goodell,

2009). Further, participants highlighted an adjustment in mindset as supportive of sustaining change and in life with behavioural changes integrated, consistent with recovery literature (Kelly et al., 2009; Vanderplasschen & Best, 2021).

Successful Recovery: Requires Hard Work, Sacrifice and Vigilance

The theme of successful recovery as requiring hard work, sacrifice and vigilance encompassed participants' reflections on their recovery experience as holding positive benefits but requiring sustained effort to achieve (Kelly et al., 2009).

Successful Recovery: Requiring Hard Work

All participants recognised that making changes and sustaining recovery involves a commitment and an ongoing process of work to sustain change: *“I believe [recovery] is hard work. You know, and people say it's hard”* as well as the ongoing nature of sustained change: *“It's a mouse wheel ... there's no finish line, and it's a lifestyle and stuff”* noting the need for conscious and sustained effort which can be exhausting or fatiguing over time: *“Recovery, and even, you know, mental health and emotional health, whatever.. being self-aware, being extremely insightful yourself, that's exhausting”*. This is consistent with the STT perspective of the moving through process in transition where energy and commitment are required to sustain the process (Anderson, Goodman & Schlossberg, 2022) as well as the TTM model requiring effort and completion of tasks to assist in movement from one stage to the next (Prochaska & Norcross, 2001).

There was a recognition of the difficulties of recovery as contrasted with the experience of addiction: *“[Recovery] is not easy, but it's worth it, and it's better than being in active addiction”*. Progression of recovery beyond initial periods of work was noted: *“In the early stages it was hard work”* with a sense of hope and potential for enjoyment in recovery over time recognised: *“[Recovery] can fall into place and has been quite enjoyable rather than work”*. Participants recognised the need to stay focussed, recognising the fragility and

ease of lapse or relapse, and the work required to maintain change: *“it's so hard to maintain recovery and so easy to lose it”*. This perspective reflects the S of *situation*, and highlights the change in perspective over the change process (Anderson, Goodman & Schlossberg, 2022). It further highlights the process of moving in and through transition where initially in transition, people are consumed by their new role, requiring sustained effort to maintain and adjust to change, however over time begin to separate from the past, and establish new relationships, routines, and assumptions as they move through the transition which brings with it a reduction in resources required to sustain change over time (Anderson, Goodman & Schlossberg, 2022).

Successful Recovery: Requiring Sacrifice

Beyond the work required in recovery, and in line with new relationships and routines needing to be established in the transition to recovery (Anderson, Goodman & Schlossberg, 2022), there was emphasis on the sacrifice required to maintain change and develop a new lifestyle or way of being. Sacrifice was highlighted in avoidance of challenging social settings: *“There's things that I have to sacrifice like going out and social gatherings, and I think what a loss you know, and I, I wish I can go”*, and in changing behaviours or relationships that are not serving recovery goals. The need for sacrifice in recovery was supported by a discussion of the need to remain vigilant to the challenges and risks to recovery that present over time. This included recovery fatigue: *“to keep my emotions together, its wearing me down”*, managing expected and unexpected triggers including exposure to high-risk people, places or things: *“People that call me call me up and are still in addiction, [that's] challenging and going places where people are using drugs or alcohol. Sometimes you avoid it and I try to avoid it, but some places you can't avoid”* as well as exposure to cues *“I feel for some of the people who are triggered by the shape of the glass”*, availability of substances in the home or locally, or exposure to substance-related paraphernalia, with the need for consideration of management approaches recognised at an

individual level. This is reflective of both the S of *situation* in perspective and understanding of the change process, and risks to sustained change, as well as the S of *strategies* in facilitating changed behaviours to support and provide safety to ongoing maintenance of the change process in recovery (Schlossberg, 1981, 2011). The STT process posits that individuals must learn to balance other areas of their lives and to feel supported and challenged through their transition journey, which is reflected in the balancing and adjustment processes described (Anderson, Goodman & Schlossberg, 2022).

Successful Recovery: Requiring Vigilance

Recognition of triggers and challenges was noted as requiring vigilance in recovery and a tailored approach, with triggers and challenges unique to the individual's experience, substance use patterns, time in recovery and personal preferences (Marlatt et al., 2007). Approaches to management of these varied depending on the nature and severity of the challenge, with some participants avoiding exposure to certain risks: "*For the first year or two I try to avoid social gatherings or things that might trigger me*" which were described as non-problematic for others: "*If I'm at functions or with other people, even if people drink in front of me. Whatever, it doesn't, it doesn't really bother me*". Participants considered the context of their use in their experience and need to be vigilant for personal triggers:

For me it's more.. because I always used to drink at home by myself. It's not so much going out and not drinking around other people, I can do that ... But it's the drinking at home when I'm bored, that's the that's the danger thing for me.

This is reflected in development of assets and insight into the S of *self*, *situation* and *strategies*. Whereby the S of *self* is represented by insight into personal experience, the S of *situation* in the perspective and awareness of commitment to change process and vulnerabilities with exposure, as well as the coping *strategies* used to avoid or alter

challenging situations in recovery, consistent with STT (Streifel & Servanty-Seib, 2006; Thupayagale-Tshweneagae et al., 2012).

Successful Recovery: Rewards Reaped

Despite the hard work required in recovery, the sacrifice, and the vigilance to triggers and risks, all participants reflected on consistent hard work in recovery as paying off as they highlighted a range of gains made and positive changes because of sustained recovery and behavioural changes. Reflective of the changes through recovery (Vanderplasschen & Best, 2021; Witkiewitz et al., 2019) and in sustained transition and beginning of the moving through and moving out process in STT (Anderson, Goodman & Schlossberg, 2022). These benefits were recognised as returning from the consistency of change and hard work: *“If I maintain that consistency in myself and do good, good things will happen”* with a recognition of personal responsibility in outcome: *“I just need that same discipline [in recovery] and then it’s me that wins and reaps the rewards offered to me or me that loses and suffers the consequences”*.

These benefits were wide-ranging and included a reduction in cravings and urges over time: *“the desire, or you know, the compulsion to have one, it’s long gone for me”*, coupled with an increased capacity for meaningful activities, and a sense of openness to opportunity, as well as increased capacity for self-care and improved personal wellbeing: *“there’s lots of positives from a physical standpoint”* including increased exercise, improved hygiene and improved diet and lifestyle overall: *“My hygiene’s got better, my diet, eating the right food, and self-care.. that’s improved heaps”*. This is consistent with increased positive recovery capital over time in recovery (Best & Hennessy, 2022; Duffy & Baldwin, 2013), as well as development of assets in the physical and psychological domains of *self, situation* and *strategies* used to cope with challenges within STT (Anderson, Goodman & Schlossberg, 2022; Stokes et al., 2018).

Improved psychological wellbeing was described as a result of the work of recovery and was consistent with development of assets of the S of *self* in recovery (Stokes et al., 2018). This was discussed concerning general wellbeing: “*I’m definitely functioning better and I think I feel a lot better about myself than prior*” as well as approach to stressors in life and an increase in self-awareness and insight:

What I’ve probably learnt the most is being able to have some clarity about, you know, being self-aware and having insight into to myself my reactions and my responses, but I think also being like.. a like, doing normal things and having a general understanding of just why [re: behaviours and responses] and then being able to be honest and humble with myself

Participants further described an increase in availability for social connection and supports, with capacity to be present in relationships and an increased ability to connect with others in ways that were not previously possible: “*My sisters are very happy because, I hurt their feelings ... they’re like trying to always bail me out of trouble.. Now, I bought their kids [Christmas] presents this year*”. These changes reflect an adjustment to the S of *self* in terms of personal capacity to be present, an improvement in personal and psychological wellbeing underpinning this change, and a reconnection with supports reflecting the S of *support* (Stokes et al., 2018). Underlying this is a process of change through the transition of recovery resulting in new relationships, behaviours and perspectives, consistent with STT and likely to facilitate and support ongoing change in these domains (Anderson, Goodman & Schlossberg, 2022). When considering the overall changes made in recovery with sustained change and commitment as described in the participants' narratives, there is a consistency with modern definitions of recovery, such as that by Witkiewitz et al. (2019). Whereby recovery and change are seen as ongoing and dynamic, characterised by individually relative behavioural

changes, including improvements in health and social functioning, and in wellbeing and purpose in life (Witkiewitz et al., 2019).

Support and Connection as Key in Recovery

The theme of support and connection as key in recovery encompasses the sense of the importance and protective role of support in making and sustaining change in the long term, consistent with the understanding of support as critical for ongoing recovery (Duffy & Baldwin, 2013; Vigdal et al., 2022). This theme included discussion of types of support and their role in change while also holding space for and recognising the challenges that can present themselves in the context of supports and social connections in recovery, consistent with literature (Stokes et al., 2018). Three key subthemes were identified within the theme of support and connection as key in recovery. These related to the variety and types of supports required and utilised, repair of relationships in recovery and the role of group in recovery: a source of connection, support and learning.

All participants reflected frequently and emphasised strongly the integral role of support and connection over their recovery journey in facilitating change, particularly once they began making changes in their use: “*Most important in [recovery].. I believe the most important [thing] is connection*”. Participants reflected on the supports and connections in their lives that showed up for them in early recovery and encouraged them on their change journey: “*She was my main supporter when I put myself in, she’s a great friend*”. They reflected on the importance of support in recovery: “*I’d have to say support is, is paramount, really, in my situation ... I know now how lucky I am to have the support*” and highlighted connection and supports as preventative and protective, consistent with the understanding of support as critical for ongoing recovery (Duffy & Baldwin, 2013; Vigdal et al., 2022). Participants described the role of support in recovery and the change in perspective and acceptance required to engage with support and connect with others:

How I fill the void is through connection ... I think 'I don't need anyone', but the truth is, I've come to believe human people, we're social creatures, I'm no different ... I'm human too and I need to stay connected.

This was consistent with previous literature highlighting a lack of support as a maintaining factor in chronic substance use with increased social isolation and social avoidance, and access and engagement of support opportunities for therapeutic intervention (Pomrenze et al., 2022).

Despite the protective and sustaining elements of connections, participants highlighted the loss of support and connection through their addiction, recognising the impact of their behaviour on relationships: *"I've lost a lot of people along the way as a result of my behaviour"*, with this pattern of loss and impact of addiction on supports well documented in the SUD literature (Duffy & Baldwin, 2013).

Varied Supports

The subtheme of varied supports included discussion of types of supports, that is, recovery, non-recovery and professional based and the positive and negative influence these can have on recovery.

Varied Supports: Recovery and Non-Recovery Support. The need for both recovery and non-recovery-related supports over their journey was highlighted and emphasised by participants with reflection on the benefits, functions and support derived from each type, with an emphasis on the need for recovery-related support, particularly in early stages of recovery: *"People doing recovery are the people you bounce best off, I've found"*. The benefit of support through the shared experience with others in recovery was also described: *"That shared experience and it's, it's alright to have your family on board, but they're not doing the recovery"*. A sense of accountability was provided through personal supports: *"I have, myself to be accountable to, and obviously my family"*, recovery supports:

“I’ve learned from [the Just for Today text] and that makes me strong, and I have to be accountable to my sponsor” and through group: *“Going to group each week, and saying that I didn’t pick up in the last week is really important to me because I don’t wanna let people down. So to me, having that accountability is really important”*, with accountability to others considered of significant importance in sustaining change over one’s recovery journey. The need for both recovery and non-recovery support is consistent with research reflecting the benefits of peer support in recovery (Best et al., 2012; Best & Lubman, 2012; Duffy & Baldwin, 2013) by participants and the broader recovery literature (Groh et al., 2008; Wnuk, 2022).

Varied Supports: Professional Support. Beyond the need for recovery and non-recovery supports, participants reflected on their engagement with professional support and development of a treatment team. They reflected on their individual professional support network and the individual nature of recovery approach required, as consistent with literature (Moos & Moos, 2006; Tucker et al., 2020; Witkiewitz & Tucker, 2020). Participants compared their approach with that of others in recovery, noting components of treatment that worked for them individually, for example, group, individual psychologist or counsellor, 12-step meetings, AA or NA sponsor, as well as familial supports: *“Main sources [of professional support] have been my psychiatrist, who I see once in a blue moon, and then weekly sort of therapist, and then weekly day group”*. The need for a tailored and individual approach to professional supports in recovery was highlighted, with personal preferences and individual fit of treatment supports considered: *“I never liked it [AA].. I never liked getting up and telling my story to people, and I know I’m not knocking it. I know it works for a lot of people, but it wasn’t really for me”*.

Reflection on, and consideration of, ongoing adaptation of supports and professional involvement depending on the needs of the individual was had, consistent with an individual

recovery approach (Best & Hennessy, 2022; Witkiewitz et al., 2019). Participants reflected on the need to increase or reduce access to supports depending on level of functioning and stability of function and experience over time. The support networks described were consistent with STT definitions of *supports* (Anderson, Schlossberg & Goodman, 2012). These were reflective of the most common sources of support within the recovery literature with the role of agencies, organisations and support services key in recovery for some (Duffy & Baldwin, 2013) with alignment with the involvement of differing mechanisms of support and change needed for differing individuals (Vanderplasschen & Best, 2021; Witkiewitz et al., 2019),.

Varied Supports: Support as Double-Edged. While most participants reflected positively on their supports, recovery, non-recovery and professional, there was an acknowledgement of the potential for support to be double-edged or to negatively influence one's recovery at times (Duffy & Baldwin, 2013). Participants described the role of stigma or judgement from others as having a negative impact, alongside relationship breakdowns, divorce and conflict, as well as risks relating to contact with friends associated with active addiction: *"Before I used to hang around negative people, and people that don't want the best for you"*, highlighting the need to step away from these relationships. Participants further identified a need for awareness of patterns in relationships that can hinder recovery, coming from others: *"My wife is a very caring, understanding [person].. but with the co-dependent situation, I now know [her] to be one of those people who, almost facilitated the drinking"* and from self: *"I've lived with my brother for the last 12 to 15 months who has an addiction ... he's only just starting his journey ... he picked up again this week so I'm almost, I'm almost saving someone again"*. This is consistent with the negative capital concept (Patton et al., 2022; Pomrenze et al., 2022) and in line with the assets and liabilities in STT (Anderson, Goodman & Schlossberg, 2022), where social stigma or limiting behaviours and attitudes,

both from others and self is a significant liability in support and recovery (Vigdal et al., 2022). Further, this may be reflected in the individually relative patterns of improvements and deterioration across measures of *self* over time in recovery demonstrated in Study 1.

Overall, the theme of support and connection in recovery as key highlights the integral role of supports in recovery, consistent with previous literature and is consistent with the development of assets across the S of *support* as assisting change and transition in the 4S model of STT (Anderson, Goodman & Schlossberg, 2022). The STT model is further reflected in the changed behaviours, new relationships and new ways of being in relation to others and *supports* through transition as one moves through and out of their recovery transition experience (Anderson, Goodman & Schlossberg, 2022).

Repair of Relationships in Recovery

The participants reflected on the repair of relationships with time in recovery and in the context of sustained change, consistent with literature (Duffy & Baldwin, 2013). They described and recognised the pain and hurt inflicted on their supports, loved ones and families through their active substance use, with an acknowledgement of repair and improvement over time in recovery: *“I used to sort of see the pain on his face and think, ‘Ohh, I’m not doing this to him’ ... that’s been the big thing, the [positive] change in my family”*. Participants reflected on the emotional guilt, pain, shame and remorse they experience when reflecting on their relationship and behaviour in active addiction particularly when considering the incongruence with their values in relationships: *“[It] took me a long time to recover from that.. From the fact that I would look [husband] in the face and say no, I haven’t had a drink when I had”*.

Despite the negative impact on their loved ones, all participants reflected on improvement and repair in their relationships resulting from behavioural changes and recovery. These largely reflected an improvement in communication: *“It’s got better and like, I think we talk about things”*, and a recognition of an increase in trust by their support

networks: “*There's none of that, following me and not trusting me when I'm going out, [asking] where are you going*”. This was considered to be a result of their increased honesty and authenticity in interactions: “*I've just got to be a bit more present and honest with people*” which allows more open and connected relationships: “*With my family like it's more easy being around them now because I'm.. [honest] where before like I wasn't present and always manipulating the truth*”.

The narrative regarding the repair of relationships in recovery is consistent with literature highlighting the effect of substance use on relationships, highlighting relationships as necessary for good quality of life (Muller et al., 2019) and as a significant motivator for recovery (Duffy & Baldwin, 2013). The pain and struggle inherent in recognising the impact of substance use on key supports are recognised in the literature (Duffy & Baldwin, 2013; Vigdal et al., 2022) and despite this, supportive relationships in peers, friends and communities remain integral in ongoing recovery (Duffy & Baldwin, 2013; Vigdal et al., 2022). The improvements and repair which occurs in relationships with sustained recovery are recognised both as a positive when reflecting the overcoming of challenges and repair of relationships (Duffy & Baldwin, 2013; Strawbridge, 2007) and as holding potential to be detrimental in the case of less than desirable outcomes to relational repair attempts (Duffy & Baldwin, 2013; Strawbridge, 2007). Both outcomes were highlighted by the participant’s experiences and in the progression of relationships through recovery (Duffy & Baldwin, 2013), consistent with development and strengthening of assets in the S of *support* over the recovery transition experience (Anderson, Schlossberg & Goodman, 2012).

Role of Group in Recovery: A Source of Connection, Support and Learning

Across the interviews, participants described the role of group in their recovery journey, reflecting on the pivotal role it has had to date in supporting their change process: “*It has played a major role for me*” with group described as a keystone of change “*I've relied a*

lot on the day programme group”, the importance of the role of group in addition to other treatment supports highlighted: *“I think group is paramount because my psychologist mainly is working on psychology, things you know where it's not [alcohol related] ... The crux of the matter is alcohol and [group] is doing that”* alongside the stabilising role that group has in recovery: *“I'd shatter without it! Look, there might be a day where I stopped going, but I can't see it”*, with a recognition of the process of adjustment to group membership and attendance: *“[At] first, I was very reticent, and now it's just what I do on a Tuesday night, I look forward to it, I look forward to seeing people and we communicate”*.

Beyond the treatment focus of group itself, all participants reflected on the connection and support provided developed through group participation, consistent with literature (Sobell & Sobell, 2011). This included a sense of the importance of connection and support between group members:

I think what works is.. you have a group of people that actually connect. Most probably [that] has been the most positive thing for me, the connection with the people in the group, which made it easier to have camaraderie and friendship

With an acknowledgement of the relationships developed with ongoing attendance and commitment: *“You develop a real care factor, it's really the people that matter and it's like a common bond”*.

Participants described the development of relationships through the group and an investment in each other's stories and day-to-day challenges: *“I like the element of the supportiveness from knowing that people also share the same idea about wanting to know my story, how I've got on and how did you go with [personal challenge]”* as well as providing support in difficult times or when experiencing challenges in their recovery journey: *“So if one of us as well is struggling too, you know, we be supporting each other”*, with an understanding of variability in group involvement: *“Sometimes you open up and sometimes*

you don't. Some weeks, I'll just say everything's fine ... And then the next week you know you might go and pour your heart out". Group was further considered as a space to challenge patterns of social isolation and connect with others: *"I have isolated myself significantly so therefore my social life and connections and conversations with friends are very minimal, [I'm] selective with what information I give and don't [to friends], so [group] is almost like a socialisation"*.

Participants reflected on the positives of a sense of shared experience through the group in terms of facilitating the development of connection between members, providing a space where they feel understood: *"It's really good to sit around with a group of people that understand what you're going through, and you can just say anything and people get it"* as well as the shared experience of others serving to validate and normalise their recovery challenges or behaviours in addiction: *"Through that shared experience [you can] have a conversation with someone and it's sort of normal ... rather than having to explain to someone who doesn't have addiction issues, something that would be abnormal for them"*.

