AN EXPLORATION OF MODERATOR SUPPORT FOR ONLINE SUICIDAL BEHAVIORS

A Thesis submitted by

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For the award of

Doctor of Philosophy

2023

ABSTRACT

Individuals experiencing suicidal thoughts and behaviors (STBs) often turn to informal settings such as online mental health forums for much needed, and often lifesaving support. Despite the exponential growth of online forums, suicidology research has not focused on professional moderators who are responsible for ensuring the safety of these spaces. This program of research sought to address the gaps in the professional moderator research by undertaking three qualitative studies: a scoping review, a collective case study that consisted of semi structured interviews with moderators, and an in-situ examination of real-life moderator practices. Findings confirmed that little is known about the experiences and practices of moderators, with the moderator role perceived as multifaceted, complex, and constrained with moderators wishing that they could do more to support those experiencing STBs. Examining moderator real-life practices showed that moderators work in sophisticated ways, reflecting a dual risk and safety lens, where they work collaboratively with other forum users to transform risk presentations into safety actions. An original and significant contribution of this research is that a shift in focus away from how individuals become at risk, to how they are made safe is needed to move the field forward. This shift would ideally be amongst a transparent backdrop of a culture of safety, where practitioners work collaboratively and in partnership with colleagues and importantly the populations they serve.

CERTIFICATION OF THESIS

I Amanda Perry declare that the PhD Thesis entitled *'An Exploration of Moderator Support for Online Suicidal Behaviors'* is not more than 100,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references, and footnotes. This Thesis is the work of Amanda Perry except where otherwise acknowledged, with the majority of the contribution to the papers presented as a Thesis by Publication undertaken by the student. The work is original and has not previously been submitted for any other award, except where acknowledged[1].

Date: 24th February 2023

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[1] American English has been adopted for this Thesis document as per APA 7th guidelines. Journal articles and appendices may reflect UK English in response to requirements of the respective journals.

STATEMENT OF CONTRIBUTION

Paper One:

Perry, A., Lamont-Mills, A., du Plessis, C., du Preez, J., & Pyle, D. (2020). Suicidal behaviours and moderator support in online health communities: protocol for a scoping review. *BMJ open, 10*(1), e034162-e034162. https://doi.org/10.1136/bmjopen-2019-034162

Mrs. Amanda Perry contributed 60% to this paper. Collectively Professor Andrea Lamont-Mills, Dr. Carol du Plessis, Dr. Jan du Preez, and Mrs. Denise Pyle contributed the remainder.

Paper Two:

Perry, A., Pyle, D., Lamont-Mills, A., du Plessis, C., & du Preez, J. (2021). Suicidal behaviours and moderator support in online health communities: a scoping review. *BMJ open, 11*(6), e047905-e047905. https://doi.org/10.1136/bmjopen-2020-047905

Mrs. Amanda Perry contributed 65% to this paper. Collectively Professor Andrea Lamont-Mills, Dr. Carol du Plessis, Dr. Jan du Preez, and Mrs. Denise Pyle contributed the remainder.

Paper Three:

Perry, A., Lamont-Mills, A., Preez, J. d., & Plessis, C. d. (2022). "I Want to Be Stepping in More" - Professional Online Forum Moderators' Experiences of Supporting Individuals in a Suicide Crisis. *Frontiers in Psychiatry,* 13:863509. https://doi.org/10.3389/fpsyt.2022.863509

Mrs. Amanda Perry contributed 65% to this paper. Collectively Professor Andrea Lamont-Mills, Dr. Carol du Plessis, and Dr. Jan du Preez contributed the remainder.

Paper Four:

Perry, A., Christensen, S., Lamont-Mills, A., & du Plessis, C. (Submitted for publication). When stepping in more isn't actually needed: Current text-based practices of professional online mental health forum moderators keep users experiencing a suicidal crisis safe. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace.*

Mrs. Amanda Perry contributed 55% to this paper. Collectively Professor Andrea Lamont-Mills, Dr. Carol du Plessis, and Mr. Steven Christensen contributed the remainder.