This is further supported by participants reflecting on hearing their own experiences mirrored in those of others: *"it's very uplifting when you hear other people saying the same things that you had going on"*, and learning from the shared experience of others: *"you're learning through other people and how they might approach something or how they're solving their problems, but you kind of put it in the bank for when you're, you know, struggling with something similar"*. Participants described shared learning through connection in group, with a comfort in reaching out to others for support. They highlighted the importance of sharing and talking about their feelings, experiences, and challenges through recovery in group: *"I can talk about it, talking helps ... when I share, I get relieved ... and you feel better"* and recognised this as both challenging but rewarding and protective:

It's a chance for you to kind of talk through the worries and the concerns and plan your strategy and plan how you might cope with those challenges and, get that feedback from people who have the same experience, they're in it with you

Consistent with function and change opportunities presented as being inherent in groups within the literature (Sobell & Sobell, 2011; Stead et al., 2017; Weiss et al., 2004).

Participants described their needs of group as changing as their recovery progressed and became more stable. Participants reflected on their needs moving from transitional support following an inpatient detox stay with the view of supporting successful discharge and assisting early recovery:

Coming out of an inpatient environment ... I think that [group] was a healthy transition back into the real world where you're back at work or back during your normal activities and, but, you can still connect with people that you knew had been on the same journey. And that was a safety mechanism, you know, like a, having a Bungie, Bungie rope

They described needs changing over time from intensive treatment support to connection and towards providing support to newer group members or those who are struggling in recovery; *“I felt that I was travelling OK and that I wasn't really needing the group, but I felt that my experience was to help others that are in the group, which is why I was going, and am still going”*.

The exploration of the role of group in recovery by the participants is in line with the integration of the use of STT in a group therapy setting described in the most recent edition of the text by Anderson and colleagues (2022). It reflects the support, information and therapeutic processes which can be provided in a group counselling format (Anderson, Goodman & Schlossberg, 2022). Participants descriptions of their experiences of support and the role of group in their recovery are consistent with the common processes of group therapy

as they support transition, such as the instillation of hope, universality, information provision, altruism, interpersonal learning and development of social skills, imitative behaviour, group cohesiveness and catharsis as described by Yalom and Leszcz (2005) and as identified as the processes supporting transition as outlined by Anderson, Goodman and Schlossberg (2022).

The experiences described by participants are consistent with STT in a group setting and align with the function and role of group in treatment as outlined in the recovery literature (Stead et al., 2017). This includes the opportunity to analyse motives for behaviour, provides an opportunity for social learning, allows generation of emotional experiences, allows for the imparting of information, the development of new skills (Stead et al., 2017) and provides a level of social support and social pressure to change (Sobell & Sobell, 2011). Social support and accountability is particularly important when considering the role of support and interpersonal connection in supporting recovery, as people with SUDs often require assistance and practice in identifying and communicating psychological needs to others, identifying and adjusting maladaptive patterns of behaviour and developing, repairing or sustaining relationships which group provides the opportunity to do so (Weiss et al., 2004). Further, the group is seen as a way of facilitating increase in assets of the S of *supports* and providing space to implement changed roles and behaviours and develop connections to facilitate and support transition and change in recovery (Anderson, Goodman & Schlossberg, 2022).

Changed Ways of Coping

All participants described and reflected upon changes in how they currently approach coping with challenges and adversity compared to pre-recovery and over time across their recovery journey. They highlighted significant changes in their approach: “[My] *coping is completely different to what I've, what I've done before ... now I will use certain strategies*”. Participants emphasised the role of trial and error in developing effective coping strategies at differing time points or stages of recovery. Participants reflected deeply on changed coping

strategies, describing increased active and adaptive coping strategies used across behavioural, cognitive, and problem-solving dimensions. They reflected on a range of coping approaches developed and implemented including prioritising one's own needs and self-care: "*I've put a bit more self-care in, making sure I treat myself*", using exercise and active coping, integrating the use of mindfulness strategies: "*I'm also, with the encouragement of [group facilitator], practising mindfulness ... I am more mindful, so that I'm living in, instead of.. I'm living more in the present, more in, inside me*" or the use of meditation and prayer: "*I meditate and I try to pray, but meditation is very hard, like it's hard, like I focus on my breathing*". Many participants reflected on an adjustment to their self-talk: "*I do catch myself and try to correct that sort of [worry] spiral quickly.. You know [using] a bit of self-talk*", a change in relationship to their cognitions: "*I know that a lot of the chaos is a lot more chaotic in my head than it is in reality, and that if I take a moment to stop and breathe for a second there then it will be alright*" alongside the use of daily self-reflective practices such as gratitude diaries or journaling.

There was an emphasis from all participants on the need for acceptance and relinquishing of control in recovery, in terms of others and their actions: "*That's the big thing I've learned through going to the clinic, that you can't control or change what anyone else thinks or does*" as well as acceptance of unpleasant or difficult emotional states: "*Sometimes I get anxious and it passes and, and, I just need to accept that it's there, it's there and it kinda passes. I don't need to run away from it, I can talk about it, talking helps*", and a need to remain present focussed: "*I'm trying not to look long term, I'm still taking it a day at a time*". While recognising the need for acceptance, participants reflected on the challenge of increasing one's acceptance: "*That's probably been the biggest, hardest challenge for me, to live on life's terms and accept the things that are out of my control, that I'm still learning*". Beyond individual coping strategies implemented, many participants highlighted a change in

coping seen in an increased willingness to be vulnerable and ask for help from others in recovery: “*What I've never done in the past is asked for help*”, contrasting the acts of seeking help with previous coping.

The theme of changed ways of coping as described by participants reflects change across patterns of coping in SUDs and changed coping in recovery as outlined in previous recovery literature. The literature on SUD recovery highlights the need for adaptations in coping and movement away from coping through substance use and towards active and adaptive coping (Martindale et al., 2013). Further, effective coping is a core mechanism of change across many SUD treatments (Kuper et al., 2010; Marlatt et al., 2007; Ouimette et al., 1997), and is reflective of movement away from maladaptive or avoidant coping in active addiction (Weiss et al., 2014). Participants' narratives are reflective of change in coping and the efficacy of coping strategies across the recovery journey (Madden et al., 1995; Martindale et al., 2013; Moos et al., 1990). Change in coping is consistent with the increased use of active coping strategies through recovery in contrast to negative and passive coping before recovery, as aligned with the findings by Weaver et al. (2000). Participants recognised that elimination of all maladaptive or avoidant coping in recovery had not, and was not, likely to occur, with an ongoing recognition of room for growth and change despite their increase in adaptive coping strategies and sustained experience of recovery (Weaver et al., 2000). Additionally, participants' recognition of changed coping reflects the development of assets in the S of *strategies* and further demonstrates a change in behaviour, role and ways of being in recovery, consistent with the transition process over time and development of changed ways of being as an individual moves through the STT transition process and out of transition (Anderson, Schlossberg & Goodman, 2012; Thupayagale-Tshweneagae et al., 2012).

Changed Ways of Coping: Grown from Group and Experience. The development of assets in the S of *strategies* was acknowledged as resulting from experience in recovery and as a direct response to group participation. Strategies development aligns with Anderson, Goodman and Schlossberg (2022) who recognised that when transitioning in the STT, adults in transition require *support*, information and therapeutic factors, all of which can be provided in a group counselling format. The participant's narratives aligned with this, discussing the role of group in assisting the development and adaptation of coping approaches in their recovery, reflecting on coping skills training: "*they teach us life skills and that, so that helps*" and psychoeducation delivered through the group as beneficial to their recovery and coping strategy repertoire: "*they teach us stuff, about boundaries, like what's healthy boundaries for example, where I didn't even know before, like they teach us little things that we thought we know that we don't know and got to learn*" noting that learning and education can be direct and indirect through group: "*you learn skills along the way without probably realising it sometimes*". Participants reflected on the opportunity for group to challenge usual ways of being and behaviour to assist with adaptation of coping and ongoing implementation of adaptive and active coping strategies in recovery: "*If people are struggling then just hang on, then you're not doing enough for your recovery. Right, you're not, you know, there's something missing*". These benefits of group in supporting the development of coping strategies are consistent with recovery literature regarding the benefits of group therapy for SUDs including learning, behavioural analysis, education provision and skills development (Stead et al., 2017).

Recovery as More Than Abstinence

Participants explored the concept of recovery being about much more than abstinence or their use of substances: "*recovery is not just about not having a drink*", with this theme reflecting the challenges, struggles and components of recovery from a biopsychosocial

perspective which require management to support and facilitate ongoing and sustained change (Witkiewitz et al., 2019). The theme of recovery as more than abstinence encompassed three subthemes. First, recovery does not resolve life's stressors, secondly recovery requires a new way of being and thirdly, becoming a better person, all of which will be discussed following discussion of the theme of recovery as more than abstinence.

Recovery Does Not Resolve Life's Stressors. In discussing recovery as more than abstinence, participants reflected on the ongoing challenges, stressors and difficulties that remain for them in their recovery:

Staying sober doesn't solve life problems ... there's always gonna be challenges or hurdles ... When you're in active addiction, you can't, you can't do anything about them. You make them all 10 times worse ... I know that staying sober 100% is number 1 on the list, but that doesn't solve happiness at all, and unhappiness is a leader to me not being sober

Participants considered challenges that may have been masked by their substance use and which require addressing or management in their ongoing recovery: *"It's not just about the drinking itself, there's everything else that goes on in terms of your recovery that you're trying to deal with and that you're managing without that, that coping that you had used previously"*. All participants highlighted their own unique challenges persisting in recovery, with some noting the most significant challenge as relating to the substance itself. In contrast, others found an exacerbation of mental health symptoms, workplace stressors, or interpersonal and relationship difficulties as more challenging.

The experience of change, both in a positive and negative direction in recovery regarding mental health and psychological resources is consistent with current literature regarding improved mental health and psychological wellbeing for many in recovery (Duffy & Baldwin, 2013), with an exacerbation of symptoms for others due to the cessation of a

masking or self-medicating function (Duffy & Baldwin, 2013). For either of these groups, increased self-awareness, an improved ability to regulate and manage emotions, and an increase in effective communication are considered to be central to the recovery process and sustained recovery (Duffy & Baldwin, 2013). These are consistently reflected here as outcomes of recovery while remaining a focal point of change and treatment in ongoing recovery processes. The changes described here align closely with both the recovery capital models (Cloud & Granfield, 2008; Duffy & Baldwin, 2013) and ratio of assets and liabilities of the S of *self* in the context of STT (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 2011). In this case, increased assets or resources in the domain of *self* can serve to support ongoing change, however, the presence of, or persistence of, liabilities across the S of *self*, and other three S's, serve to inhibit the change process (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 2011). Beyond the 4S process, STT is reflected in the theme of recovery as more than abstinence in need for transition to recovery to result in changed behaviours, roles, learning, assumptions, and perceptions, consistent with the outcome of a transition as defined by STT (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981, 2011), and aligned with the STT model's third component of 'taking charge' of the autonomous and ongoing use of 4S resources resulting in sustained change (Anderson, Schlossberg & Goodman, 2012).

All participants discussed significant concurrent stressors experienced in early recovery which continued to varying degrees as their recovery progressed. Stress and individual challenges present in recovery are considered to impact outcome of treatment and recovery (Brennan et al., 2011; Moos & Moos, 2006). Further, concurrent stress is encompassed in the experience of the S of *situation* in STT, with multiple concurrent stressors impacting and potentially hindering transition (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 2011). The need for authenticity, connection with one's own needs and a sense of

fulfilment or happiness was recognised as important: *“I realised that I just wasn't happy... there was something else that was missing. This was not how I wanted to live, whether it's sober or not sober, there's these things in my life that needed to change”* aligning with a reconnection with self through the S of *self* in STT (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 2011), as consistent with recovery literature (Cloud & Granfield, 2008; Duffy & Baldwin, 2013).

Recovery Requires a New Way of Being

Participants reflected beyond recovery and abstinence and on their recovery experiences as requiring a change in how they behave and engage in the world. They highlighted recovery as requiring a revision or change in their daily routines: *“I need my routine, although my routine sucks but I need it. I need that that structure, so having the weekly non-negotiable [of group] as part of my recovery journey”* with change required to facilitate recovery across both lifestyle and approach. Assessment of the critical factors in supporting their change was made: *“staying on the right track mentally and as I said, physically. Physical health and happiness is a very important part”*, reflecting a challenge for self to behave differently in recovery over time in contrast to active addiction. Beyond the change in routine and lifestyle, participants highlighted the importance of making changes in their behaviour to assist in sustaining change, with a recognition of the need for ongoing revision and adaptation of behaviours over the recovery journey long term: *“I wouldn't think anything that I'm feeling or doing now will be a constant”*.

Participants reflected on the need for change in themselves and psychological wellbeing, with an increase in understanding of personal responses and improved emotional regulation: *“I'm trying to listen and trying to ... do the suggested things because I've got a lot of growing up to do because I started [using early] my emotional immaturity.. I've got a lot of growing up to do”* and a need for processing of unaddressed or ongoing psychological

challenges, with group providing a space to do this: *“even though the kind of, the difficulty with using alcohol's sort of passed to some degree, we're still using day group as a way to process some of those emotions”*

Participants reflected on recovery as requiring change in old behaviour patterns, particularly in the context of relational patterns and dynamics (Best & Hennessy, 2022). For each participant, what this looked like varied, with some describing the need to increase independence, and others the need to increase capacity to rely on others or seek support: *“It still rears its ugly head every now and my mind comes, my old behaviour comes in and I get resentful [of] everyone around me, thinking I can do these things alone, but really I haven't done things alone”*.

Participants reflected on the need to approach life and challenges in a different way and highlighted the need for integration of new ways of behaving and new roles based on integration of learning through recovery experiences:

I'm the family rock ... I've got this sickness where I have to help people and ... I've had to put a lot of conscious effort into trying to change that aspect of my personality, the way I work in the world.

The need for self-awareness of old behaviour patterns was highlighted through experiences of lapse and relapse processes, through which learning and insight had been gained. Self-awareness was linked with a need for insight into patterns of behaviour, and an adapted way of behaving and managing these required to sustain recovery: *“I wasn't even self-aware enough to be able to then help someone else ... there was tension in my recovery because I was trying to assist someone else, and I would put my own recovery last and hers first”*.

The theme of recovery as requiring a new way of being and highlighting a broad range of change areas is aligned not only with recovery perspectives underscoring the need for

individual change in the recovery process, focusing on the intentional and dynamic recovery with sustained effort required to improve wellness across broad physical, psychosocial and functional domains (Ashford et al., 2019). It is consistent with SAMHSA and the AA Big Book as recognising abstinence as insufficient for recovery (SAMHSA, 2012; Wilson, 1939) and aligned with SUD recovery perspectives recognising recovery requires more than abstinence including psychological wellbeing, quality of life, and cognitive, social and behavioural changes (Stokes et al., 2018). This is aligned with the third component the STT model, defined as ‘taking charge’, which in the context of moving through and out of transitions holds that an individual begins to implement and maintain autonomous use of coping strategies and 4S resources resulting in sustained changes in behaviour, role, learning and perception (Anderson, Schlossberg & Goodman, 2012).

Becoming a Better Person

Participants explored changes in themselves over their recovery journey. They reflected on an increased alignment with their values and valued action, an increase in accountability and reliability and a sense of personal and emotional growth through recovery: *“I feel in some ways I have risen from the ashes”*. Participants highlighted the impact of active addiction on their capacity to live a meaningful and valued life: *“active addiction ... [it] steals your life away, it robs you from achieving the best person that you can be, and that's very important”*. They described improvements across these areas as leading to additional benefits for their wellbeing, as well as improvements in terms of a sense of self and worth as a person: *“I know that I'm a better person [now] than who I was, maybe not on maybe not on paper, but I know that I am. I am, so just be patient and it will turn out”* despite losses in financial, occupational or social status as a result of their active addiction and subsequent recovery journey.

Participants reflected on a desire to change and align behaviour with their values in recovery:

A lot of people will notice whatever happened to them they do to others. I don't want to be that statistic, I want to do the opposite. I want to do the opposite of [what] the bad people have done to me.

Many participants reflected on progression toward this goal already having commenced in their recovery, with behaviour aligning with valued living, interests and goals of altruistic behaviour “*I'm doing something good and genuine to help someone ... it makes me feel like I'm doing good in this world*” and alignment in their ways of showing up to commitments, workplaces and in day-to-day life as aligned with goals

Participants reflected on an increase in personal accountability and reliability over their recovery and change journeys, noting an increased acceptance of their responsibility in moving towards their future and recovery: “*I'm identifying my part in the role*” and acknowledging an increase in personal responsibility over time: “*early in recovery when I wasn't as insightful what it was, was I would find reasons [excuses] to why I relapsed*” with a movement towards increased personal agency in recovery: “[*Now*] *I'm the captain of my own ship, the master of my own universe. I'm the only person who, who is driving the vehicle*”. In line with valued living and changed perspectives, participants highlighted changes in their worldview and perception of both self and others, describing increased tolerance and acceptance of other people as a result of experiencing their adversity: “*I'm more tolerant of other people in general because you don't know what other people are going through, I'm probably a little bit more compassionate*”. Change in worldview and perspective was highlighted in discussions of personal growth required in recovery.

The theme of becoming a better person in recovery reflects broader definitions of recovery within the literature from a substance use and mental health perspective. The

recovery framework defined by the Australian Health Ministers' Advisory Council (2013) considers personal recovery from mental illness to be related to the ability to create and live a meaningful and contributing life in a community of choice with emphasis placed on regaining the capacity for self-determination or deeper engagement as a focus of treatment, with or without the presence of mental health issues. This is consistent with the participant's explorations of change in self and alignment of action and behaviour in recovery with alignment towards meaningful and valued living over time.

Alternate perspectives of recovery within the literature describe recovery as a unique and personal journey in gaining and retaining hope, understanding one's abilities and limitations, engaging in active life, personal autonomy, social identity, meaning and purpose and a positive sense of self. This perspective holds that the essence of recovery is about a journey to a meaningful and satisfying life (NSW Consumer Advisory Group, 2012). This is consistent with the experiences shared and in the transition to recovery as requiring and resulting in changed behaviours, roles, learning, assumptions, and perceptions, consistent with transition as defined by STT (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981, 2011).

The Requirements of Group

Participants explored their perceptions of the elements of group required for growth, for group to function well and to assist effective engagement in the group and process (Yalom & Leszcz, 2005). The theme of the requirements of group was underpinned by two subthemes including the minimum requirements for effective group process and the responsibilities of the group facilitator.

Minimum Requirements

Minimum Requirements: Safety, Honesty, Authenticity and Vulnerability. All participants emphasised the primary need for a sense of safety to exist within the group space, considering safety in group as slowly developed, and being grounded in an implicit trust in the holding of confidentiality and sense of nonjudgement from others: *“It happened without me realising ... you feel that sense of security and trust ... people say things that are very intimate and personal and, I would never repeat and I feel comfortable that that they're the same”*. Participants highlighted the role of safety in inviting vulnerability and group connection: *“they create a space that invites you to, you know, be comfortable and feel safe”* and further reflected on changes in the group as impacting the group safety: *“If two new people come in, all of a sudden the whole dynamics change ... you have to adjust”*.

In addition to safety, the need for honesty and authenticity in group was highlighted, with the consequences of dishonesty being felt by all members. The need for vulnerability in group was explored despite associated discomfort: *“I never used to like to get vulnerable, now I, not that I like it, but I notice that it is helping me”* with participants acknowledging the benefits of vulnerability: *“you benefit from letting your guard down”* and the impact of opening up and being vulnerable not just for self, but for others and the group as a whole: *“As I've started to open up and be vulnerable, I think, you get more in return, but it's not about getting it's about giving as well, and I think you know that that is a big part of the recovery”*.

Minimum Requirements: Commitment and Consistency. Beyond honesty, authenticity and vulnerability as supporting group safety, participants highlighted the sense of commitment to group as supportive and necessary for group functioning: *“It's sort of hard to describe, hard like, you've got togetherness, it's like it's your, it's your group”* including the need for commitment to a shared goal by members: *“We didn't want [to be] an alcoholic or drug addicts, you know social outlet on a Tuesday. We wanted sober, committed people to*

come for treatment”, and a commitment to making changes in recovery: *“the same old miserable, sad sack stories from the same person, them saying the same thing for 12 months and they're not doing nothing about it. Sometimes that becomes a little bit draining”*.

Stability and consistency in group were highlighted as assets to developing safety and allowing authentic and vulnerable engagement with the group program, consistent with group literature (Yalom & Leszcz, 2005): *“we’ve built a relationship, so the good thing is we’ve got a very, very strong group”*, and this was contrasted with the fragility and variability of group dynamics with changes in attendance, membership or organisational adjustments to the group formats or makeup. This fragility was highlighted by participants of a group that has recently been amalgamated with another group and where there are challenging group dynamics occurring: *“a couple of us in the group are fearful that the whole thing is going to fall apart with this amalgamation. We really, really want group to get keep going”* with a reflection on the destabilisation of the group *“it’s a funny dynamic going on at the moment”* and general reflections on the effect of safety and benefit of group attendance with the varying interpersonal challenges resulting from the change. These challenges facilitated discussion of the requirement of the group to hold or maintain boundaries or limits regarding engagement, relationships and behaviour which supports group safety.

The exploration by the participants of the minimum requirements of group as supporting and facilitating or potentially hindering recovery was a surprising finding in the narratives presented however was consistent with literature regarding group processes (Yalom & Leszcz, 2005). This theme reflects the role of group in the change process. It explores how group, when the minimum requirements are met, can support the facilitation of recovery as aligned with the Research Question of how groups can support transition to recovery. Participant’s discussion of group processes and the need for safety, commitment, a sense of hope and a need for cohesiveness to support and facilitate vulnerability, honesty and

authenticity, which further facilitates change, is in line with common processes of group therapy as described by Yalom and Leszcz (2005). Fitting with the integration of the use of STT in group therapy and as identified in the recent revision of the STT text by Anderson, Goodman and Schlossberg (2022). This process aligns with the opportunity for groups, with established safety and room for growth, to allow participants practice in identifying and communicating psychological needs to others, identifying and adjusting maladaptive patterns of behaviour and developing, repairing or sustaining relationships (Weiss et al., 2004).

Responsibilities of the Group Facilitator

Beyond the minimum requirements needed for group to function effectively, participants reflected on the role and responsibilities of the group facilitator, particularly regarding upholding safety, boundaries and dynamics within the group:

[Group facilitator] uses this term.. Form and storm, and then will come the norm.

We [group] are a little bit in storm at the moment, and last night was the first time I've seen [group facilitator] really have to put her foot down over a couple of things because there was some sharing that got a) outside boundaries and b) a bit raving.

Participants reflected on their appreciation for their group facilitators in the way they manage challenges to the group dynamic: *“I think they've managed the dynamics really well in the group when there has been that sort of, you know argy bargy”*. In addition to the need to hold boundaries, participants reflected on the skills and qualities of the facilitator in supporting change and the group process. Reflection was made on the skills of the facilitator to generate group interaction:

What [group facilitator] will do is, she'll listen to what you've said, comment on it in a way that draws someone to comment on it or not even comment to throw

[in a comment]. *The way she makes interactions happen is so organic, as to be seamless.*

Participants reflected on the facilitator's responsibility in developing the group norms, group format and in delivery of the facilitator's overall facilitation approach. They recognised individual style differences between facilitators and emphasised the need for the group facilitator to work in a flexible, adaptable and client-centred way to ensure they meet the needs of the group as a whole, as well as the needs of each individual within the group: "*it's not structured but it allows the group to use it in a way that you need it*". They highlighted an appreciation for flexibility in the group delivery with room for the group to run itself:

Their style I like because they've always allowed the group to run itself, there's always a bit of a bit of a topic that we may be, you know, summarising on. But generally, the idea of it is it's not a lesson.

The participants recognised the facilitator's ability to adjust their approach depending on the individual and their needs, while supporting the group as a whole:

If there is a handout to be given out, it's for a reason, and it's usually because for the benefit of the people who haven't been into [inpatient clinic] and [you'll] see those people who haven't been in [inpatient clinic] reading it, as the rest of us who have will go.. oh yeah, done that.

The participants highlighted and emphasised the value they see in their input and autonomy in the topics discussed within group: "*We do our own topics now, the facilitator [and the group], we chat, and we say ... let's talk about this next week*".

The reflection on the role and responsibilities of the group facilitator within an open group process not only emphasised the minimum requirements for group as highlighted in the supraordinate theme but emphasised the role of the facilitator in managing the changing dynamics in an open group setting to ensure the group is maintaining safety, demonstrating

cohesiveness and meeting the participants needs as best as possible as they move towards recovery (Lo Coco et al., 2019; Wendt & Gone, 2018) as aligned with group processes (Anderson, Goodman & Schlossberg, 2022; Yalom & Leszcz, 2005). Additionally, this narrative reflects variability in progress and change for each individual, the unique recovery experience and varied stages of change of participants in an open enrolment group setting which limits the utility and appropriateness of stage-matched or manualised group interventions (Lo Coco et al., 2019). This highlights the challenges of the group facilitator in delivering group therapy in this setting and emphasises the need for a flexible, adaptable provision of treatment interventions in a group setting that addresses and supports the complex and individual nature of SUD. An adaptable group and client-focused treatment approach was emphasised as the preference of participants, for which, there is currently no clear change paradigms or evidence-based treatments (Lo Coco et al., 2019; Sobell & Sobell, 2011; Wendt & Gone, 2018). Further, consideration of the preferences and experiences of participants can be used by clinicians to inform the design and ongoing facilitation of open-enrolment outpatient group programs for SUDs. These findings highlight the need for group design and facilitation to focus on group dynamics (Yalom & Leszcz, 2005), collaborative development of group process and education or skills delivery, as well as the need for the facilitator to attend closely to felt safety, participant authenticity and collaboratively developing shared goals and commitment within the group (Anderson, Goodman & Schlossberg, 2022; Yalom & Leszcz, 2005).

Summary

The purpose of Study 2 was to understand more deeply the recovery experiences for participants over a minimum of six months while engaging in open enrolment outpatient drug and alcohol group therapy programs in a private hospital and explain the quantitative results from Study 1. This study aimed to understand the recovery processes and participant's

experiences by exploring the broad overarching Research Questions of the research of: do group participants' experiences of movement towards recovery align with or reflect STT, and, if so, how can STT be used to support people with SUDs in transitioning to recovery and inform practice in clinician-led open-enrolment outpatient group therapy programs. Whilst no a priori hypotheses were developed for Study 2 to allow for the exploration and investigation of themes extracted from qualitative data via RTA, the themes presented in the combined results and discussion analysis section above provide perspective to and answer the Research Questions posited by this study and the thesis.

The pattern of results detailed in the analysis section presented above reflect the existing SUD recovery literature and demonstrate an alignment of group participants' movement towards recovery over time and through outpatient group therapy with the three key stages of STT, approaching transition or 'moving in' to transition, taking stock of coping resources and the 4S's or 'moving through' transition and taking charge, or 'moving out' of transition (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981). STT was reflected clearly in the overall recovery journey experience detailed by participants which emphasised their experience of active addiction and movement in, or towards change, as they approached their transition to recovery, with an event or non-event triggering the transition process (Stokes et al., 2018). This was followed by movement through transition as described by participants through reflection on development of resources across all 4S domains of *situation, self, supports* and *strategies* and with a ratio of assets and liabilities in the 4S domain recognised as assisting or hindering the recovery and transition process (Anderson, Goodman & Schlossberg, 2022). A clear indication of the need for broad and far-reaching change in the individual was recognised, consistent with movement through the STT transition process, as a person moved towards sustained recovery and commenced the journey towards 'moving out' of the transition process (Streifel & Servanty-Seib, 2006). Individual

change was seen in adapted behaviours beyond abstinence in recovery and was described in changed patterns of substance use, as well as changed roles, learning, assumptions, and perceptions through recovery, as consistent with the outcome of STT transition (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981, 2011).

Themes and narratives of the participant's experiences did not detail how STT can be used to support people with SUDs in transitioning to recovery, however, this can be extrapolated from the positive experiences participants had in their change process including the development of change in *situation, self, support* and *strategies* through attendance and engagement in group. The narratives of participants and the subsequent themes developed inform practice in clinician-led open-enrolment outpatient group therapy programs by highlighting the need for a set of minimum standards relating to group processes and functioning to allow a sense of safety in the group, facilitate participant's capacity for honesty, authenticity and vulnerability through group and assist with developing a shared goal and sense of cohesion within the program. This narrative aligns with recent inclusions of the group process as facilitating transition by Anderson, Goodman and Schlossberg (2022) The group facilitator's facilitation approach and interpersonal style were considered crucial in effective practice and group delivery, above and beyond the specific topic, intervention or type of therapy delivered. The facilitation approach was deemed integral in maintaining boundaries and safety of the group as well as supporting a flexible and adaptable approach to group which allows the delivery of an individually relevant experience of group with the experience of shared and parallel learning (Anderson, Goodman & Schlossberg, 2022). Overall, these findings relating to the experiences and preferences of participants can be used by clinicians to inform the design and ongoing facilitation of open-enrolment outpatient group programs for SUDs.

Limitations

There were two key limitations in the design of Study 2. Firstly, while the sample size of group members was deemed suitable given the depth and breadth of the research in conjunction with the narrow focus of the Research Questions, this study may have been strengthened by the inclusion of additional data points or participant interviews to ensure additional ‘thickness’ of data and qualitative narrative (Braun & Clarke, 2021, 2022; Byrne, 2022). Secondly, the removal of intended interviews with group facilitators limited the reflexivity of the study and limited the scope for understanding the role of group in the STT process and the exploration of change over time in recovery from a STT and clinician perspective. Hence, this limitation hindered the conclusions drawn regarding the second Research Question relating to how STT can be used to inform and support the transition to recovery through outpatient groups. It would be beneficial to explore the narratives of group facilitators either independently or in relation to the group participants in future research, to allow reflexivity and an alternate perspective of the STT process as it aligns with recovery in supporting the transition to recovery through group processes and attendance.

Implications and Directions for Future Research

Implications. Despite limitations, these results hold several theoretical and practical implications for existing theory and practice. Such implications include the guidance for design and delivery of open-enrolment outpatient groups, the novel application of STT to the process of change in SUD and recovery through clinician-led outpatient group therapy settings. The application of STT to this treatment setting and population group, and subsequent findings, provide preliminary research data supporting the alignment of the STT process with the process of recovery from SUD through clinician-led outpatient group therapy programs and highlights the potential utility of STT when both theoretically conceptualising the process of change in recovery and may guide the practical delivery of treatment of SUDs.

Additionally, in applying STT to the experiences of people earlier in their recovery journey than what currently exists in the literature (Stokes et al., 2018), the present research provides preliminary data for the support of STT process as experienced across the recovery journey for people with SUDs. These results are consistent with, and add weight to, preliminary research and literature surrounding the application of STT to the SUD field and in SUD recovery (Anderson, Goodman & Schlossberg, 2022; Stokes et al., 2018; Streifel & Servanty-Seib, 2006).

Directions for Future Research. Future research should integrate a reflexive exploration of the perspectives and narratives of group facilitators to explore the experiences of transition to recovery. Additionally, future research in other open enrolment group formats, settings and locations would be of benefit to explore consistency across locations and populations. Further, this research is to our knowledge, the first study to integrate STT in a group setting. Hence, given the promising data relating to the alignment of recovery experiences with STT and the potential utility of STT in conceptualising and supporting change from a group perspective, this is a worthwhile area for ongoing research. Future research with the view of understanding and exploring participants' experiences, as they align with the STT and recovery process would be of benefit. Additionally, further research to build on knowledge for clinicians regarding how to support the individual in transition in an open-enrolment, unstructured group treatment setting would be of use.

Conclusions

Study 2 explored the narratives of recovery for participants of an open-enrolment outpatient drug and alcohol group program based in a private psychiatric hospital. Through a process of RTA, seven key themes of the recovery journey, changed perspective and mindset, successful recovery requires hard work, sacrifice and vigilance, support and connection as key in recovery, changed ways of coping, recovery as more than abstinence and the requirements

of group, with associated subthemes were developed. These themes reflected a change process as experienced by participants which was consistent with existing recovery literature and aligned with the STT process of transition. The themes developed provided initial insight into the role of open enrolment outpatient group therapy programs in facilitating and supporting the transition to recovery from SUD as aligned with STT.

CHAPTER 5

General Discussion

SUDs contribute to a significant disease burden within Australia (Australian Medical Association, 2017) and worldwide (Glantz et al., 2020). While understood to hold potential for recovery (Witkiewitz & Tucker, 2020), recovery from SUDs often involves lengthy patterns including multiple cycles of treatment followed by a return to use as the norm, at times with greater symptom severity (Dennis & Scott, 2007; Dennis et al., 2005; McLellan, Lewis, O'Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005). Nevertheless, many affected by SUDs will eventually resolve patterns of problematic use and enter recovery (Laudet & White, 2010; National Institute on Drug Abuse, 2014). Currently, most SUD treatment occurs in outpatient settings (Sacks, Banks, et al., 2008; Sacks, McKendrick, et al., 2008), with clinician-led group therapy the most prevalent treatment modality (Weiss et al., 2004).

Despite widespread implementation of group therapies for outpatient substance use treatment, there remains a paucity of conceptual frameworks and theoretical underpinnings for group therapy processes for SUDs in supporting the movement towards recovery, particularly in non-manualised, open-enrolment group programs. Within the private healthcare system in Australia, open enrolment group-based treatment is the most common form of treatment provided, typically following an acute inpatient detoxification admission. In this setting, participants present for treatment at differing stages of change and varying points in their recovery journeys. Participants must integrate with the existing group members who are also varied in their motivation for change. This process does not allow for ease of delivering evidence-based manualised or stage-based interventions, such as stage-matched TTM treatment interventions (Klimas et al., 2014; Prochaska & Norcross, 2001).

As a result, there is currently no theoretical or conceptual framework for change within the SUD literature that guides a clinician in assisting group members with movement towards recovery through an open, unstructured group program as they present for treatment with varying levels of commitment to change, readiness, motivation, resources, needs and symptom severity. This format presents significant challenges for clinicians in practice and is a noticeable gap in the literature supporting theory-oriented practice for this setting (Lo Coco et al., 2019; Wendt & Gone, 2017). Hence, this research aimed to apply and test the alignment of a novel theoretical and conceptual framework, Schlossberg's Transition Theory (STT) (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981) to recovery for people engaging in clinician-led open-enrolment outpatient group therapy for SUD. With the aim of identifying and testing STT as a conceptual framework to guide treatment and group facilitation in line with a theory-oriented practice and scientist-practitioner model (Strong, 1991).

Main Findings

Research Question One: Do Group Participants' Experiences of Movement Towards Recovery Align with or Reflect STT?

In exploring the first Research Question of the study, Study 1 found group participants' experiences of change aligned with movement towards recovery, at an individual level and in line with modern definitions of recovery. Study 1 found recovery to be a non-linear and highly individualised process with relatively stable changes in both the positive and negative direction across recovery-oriented measures occurring on an individualised timeline and in an individual way for each participant. As opposed to a linear process occurring on a similar timeline for the overall group. This was consistent with current definitions and conceptualisations of recovery within the literature, particularly that of Witkiewitz et al. (2019) who conceptualised a flexible definition of recovery that focussed on improvements in

functioning and defined recovery as an ongoing and dynamic process of behaviour change characterised by relatively stable improvements in biopsychosocial functioning, including health and social functioning and increases in wellbeing and purpose in life. Additionally, Study 1 Reliable Change Index (RCI) data was aligned with perspectives of recovery as complex, nonlinear, unique and highly individual, with the process, experience and length of the journey or ‘treatment career’ varying in recovery (Duffy & Baldwin, 2013).

The finding of recovery as individualised in Study 1 was further corroborated by the qualitative data and themes developed in Study 2, which highlighted the individual recovery journey as complex, non-linear, dynamic and relative to the individual. Study 2 data highlighted a process of individual improvements and regressions occurring on an individualised timeline and experience over a lengthy and complex recovery experience and change process (Laudet & White, 2010; Lo Coco et al., 2019; Stokes et al., 2018). Recovery journey themes developed via RTA further highlighted the individualised process of recovery, as consistent with Witkiewitz et al. (2019). These findings were in line with existing research emphasising the relationships between symptom severity, treatment seeking and recovery status as being complex and heterogeneous (Witkiewitz & Tucker, 2020), with engagement in treatment, and course of illness differing depending on a range of psychosocial factors including help-seeking experience, socioeconomic status and severity of illness (Lee & Sher, 2018; Schoenberger et al., 2021).

In addition to the alignment of findings with recovery models, the mixed methods approach taken by the combination of Study 1 and Study 2 reflected a clear alignment of participants’ described movements towards recovery and recovery experiences over time with the three-part transition process as outlined by STT. No group-level pattern of change was identified to support the hypotheses of recovery as aligning with STT from a group-level analysis in Study 1. However, individual RCI data provide weight to the alignment of

movement to recovery with the STT process on an individual level. This movement was seen in individual participant changes in measures of the 4S coping resource system, in a positive and negative way, consistent with the assets and liabilities perspective of the STT. The findings of Study 1 data regarding participants' experiences as aligned with the STT process were supported by the qualitative analysis in Study 2.

Key findings of this research as they align with the STT process will be discussed in more depth through the frame of the three components of the STT model: Approaching transition, or 'moving in', taking stock of coping resources via the 4S system or 'moving through', and taking charge via strengthening of resources integrating changed ways of being and 'moving out' of transition.

Approaching Transition. Within STT, transitions are defined as any event or non-event that requires change or a reauthoring of life, and are considered in terms of their type, perspective, context and impact (Anderson, Schlossberg & Goodman, 2012). An individual's capacity to cope with transition depends on the type of transition, perceptions of the transition, the context in which it occurs, and its impact on life, that is the extent of change required as a result of the transition (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981). While the approach of transition was unable to be readily assessed via quantitative methods in Study 1, the narratives of participants in Study 2 and the themes developed through RTA reflected a shared experience of the recovery journey across participants including their experience of active addiction and approach to transition and change in their substance use patterns and mindset of change which aligned with the first stage of the STT model, approaching transition, or 'moving in' (Anderson, Goodman & Schlossberg, 2022; Thupayagale-Tshweneagae et al., 2012).

A shared experience of recovery and transition was identified via thematic analysis with nuanced descriptions of complex and individual experiences of recovery detailed by

participants, including experiences of their treatment and recovery journey, patterns of substance use, multiple change attempts and ongoing struggles in recovery over time. This experience of recovery was consistent with previous research regarding STT in sustained SUD recovery (Stokes et al., 2018). Participants reflected on individual experiences of escalation and progression of substance use over time and their experiences of events, non-events or particular triggers which led to the initiation of change, which aligned with the STT process (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981) and which were consistent with previous literature theoretically applying STT to the change in SUD (Stokes et al., 2018; Streifel & Servanty-Seib, 2006).

Participants described patterns of multiple ongoing change attempts over time and across their recovery journey which reflected variances in type, perception, context and impact of transition, as aligned with the influencing factors in the approach of transition in STT (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981). Analysis of themes and participant narratives highlighted experiences and periods of treatment engagement with successes and failures, including lapse and relapse across time. Ongoing successes and challenges characterised the experiences of individual journeys in recovery and were consistent with the ongoing process of transition over time (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981). This process was aligned with the core tenant of STT which holds that while transitions differ between people and over time, the structure for understanding transition remains stable (Anderson, Schlossberg & Goodman, 2012).