ACKNOWLEDGEMENTS

Foremost, I would like to express my sincere gratitude to my principal supervisor Professor Andrea Lamont-Mills for seeing value in the work of professional moderators and thus this research, and for her ongoing support. The hours you invested in me which were above and beyond, never went unnoticed, and for this you have my deepest appreciation. To my associate supervisors, Dr. Carol du Plessis and Dr. Jan du Preez, many thanks for your guiding and supportive efforts that were instrumental in maintaining perspective. To Mr. Steven Christensen, your boundless energy and enthusiasm for data was a highlight of this journey.

To my peers, Denise, Luke, and Damien, I have greatly appreciated learning alongside you. Your willingness to share your learning made a solo endeavor less lonely. Thank you to my friends, colleagues, and to Laidlaw College for their unwavering support.

To my family, David, Abigail, Esmé and Jude, thank you for all of your sacrifices that have enabled me to achieve this goal. To both sets of my parents, thank you for encouraging me and for believing in me. Special thanks to the online mental health forums and the professional moderators who helped to make this research possible.

This research has been supported by the Australian Government Research Training Scholarship and a UniSQ domestic PhD Stipend Scholarship.

DEDICATION

I dedicate this program of research to my family. I love you all beyond measure. To my husband David, thank you for always supporting my endeavors and doing all that you can to help me to succeed. To Abigail, Esmé, and Jude, remember all things are possible, never be afraid to pursue your goals and dreams, and above all, remember that mum loves you.

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ABBREVIATIONS

CA	Conversation analysis
IPA	Interpretative phenomenological analysis
NSSI	Non-suicidal self-injury
SI	Suicidal ideation
STBs	Suicidal thoughts and behaviors
TA	Thematic analysis
WHO	World Health Organization

CHAPTER 1: INTRODUCTION

1. Setting the Scene

Suicidal thoughts and behaviors (STBs) are amongst the most common and complicated psychiatric emergency presentations (Suárez-Pinilla et al., 2020). Suicide is also a leading cause of death worldwide (Coppersmith et al., 2022), with around 800,000 people dying by suicide each year (WHO, 2022). The number of people negatively impacted by suicide is much greater as it includes those bereaved by suicide (Cerel et al., 2019) and individuals who have survived a suicide attempt or have thought about taking their own life (Turecki et al., 2019). For every death by suicide it is estimated that there are more than 25 suicide attempts (Levey et al., 2019), with one in nine young adults (aged 18 – 34 years) reporting having made a suicide attempt (McClelland et al., 2020; O'Connor & Portzky, 2018). Thus, STBs are serious public health concerns that need to be addressed from multiple perspectives.

Suicide research over the past 50 years has typically focused on identifying risk factors associated with STBs (Franklin et al., 2017). Such research is important as it assists mental health professionals to identify those individuals in a heightened state of suicidal desire and intervene so that the movement toward acting on suicidal thoughts is diminished (Cha et al., 2018). However, despite this research, suicide rates have remained relatively constant (Turecki et al., 2019). What this means is that whilst risk factor research has provided some insight as to the factors that could

cause someone to become unsafe (Favril et al., 2022), we are no closer to being able to accurately predict which individuals are most likely to go on to take their own life, than we were 50 years ago (Franklin et al., 2017; O'Connor & Portzky, 2018). Thus, different research foci and different research approaches are perhaps needed to address STBs.

When considering contemporary forms of mental health support there has been an upsurge in the number of individuals going online for much needed support and advice (Bucci et al., 2019; Merchant et al., 2022). This upsurge has undoubtedly been influenced by the Covid-19 pandemic that saw individuals unable to connect with traditional forms of in-person mental health support (Biester et al., 2021; Niederkrotenthaler et al., 2020). For individuals experiencing STBs, including a heightened state of suicidal desire, online support can be immediate and potentially lifesaving (Biddle et al., 2018). Despite this, there are concerns that online support can place individuals at risk of becoming unsafe (Naslund et al., 2020). It is thought that this occurs through interactions with, and observations of, other individuals at-risk (Robinson et al., 2017). Thus, online places are often perceived as unsafe spaces for individuals experiencing STBs. These concerns persist in the literature even though little is known about what occurs online in terms of how STBs support is offered and received. This is both in terms of support from peers with lived experiences of STBs as well as support from online moderators who are tasked with keeping such spaces and those who interact in these spaces, safe.