Beyond an alignment of themes and participant narratives with the first stage of STT, approaching transition, participants' experiences were consistent with the wider substance use disorder recovery literature reflecting complex and individualised recovery processes in SUD (Laudet & White, 2010) and consistent with recovery-oriented perspectives highlighting the dynamic and complex individual experience of recovery (Witkiewitz et al., 2019).

Taking Stock of Coping Resources and the 4S's. Study 1 found change across The 4S coping resource system over the domains of *situation*, *self*, *support*, and *strategies* to occur in an individually relative way. This change again reflected changes in recovery over time and followed no clear pattern with improvements and regressions made across domains and measures over time for individual participants. This process may reflect both the dynamic and complex interaction of variables and psychosocial resources in recovery (Stokes et al., 2018; Witkiewitz et al., 2019) and an alignment with the assets and liabilities component of the 4S model of STT with recovery processes over time (Anderson, Schlossberg & Goodman, 2012; Stokes et al., 2018; Streifel & Servanty-Seib, 2006).

Thematic analysis of Study 2 interview data highlighted an individual recovery process on an individual timeline across all 4S domains, which is reflected in the variability in RCI data and lack of group-level change observed in Study 1. Study 1 RCI findings were supported by qualitative data in Study 2 which expanded upon and detailed participants' personal and shared experiences of recovery and transition. Study 2 highlighted that the transition to recovery was supported by the development of coping resources, or 'assets', across the 4S's and hindered by limiting factors or 'liabilities', in the experience of transition to recovery. Study 2 themes emphasised the ongoing process of recovery and transition and the dynamic and changeable nature of the 4S system over time, consistent with STT literature (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981), recovery capital concepts (Best & Hennessy, 2022; Cloud & Granfield, 2008; Patton et al., 2022), as well as literature regarding an individual's experience in recovery and other external factors in their recovery representing either a potential regression in recovery or an increased commitment to change from moment to moment (Grella et al., 2003; McLellan, Lewis, O'Brien & Kleber, 2000; McLellan, McKay, Forman, Cacciola & Kemp, 2005). These findings are again consistent with STT models acknowledging that while transitions differ between people and over time,

as seen in Study 1 results, the structure for transition remains constant, as seen in Study 2 analysis (Anderson, Schlossberg & Goodman, 2012).

Taking Charge. The third component of STT is taking charge or moving out of the transition itself (Anderson, Goodman & Schlossberg, 2022). This component involves the autonomous and ongoing use of coping strategies resulting in sustained changes for the person in behaviour, role, learning and perception (Anderson, Goodman & Schlossberg, 2022). The relatively stable changes experienced by participants on measures across the 4S's in Study 1 may reflect this process of sustained change, particularly when considering positive change or improvements across measures, however, this process was not clearly reflected in Study 1 data and hence was not demonstrated by these results. Conversely, a deeper exploration of experiences of recovery over time in Study 2 reflected a clear indication of the need for broad and far-reaching change in the individual in their recovery process. This change was seen in adapted behaviours beyond abstinence in recovery and was described in changed patterns of substance use, as well as changed roles, learning, assumptions, and perceptions through recovery. This change was further highlighted with the emphasis of participants on recovery as more than abstinence, the need to engage in new ways of being and an alignment with values congruent behaviour and changed ways of coping and being in relationships and life. The need for broad and far-reaching change in the individual in order to sustain change and recovery was recognised, consistent with movement through the STT transition process, as a person commenced the journey towards 'moving out' of the transition process (Streifel & Servanty-Seib, 2006). This change is consistent with the process of transition in STT (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981, 2011), and highlights that the third component of transition, 'taking charge', in recovery requires and results in sustained change in behaviour, role, learning and perception (Stokes et al., 2018).

Participants described the difficulty of initiating and maintaining change and the resources required to sustain these changes and transition as easing over time as new roles, behaviours and coping became integrated into their way of life across their recovery journey, from active addiction to early recovery to their current experience of sustained change in recovery. Interestingly, there was no end to recovery described by participants, however, there was a hope or emphasis placed on integration of change and further increased ease of sustaining changed behaviours in day-to-day life as recovery continued over time. This finding is consistent with recovery literature reflecting recovery as a long-term, ongoing and dynamic process (Kelly et al., 2019; Lo Coco et al., 2019; Witkiewitz et al., 2019). It is further reflective of the STT process which suggests that there is no end to transition, rather, transition is continual and includes phases of assimilation and continuous appraisal as people move in, through, and out of challenges over time (Anderson, Schlossberg & Goodman, 2012).

Research Question Two: How Can STT be Used to Support People with SUDs in Transitioning to Recovery and Inform Practice in Clinician-Led Open-Enrolment Outpatient Group Therapy Programs?

The alignment of recovery experiences with STT as outlined above supports the conceptualisation of recovery as a transition process and, consistent with literature regarding STT and SUD (Stokes et al., 2018; Streifel & Servanty-Seib, 2006), allows for the preliminary use of the STT process to understand and support the person transitioning to recovery (Anderson, Schlossberg & Goodman, 2012; Schlossberg, 1981, 2011). In supporting the individual through transition, our results suggest that STT may be used as a conceptual framework to guide clinical intervention both at an individual level and in a group treatment format.

On an individual level, STT may be used by considering the experience of the individual as they approach the transition, the balance of assets and liabilities present for the person, and the ratio of assets to liabilities over time in the 4S's. As well as consideration of the need for skills development, education, environmental or psychosocial resourcing, or adjustments to be made such as an increase in supports or implementation in adaptive coping as an individual takes stock of their personal coping resources through the 4S system (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 2011; Thupayagale-Tshweneagae et al., 2012). Further, STT can be used in conceptualising and understanding the changes required in the context of the implementation and maintenance of the autonomous use of coping strategies and 4S resources facilitating and supporting sustained changes in behaviour, role, learning and perception when taking charge and moving through transition (Anderson, Schlossberg & Goodman, 2012).

From a clinician-led group therapy perspective, the findings from Study 2 indicate that group therapy processes and the development of relationships through group are integral in facilitating change outcomes and in developing resources or assets in the S of *support*. Additionally, group provides an opportunity for ongoing adaptation to self, behaviour, role and recovery experience over time, as aligned with the STT process (Anderson, Goodman & Schlossberg, 2022). This opportunity includes the challenging of perspective and mindset, appropriate challenging of cognition and behaviour, and facilitation of changed ways of coping via psychoeducational processes and practising of skills in group. These changes are consistent with research relating to the use of group-based formats for SUD treatment whereby group provides opportunity to develop social relationships (Sobell & Sobell, 2011), practice identifying and communicating psychological needs to others, identifying and adjusting maladaptive patterns of behaviour and developing, repairing or sustaining

relationships (Weiss et al., 2004), an opportunity for social learning, generation of emotional experiences, imparting of information, and the development of new skills (Stead et al., 2017).

Findings from Study 2 highlight the need for flexible and adaptable delivery of group intervention in an open group setting, which meets the changing role and needs of both the group as a whole and the individual over time. Some of the challenges in treatment provision confirm the challenges present for clinicians in delivering treatment in an open enrolment group setting (Lo Coco et al., 2019; Wendt & Gone, 2017) and highlight the limitations of delivery of stage-matched interventions such as the TTM in open enrolment group programs (Klimas et al., 2014; Prochaska & Norcross, 2001). STT may provide a framework for flexible consideration of the dynamic and changing group needs. STT also provides a flexible adaptation of the clinician's delivery of group intervention and overall group approach to assist the needs of the individual in transition with a stable process of transition on an individual timeline and process (Anderson, Goodman & Schlossberg, 2022). The potential efficacy of this approach is highlighted in the described experiences of the participants in Study 2. Participants reflected on their unique but shared experience of recovery, with each individual group member experiencing varying commitment to recovery, transition experience, stage of change and ratio of assets to liabilities in recovery at any given time in their recovery or transition process. In this sense, individual variation in assets and liabilities day to day and week to week influences the needs one requires from group at any given time and influences the group process occurring, hence requiring flexible and adaptable delivery of treatment and process by the clinician (Lo Coco et al., 2019; Weiss et al., 2004; Wendt & Gone, 2017; Yalom & Leszcz, 2005).

Further, group processes and structures were congruent with the definition or description of group therapy by Weiss et al. (2004) as referring to two or more unrelated patients and a therapist who meet together regularly intending to reduce or eliminate

substance use or associated behaviours and encompassing the five common models of therapy. These include group-based education, recovery skills training, group process models, check in groups and groups addressing other issues (Lo Coco et al., 2019; Weiss et al., 2004). As consistent with the literature, the groups delivered by clinicians in this study utilised these five common models flexibly and interchangeably as per the needs of the group members at any given point (Wendt & Gone, 2017, 2018), with group members recognising and appreciating a flexible delivery approach. Hence, informing the delivery of clinician-led group-based treatment of SUD as per Research Question 2.

In addition to the potential utility of STT as framing delivery of clinician-led group therapy programs, and the format of delivery, Study 2 findings highlight the components of group which are necessary to allow effective function and change in SUD patterns including safety of group and shared experience of honesty, vulnerability and authenticity alongside shared commitment and goals of group members. These findings were aligned with previous literature on group processes (Yalom & Leszcz, 2005) and are consistent with recently integrated guidelines of the use of the STT model in group settings (Anderson, Goodman & Schlossberg, 2022). Additionally, Study 2 findings highlighted the role and responsibilities held by the group facilitator in supporting effective group processes, maintaining safety and boundaries in the group and facilitating the initiation or maintenance of change processes along the recovery journey and transition experience. Both these findings, of the standards required for group and the role of the facilitator, inform practice in delivering treatment and supporting the transition to recovery for people experiencing SUDs in clinician-led open enrolment group therapy programs.

It should be noted that a key limitation for the application of STT to SUD group treatment remains. This limitation is seen in the conceptualisation of lapse and relapse within the transition process when informing the provision of treatment support and in facilitating

change processes for people with SUDs in their recovery. Consistent with our findings and with SUD literature (Lo Coco et al., 2019), lapse and relapse are a normal and often necessary part of the change process for SUD and recovery (Vanderplasschen & Best, 2021). However, STT does not outline or consider the lapse or relapse experience over the transition process. It may be possible that lapse and relapse could be conceptualised within STT through the ongoing process of change adaptation and assimilation, or with lapse and relapse noted as a result of an increase in liabilities over assets in the 4S coping resources, leading to a decline in recovery or change commitment. This remains a gap in the literature and further research is needed to explore lapse and relapse in the context of STT and the STT change process. Thus, a lack of conceptualisation of lapse and relapse remains a limitation of the application of STT in supporting people undergoing the recovery process and in the provision of group-based SUD treatment.

Implications of Study Findings

Theoretical Implications

There are several theoretical implications of the findings of this research. Firstly, this research was the first application of quantitative analysis to STT. Whilst group-level quantitative data analysis did not support STT as a linear theoretical change process, support was offered for the individualised process of transition and recovery as consistent with both STT (Anderson, Goodman & Schlossberg, 2022) and with the nature of SUD recovery as is well established in the literature (Kelly et al., 2019; Lo Coco et al., 2019; Witkiewitz et al., 2019). This support for pre-existing theoretical models was seen in individual RCI data as substantiated with results from qualitative thematic analysis of the recovery experience which reflected and aligned with recovery literature and STT process. This suggests STT has the potential for use as a conceptual framework for change processes in SUD recovery, consistent with the theoretical application of STT to change via 12-step programs by Streifel and

Servanty-Seib (2006) and in the process of movement towards sustained recovery as detailed by Stokes et al. (2018).

Secondly, as lapse and relapse are a normal and necessary part of the change process for SUD and recovery (Vanderplasschen & Best, 2021) any model of change within the SUD literature needs to incorporate consideration of same. Hence, the process of lapse and relapse needs to be integrated within the STT model and theory. In conceptualising this, there may be a number of places in which lapse and relapse processes may fit within the STT model however require further research. Similar to recovery capital models, recovery literature and based on the current findings, lapse and relapse within STT may reflect changes in the approach to transition and perspective, context or type/s of transition experienced, or an increase in liabilities within the transition process and across the 4S process. In this way, an increase in assets and return of commitment to recovery may facilitate further progression in recovery and ongoing facilitation of the transition experience following lapse or relapse (Anderson, Goodman & Schlossberg, 2022; Schlossberg, 1981; Stokes et al., 2018).

Beyond the application of STT to SUD and adaptation with theoretical processes, the theoretical implications of this study relate to the application of STT to clinician-led open enrolment outpatient group therapy programs, a novel setting for the application of this theory. In this case, as suggested above, the alignment of the model with recovery offers weight to the application of transition theory to SUD treatment and adds weight to the growing body of STT literature across varied settings (Anderson, Goodman & Schlossberg, 2022; Stokes et al., 2018; Streifel & Servanty-Seib, 2006). Additionally, the results offer the potential for STT as a potentially viable theoretical framework for considering change within an open enrolment group format. As well as guiding flexible and adaptable service delivery as required from a theoretical perspective within an open enrolment group (Wendt & Gone, 2017, 2018). This outcome is of particular importance when considering STT as an alternative

to stage-matched or manualised treatment programs which currently underpin theoretical conceptualisations of change in recovery and SUD treatment (DiClemente, 2018; Sharma & Atri, 2006; Velasquez et al., 2005). Based on the present findings, STT may offer some potential as a way of considering and balancing the needs of an individual with the needs of the group as a whole while holding a sense of recovery as being a unique and individual process following a consistent theoretical process of transition (Anderson, Goodman & Schlossberg, 2022; Thupayagale-Tshweneagae et al., 2012). Further research is needed to develop additional theoretical support for the use of STT in SUD settings.

Practical Implications

The practical applications and implications of this research are twofold. Firstly, the present research demonstrated an alignment of the recovery experience with current perspectives of recovery from SUDs, highlighting the potential for recovery from a biopsychosocial perspective and emphasising the individual experience in recovery (Kelly et al., 2019; Lo Coco et al., 2019; Witkiewitz et al., 2019). From a practical perspective, this facilitates hope in recovery (Kelly et al., 2019; Lo Coco et al., 2019; Witkiewitz et al., 2019), and further encourages a focus for the individual and treating team on the components necessary for individual recovery such as change in mindset, effort required to sustain recovery, the role of supports and connections in facilitating and maintaining change, and the need for change in approach to coping (Stokes et al., 2018).

In addition to providing hope and guiding the individual recovery process, these practical considerations are consistent with the STT process, supporting the use of the transition process as a general conceptual framework for facilitating change when supporting people in recovery from SUDs on an individual level, as well as when providing group based therapy in open-enrolment non-manualised group programs for SUDs (Anderson, Goodman & Schlossberg, 2022; Stokes et al., 2018; Streifel & Servanty-Seib, 2006). The findings

highlight that clinician awareness of the approach to transition and treatment provision in managing liabilities and developing assets across the 4S system are key in facilitating and sustaining recovery. The findings reflect the role that STT models can have for clinicians in tailoring therapeutic service delivery to both the needs of the group and individual. From a practical standpoint the findings emphasise the unique and individual experience of recovery for each person (Anderson, Goodman & Schlossberg, 2022; Vanderplasschen & Best, 2021; Witkiewitz et al., 2019), highlighting the role of, and need for, flexibility and adaptability of intervention in a group setting (Wendt & Gone, 2017, 2018).

Thirdly, there are implications for the clinician in understanding their role in managing the overall group process to facilitate and maintain group safety and boundaries and to allow participants to be open, honest, vulnerable and authentic. Part of the maintenance of boundaries and safety in a group setting includes the development of a shared group culture alongside the development and clarification of expectations of the group as a whole and individual participant's behaviour alongside a shared goal and sense of commitment between members (Yalom & Leszcz, 2005). Beyond the underlying framework required for group, practical implications of this research highlight the need for flexible and adaptable service delivery, utilising the five common models of group interchangeably (Weiss et al., 2004). This approach is expected to meet the changing and dynamic needs of the group as a whole and individual group members at any given point (Wendt & Gone, 2017, 2018).

These three key implications, the role of the individual in recovery, the utility of STT in recovery and the framework and approach needed from the facilitator to support effective and meaningful group processes can be integrated into practice with consideration from clinicians. To do so, an individual may be encouraged to focus attention and effort in those areas of most significance in recovery, as aligned with the 4s process and with support to normalise and understand the recovery and transition process. Additionally, a clinician may

hold in mind STT processes as a way of conceptualising change while simultaneously tailoring interventions to meet the assessed needs or deficits for group and individual across the STT 4S model. In this sense, a focus on maintaining and developing strengths, or assets, and minimising challenges or liabilities present for the individual and group is required. Further, clinicians can utilise the knowledge of the need for flexible and adaptable group delivery whilst prioritising the safety and structure of the group. This knowledge can assist in supporting group participants in their willingness to be vulnerable and take steps towards their personal growth and change in recovery across their transition process (Weiss et al., 2004; Wendt & Gone, 2017, 2018; Yalom & Leszcz, 2005). It should be noted however that the data is preliminary in nature and clinicians should hold the STT process in SUD recovery as a guiding process and conceptual framework rather than an evidenced-based treatment framework.

Unique Contribution of Knowledge

The unique contributions of knowledge made by this research have been largely explored in context in discussion of Studies 1 and 2 and through this discussion previously. The key contributions relate to the first application of quantitative research methodology to the STT process which added some preliminary weight to STT theory beyond a conceptual framework, however, requires further research to support the testing and validation of STT as a change process. This research was the first to apply STT to a specific service delivery type for SUDs, being clinician-led outpatient open enrolment group therapy. Previous research had applied STT to SUD theoretically in the context of 12-step AA processes (Streifel & Servanty-Seib, 2006) and retrospectively reflecting on experiences of sustained recovery (Stokes et al., 2018) but had not focussed on a specific treatment format in assisting this process, as was the case in this research. In applying STT to clinician-led outpatient open enrolment group therapy this research found preliminary support for STT as a guiding process

and conceptual framework for recovery from SUDs in this setting. Additionally, this research explored STT as an alternate framework for group SUD treatment to current models adapted from individual treatment frameworks validated in closed, manualised group programs (Lo Coco et al., 2019; Sobell & Sobell, 2011). This research found preliminary support for the STT in guiding change, as well as conceptualising and supporting change in a group format with recognition and acknowledgement of the individual experience of recovery which is important given the absence of evidence-based treatment frameworks for clinician-led outpatient open enrolment group therapy for SUDs in the literature (Lo Coco et al., 2019). While not providing strength of evidence for the STT as an evidence-based treatment framework, this research highlighted the potential of the model and suggests further research in this area would be of benefit. Finally, this research was the first to apply STT to group therapy settings, expanding the use of the model to active treatment and intervention for SUDs. This research further strengthened the findings of Stokes et al. (2018) and Streifel and Servanty-Seib (2006) relating to the use of STT in SUD recovery and added weight to the existing STT literature and particularly the literature relating to STT and recovery.

Study Limitations and Strengths

Limitations

Several limitations and challenges were present in this thesis, specific limitations for Study 1 and Study 2 have been discussed within those studies themselves. A primary limitation of this research was the research design, size, and scope. This research was an unfunded study completed in a clinic-based setting with existing resources in the workplace, as such, the scope, research design and study development were limited and were unable to be conducted to the level of a large-scale research such as a RCT.

The present research did not match participants between Study 1 and Study 2, hence, it was unclear if the experiences of Study 2 participants aligned with those of Study 1. However,

it was considered that the samples of each were reflective of the general group populations. Additionally, information was not sought as to the reason for entry into the day group for those participants in Study 1 or reasons for drop-out or attrition which may have helped to understand the context and experiences of participants. In line with this, the exclusion criteria for Study 2 included 6 months minimum attendance at the outpatient group, hence the experiences of participants who had not attended for that minimum length of time were not captured or understood. Additionally, it was unclear what brought about or initiated positive or negative changes in the quantitative data in Study 1, while participants reflected generally on this in Study 2, integrating or following the experiences of individual participants may provide further depth of understanding of the STT process and should be considered and an area for future research.