Given the lack of real impact associated with risk factor research, rather than looking to identify risk factors and who is most at risk of experiencing STBs, we need to be doing something different. An area that has not been investigated in-depth is looking at those who work with those experiencing STBs online, and how they move these individuals back towards safety. This focus on what constitutes risk and how risk is managed requires new methods and ways of thinking. It also requires embracing qualitative research approaches that enable a focus on the perspectives of those with lived experience of both STBs (Watling et al., 2022) and the lived experiences of those who work with such individuals. This doctoral program of research has done this by focusing on how professional forum moderators keep individuals experiencing STBs safe in online spaces. To do this, this program of research embraced two different qualitative research approaches that enabled a focus on the perspectives of those with lived experience of working online with individuals experiencing a heightened state of suicidal desire, and then their actual working practices.

1.1. Study Context

The study context for this program of research was online mental health forums. These are spaces where individuals can access immediate mental health support and engage in discussions on a range of topics, including STBs (Hanley et al., 2019). Examples of online mental health

forums include Togetherall[1] (UK), SANE Australia[2] (Australia), and Kooth[3] (USA). To access support and interact with peers online, individuals must first sign up and gain membership to the online mental health forum. In doing this forum users typically first agree to a set of rules that govern online behaviors and conduct for a specific forum (Perry et al., 2022). Forum users are generally required to self-select anonymous usernames and are actively discouraged from sharing identifying and personal information for safety and privacy reasons (Perowne & Gutman, 2022). Mental health forums are founded on concepts of peer-support (McCosker, 2018) and forum users are encouraged to both give support and in turn allow themselves to be supported by peer forum users. Whilst still embracing the focus on peer support, professional moderators may also be present on such forums to answer forum user questions, provide technical support, support forum users to manage their own distress (Togetherall, 2022), and, where necessary, re-direct at-risk forum users to external crisis services particularly in relation to STBs presentations. This is in contrast to peer moderators, who are consumers of online mental health forums, usually with some sort of training in supporting others, and can be clinically overseen by qualified mental health practitioners. Peer moderators work to ensure that forum users interact

[1] https://togetherall.com/
[2] https://saneforums.org/
[3] https://www.kooth.com/

respectfully with one another and adhere to the rules of the forum (Griffiths et al., 2015).

In the context of this doctoral program of studies, professional moderators of online mental health forums were professionally qualified individuals from mental health, psychology, and communications fields (Perry et al., 2022). They were employees of organizations that run online mental health forums and are paid to undertake a range of tasks and functions ranging from welcoming new forum users, checking content, and supporting forum users who are at risk. A primary function of the professional moderator role is to ensure the safety of the individual forum users and the wider forum community through the identification and management of suicide risk presentations.

A noted common and challenging forum user presentation for professional moderators are STBs (Perry et al., 2022). Suicidal thoughts and behaviors include repeated thoughts about killing oneself (suicidal ideation), plans to kill oneself (suicide plan), or steps taken to kill oneself (suicide attempt) (Rasheduzzaman et al., 2022). We know that not all individuals experiencing STBs seek professional help from traditional in-person services, often due to the stigma and negative perceptions surrounding suicide (Oexle et al., 2019) and lack of access to appropriate formal health services (Stone et al., 2021). Instead, many of these individuals, especially those who are younger (Aguirre Velasco et al., 2020), turn elsewhere for potentially lifesaving help and support.

Online mental health forums are places where individuals experiencing STBs, including those in a heightened state of suicidal desire, can turn to for support and assistance. However, this can be problematic given that mental health forums are not intended to be crisis services, and thus do not perform crisis service work (Smith-Merry et al., 2019). What this means is that individuals are increasingly turning to online mental health forums for a specific type of crisis support that is not readily available to them in those spaces (Aladağ et al., 2018; Horne & Wiggins, 2009; Wadden et al., 2021). The mismatch between the type of support that forum users may want or need and the inability of online mental health forums to provide this support should be cause for concern, given persistent global suicide rates (O'Connor, 2021) and the importance of timely intervention for individuals at risk of suicide (Turecki et al., 2019). For this reason, it is imperative that this mismatch is considered by researchers to help individuals at a heightened stated of suicidal desire.