A limitation was presented in the time taken between data collection for Study 1 and Study 2, which may have impacted the experiences of participants between the two groups. This delay occurred most notably due to the management of HREC applications and amendments. Unfortunately, when applying to the hospital HREC and seeking ethics approval, an organisational change occurred in structure from a hospital-based HREC to a multi-state-based organisation-wide HREC midway through Study 1 data collection and prior to gaining approval for Study 2. Due to these changes and unforeseen delays, the HREC committee closed for close to 2 years before reopening. This meant a significant delay in approval for Study 2 data collection. Following this, the onset of COVID-19 further impacted timely data collection, resulting in changed processes and restrictions on meeting face-to-face outside of group therapy time on hospital grounds. Time was taken to wait for the pandemic restrictions to pass, however with recurrent outbreaks the decision was then made to amend the study to be individual interviews done virtually and submission of amendments to appropriate HREC bodies further delayed the data collection for Study 2. In the meantime,

attendance numbers and the number of group programs running had diminished over the COVID pandemic response and hence sample size for Study 2, while deemed appropriate, was smaller than intended. Additionally, there may have been variables at play that were not picked up with Study 1 data collected pre-COVID-19 and Study 2 data collected during and post-majority of pandemic-related restrictions with a significant difference between the size and satisfaction of both staff and patients in the outpatient programs and organisation both pre- and post-COVID-19.

Strengths

This research held a number of strengths in conceptualisation and design. Firstly, the use of explanatory sequential mixed methods design allowed for a richness of data gathered that either quantitative or qualitative methods alone would not have, allowing for the generalisation of results and a depth of understanding of the phenomena of interest, in this case, STT and SUD recovery through outpatient group therapy (Creswell & Plano Clark, 2006; Hanson et al., 2005). Further, the use of in-depth individual interviews in the qualitative component of the research allowed for a deep and nuanced exploration of participant's experiences in relation to the Research Questions of the thesis. Additionally, the outcome measures used and the focus of the research held a strength in the conceptualisation of recovery as more than attendance or abstinence (Burlingame et al., 2013; Weiss et al., 2004), and included consideration of change across a wider view of health and recovery, including physical, mental, and social wellbeing (Goodman et al., 2013). This inclusion allowed for a broader understanding of the experience of recovery from SUD and overall process of change. Finally, the focus of the research using RCI data and qualitative methods allowed for an exploration of the richness of the individual experience of recovery as consistent with the literature on individualised recovery (Witkiewitz et al., 2019) rather than a focus on group-

level changes, which in this research yielded no significant results (Busch et al., 2011; Jacobson & Truax, 1991; Molenaar, 2004).

Future Directions

Specific future directions for research as related to Study 1 and Study 2 have been outlined in their respective discussions. When considering the overall Research Questions of this thesis, several directions for future research that would be of benefit have been identified. Firstly, to our knowledge, the present research was the first research to apply quantitative methods to STT and a mixed methods design to explore the STT process. Hence, additional studies utilising mixed methods or quantitative research design are needed to further support or challenge the current findings and existing qualitative literature regarding STT and to provide clear data and weight to the STT process in support of STT as a theory and as a theoretical framework for clinical intervention and therapeutic delivery. The use of measures which are more clearly aligned with STT or which have been developed to assess the STT model and 4S process specifically would be of significant benefit. Additionally, the present research applied quantitative research methods to the middle stage of transition, taking stock of coping resources, via the 4S domains only. Hence, research that quantifies the first and third components of transition, the approach to transition and the process of taking charge of transition or moving out, would be of significant benefit to the STT literature.

When considering STT and SUD further research, both quantitative and qualitative exploring the alignment and utility of STT in the context of SUDs and recovery processes is needed. This research would be of benefit in corroborating the findings of the present research in conjunction with existing research on STT and SUD (Stokes et al., 2018; Streifel & Servanty-Seib, 2006), and allow for expansion of the STT and SUD literature to alternate populations or treatment settings within the scope of SUD treatment.

The small sample size of both Study 1 and Study 2 of this research were recognised as limiting the overall strength of conclusions drawn. Hence, additional research to replicate and extend upon the findings of this research on a larger scale would be of benefit. Possible strategies for future research to reduce attrition may include the use of participant incentives for participation and reimbursement for time, data collection at alternate time points for example just prior to discharge whilst an inpatient, at a time point less than 1 month following admission to group. Additional strategies may be to improve follow up procedures particularly with those who have discharged from the group program, to maintain frequent contact with participants and to establish improved working relationships whilst undertaking the research program (Stewart et al., 2021).

Additionally, future research applying STT to clinician-led outpatient open enrolment group therapy for SUDs with greater longitudinal follow-up and exploration of recovery experiences in early, mid and sustained recovery time points both from a quantitative and qualitative standpoint would be of benefit. This body of research would be of value to understand the experiences and process experienced by individuals in recovery from SUDs as well as those seeking treatment, and the overall alignment of SUD recovery with STT processes. As an alternative to larger sample sizes, the use of case study design in future research is suggested to allow for an in-depth and thorough exploration of the individual recovery experience and STT process, to develop a depth of understanding of processes at hand, particularly in light of the findings of this research relating to the highly individualised process of change in recovery.

Conclusions

Although the generality of the current results and findings must be established and broadened by future research, the present research has provided clear support for the alignment of the recovery experience with current definitions and conceptualisations of

recovery as a complex, dynamic and individualised process of change across a wide range of biopsychosocial functioning with or without abstinence as a goal. The present research highlighted the nuanced experience of SUD and recovery for the individual and reflects the need for a holistic understanding of both active substance use and the transition to recovery. Additionally, it provided evidence of support for the potential of recovery for people living with SUDs, as facilitated by ongoing engagement in SUD focussed outpatient group therapy with an open-enrolment structure and as facilitated by a clinician and as supported by relationships and supports developed through group and changes made across their recovery experiences. This research highlighted an alignment of the experience of the SUD recovery journey with all three components of the STT process, provided additional evidence for the existing STT and SUD literature. Further, the present research offers support for STT as a potential conceptual framework for change through clinician-led outpatient open enrolment group therapy programs and highlights the role of the clinician in being responsible for and maintaining health and functional group processes to assist with the maintenance of change and recovery attempts over time.

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APPENDICIES

Appendix A: Study 1 Questionnaire

Demographics

Name:

For the questions below please circle the response that best suits or provide details in the space provided. If there is more than one response to circle that fits, please circle all which are relevant to you.

Age: _____ years **Gender:** M / F **Birth country:** _____ **ATSI:** Y / N

Highest level of education: None / Primary / Year 10 / High School / Certificate / Bachelor / other: _____

Current employment status: nil / casual / part time / full time

Occupation: _____ **length of time in position:** _____

Accommodation: Renting / owned outright / public housing / shared accommodation / other: _____

Who do you live with: (e.g. partner, friends etc) _____ **Postcode:** _____

Marital status: Single / separated / Married / de facto / Widowed

Do you consider your relationship to be supportive: Y / N / N/A

Treatment approaches tried: 12 step / SMART recovery / Outpatient / Other: _____

How many times per week do you attend 12 step meetings? _____

No. of groups attending (or planning to attend) at Northside West: D&A _____ **Other:** _____

Which days? M / T / W / T / F / S / S **Facilitator(s):** _____

Length of time attending these group(s): _____

Current treating team: Psychiatrist / psychologist / counsellor / D&A counsellor / Other: _____

Year first sought treatment: _____ **Years in treatment:** _____

Previous admissions to general/public hospital: 0-1 / 2-3 / 4-5 / 5+

Which hospital(s): _____

Previous admissions to private rehab clinics: 0-1 / 2-3 / 4-5 / 5+

Which program(s): _____

Previous admissions to Long term rehabs: 0-1 / 2-3 / 4-5 / 5+

Which program(s): _____ Did you complete them? _____

Greatest length of abstinence since developing problem use: (in days months or years) _____

Substance use history

On the following page, please record your average amount of use for each substance, and the estimated number of days using each substance in the past 3 months. If you have not used a substance listed, please circle "N", and no further questions for that substance need to be completed

	Used? Please circle	How many days over the past 3 months have you drunk or used each substance below?	What did you use in the past 3 months? Please list all that are relevant <i>E.g. Mdma, Vodka, cannabis, LSD etc</i>	How much did you have on average each time? E.g. 2 bottles of wine, 1 gram cannabis, 2 points heroin
Alcohol	Y / N			
Cannabis	Y / N			
Cocaine	Y / N			
Amphetamines (ice, mdma, speed etc)	Y / N			
Benzodiazepines (not prescribed)	Y / N			
Heroin or other opioids not prescribed	Y / N			
Inhalants (nitrous, glue, petrol etc)	Y / N			
Hallucinogens (LSD, acid, mushrooms, PCP etc)	Y / N			
Tobacco products	Y / N			
Other substance:	Y / N			

Severity of Dependence

For each substance listed below that you have used in the past, please circle the answer that best applies to how you have felt about your use of each applicable drug in the **3 months prior** to assessment.

For **substances which you have never used**, please tick the “N/A box”. You do not need to answer any other questions for substances which you have never used.

<u>Alcohol</u>	N/A <input type="checkbox"/>	Never or Almost Never	Sometimes	Often	Always
<i>Did you ever think your use of alcohol was out of control?</i>		0	1	2	3
<i>Did the prospect of missing a drink make you very anxious or worried?</i>		0	1	2	3
<i>How much did you worry about your use of alcohol?</i>		0	1	2	3
<i>Did you wish you could stop?</i>		0	1	2	3
		Not Difficult at All	Quite Difficult	Very Difficult	Impossible
<i>How difficult would you find it to stop or go without alcohol?</i>		0	1	2	3

<u>Cannabis</u>	N/A <input type="checkbox"/>	Never or Almost Never	Sometimes	Often	Always
<i>Did you ever think your use of cannabis was out of control?</i>		0	1	2	3
<i>Did the prospect of missing a fix (or dose) make you very anxious or worried?</i>		0	1	2	3
<i>How much did you worry about your use of the cannabis?</i>		0	1	2	3
<i>Did you wish you could stop?</i>		0	1	2	3
		Not Difficult at All	Quite Difficult	Very Difficult	Impossible
<i>How difficult would you find it to stop or go without cannabis?</i>		0	1	2	3

<u>Cocaine</u>	N/A <input type="checkbox"/>	Never or Almost Never	Sometimes	Often	Always
<i>Did you ever think your use of cocaine was out of control?</i>		0	1	2	3
<i>Did the prospect of missing a fix (or dose) make you very anxious or worried?</i>		0	1	2	3
<i>How much did you worry about your use of cocaine?</i>		0	1	2	3
<i>Did you wish you could stop?</i>		0	1	2	3
		Not Difficult at All	Quite Difficult	Very Difficult	Impossible
<i>How difficult would you find it to stop or go without cocaine?</i>		0	1	2	3

<u>Amphetamines</u>	N/A <input type="checkbox"/>	Never or Almost Never	Sometimes	Often	Always
<i>Did you ever think your use of amphetamines was out of control?</i>		0	1	2	3
<i>Did the prospect of missing a fix (or dose) make you very anxious or worried?</i>		0	1	2	3
<i>How much did you worry about your use of amphetamines?</i>		0	1	2	3
<i>Did you wish you could stop?</i>		0	1	2	3
		Not Difficult at All	Quite Difficult	Very Difficult	Impossible
<i>How difficult would you find it to stop or go without amphetamines?</i>		0	1	2	3

<u>Benzodiazepines</u>	N/A <input type="checkbox"/>	Never or Almost Never	Sometimes	Often	Always
<i>Did you ever think your use of benzodiazepines was out of control?</i>		0	1	2	3
<i>Did the prospect of missing a fix or dose make you very anxious or worried?</i>		0	1	2	3
<i>How much did you worry about your use of benzodiazepines?</i>		0	1	2	3
<i>Did you wish you could stop?</i>		0	1	2	3
		Not Difficult at All	Quite Difficult	Very Difficult	Impossible
<i>How difficult would you find it to stop or go without benzodiazepines?</i>		0	1	2	3

<u>Heroin or opioids</u> N/A <input type="checkbox"/>	Never or Almost Never	Sometimes	Often	Always
<i>Did you ever think your use of Heroin or opioids was out of control?</i>	0	1	2	3
<i>Did the prospect of missing a fix (or dose) make you very anxious or worried?</i>	0	1	2	3
<i>How much did you worry about your use of Heroin or opioids?</i>	0	1	2	3
<i>Did you wish you could stop?</i>	0	1	2	3
	Not Difficult at All	Quite Difficult	Very Difficult	Impossible
<i>How difficult would you find it to stop or go without Heroin or opioids?</i>	0	1	2	3

<u>Hallucinogens</u> N/A <input type="checkbox"/>	Never or Almost Never	Sometimes	Often	Always
<i>Did you ever think your use of Hallucinogens was out of control?</i>	0	1	2	3
<i>Did the prospect of missing a fix (or dose) make you very anxious or worried?</i>	0	1	2	3
<i>How much did you worry about your use of Hallucinogens?</i>	0	1	2	3
<i>Did you wish you could stop?</i>	0	1	2	3
	Not Difficult at All	Quite Difficult	Very Difficult	Impossible
<i>How difficult would you find it to stop or go without Hallucinogens?</i>	0	1	2	3

<u>Inhalants</u> N/A <input type="checkbox"/>	Never or Almost Never	Sometimes	Often	Always
<i>Did you ever think your use of Inhalants was out of control?</i>	0	1	2	3
<i>Did the prospect of missing a fix (or dose) make you very anxious or worried?</i>	0	1	2	3
<i>How much did you worry about your use of Inhalants?</i>	0	1	2	3
<i>Did you wish you could stop?</i>	0	1	2	3
	Not Difficult at All	Quite Difficult	Very Difficult	Impossible
<i>How difficult would you find it to stop or go without Inhalants?</i>	0	1	2	3

<u>Tobacco products</u> N/A <input type="checkbox"/>	Never or Almost Never	Sometimes	Often	Always
<i>Did you ever think your use of Tobacco products was out of control?</i>	0	1	2	3
<i>Did the prospect of missing a fix make you very anxious or worried?</i>	0	1	2	3
<i>How much did you worry about your use of Tobacco products?</i>	0	1	2	3
<i>Did you wish you could stop?</i>	0	1	2	3
	Not Difficult at All	Quite Difficult	Very Difficult	Impossible
<i>How difficult would you find it to stop or go without Tobacco products?</i>	0	1	2	3

<u>Other:</u> N/A <input type="checkbox"/>	Never or Almost Never	Sometimes	Often	Always
<i>Did you ever think your use of (other drug) was out of control?</i>	0	1	2	3
<i>Did the prospect of missing a fix (or dose) make you very anxious or worried?</i>	0	1	2	3
<i>How much did you worry about your use of the (other drug)?</i>	0	1	2	3
<i>Did you wish you could stop?</i>	0	1	2	3
	Not Difficult at All	Quite Difficult	Very Difficult	Impossible
<i>How difficult would you find it to stop or go without (another drug)?</i>	0	1	2	3

Personal Drug Use Questionnaire

Please read the following statements carefully. Each one describes a way that you might feel about your drug or alcohol use.

For each statement, circle **only one number** for each statement to indicate how much you agree or disagree with it right now.

	No! Strongly disagree	No Disagree	? Undecided or unsure	Yes Agree	Yes! Strongly agree
1. <i>I really want to make changes in my use of drug/alcohol</i>	1	2	3	4	5
2. <i>Sometimes I wonder if I am an addict/alcoholic</i>	1	2	3	4	5
3. <i>If I don't change my drug/alcohol use soon, my problems are going to get worse.</i>	1	2	3	4	5
4. <i>I have already started making some changes in my use of drugs/alcohol.</i>	1	2	3	4	5
5. <i>I was using drugs/alcohol too much at one time, but I've managed to change that.</i>	1	2	3	4	5
6. <i>Sometimes I wonder if my drug/alcohol use is hurting other people.</i>	1	2	3	4	5
7. <i>I have a drug/alcohol problem.</i>	1	2	3	4	5
8. <i>I'm not just thinking about changing my drug/alcohol use, I'm already doing something about it.</i>	1	2	3	4	5
9. <i>I have already changed my drug/alcohol use, and I am looking for ways to keep from slipping back to my old pattern</i>	1	2	3	4	5
10. <i>I have serious problems with drugs/alcohol.</i>	1	2	3	4	5
11. <i>Sometimes I wonder if I am in control of my drug/alcohol use.</i>	1	2	3	4	5
12. <i>My drug/alcohol use is causing a lot of harm.</i>	1	2	3	4	5
13. <i>I am actively doing things now to cut down or stop my use of drugs/alcohol.</i>	1	2	3	4	5
14. <i>I want help to keep from going back to the drug/alcohol problems that I had before.</i>	1	2	3	4	5
15. <i>I know that I have a drug/alcohol problem.</i>	1	2	3	4	5
16. <i>There are times when I wonder if I use drugs/alcohol too much.</i>	1	2	3	4	5
17. <i>I am a drug addict/alcoholic.</i>	1	2	3	4	5
18. <i>I am working hard to change my drug/alcohol use.</i>	1	2	3	4	5
19. <i>I have made some changes in my drug/alcohol use, and I want some help to keep from going back to the way I used before.</i>	1	2	3	4	5

The World Health Organization Quality of Life Scale – Brief :

The following questions ask how you feel about your quality of life, health, and other areas of your life. Please answer all the questions. If you are unsure about which response to give to a question, please choose the one that appears most appropriate. This can often be your first response.

Please read each question, assess your feelings, and circle the number on the scale for each question that gives the best answer for you.

		Very Poor	Poor	Neither Poor nor Good	Good	Very Good
1. (G1)	<i>How would you rate your quality of life?</i>	1	2	3	4	5
		Very Dissatisfied	Dissatisfied	Neither Satisfied nor Dissatisfied	Satisfied	Very Satisfied
2. (G4)	<i>How satisfied are you with your health?</i>	1	2	3	4	5

The following questions ask about how much you have experienced certain things in the last two weeks.

		Not at All	A Little	A Moderate Amount	Very Much	An Extreme Amount
3. (F1.4)	<i>To what extent do you feel that physical pain prevents you from doing what you need to do?</i>	1	2	3	4	5
4. (F11.3)	<i>How much do you need any medical treatment to function in your daily life?</i>	1	2	3	4	5
5. (F4.1)	<i>How much do you enjoy life?</i>	1	2	3	4	5
6. (F24.2)	<i>To what extent do you feel your life to be meaningful?</i>	1	2	3	4	5
		Not at All	A Little	A Moderate Amount	Very Much	Extremely
7. (F5.3)	<i>How well are you able to concentrate?</i>	1	2	3	4	5
8. (F16.1)	<i>How safe do you feel in your daily life?</i>	1	2	3	4	5
9. (F22.1)	<i>How healthy is your physical environment?</i>	1	2	3	4	5

The following questions ask about how completely you experience or were able to do certain things in the last two weeks.