1.2. Background Context- Situating the Researcher

At the time this program of research was initiated I was working as a professional online forum moderator and supervisor of other forum moderators. The interest in the research topic was initially sparked by my own lived experiences of working in the online space. Noting that online mental health forums are not intended to be crisis services (Smith-Merry et al., 2019), I observed and interacted with countless numbers of individuals experiencing STBs, including those in a heightened state of

suicidal desire, who were turning to the online forum for much-needed crisis support. In supervising other professional moderators, I observed STBs to be amongst the most challenging, concerning, and time-consuming forum user presentations for moderators to manage.

During this time as a professional moderator, I felt a disconnect between my deeply held position about the importance of online moderation work, and the lack of awareness or valuing of online moderator work by non-health professionals and professional governing bodies. Whenever I was asked what I did for a job, my response was often initially met with surprise that such a role existed, usually followed by comments about how important the work must be given the increasing rates of mental distress. In a professional capacity, I felt that professional counselling bodies did not attribute value to this form of online work. This is reflected in the inability to count online moderation work as part of the clinical hours needed to apply for full membership of many professional governing bodies (BACP, 2022, December 27; NZAC, 2022; PACFA, 2022). This was the case for the British Association for Counselling and Psychotherapy (United Kingdom), New Zealand Association of Counsellors (New Zealand), and Psychotherapy and Counselling Federation of (Australia); the governing bodies in the countries where research data was sourced from. These experiences ultimately inspired this program of research, which sought to shed light on a somewhat invisible professional population who work to keep people safe. A population I consider to be

essential part of the mental health sector workforce and suicide prevention and intervention.

My lived experiences as a professional moderator and supervisor of moderators meant that I brought insights and assumptions to this program of research that were simultaneously beneficial and a hinderance. One such example was the dual practitioner and researcher lens that allowed me to make sense of the data and findings. There were times where the 'bracketing' of prior professional experiences was needed to avoid imposing my own perspectives as moderator onto the data (Dörfler & Stierand, 2021). I also needed to be careful when engaging with professional moderators (as part of Study Two), that I was not leading nor influencing the direction of conversations (Roberts, 2020). This resulted in the utilization of a semi-structured interviewing format that ensured a list of guiding of questions were followed, with scope for the conversation to go in directions that were research participant led (DeJonckheere & Vaughn, 2019).

Despite the ongoing practice of bracketing, the balancing of practitioner and researcher lenses has been challenging. The research supervision process was helpful in providing a space for interpretations based on practical experience to be shared and validated. At all times I was guided to view the data from the perspective of a researcher, and not as a practitioner, and when I was viewing the data from a practitioner lens, I was reminded of this and asked to reframe and refocus.

1.3. Situating the Literature

1.3.1. Online Mental Health Forums

The internet is home to a wide range of online forums, which are spaces where individuals can come together to discuss hobbies or interests (e.g., r/Pets on the social media platform Reddit), as well as specific health concerns (e.g., community forums on patient.info). Online mental health forums fall into the latter category as they are virtual spaces where individuals come together online, often anonymously, to give and receive support based on their shared lived experiences of a mental health issue, and in accordance with published forum guidelines (Hanley et al., 2019). These forums have become popular in terms of their ability to facilitate the sharing of information, advice, and support (Atanasova et al., 2018) even though there is the real threat of health misinformation being propagated online (Wang et al., 2019).

Online mental health forums are typically divided into two types; online peer support groups that can be unmoderated or moderated by peers with lived experience (Klemm, 2012), and online forums that combine interactions of forum users and moderators who are health care professionals (Pendry & Salvatore, 2015). Online peer support groups are informal networks that can take the form of email lists, chatrooms, and forums, where individuals come together virtually for emotional support and information sharing (Robinson & Pond, 2019). Some examples of these groups include anxiety, depression, and bereavement.

The second type of online mental health forum pertains to those where mental health professionals are present. Such forums have the dual focus of providing mental health support to individuals through forum users engaging in anonymous online peer support, all of which is moderated and thus overseen by mental health professionals. Organizations that run these forums often provide psychoeducation opportunities to forum users, and are engaged in wider suicide prevention initiatives (Beyond-Blue, 2022, August 16; SANE, 2022). As these forums are not intended to be crisis support spaces, when a forum user is perceived to be experiencing a heightened sense of suicidal desire, they are directed to offline crisis support services (Perry et al., 2022).

As this program of research is interested in how individuals experiencing STBs online are kept safe, the following sections will sequentially outline what an online forum moderator is, and then the two types of forums moderators who work in these spaces: peer moderators and professionally qualified moderators.

1.3.2. Online Forums Moderators

Online mental health forum moderators can be peers, professionally qualified, volunteers, or paid employees of online organizations; they are primarily present on forums to ensure that forum content policies are enacted (Gillespie, 2018). It is important to note that the role of online forum moderators can vary greatly from one online site to another (Thomas & Round, 2016); with the presence of online forum moderators

being at the discretion of the forum, and can be dependent on the nature and purpose of the forum (Ruckenstein & Turunen, 2020). In the absence of moderators forums can be regulated by forum users themselves (Smedley & Coulson, 2021). For online forums that are focused on sensitive issues such as mental health, where forum users can become distressed because of their engagement, there are more likely to be forum moderators present for safety reasons, whether peer or professionally qualified (Maliepaard, 2017).

Online forum support is typically offered and received through the posting of asynchronous text-based messages (Perowne & Gutman, 2022) giving posters the time to reflect upon what has been said and respond most appropriately. The principle of social support that underpin these forums is that support is an interactional activity that occurs between people (Liu et al., 2020). In this sense support is what individuals say to one another.

Social support on these online mental health forums can take the form of emotional, instrumental, and/or informational support (Sinha et al., 2018). Emotional support refers to providing a space to be heard, instrumental support that often meets immediate needs such as how to keep safe, and informational support such as the provision of advice, information, or mentoring (Sinha et al., 2018). All three forms of social support can occur on online mental health forums through the words typed by forum users or the forum moderators (Liu et al., 2020).

It is important to note that whilst social support can be offered on online forums, the acceptance of such support is dependent on the perspective and motivations of the recipient (Sinha et al., 2018). Such motives and perspectives become relevant in online forum interactions with other forum users as well as moderators. That is, these motives and perspectives become understood through interactions between recipient and peers, and recipient and forum moderators (Kaufman & Whitehead, 2018). Given individuals in crisis are increasingly turning to online spaces for support (Aladağ et al., 2018; Horne & Wiggins, 2009; Wadden et al., 2021), it is important to gain an understanding of how forum moderators, who are responsible for ensuring the safety of the forum community, engage in these spaces and keep the space and forum users safe.

Early research by Wise et al. (2006) posited that forum moderators, whether they be professional or peer/volunteer, are present to create an environment that promotes user participation and safety by ensuring that forum conversations remain on topic. Webb et al. (2008) expanded on the moderator role to include affirming and validating user experiences, while also reminding users that the forum is not a replacement for in-person support. Online forum moderators can fulfil a range of functions such as administrative oversight where they review user contributed content to ensure it meets the standards of the site, through to the provision of specialist social support (Smedley & Coulson, 2021). Administrative support may take the form of welcoming new forum users, providing technological support, responding to questions, mediating when conflict

arises and, when needed, censoring, or removing users from the forum (Smedley & Coulson, 2021). Moderators can be administration focused or focused on specialty content, meaning that they bring specialist skills (e.g., clinical skills) to the forum (Perry et al., 2022). In some cases, moderators can fulfil both administration and specialist functions, where they undertake administrative tasks and offer low levels of clinical support to forum users (Perry et al., 2021). Online forum peer moderators and professional moderators will now be sequentially discussed.

1.3.3. Peer Moderators

In the context of mental health, peer moderators are individuals with lived experienced of mental unwellness, who explicitly draw upon their lived experiences in their moderation tasks and responses to forum users (Hanley et al., 2019). Consequently, as peer moderators are generally not mental health professionals, there is a risk that their well-being can be negatively impacted by their interactions with forum users, potentially resulting in a relapse given their own lived experiences (Saha et al., 2020). Coulson and Shaw (2013) surveyed 33 peer moderators with the intention of exploring the personal benefits and associated challenges of the moderator role. It was evident that peer moderators needed to set clear boundaries in terms of determining what they were willing to give to the forum, in the context of their own daily lived experience with a health condition. Some participants felt that it was easy to become overwhelmed as a peer moderator, and that anyone

considering taking on a peer moderator role should think carefully before doing so, while also actively engaging in self-care practices (Coulson & Shaw, 2013). This research highlighted that there may be some risks to peer moderator well-being that are likely to be less present for professional moderators. These risks include the blurring of the boundaries of peer moderator and forum user and of peer moderator and lived experiences.