		Not at All	A Little	Moderately	Mostly	Completely
10. (F2.1)	<i>Do you have enough energy for everyday life?</i>	1	2	3	4	5
11. (F7.1)	<i>Are you able to accept your bodily appearance?</i>	1	2	3	4	5
12. (F18.1)	<i>Have you enough money to meet your needs?</i>	1	2	3	4	5
13. (F20.1)	<i>How available to you is the information that you need in your day-to-day life?</i>	1	2	3	4	5
14. (F21.1)	<i>To what extent do you have the opportunity for leisure activities?</i>	1	2	3	4	5
		Very Poor	Poor	Neither Poor nor Good	Good	Very Good
15. (F9.1)	<i>How well are you able to get around?</i>	1	2	3	4	5

The following questions ask you to say how good or satisfied you have felt about various aspects of your life over the last two weeks

		Very Dissatisfied	Dissatisfied	Neither Satisfied nor Dissatisfied	Satisfied	Very Satisfied
16. (F3.3)	<i>How satisfied are you with your sleep?</i>	1	2	3	4	5
17. (F10.3)	<i>How satisfied are you with your ability to perform your daily living activities?</i>	1	2	3	4	5
18. (F12.4)	<i>How satisfied are you with your capacity for work?</i>	1	2	3	4	5
19. (F6.3)	<i>How satisfied are you with yourself?</i>	1	2	3	4	5
20. (F13.3)	<i>How satisfied are you with your personal relationships?</i>	1	2	3	4	5
21. (F15.3)	<i>How satisfied are you with your sex life?</i>	1	2	3	4	5
22. (F14.4)	<i>How satisfied are you with the support you get from your friends?</i>	1	2	3	4	5
23. (F17.3)	<i>How satisfied are you with the conditions of your living place?</i>	1	2	3	4	5
24. (F19.3)	<i>How satisfied are you with your access to health services?</i>	1	2	3	4	5
25. (F23.3)	<i>How satisfied are you with your transport?</i>	1	2	3	4	5

The following question refers to how often you have felt or experienced certain things in the last two weeks.

		Never	Seldom	Quite Often	Very Often	Always
26 (F8.1)	<i>How often do you have negative feelings such as blue mood, despair, anxiety, depression?</i>	1	2	3	4	5

The Kessler Psychological Distress Scale:

The following questions ask you about how you have been feeling **during the past 30 days**. For each question, please circle the number that best describes how often you had this feeling.

		All of the time	Most of the time	Some of the time	A little of the time	None of the time
Q1. During the past 4 weeks, about how often did you feel...						
A	<i>...tired out for no good reason?</i>	1	2	3	4	5
B	<i>...nervous?</i>	1	2	3	4	5
C	<i>...so nervous that nothing could calm you down?</i>	1	2	3	4	5
D	<i>...hopeless?</i>	1	2	3	4	5
E	<i>...restless or fidgety?</i>	1	2	3	4	5
F	<i>...so restless that you could not sit still?</i>	1	2	3	4	5
G	<i>...depressed?</i>	1	2	3	4	5
H	<i>...so depressed that nothing could cheer you up?</i>	1	2	3	4	5
I	<i>...that everything was an effort?</i>	1	2	3	4	5
J	<i>...worthless?</i>	1	2	3	4	5

During the past 30 days, how many times did you see a doctor or other health professional about these feelings?

_____ times

The General Self-Efficacy Scale:

Please circle the number which best describes how true each statement is for you.

	Not at all true	Hardly true	Moderately true	Exactly true
1. <i>I can always manage to solve difficult problems if I try hard enough.</i>	1	2	3	4
2. <i>If someone opposes me, I can find the means and ways to get what I want.</i>	1	2	3	4
3. <i>It is easy for me to stick to my aims and accomplish my goals.</i>	1	2	3	4
4. <i>I am confident that I could deal efficiently with unexpected events.</i>	1	2	3	4
5. <i>Thanks to my resourcefulness, I know how to handle unforeseen situations.</i>	1	2	3	4
6. <i>I can solve most problems if I invest the necessary effort.</i>	1	2	3	4
7. <i>I can remain calm when facing difficulties because I can rely on my coping abilities.</i>	1	2	3	4
8. <i>When I am confronted with a problem, I can usually find several solutions.</i>	1	2	3	4
9. <i>If I am in trouble, I can usually think of a solution.</i>	1	2	3	4
10. <i>I can usually handle whatever comes my way.</i>	1	2	3	4

The Brief COPE Inventory:

The following items deal with ways you've been coping with the stress in your life. Please circle the response which best describes to what extent you've been doing what the item says. Don't answer on the basis of whether it is working or not—just whether or not you're doing it.

	I haven't been doing this at all	I've been doing this a little bit	I've been doing this a medium amount	I've been doing this a lot
1. <i>I've been turning to work or other activities to take my mind off things</i>	1	2	3	4
2. <i>I've been concentrating my efforts on doing something about the situation I'm in</i>	1	2	3	4
3. <i>I've been saying to myself "this isn't real."</i>	1	2	3	4
4. <i>I've been using alcohol or other drugs to make myself feel better</i>	1	2	3	4
5. <i>I've been getting emotional support from others</i>	1	2	3	4
6. <i>I've been giving up trying to deal with it.</i>	1	2	3	4
7. <i>I've been taking action to try to make the situation better</i>	1	2	3	4
8. <i>I've been refusing to believe that it has happened</i>	1	2	3	4
9. <i>I've been saying things to let my unpleasant feelings escape</i>	1	2	3	4
10. <i>I've been getting help and advice from other people.</i>	1	2	3	4
11. <i>I've been using alcohol or other drugs to help me get through it</i>	1	2	3	4
12. <i>I've been trying to see it in a different light, to make it seem more positive</i>	1	2	3	4

13.	<i>I've been criticizing myself</i>	1	2	3	4
14.	<i>I've been trying to come up with a strategy about what to do</i>	1	2	3	4
15.	<i>I've been getting comfort and understanding from someone.</i>	1	2	3	4
16.	<i>I've been giving up the attempt to cope</i>	1	2	3	4
17.	<i>I've been looking for something good in what is happening</i>	1	2	3	4
18.	<i>I've been making jokes about it</i>	1	2	3	4
19.	<i>I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping</i>	1	2	3	4
20.	<i>I've been accepting the reality of the fact that it has happened</i>	1	2	3	4
21.	<i>I've been expressing my negative feelings</i>	1	2	3	4
22.	<i>I've been trying to find comfort in my religion or spiritual beliefs</i>	1	2	3	4
23.	<i>I've been trying to get advice or help from other people about what to do</i>	1	2	3	4
24.	<i>I've been learning to live with it</i>	1	2	3	4
25.	<i>I've been thinking hard about what steps to take</i>	1	2	3	4
26.	<i>I've been blaming myself for things that happened</i>	1	2	3	4
27.	<i>I've been praying or meditating.</i>	1	2	3	4
28.	<i>I've been making fun of the situation</i>	1	2	3	4

Appendix B: HREC Approval Study 1



Northside Group – Wentworthville Clinic
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Wentworthville NSW 2145
Telephone: 02 8833 2222
Facsimile: 02 8833 2221
northsidegroup.com.au

7 November 2017

Dr Stan Theodorou
theodorou@ramsayhealth.com.au

Dear Stan

THE NORTHSIDE GROUP ETHICS COMMITTEE PROTOCOL REVIEW:
Treatment effectiveness and quality of life improvement in an outpatient drug and alcohol program

The above amended protocol was considered at the Northside Group Ethics Committee Meeting held on 26 October 2017 and the committee members agreed that this study could proceed.

The documents submitted for review and subsequently approved were:

- Application form
- Recruitment flyer
- Participant information
- Consent form
- Battery of assessments

The following conditions also apply to the research protocol.

1. The investigator shall permit the work to be monitored by the committee and make available to the committee such records or documents as it may reasonably require.
2. The investigator shall provide an annual report to the committee concerning the progress of the research.
3. The investigator to take all possible steps to preserve confidentiality in regard to any information obtained from a patient and will not divulge any personal identification details to any other person.
4. The Ethics Committee should be informed of any changes to the Research Protocol.

5. The Ethics Committee should be advised if the proposed research does not commence within one year of the date of this letter.
6. All personnel involved in this research study must be appropriately credentialed by the Northside Group. Please contact Anthea Sutton [redacted] or [redacted] to organise this.

We also wish to draw two other points to your attention:

Firstly, the Committee has considered the protocol only in regard to patients of the Northside Group of hospitals and our advice is not given in relation to similar or associated research work being undertaken with any other patients.

Secondly, if part of the research work has already been done prior to the protocol being referred to the Committee, the Committee cannot give retrospective advice in regard to such work, and this letter does not express any opinion or indicate any approval in relation to such work as may have already been done.

Yours sincerely

[redacted signature]

Professor Gin Malhi
Ethics Chairman
Northside Group

Appendix C: Study 1: Recruitment Flyer



We want to know how well the D&A group program is helping to support you in your recovery

You're invited to participate in the Northside West Drug & Alcohol Day Program Research Study/

Commencing February 2018

We would like to invite you to participate by completing a short survey – no longer than 30 minutes – every 3 months over the next year

The questions ask about your quality of life, where you're at in your recovery, how you're feeling and how you are currently coping with things.

Your feedback will help you understand how you're progressing in your own recovery and will support our understanding of D&A day programs and allow us to develop and improve our services

If you're interested in taking part, or you would like some more information, please talk to Jackson on Unit One or the Day Program Coordinator.

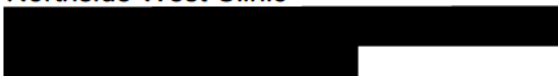
Appendix D: Study 1: Participant Information Form

Treatment effectiveness and quality of life improvement in an outpatient drug and alcohol program

Participant Information Form

Research Team Contact Details

Dr Stan Theodorou,
Medical Superintendent Northside West,
VMO Drug and Alcohol Unit Northside and
Northside West Clinic



Ms Rebecca Lane,
Clinical psychologist registrar,
Northside West Clinic,
Ramsay Health



Description

Review and assessment of treatment programs is crucial in ensuring quality care, support, and the best outcome for patients in recovery. Assessment of treatment outcomes in drug and alcohol research has focused primarily on measures of attendance and abstinence. In order to fully understand the impact of treatment for patients, a wider view of outcome and progress monitoring needs to be taken. The Northside West Clinic provides drug and alcohol focussed outpatient group treatment programs. The current study hopes to explore the outcomes of this program by monitoring changes in patients' frequency of use, quality of life, readiness for change, severity of dependence, psychological wellbeing, self-efficacy and coping strategies over time.

Participation

Your participation will involve the completion of a questionnaire that will take no more than 30 minutes of your time and will be completed at the Northside West Hospital on a day you attend for a drug and alcohol outpatient group therapy program. So as to not disrupt your therapy time, the questionnaire will be available to be completed at a time of your convenience - prior to the group session beginning, at lunch breaks or directly following the day session.

Questions will revolve around your recent substance use, readiness for change, psychological wellbeing, quality of life, self-efficacy and coping strategies over the past 3 months and will include questions like "*Did you ever think your use of alcohol (or other drug) was out of control*", "*Overall, how close are you to where you want to be in your recovery?*" and "*How would you rate your quality of life*". The questionnaire will be readministered at approximately 3 month intervals over the next 12 months. If you choose to discharge from the outpatient day program, you remain welcome to participate in the research study, follow up contact will be made by the research team in this instance.

Your participation in this project is entirely voluntary. If you do not wish to take part you are not obliged to. If you decide to take part and later change your mind, you are free to withdraw from the project at any stage. If you do wish to withdraw from this project, please contact the Research Team (contact details at the top of this form), Day Program Coordinator or your group facilitator.

Your decision whether you take part, do not take part, or to take part and then withdraw, will in no way impact your current or future relationship with your treating team, The Northside Group or Ramsay Health.

Expected Benefits

It is expected that this research will directly benefit you by providing an opportunity to reflect on your own experiences, quality of life and journey in recovery whilst engaged with The Northside group drug and alcohol outpatient program. Specifically, this may involve better self-knowledge of your experiences and recovery and the progress you have made while participating in the program.

Further, by exploring your wellbeing, quality of life, general self-efficacy, readiness for change, frequency and quantity of alcohol or drug use and engagement with the outpatient group therapy program, it is hoped a greater understating of the effectiveness of the current Northside West drug and alcohol outpatient group therapy program will be obtained. In gaining such information, the effectiveness of the current drug and alcohol outpatient group therapy program can begin to be explored - with the goal to review and improve the program, and indirectly improve your experience to ensure you are getting the most out of the program to assist with your recovery.

Risks

This research is considered to be of minimal risk to you, however, sometimes thinking about the sorts of issues raised in the questionnaire can create some uncomfortable or distressing feelings. If you need to talk to someone about this immediately please contact the research team, your treating therapist or any other staff member on site at Northside West, the Day Program Coordinator, Unit 1 Nurse Manager or Lifeline on 13 11 14.

Privacy and Confidentiality

Any data collected as a part of this project will be stored securely as per Ramsay Data Management policies and the Australian Code for Responsible Conduct of Research.

By signing the Participant Consent Form, you consent to the chief investigator and relevant research staff collecting and using personal information about you for the research project. Any information obtained in connection with this research project that can identify you will remain confidential.

You will be allocated a coded identification number, and all personal information, research and results from your participation will be recorded under this number. The list which links your study code to your identity will be stored at the Northside West Clinic, and only the approved Investigators will have access to it.

Personal and clinical information will be kept securely at the Northside West Clinic and research data will be kept onsite. Any digital data will be stored on secure, password protected computer and discs which will remain at the Northside West Clinic.

The data may be used in future research of a similar nature regarding the Northside West Clinic, and deidentification and confidentiality will remain. In line with the Australian Code for Responsible Conduct of Research, data will be retained for a minimum of 5 years, after which it will be disposed of in a secure, confidential and appropriate manner.

Consent to Participate

Please return the attached consent form to the Unit 1 Nurse Unit Manager or the day program coordinator on site as an indication of your consent to participate in this project.

Questions or Further Information about the Project

The findings from this study will be used as part of an evaluation for the Northside West Clinic to improve the services it provides, as part of a PhD thesis, published in public journals and articles and presented as part of conference proceedings. A summary of the key findings will be presented in an information session by the researchers at the Northside West Clinic for participants once the research is complete and a written synopsis of the findings will be made available to you.

If you have any questions regarding this research or wish to request further information about this project please do not hesitate to contact Dr Theodorou or Rebecca Lane in the Research Team Contact Details at the top of the form. Alternatively, make contact with the Unit 1 Nurse Unit Manager or the Day Program Coordinator at Northside West to assist with any enquiries.

We remain thankful to all participants for your willingness to participate in this project and hope this experience may assist current and future patients in their recovery.

Concerns or Complaints Regarding the Conduct of the Project

If you have any concerns or complaints about the ethical conduct of the project you may contact Tracey Stobo, Northside West CEO/Director of Clinical Services on [REDACTED]. Tracey Stobo is not connected with the research project and can facilitate a resolution to your concern in an unbiased manner.

Thank you for taking the time to help with this research project. Please keep this sheet for your information.

Appendix E: Study 1: Participant Consent Form

Treatment effectiveness and quality of life improvement in an outpatient drug and alcohol program

Participant Consent form

Research Team Contact Details

Dr Stan Theodorou,
Medical Superintendent Northside West,
VMO Drug and Alcohol Unit Northside and
Northside West Clinic



Ms Rebecca Lane,
Clinical psychologist registrar,
Northside West Clinic,
Ramsay Health



Statement of Consent

By signing below, you are indicating that you:

- Have read and understood the information document regarding this project.
- Have been made aware of the processes involved in the study, including any inconvenience, risk and implications as far as they are currently known by the researchers.
- Have had any questions answered to your satisfaction and understand that if you have any additional questions you can contact the research team.
- Understand that the research study is strictly confidential and any information that you have provided cannot be linked to you, and that your name or identifying information will not be disclosed or published.
- Understand that your participation in this study will allow the researchers to have access to your medical records, and you agree to this.
- Understand that data collected and deidentified may be used in other research studies of a similar nature.
- Understand that you are free to withdraw at any time, without comment, penalty or prejudice.
- Understand that you can contact Tracey Stobo, Northside West CEO and Director of Clinical Services on [redacted] if you have any concern or complaint about the ethical conduct of this project.
- Are over 18 years of age.
- Agree to participate in the project freely.

Participant Name

Participant Signature

Date

Please return this sheet to your group therapy facilitator or Day Program Coordinator prior to undertaking the questionnaire.

Appendix F: Study 1: RCI Brief Cope 14 Facets

The normative data available for the 14 facets of the Brief COPE RCI allowed for the use of Criterion B of the Leeds Reliable Change Indicator Calculator (Morley & Dowzer, 2014) with clinical data derived from Hegarty and Buchanan (2021) ($N = 3635$; Active coping $M = 2.83$, $SD = 0.82$; planning $M = 2.88$, $SD = 0.84$; positive reframing $M = 2.39$, $SD = 0.86$; acceptance $M = 2.80$, $SD = 0.77$; humour $M = 1.90$, $SD = 0.95$; religion $M = 1.77$, $SD = 0.96$; using emotional support $M = 2.59$, $SD = 0.85$; using instrumental support $M = 2.57$, $SD = 0.85$; self-distraction $M = 2.79$, $SD = 0.81$; denial $M = 1.64$, $SD = 0.78$; venting $M = 2.31$, $SD = 0.75$; substance use $M = 1.61$, $SD = 0.92$; behavioural disengagement $M = 1.85$, $SD = 0.82$; and self-blame $M = 2.69$, $SD = 0.98$). Non-clinical comparison norms were derived from Poulus et al. (2020; $N = 316$; Active coping $M = 2.79$, $SD = 0.79$; planning $M = 2.65$, $SD = 0.83$; positive reframing $M = 2.42$, $SD = 0.92$; acceptance $M = 2.99$, $SD = 0.78$; humour $M = 2.67$, $SD = 0.83$; religion $M = 1.29$, $SD = 0.63$; using emotional support $M = 1.99$, $SD = 0.89$; using instrumental support $M = 2.03$, $SD = 0.88$; self-distraction $M = 2.47$, $SD = 0.89$; denial $M = 1.37$, $SD = 0.61$; venting $M = 2.06$, $SD = 0.81$; substance use $M = 1.19$, $SD = 0.47$; behavioural disengagement $M = 1.53$, $SD = 0.71$; and self-blame $M = 2.39$, $SD = 0.90$). Cronbach's alpha for active coping was $\alpha = .72$, for planning was $\alpha = .70$, for positive reframing was $\alpha = .81$, for acceptance was $\alpha = .60$, for humour was $\alpha = .84$, for religion was $\alpha = .71$, for using emotional support was $\alpha = .83$, for using instrumental support was $\alpha = .70$, for self-distraction was $\alpha = .61$, for denial was $\alpha = .53$, for venting was $\alpha = .63$, for substance use was $\alpha = .87$, for behavioural disengagement was $\alpha = .68$, and for self-blame was $\alpha = .72$ (Poulus et al., 2020). Increasing scores represent positive clinical change for active coping, planning, positive reframing, acceptance, humour, religion, using emotional support and using instrumental support. Whereas decreasing scores reflect improvements in self-distraction, denial, venting, substance use, behavioural disengagement, and self-blame.

Visual inspection of Table F.1 outlining RCI for the religion facet of the Brief COPE which reflects the use of emotional supports and seeking comfort or understanding from others. RCI for emotional support facet scores showed reliable change occurred for 7 of the 23 participants, or 30% of the total participants at some point in the study. There was no clear pattern of onset of improvement at any given time point in the study.

When considering direction of RCI change, visual inspection of Table F.1 indicates that all participants who demonstrated reliable change in use of religion as a support improved in their use of this strategy. It was noted that change was consistently sustained by only one of the participants across time, participant 70, across 6 months and 12 months. Participants 26, 7, 23 and 17 all returned to baseline following improvements, with participant 23 improving at both 1 month and 6 months and returning to baseline twice at 3 months and 12 months.