In an earlier study of volunteer peer moderators by Barak (2007), the moderator selection process was outlined, and it was found that whilst there is often a large application pool (160 applications), a very limited number of applicants are accepted for further training (15 applicants) with only a handful of applicants (7 applicants) going on to complete the training. No reasoning was given for the low training completion rate; however, reference was made to the challenge of volunteer moderators maintaining discipline and commitment (Barak, 2007). It would seem that while volunteer peer moderators can provide a valuable service to online mental health communities, the role is not without its challenges when considering the possible negative impact to moderator well-being, and the potentially high turnover rate of peer moderators (Barak, 2007).

1.3.4. Professional Moderators

A professional online forum moderator is a qualified health care professional who is a paid for their online work (Setoyama et al., 2011). Unlike volunteer peer moderators who have lived experience and use this

lived experience as part of their moderating role, professional moderators typically do not directly contribute to the forum in a personal capacity. Instead, their role is often described as a 'backroom role' where they monitor user posts (Owens et al., 2015), fulfilling tasks that forum users and peer moderators cannot or do not want to do. These tasks include editing content that contravenes the forum house rules, temporarily or permanently excluding forum users for safety reasons (Lederman et al., 2014), and importantly identifying and engaging with at-risk forum users (Kendal et al., 2017; Wadden et al., 2021).

Online mental health forums where professional moderators are present can be attractive avenues for seeking support as several barriers to gaining support that are associated with face-to-face or more formal settings are removed. These include wait-list times, and the time and costs associated with traveling to in-person support (Pretorius et al., 2019). Furthermore, these online spaces offer increased flexibility, anonymity, and accessibility (Hussain et al., 2015) thus, allowing for 24/7 access when and where the forum user desires.

1.3.5. Online Forum Moderator Research

While online health forums have increasingly become the focus of health research, Perry et al. (2021) highlighted that this research has focused on forum users or peer moderators rather than professional moderators. This is despite online health forums providing a new way for health professionals and 'clients' (forum users) to interact with one

another (Hanley et al., 2019). It should be noted that there is often an overlap in roles between peer and professional moderators, with peer moderators also engaging in many of the above listed tasks. While there is some overlap in the online tasks of peer moderators and professional moderators, there are differences with respect to autonomy and accountability. The work of peer moderators is typically overseen by clinically trained professionals who are on call to inform and direct the actions of peer moderators, especially when it comes to managing risk (McCosker & Hartup, 2018; Webb et al., 2008). Conversely, due to the professional experiences of professional moderators, they hold greater accountability for keeping the forum community safe, and therefore they have greater autonomy to directly intervene to minimize risk and maximize safety (Perry et al., 2022). Put simply, more is expected and thus required of professional moderators than peer moderators when it comes to keeping forum users and the wider forum community safe.

The higher expectations placed on professional moderators can be seen in recruitment advertising for professional moderators. For example, one online advertisement outlined that moderators are to support forum users to self-manage their stress through their ability to convey complex and emotionally sensitive ideas in a written format (Togetherall, 2022). It is for this reason that the presence of professional moderators can be marketed as a point of difference for online mental health forums that make use of professional moderators (SANE, 2022).

The moderator research undertaken to date has been at the edges of what peer moderators do and has tended to focus on peer-to-peer support (Atanasova et al., 2018). This has resulted in there being little published research that has examined the day-to-day experiences and challenges of being a professionally qualified forum moderator (Perowne & Gutman, 2022), or how moderators practically provide support to keep forum users experiencing STBs safe online (Perry et al., 2021). This gap in knowledge is problematic as it is not known what professional moderators practically do to identify forum users who may be at risk, what they then do to keep forum users safe online, and if their current actions are as effective as they could be. It is for these reasons that professional moderators, rather than peer moderators, were selected as the population of focus for this program of research.