Table F 1*Reliable Changes in Brief COPE facet score for religion at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	2	1	No		1	No		1	No		1	No	
15	3	2	No		2	No		3	No				
20	2	2	No		2	No		3	No		3	No	
25	3	2	No		3	No		3	No		3	No	
26	3	4	No		4	Yes	IMP	3	No		3	No	
27	3	4	No		3	No		3	No		4	No	
30	4	4	No		4	No		4	No		4	No	
31	2	2	No		2	No		2	No		1	No	
34	2	2	No		2	No		1	No				
35	3	3	No		4	Yes	IMP						
43	3	3	No		3	No		2	No		3	No	
70	1	1	No		2	No		3	Yes	IMP	3	Yes	IMP
6	2	2	No		2	No		2	No				
7	3	4	Yes	IMP	3	No		4	Yes	IMP	3	No	
13	2	1	No		2	No		2	No				
19	4	3	No		4	No		4	No		4	No	
23	2	1	No		3	Yes	IMP	1	No				
2	2	2	No		1	No							
17	1	3	Yes	IMP	2	No							
21	3	3	No		4	No							
28	3	3	No										
40	3	2	No		3	No							
68	1	1	No		1	No							
<i>M</i>	2.24	2.22			2.43			2.44			2.68		
<i>SD</i>	0.89	0.97			1.02			0.93			1.01		
% RCI				9%			14%			13%			9%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.2 outlining RCI for the emotional support facet of the Brief COPE which reflects the use of emotional supports and seeking comfort or understanding from others. RCI for emotional support facet scores showed reliable change occurred for 17 of the 23 participants, or 74% of the total participants at some point in the study, in either direction of change, with 7 participants experiencing consistent or stable deterioration from baseline and 10 experiencing either isolated or sustained improvements, with only two participants returning to baseline following an improvement (participants 30 and 7). The most frequent time point for change occurred at 3 months (41% of participants) and 6 months (56% of participants), however there was no clear pattern identified with onset of reliable change.

Table F 2*Reliable Changes in Brief COPE facet score for emotional support at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	3	3	No		2	No		3	No		3	No	
15	2	3	No		2	No		3	Yes	IMP			
20	3	3	No		2	Yes	DET	2	Yes	DET	3	No	
25	2	2	No		2	No		1	Yes	DET	1	Yes	DET
26	3	3	No		2	Yes	DET	2	Yes	DET	3	No	
27	3	4	Yes	IMP	3	No		3	No		3	No	
30	2	2	No		3	Yes	IMP	3	No		2	No	
31	2	2	No		2	No		3	No		2	No	
34	4	4	No		3	No		4	No				
35	1	2	Yes	IMP	4	Yes	IMP						
43	3	3	No		3	No		2	Yes	DET	3	No	
70	4	4	No		3	Yes	DET	3	Yes	DET	3	Yes	DET
6	2	3	No		3	No		3	Yes	IMP			
7	3	3	No		4	Yes	IMP	4	Yes	IMP	3	No	
13	3	2	No		3	No		4	Yes	IMP			
19	4	4	No		3	No		3	No		4	No	
23	2	1	Yes	DET	3	No		2	No				
2	1	2	Yes	IMP	3	Yes	IMP						
17	2	2	No		3	Yes	IMP						
21	3	3	No		4	Yes	IMP						
28	3	3	No										
40	3	2	Yes	DET	2	No							
68	2	1	No		1	No							
<i>M</i>	2.37	2.50			2.59			2.63			2.59		
<i>SD</i>	0.76	0.83			0.78			0.83			0.83		
% RCI				22%			41%			56%			18%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.3 outlining RCI for the instrumental support facet of the Brief COPE which reflects the use of supports and advice from others. RCI for instrumental support facet scores showed reliable change occurred for 9 of the 23 participants, or 39% of the total participants at some point in the study, in either direction of change. There was no clear pattern identified with onset of reliable change across time, however for post participants this occurred from 3 months to 6 months and onward, seen in change onset of 4%, 18%, 19% and 18% at each of the 1-month, 3-month, 6-month and 12-month marks respectively.

When considering direction of RCI change, visual inspection of Table F.3 indicates that the ratio of participants who demonstrated a deterioration vs improvement in use of instrumental supports was roughly even across each time point. It was noted that change in either direction was not consistently sustained by any of the participants over time, with all participants either returning to baseline or achieving reliable change at the last data collection point completed.

Table F 3*Reliable Changes in Brief COPE facet score for instrumental support at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	3 Month	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	3	3	No		3	No		4	No		3	No	
15	3	4	No		2	No		3	No				
20	3	3	No		3	No		3	No		3	No	
25	2	2	No		2	No		3	No		3	Yes	IMP
26	3	3	No		3	No		2	No		3	No	
27	4	4	No		3	No		3	No		4	No	
30	3	2	No		4	No		4	No		3	No	
31	3	2	No		2	No		3	No		3	No	
34	4	4	No		3	No		2	Yes	DET			
35	2	3	No		4	Yes	IMP						
43	3	3	No		3	No		3	No		2	Yes	DET
70	3	3	No		3	No		3	No		3	No	
6	2	3	No		3	No		3	No				
7	3	4	Yes	IMP	3	No		4	Yes	IMP	3	No	
13	2	3	No		3	No		4	Yes	IMP			
19	4	4	No		3	No		3	No		4	No	
23	3	2	No		3	No		3	No				
2	4	3	No		2	Yes	DET						
17	2	2	No		3	No							
21	4	3	No		3	No							
28	3	3	No										
40	3	3	No		4	Yes	IMP						
68	3	2	No		1	Yes	DET						
<i>M</i>	2.76	2.74			2.68			2.94			2.91		
<i>SD</i>	0.75	0.64			0.72			0.60			0.54		
% RCI				4%			18%			19%			18%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.4 outlining RCI for the facet of active coping on the Brief COPE demonstrates reliable change occurred for a small number of participants relating to use of active coping strategies. For those participants who experienced reliable change, onset occurred largely at either 3, 6 or 12 months, with minimal change sustained across time. One participant sustained improved change between 3 and 6 months (participant 25) and another between 6 and 12 months (participant 19).

In total a quarter of participants (6 of 23; 26% of total participants) experienced reliable change across the time points, majority of whom experienced change in a positive direction, that is, demonstrated an increase in use of active coping strategies, such as acting to effect change on their situation. Visual inspection of Table F.4 shows deterioration was present for one participant at 6 months and was followed by a return to baseline by the 12-month follow-up.

Table F 4*Reliable Changes in Brief COPE facet score for active coping at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	2	3	No		3	No		3	No		3	No	
15	4	4	No		4	No		4	No				
20	4	3	No		3	No		3	No		3	No	
25	2	2	No		4	Yes	IMP	3	Yes	IMP	2	No	
26	3	3	No		3	No		4	No		3	No	
27	3	4	No		3	No		3	No		3	No	
30	3	3	No		4	No		3	No		4	No	
31	3	2	No		2	No		3	No		4	Yes	IMP
34	3	3	No		2	No		3	No				
35	2	2	No		3	No							
43	3	3	No		3	No		3	No		4	No	
70	4	3	No		3	No		2	Yes	DET	4	No	
6	3	4	No		4	No		4	No				
7	3	2	No		4	No		4	No		4	No	
13	2	2	No		2	No		4	Yes	IMP			
19	3	3	No		4	No		4	Yes	IMP	4	Yes	IMP
23	4	4	No		4	No		4	No				
2	2	2	No		1	No							
17	1	2	No		1	No							
21	2	3	No		4	Yes	IMP						
28	3	4	No										
40	4	4	No		4	No							
68	2	3	No		2	No							
<i>M</i>	2.63	2.76			2.91			3.13			3.18		
<i>SD</i>	0.83	0.74			0.93			0.56			0.56		
% RCI				0%			9%			25%			18%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.5 outlining RCI for the facet of planning on the Brief COPE demonstrates reliable change occurred for a minority of participants (4 of 23; 17% of total participants). Of note however, is that all participants demonstrated improvement in use of planning as a coping strategy. For those participants who experienced reliable change, onset occurred at either 1, 3, or 6 months, with minimal change sustained across time. One participant sustained improved change between 1 and 3 months (participant 17) and did not complete any further follow up. The others returned to baseline following improvements or ceased engagement with the study (participant 35).

Table F 5*Reliable Changes in Brief COPE facet score for planning at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	3	3	No		3	No		3	No		2	No	
15	4	4	No		4	No		4	No				
20	4	3	No		3	No		3	No		3	No	
25	3	3	No		4	No		3	No		3	No	
26	3	3	No		4	No		3	No		3	No	
27	4	4	No		3	No		3	No		4	No	
30	3	4	No		4	No		4	No		3	No	
31	3	2	No		3	No		3	No		2	No	
34	2	3	No		3	No		3	No				
35	2	2	No		4	Yes	IMP						
43	3	3	No		2	No		3	No		4	No	
70	4	3	No		3	No		3	No		3	No	
6	2	4	Yes	IMP	3	No		3	No				
7	3	4	No		3	No		4	No		3	No	
13	1	2	No		1	No		4	Yes	IMP			No
19	4	3	No		3	No		3	No		3	No	
23	4	4	No		3	No		3	No				
2	2	2	No		2	No							
17	1	3	Yes	IMP	4	Yes	IMP						
21	3	3	No		3	No							
28	3	3	No										
40	4	3	No		4	No							
68	3	3	No		2	No							
<i>M</i>	2.78	2.91			2.93			3.03			2.91		
<i>SD</i>	0.88	0.60			0.78			0.50			0.66		
% RCI				9%			9%			6%			0%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.6 outlining RCI for the facet of positive reframing on the Brief COPE demonstrates reliable change occurred at some point for a majority of participants (15 of 23; 65% of total participants) in either change direction, however two thirds of the participants reflected improvements in use of this coping strategy. For those participants who experienced reliable change in either direction, onset occurred most frequently at 1 or 3 months, with a smaller proportion of participants changing patterns of use of positive reframing at 6 or 12 months. There was a rough balance between movement back towards baseline vs sustained change in either direction. One participant (21) sustained improved change at 3 months but deteriorated in use of positive reframing by 6 months.

Table F 6*Reliable Changes in Brief COPE facet score for positive reframing at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	3	2	No		2	No		2	No		2	No	
15	4	3	No		3	No		4	No				
20	3	3	No		2	Yes	DET	3	No		3	No	
25	3	3	No		3	No		2	No		2	No	
26	2	3	Yes	IMP	4	Yes	IMP	3	Yes	IMP	3	Yes	IMP
27	3	4	Yes	IMP	3	No		3	No		4	Yes	IMP
30	4	4	No		4	No		3	Yes	DET	3	Yes	DET
31	2	2	No		2	No		2	No		2	No	
34	2	3	No		3	No		2	No				
35	2	3	Yes	IMP	3	Yes	IMP						
43	3	3	No		3	No		2	Yes	DET	3	No	
70	2	2	No		3	Yes	IMP	3	Yes	IMP	3	Yes	IMP
6	3	3	No		4	Yes	IMP	3	No				
7	3	4	Yes	IMP	3	No		4	Yes	IMP	2	No	
13	2	2	No		2	No		2	No				
19	3	3	No		3	No		4	Yes	IMP	3	No	
23	3	2	Yes	DET	3	No		3	No				
2	2	2	No		1	No							
17	1	3	Yes	IMP	3	Yes	IMP						
21	3	3	No		4	Yes	IMP		Yes	DET			
28	3	4	No			Yes	DET						
40	2	2	No		4	Yes	IMP						
68	2	2	No		2	No							
<i>M</i>	2.37	2.54			2.70			2.69			2.64		
<i>SD</i>	0.73	0.66			0.73			0.66			0.71		
% RCI				26%			39%			41%			36%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.7 outlining RCI for the acceptance facet of the Brief COPE demonstrates reliable change occurs in approach to accepting and living with the problem. Reliable change occurred for 11 of 23 participants (48%) at some time point over time in either direction of change. This indicates change is occurring to a reliable level in patterns of acceptance over time while engaged in treatment. Onset of change varied between 1, 3, 6 and 12 months, and no change was sustained over time or beyond one time point for any individual participant, all returned to baseline or documented reliable change on the next time point, or demonstrated change on their last completed measure. When considering direction of RCI change, visual inspection of Table F.7 indicates majority of participants experienced change in a positive manner, that is they increased their use of acceptance as a coping strategy, however 3 of the 11 participants reduced used of acceptance-based coping.

Table F 7*Reliable Changes in Brief COPE facet score for acceptance at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction		
4	3	3	No		3	No		3	No		3	No			
15	4	4	No		4	No		3	Yes	DET					
20	4	3	No		4	No		3	No		3	No			
25	3	4	No		4	No		4	No		4	Yes	IMP		
26	3	3	No		3	No		4	No		4	No			
27	3	4	Yes	IMP	3	No		3	No		3	No			
30	3	3	No		4	No		3	No		3	No			
31	2	3	No		2	No		2	No		3	Yes	IMP		
34	3	3	No		2	No		3	No						
35	2	3	No		4	Yes	IMP								
43	3	3	No		3	No		3	No		4	Yes	IMP		
70	4	4	No		3	No		3	No		3	No			
6	2	3	No		4	Yes	IMP	3	No						
7	3	3	No		3	No		4	No		3	No			
13	2	2	No		2	No		3	Yes	IMP					
19	4	4	No		4	No		4	No		3	Yes	DET		
23	4	4	No		3	No		3	No						
2	2	2	No		2	No									
17	2	4	Yes	IMP	3	No									
21	4	3	No		4	No									
28	4	4	No												
40	4	4	No		3	No									
68	4	3	No		2	Yes	DET								
<i>M</i>	2.98	3.07			2.95			3.06			3.14				
<i>SD</i>	0.79	0.66			0.82			0.51			0.39				
% RCI				9%				14%				13%		36%	

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.8 outlining RCI for the humour facet of the Brief COPE demonstrates reliable change occurs in approach to using humour to cope. Reliable change occurred for 8 of 23 participants (35%) at some time point over time in either direction of change. This indicates change is occurring to a reliable level in use of humour for a proportion of participants over time while engaged in treatment. Onset of change varied between 1, 3, 6 and 12 months, with improvements most common at 1, 3 and 12 months, and increased likelihood of deterioration in use of humour at 6 months post baseline. Interestingly only one participant sustained change across time points (participant 20) who improved on use of humour at 1 month, returned to baseline at 3 months and then sustained improvements at 6 and 12 months. When considering direction of RCI change, visual inspection of Table F.8 indicates majority of participants experienced change in a positive manner, that is they increased their use of humour as a coping strategy, however 3 of the 8 participants reduced used of humour-based coping at the 6 month mark.

Table F 8*Reliable Changes in Brief COPE facet score for humour at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	3	3	No		2	No		2	No		3	No	
15	4	3	No		3	No		2	Yes	DET			
20	2	4	Yes	IMP	3	No		3	Yes	IMP	3	Yes	IMP
25	3	2	No		2	No		3	No		2	No	
26	3	3	No		3	No		2	Yes	DET	3	No	
27	3	4	No		3	No		3	No		4	Yes	IMP
30	2	2	No		3	No		2	No		2	No	
31	1	1	No		1	No		1	No		1	No	
34	3	3	No		3	No		2	Yes	DET			
35	1	1	No		4	Yes	IMP						
43	2	3	No		3	No		2	No		2	No	
70	1	1	No		1	No		1	No		3	Yes	IMP
6	2	2	No		2	No		2	No				
7	3	4	No		2	No		3	No		3	No	
13	1	1	No		1	No		1	No				
19	3	2	No		3	No		2	No		3	No	
23	1	1	No		3	Yes	IMP	1	No				
2	3	3	No		3	No							
17	1	1	No		1	No							
21	3	3	No		4	No							
28	4	4	No										
40	1	1	No		1	No							
68	4	4	No		4	No							
<i>M</i>	2.22	2.24			2.36			1.88			2.50		
<i>SD</i>	0.99	1.00			0.99			0.72			0.77		
% RCI				4%			9%			25%			27%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.9 outlining RCI for the self-distraction facet of the Brief COPE demonstrates reliable change occurs for a proportion of participants in use of this avoidance-based coping strategy. A reliable change occurred for 8 of 23 participants (35%) at some time point over time in either direction of change while engaged in treatment. The onset of change mostly occurred at the 3-month time point, however, some participants experience change from 1 month, and one experienced change at the 12-month mark. Interestingly only one participant sustained change across time points (participant 40) who deteriorated in the use of self-distraction, that is, was using this avoidance strategy more frequently from 1 month onwards. The remainder either experienced change at their last collected data point so ongoing patterns are unknown (participants 35, 19, 17 and 21), or experienced a return to baseline functioning (participants 30, 31 and 23). When considering the direction of RCI change, visual inspection of Table F.9 indicates the majority of participants (5 of 8) who experienced reliable change experienced change in a negative manner, that is they increased their use of self-distraction as an avoidance mechanism, however, 3 of the 8 participants noted reduction in this strategy at the 3-month mark.

Table F 9*Reliable Changes in Brief COPE facet score for self-distraction at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	3	3	No		3	No		4	No		3	No	
15	3	4	No		3	No		2	No				
20	2	3	No		3	No		3	No		3	No	
25	4	4	No		3	No		3	No		3	No	
26	3	2	No		3	No		3	No		3	No	
27	4	3	No		3	No		3	No		4	No	
30	3	3	No		2	Yes	IMP	3	No		2	No	
31	3	3	No		2	Yes	IMP	2	No		3	No	
34	3	3	No		2	No		4	No				
35	3	3	No		4	Yes	DET						
43	2	3	No		3	No		2	No		3	No	
70	4	3	No		3	No		3	No		3	No	
6	2	2	No		2	No		2	No				
7	3	3	No		3	No		3	No		2	No	
13	2	2	No		1	No		2	No				
19	1	2	No		2	No		2	No		3	Yes	DET
23	3	4	Yes	DET	4	No		3	No				
2	3	3	No		3	No							
17	4	3	No		2	Yes	IMP						
21	1	2	No		4	Yes	DET						
28	4	4	No										
40	1	3	Yes	DET	3	Yes	DET						
68	3	3	No		4	No							
<i>M</i>	2.48	2.70			2.59			2.53			2.64		
<i>SD</i>	0.80	0.67			0.78			0.64			0.45		
% RCI				9%			27%			6%			9%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.10 outlining RCI for the denial facet of the Brief COPE demonstrates reliable change occurs for a proportion of participants in use of this maladaptive and avoidance-based coping strategy. A reliable change occurred for a majority of the participants, 17 of 23 (74%), at some time point over time in either direction of change while engaged in treatment. The onset of change mostly occurred at the 1-month time point, with change sustained for most participants, however two participants experienced onset of change at 3 and 6 months, and 3 at the 12-month mark. However, some participants experience change from 1 month, and one experienced change at the 12-month mark.

When considering direction of RCI change, visual inspection of Table F.10 indicates that a greater proportion of participants demonstrated a deterioration in coping on the facet of denial, (12 of 17 experiencing change) which is an increase in use of denial of the problem as a way of coping compared to recognition or acceptance of the problem. This RCI deterioration was sustained for most participants across time points through to their cessation of the study or the completion of the project. Only two participants who experienced a RCI deterioration returned to baseline functioning, participant 30 after deterioration at 1 month and participant 7 after deterioration sustained across 1, 3 and 6 months. Of those who experience RCI improvements, or reduction in the use of denial as a strategy, this was sustained for two, participant 6 across 1, 3 and 6 months and participant 21 across 1 and 3 months. Participants 4 and 34 experienced an RCI improvement at their final data point of 12 and 6 months respectively. Participant 31 noted an improvement at 1 month, a return to baseline sustained across 3 and 6 and improvement again at 12 months.

Table F 10*Reliable Changes in Brief COPE facet score for denial at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	2	3	No		2	No		2	No		1	Yes	IMP
15	2	1	No		1	No		1	No				
20	1	3	Yes	DET	2	Yes	DET	2	Yes	DET	3	Yes	DET
25	1	1	No		1	No		2	Yes	DET	2	Yes	DET
26	1	1	No		1	No		1	No		1	No	
27	2	3	Yes	DET	3	Yes	DET	3	Yes	DET	4	Yes	DET
30	1	2	Yes	DET	2	No		1	No		1	No	
31	3	2	Yes	IMP	2	No		3	No		2	Yes	IMP
34	2	2	No		2	No		1	Yes	IMP			
35	2	3	Yes	DET	4	Yes	DET						
43	1	1	No		1	No		2	No		2	No	
70	1	1	No		1	No		2	No		2	Yes	DET
6	2	1	Yes	IMP	1	Yes	IMP	1	Yes	IMP			
7	1	4	Yes	DET	2	Yes	DET	4	Yes	DET	2	No	
13	1	2	No		1	No		2	No				
19	1	1	No		1	No		1	No		2	No	
23	1	3	Yes	DET	4	Yes	DET	3	Yes	DET			
2	2	2	No		3	Yes	DET						
17	1	1	No		1	No							
21	2	1	Yes	IMP	1	Yes	IMP						
28	2	1	No										
40	2	1	No		3	Yes	DET						
68	1	2	Yes	DET	3	Yes	DET						
<i>M</i>	1.37	1.72			1.80			1.75			1.77		
<i>SD</i>	0.46	0.89			0.88			0.80			0.82		
% RCI				43%			45%			44%			55%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.11 outlining RCI for the venting facet of the Brief COPE demonstrates reliable change occurs for a proportion of participants in the use of this maladaptive and emotion-focused coping strategy which involves the expression of negative feelings and saying things to allow feelings to escape as a way to cope. A reliable change occurred for just over half of the participants, 12 of 23 (52%), at some time point over time in either direction of change while engaged in treatment. The initial onset of change mostly occurred at the 6-month time point, however, some initial change occurred at the 1 and 3-month time points.

When considering direction of RCI change, visual inspection of Table F.11 indicates that approximately three-quarters of participants demonstrated a deterioration in coping on the facet of venting (8 of 12 experiencing change) which is an increase in expression of negative feelings and saying things to allow feelings to escape to cope with the problem. This RCI deterioration was largely sustained for most participants across time points through to cessation or completion of the project, with only two returning to baseline at the time point following deterioration (participants 7 and 17). Of the four participants who experienced RCI improvements, (participants 43, 23, 21 and 40) or reduction in the use of venting as a strategy, for two participants this was evident only at their last data collection time points (participants 23 and 21), 6 months and 3 months hence ongoing sustained change is unknown. For the other two, participants 43 and 40, improvements were followed by a return to baseline at the time point following.

Table F 11*Reliable Changes in Brief COPE facet score for venting at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	2	2	No		2	No		2	No		2	No	
15	3	3	No		3	No		3	No				
20	2	3	No		3	No		3	Yes	DET	3	Yes	DET
25	1	2	No		2	No		3	Yes	DET	3	Yes	DET
26	2	3	No		2	No		3	No		3	No	
27	2	3	Yes	DET	3	Yes	DET	3	Yes	DET	4	Yes	DET
30	2	3	No		2	No		3	No		2	No	
31	2	2	No		2	No		2	No		3	No	
34	2	2	No		2	No		2	No				
35	2	3	Yes	DET	4	Yes	DET						
43	3	3	No		2	No		2	Yes	IMP	3	No	
70	1	2	No		2	No		4	Yes	DET	3	Yes	DET
6	2	1	No		1	No		2	No				
7	2	3	No		2	No		4	Yes	DET	2	No	
13	2	2	No		2	No		2	No				
19	2	2	No		2	No		2	No		3	Yes	DET
23	3	4	No		3	No		2	Yes	IMP			
2	3	3	No		2	No							
17	1	3	Yes	DET	1	No							
21	4	3	No		2	Yes	IMP						
28	4	4	No										
40	4	2	Yes	IMP	4	No							
68	1	1	No		2	No							
<i>M</i>	2.04	2.39			2.09			2.41			2.45		
<i>SD</i>	0.84	0.75			0.68			0.64			0.52		
% RCI				17%			14%			44%			45%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.12 outlining RCI for the substance use facet of the Brief COPE demonstrates any reliable change occurs for approximately a third of participants at 1 month (35%), 3 months (32%) and 12 months (36%) follow up, with 19% of participants experiencing reliable change at the 6 month time point. This indicates change is occurring to a reliable level in patterns of substance use over time while engaged in treatment.

When considering direction of RCI change, visual inspection of Table F.12 indicates that a greater proportion of participants demonstrated a deterioration in coping on the facet of substance use, that is an increase in substance use as a way of coping compared to a reduction in substance use behaviours. This is not reflected clearly in RCI of SDS scores and may be indicative of higher (improved) substance use scores at baseline given likely discharge from inpatient substance use treatment prior to admission to group leading to increased likelihood of deterioration when returning to community. When inspecting Table F.12 for individual patterns, there were three participants who improved to a RCI level, participant 43, participant 23 and participant 28. Unfortunately, participant 28's data on the Brief COPE was not completed, hence is missing. However, for participants 43 and 23, improvements from baseline were sustained through to 12 months for 43, and discharge from program between 6 and 12 months for 23.

Table F 12*Reliable Changes in Brief-COPE Facet of Substance Use coping at baseline compared to 1 month, 3 months, 6 months and 12 months*

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	1	3	Yes	DET	2	Yes	DET	1	No		2	Yes	DET
15	1	1	No		1	No		1	No				
20	1	1	No		1	No		1	No		3	Yes	DET
25	1	2	No		1	No		2	No		1	No	
26	1	1	No		1	No		1	No		1	No	
27	1	3	Yes	DET	3	Yes	DET	3	Yes	DET	4	Yes	DET
30	1	1	No		1	No		1	No		1	No	
31	1	1	No		1	No		1	No		1	No	
34	1	1	No		1	No		1	No				
35	1	2	Yes	DET	2	No							
43	2	1	Yes	IMP	1	Yes	IMP	1	Yes	IMP	1	Yes	IMP
70	1	1	No		2	Yes	DET	1	No		1	No	
6	1	1	No		1	No		1	No				
7	1	1	No		1	No		1	No		1	No	
13	1	1	No		1	No		1	No				
19	1	2	No		1	No		1	No		1	No	
23	4	1	Yes	IMP	4	No		1	Yes	IMP			
2	1	3	Yes	DET	4	Yes	DET						
17	1	1	No		2	Yes	DET						
21	1	1	No		3	Yes	DET						
28	2	1	Yes	IMP									
40	3	4	No		3	No							
68	1	4	Yes	DET	1	No							
<i>M</i>	1.30	1.59			1.64			1.16			1.50		
<i>SD</i>	0.76	0.97			0.93			0.51			0.92		
% RCI				35%			32%			19%			36%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.13 outlining RCI for the behavioural disengagement facet of the Brief COPE demonstrates reliable change occurs for a proportion of participants in use of this maladaptive and avoidance-based coping strategy which involves giving up on both trying to cope, or relinquishing efforts to cope. A reliable change occurred for just under half of the participants, 11 of 23 (48%), at some time point over time in either direction of change while engaged in treatment. The onset of change mostly occurred at the 1-month or 3 month time points, however, two participants experienced an initial onset of change at 12 months (participants 20 and 31).

When considering direction of RCI change, visual inspection of Table F.13 indicates that a greater proportion of participants demonstrated a deterioration in coping on the facet of behavioural disengagement, (9 of 11 experiencing change) which is an increase in use of behavioural disengagement as coping or giving up on attempts to cope with the problem. This RCI deterioration varied between being sustained (sustained for participants 35, 40 and for 27, RCI was sustained 1 and 3 months, return to baseline then deterioration at 12 months), onset at last data point collected (participants 20, 2 and 68) or followed by a return to baseline functioning (participants 43, 70 and 7). Of the two participants who experienced RCI improvements, (participants 31 and 17) or reduction in the use of behavioural disengagement as a strategy, this was evident only at their last data collection time point, 12 months and 3 months respectively, hence ongoing sustained change is unknown.

Table F 13

Reliable Changes in Brief COPE facet score for behavioural disengagement at baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	2	2	No		2	No		2	No		2	No	
15	1	1	No		1	No		1	No				
20	1	1	No		1	No		1	No		3	Yes	DET
25	1	2	No		1	No		2	No		1	No	
26	2	1	No		2	No		1	No		2	No	
27	2	4	Yes	DET	4	Yes	DET	2	No		4	Yes	DET
30	1	1	No		1	No		1	No		1	No	
31	2	3	No		2	No		2	No		1	Yes	IMP
34	2	1	No		2	No		1	No				
35	2	3	Yes	DET	4	Yes	DET						
43	1	2	No		1	No		2	Yes	DET	1	No	
70	1	1	No		2	Yes	DET	1	No		1	No	
6	1	2	No		1	No		1	No				
7	1	2	Yes	DET	1	No		1	No		1	No	
13	2	2	No		2	No		2	No				
19	1	1	No		1	No		1	No		1	No	
23	3	3	No		3	No		2	No				
2	3	3	No		4	Yes	DET						
17	3	2	No		1	Yes	IMP						
21	1	1	No		1	No							
28	1	1	No										
40	1	2	Yes	DET	4	Yes	DET						
68	2	2	No		3	Yes	DET						
<i>M</i>	1.43	1.72			1.89			1.38			1.59		
<i>SD</i>	0.55	0.77			1.05			0.47			1.02		
% RCI				17%			32%			6%			27%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Visual inspection of Table F.14 outlining RCI for the self-blame facet of the Brief COPE demonstrates reliable change occurs for a proportion of participants in use of this maladaptive and emotion-focused coping strategy. A reliable change occurred for approximately a third of the participants, 7 of 23 (30%), at some time point over time in either direction of change while engaged in treatment. The onset of change mostly occurred at the 1-month time point, with change sustained for most participants across time points, however, one participant experienced an initial onset of change at 3 months (participant 43).

When considering direction of RCI change, visual inspection of Table F.14 indicates that a greater proportion of participants demonstrated a deterioration in coping on the facet of self-blame, (4 of 7 experiencing change) which is an increase in use of self-blame such as blaming self for problems and events and self-criticism as a way of coping. This RCI deterioration was sustained for most participants across time points through to their cessation of the study or the completion of the project. Only one participant who experienced a RCI deterioration returned to baseline functioning, participant 20 after deterioration at 1 month, return to baseline was sustained across 3 and 6 months, and deterioration was seen again at 12 months. One participant demonstrated an RCI deterioration at their last data collection point so follow-up sustained change was unknown (participant 35). Of those who experienced RCI improvements, or reduction in the use of self-blame as a strategy, this was sustained, for participant 43 across 3, 6 and 12 months and participant 40 across 1 and 3 months to the cessation of study participation.

Table F 14

Reliable Changes in Brief COPE facet score for self-blame at baseline compared to 1 month, 3 months, 6 months and 12 months

ID	Baseline score	At 1 Mo	RCI	Direction	At 3 Mo	RCI	Direction	At 6 Mo	RCI	Direction	At 12 Mo	RCI	Direction
4	3	3	No		3	No		3	No		4	No	
15	1	1	No		2	No		2	No				
20	2	3	Yes	DET	2	No		3	No		3	Yes	DET
25	3	3	No		4	No		4	No		3	No	
26	3	4	No		3	No		2	No		2	No	
27	2	3	Yes	DET	3	Yes	DET	3	Yes	DET	3	Yes	DET
30	2	2	No		3	No		2	No		2	No	
31	2	2	No		2	No		2	No		1	No	
34	3	2	Yes	IMP	3	No		3	No				
35	2	1	No		4	Yes	DET						
43	4	3	No		2	Yes	IMP	2	Yes	IMP	2	Yes	IMP
70	2	4	Yes	DET	4	Yes	DET	4	Yes	DET	3	No	
6	2	2	No		1	No		3	No				
7	2	2	No		1	No		2	No		2	No	
13	2	3	No		3	No		3	No				
19	2	2	No		2	No		2	No		2	No	
23	4	4	No		3	No		3	No				
2	4	4	No		4	No							
17	3	3	No		3	No							
21	2	2	No		2	No							
28	2	2	No										
40	3	1	Yes	IMP	1	Yes	IMP						
68	4	3	No		4	No							
<i>M</i>	2.43	2.37			2.59			2.47			2.41		
<i>SD</i>	0.86	0.96			1.03			0.69			0.80		
% RCI				22%			23%			19%			27%

Note: RCI = Reliable Change Index; IMP = Improved; DET = Deteriorate

Appendix G: Study 2: Recruitment Flyer



**Have you been attending a
D&A Day Program for the last
6 months?**

We want to hear from you!

**You're invited to participate in an interview about
supporting your recovery through the Drug &
Alcohol Day Program**

Commencing March 2022

*If you're interested in taking part, or you would like some more
information, please talk to your group facilitator or the Day
Program Coordinator.*

Appendix H: Study 2: Participant Information Sheet

Supporting Transition to Recovery Through Outpatient Group Therapy for People with Substance Use Disorders

Patient Participant Information Form

Research Team Contact Details

Ms Rebecca Lane,
Clinical psychologist,
Northside Group Wentworthville Clinic,
Ramsay Health
[REDACTED]

Dr Stan Theodorou,
VMO Drug and Alcohol Unit Northside and
Northside Group Wentworthville Clinic
[REDACTED]

Description

Review and assessment of treatment programs is crucial in ensuring quality care, support, and the best outcome for patients in recovery. Assessment of treatment outcomes in drug and alcohol research has focused primarily on measures of attendance and abstinence. In order to understand the experiences of participants and their outcomes, regular assessment with consideration of a wider view of health is required. The current study aims to document and explore the experiences of patients attending the Northside Group Wentworthville Clinic outpatient drug and alcohol program to better understand the way in which outpatient group therapy supports transition to recovery.

Participation

Your participation will involve your choice of a group or individual interview that will take approximately 30-60 minutes of your time and will be completed via phone or Zoom at a day and time most convenient to you. So as to not disrupt your time, the interview will take place at a time of greatest convenience.

Questions will revolve around your experiences at day program and will include questions like: *“Tell us about your experiences which led to your current period of abstinence?”*, *“What led you to deciding to change?”*, *“What has helped you in facilitating change?”*, *“How have things changed for you since being abstinent?”*, *“What has helped you in maintaining your abstinence?”*, *“How has the day program helped in your recovery?”*, *“Which parts of day program do you consider were most helpful for your recovery, and why?”*, and *“What parts of the day program were least helpful and why? What recommendations do you have for enhancing the day program to better help you in changing and maintaining abstinence?”*

Your participation in this project is entirely voluntary. If you do not wish to take part you are not obliged to. If you decide to take part and later change your mind, you are free to withdraw from the project at any stage. If you do wish to withdraw from this project, please contact the Research Team (contact details at the top of this form), Day Program Coordinator or your group facilitator.

Your decision whether you take part, do not take part, or to take part and then withdraw, will in no way impact your current or future relationship with your treating team, The Northside Group or Ramsay Health.

Expected Benefits

It is expected that this research will directly benefit you by providing an opportunity to reflect on your own experiences and journey of in recovery whilst engaged with the Northside Group drug and alcohol outpatient program. You may benefit by gaining self-knowledge of your experiences and recovery and the progress you may have made by participating in the program.

Further, by exploring your experiences in the outpatient group therapy program, it is hoped a greater understating of the current Northside Group Wentworthville Clinic drug and alcohol outpatient group therapy program will be gained. In gaining such information, the effectiveness of the current drug and alcohol outpatient group therapy program can begin to be explored - with the goal to review and improve the program, and indirectly improve your experience to ensure you are getting the most out of the program to assist with your recovery.

Risks

This research is considered to be of minimal risk to you, however, sometimes thinking about the sorts of issues raised in the questionnaire can create some uncomfortable or distressing feelings. If you need to talk to someone about this immediately please contact the research team, your treating therapist or any other staff member on site at Northside Group Wentworthville Clinic, the Day Program Coordinator or Lifeline on 13 11 14.

Privacy and Confidentiality

By signing the Participant Consent Form, you consent to the chief investigator and relevant research staff collecting and using personal information about you relevant to the research project, including audio recording the interview. Any information obtained in connection with this research project that can identify you will remain confidential and will be deidentified.

Personal and clinical information will be kept securely at the Northside Group Wentworthville Clinic and research data will be kept onsite. Audio data and transcription of the interview will be stored on secure, password protected computer and discs which will remain at the Northside Group Wentworthville Clinic.

Any data collected as a part of this project will be stored securely as per Ramsay Data Management policies and the Australian Code for Responsible Conduct of Research.

The data may be used in future research of a similar nature regarding the Northside Group Wentworthville Clinic, and deidentification and confidentiality will remain. In line with the Australian Code for Responsible Conduct of Research, data will be retained for a minimum of 5 years, after which it will be disposed of in a secure, confidential and appropriate manner.

Consent to Participate

Please return the attached consent form to the day program coordinator on site as an indication of your consent to participate in this project.

Questions or Further Information about the Project

The findings from this study will be used as part of an evaluation for the Northside Group Wentworthville Clinic to improve the services it provides, as part of a PhD thesis, published in public journals and articles and presented as part of conference proceedings. A summary of the key findings will be presented in an information session by the researchers at the Northside Group Wentworthville Clinic for participants once the research is complete and a written synopsis of the findings will be made available to you.

If you have any questions regarding this research or wish to request further information about this project please do not hesitate to contact Rebecca Lane or Dr Theodorou in the Research Team Contact Details at the top of the form. Alternatively, make contact with the Day Program Coordinator at Northside Group Wentworthville Clinic to assist with any enquiries.

We remain thankful to all participants for your willingness to participate in this project and hope this experience may assist current and future patients in their recovery.

Concerns or Complaints Regarding the Conduct of the Project

If you have any concerns or complaints about the ethical conduct of the project you may contact Benjamin Yeh, DCS, Northside Group Wentworthville Clinic on [REDACTED]. Benjamin Yeh is not connected with the research project and can facilitate a resolution to your concern in an unbiased manner.

Thank you for taking the time to help with this research project. Please keep this sheet for your information.

Appendix I: Study 2: Participant Consent Form

**Supporting Transition to Recovery Through Outpatient
Group Therapy for People with Substance Use Disorders**

Patient Participant Consent form

Research Team Contact Details

Ms Rebecca Lane,
Clinical psychologist,
Northside Group Wentworthville Clinic,
Ramsay Health
[REDACTED]

Dr Stan Theodorou,
VMO Drug and Alcohol Unit Northside and
Northside Group Wentworthville Clinic
[REDACTED]

Statement of Consent

By signing below, you are indicating that you:

- Have read and understood the information document regarding this project.
- Have been made aware of the processes involved in the study, including any inconvenience, risk and implications as far as they are currently known by the researchers.
- Have had any questions answered to your satisfaction and understand that if you have any additional questions you can contact the research team.
- Understand that the research study is strictly confidential and any information that you have provided cannot be linked to you, and that your name or identifying information will not be disclosed or published.
- Understand that data collected and deidentified may be used in other research studies of a similar nature.
- Understand that you are free to withdraw at any time, without comment, penalty or prejudice.
- Understand that you can contact Benjamin Yeh, DCS, Northside Group Wentworthville Clinic on [REDACTED] if you have any concern or complaint about the ethical conduct of this project.
- Are over 18 years of age.
- Agree to participate in the project freely.

Participant Name _____

Participant Signature _____

Date _____

**Please return this sheet to your group therapy facilitator or Day Program Coordinator
prior to the interview.**

Appendix J: Study 2: Interview Questions

Core interview questions were developed to address the Research Questions, in line with the process used by Stokes et al. (2018) to explore sustained recovery from SUD through the STT lens. Questions used included:

- Tell me the story of your recovery journey? With prompts for depth of exploration relating to what led to change, how did you come to join the day program, what precipitated change, motivators and/or context of change process?
- Who or what has helped or supported you in your recovery journey? With a prompting question of how has this been helpful?
- What did you find easy in your recovery journey? And what did you find hard?
- How have you changed or grown through your recovery? Prompting exploration of changes in approach, self, perspective, or coping.
- How has life changed for you in recovery?
- Tell me about the role of day program in your recovery?
- What do you see as most important in sustaining your recovery?