1.4. Rationale for Research

While individuals are turning to online spaces for support from both peer forum users and professional moderators, there are mixed perspectives in the literature as to whether the online context is indeed a safe space for those experiencing heightened states of suicidal desire to talk about suicide (Marchant et al., 2017; Mok et al., 2015). The lack of certainty about online safety is problematic, as it highlights that we do not really know how safety and support occurs in these online spaces (Perry et al., 2021). Nor do we know if effective and timely interventions are currently occurring in the online context, which suicide research posits is

critical to reducing deaths by suicide (Que et al., 2020). Therefore, it is paramount that we know what constitutes safe and timely online interventions.

A beginning step in filling this gap in knowledge is for researchers to gain a better understanding of how both forum users and professional moderators communicate (Skea et al., 2011). This includes enacting safety and support practices for STBs presentations within these spaces. Given that we know individuals are using online spaces for mental health support (Prescott et al., 2020), that suicide rates remain a public health issue (Zortea et al., 2021), and that social support occurs through interacting with others (Liu et al., 2020), it is important that we better understand these online spaces and how professional support works in these spaces. It is therefore vital to understand what professional moderators do in such spaces, what they perceive as the challenges to doing this work, and how professional moderators and forum users interact during moments of heightened suicide desire.

Qualitative research methods that allow for in-depth examination of lived experiences are the best methods for arriving at these understandings (Tomaszewski et al., 2020), and thus this program of research provides an opportunity to examine how suicide intervention and prevention unfolds in real-time. This enables us to better understand how these online spaces can be safe places for forum users to talk about their STBs. A sound understanding of online forums would allow health providers and researchers to fully capitalize on the opportunities for

positive support that are afforded by online mental health forums (Prescott et al., 2017).

When considering the practices of online mental health forum moderators, research has typically focused on the motivations and specific tasks of peer moderators (Huh et al., 2016), and while there can be similarities in the tasks of peer and professional moderators there are dissimilarities. Examples of these similarities include the requirement for both peer and professional moderators to monitor content posted by forum users, respond to forum user questions, and be alert to forum users who may be at risk of harm. However, a key dissimilarity between peer and professional moderators is the requirement of professional moderators to directly act to minimize risk and maximize safety (Perry et al., 2022), with peer moderators tending to operate primarily under the guidance of a clinical supervisor who provides instructions (Hanley et al., 2019; McCosker & Hartup, 2018). However, as identified by Perowne and Gutman (2022), access to timely support from clinical supervisors can be a barrier for peer moderators, with some of their research participants reporting feeling vulnerable, particularly when moderating out-of-hours when clinical support may not be as easily available to them. These findings combined with the understanding that the well-being of peer moderators can be negatively impacted by their moderation work, suggests that research findings for peer moderators are not generalizable to professional moderators.

It is currently unclear what type of training professional moderators receive to prepare them to manage suicide risk presentations or whether any such training is evidence-based (Perry et al., 2021). This is concerning given the already known complexity of working with STBs in face-to-face contexts (Sisler et al., 2020), which arguably could be more complex in online settings given the absence of visual and verbal cues to inform risk and safety assessments (Lamont-Mills et al., 2022).

Given online moderation work is not considered a legitimate form of mental health counselling by many mental health professional bodies (BACP, 2022, December 27; NZAC, 2022; PACFA, 2022), no guidance regarding the ongoing upskilling of professional moderators who are also health professionals is provided by these governing bodies. This potentially reflects the growing gap between professional standards and the realities of contemporary counselling-related practices (Pelden & Banham, 2020). Simply put, it is unclear in the literature how to upskill professional moderators in terms of best practice approaches of working with those experiencing a heightened sense of suicide desire in online spaces.

Furthermore, when examining the literature, reference to online work has largely focused on the technological aspects of working online (Asri et al., 2020), such as ensuring cyber security (Ioane et al., 2021), and professional ethical behavior (Stoll et al., 2020). While information about technology, cyber security, and ethical behavior online are undoubtably important, they are not sufficient in guiding the professional

practices of professional moderators who work to keep forum users experiencing STBs, and thus a heightened sense of suicide desire, safe. For this reason, identifying exactly what happens on online mental health forums to keep forum users safe is an important first step in helping to ensure that the suicide prevention and intervention practices of professional forum moderators is evidence-based, and replicable across online mental health forums. In this way, online forum suicide prevention and intervention practices can be strengthened with lives saved.

1.5. The Research Aim and Questions

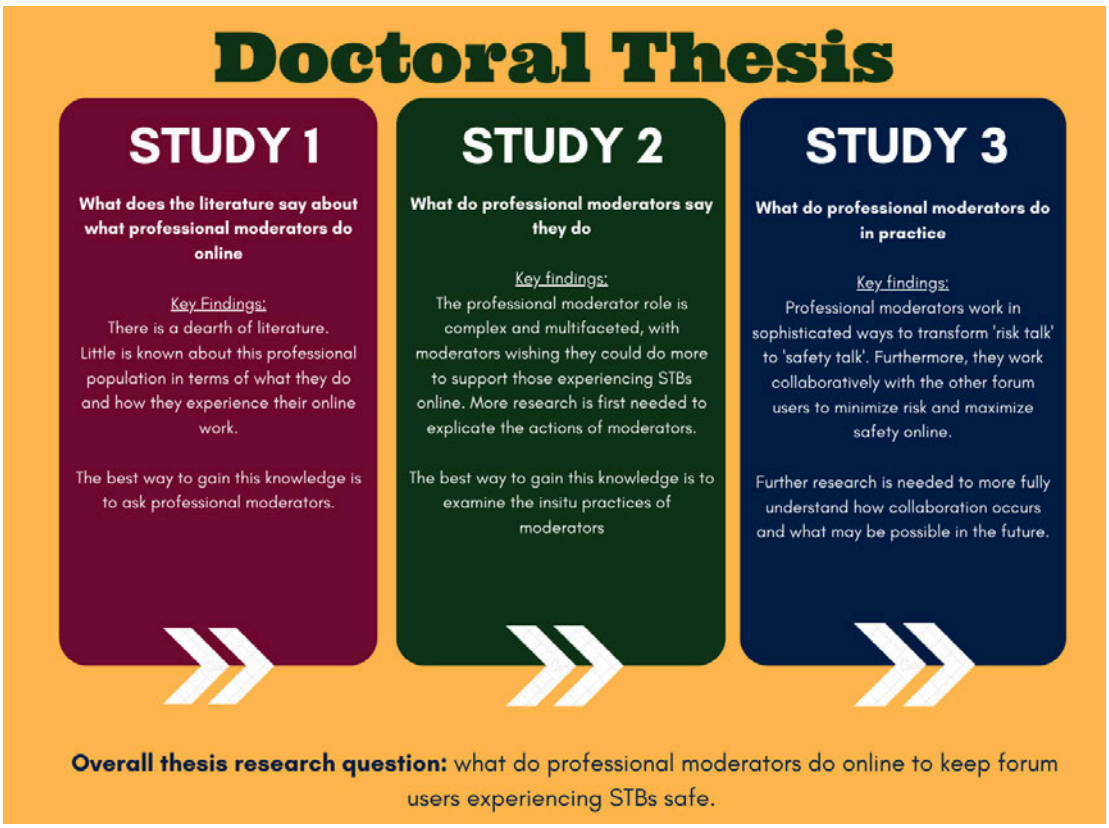
This program of research utilized a mixed qualitative methods approach and was comprised of three interconnected studies that were designed to inform and build upon one another. The overall aim of this research project was to gain a better understanding of what professional moderators do online to keep forum users experiencing STBs safe. This overall aim was addressed by examining three different areas: what does the current literature say about the work of professional moderators; what do professional moderators say that they do; and what do professional moderators do in practice.

The research questions for this thesis were framed in accordance with scoping review, thematic analysis, and conversation analysis approaches where initial research questions are broad in scope and are refined over the course of engagement with the data. Thus, there may be differences in the research questions presented in the articles compared to

the questions presented here. The overarching research questions for this thesis were as follows:

- **Research question 1**: What is empirically known about mental health forum moderators who work with suicidal forum users (Study One)
- **Research question 2**: What are the experiences of online mental health forum moderators when interacting with forum users who are experiencing STBs (Study Two)
- **Research question 3**: How do online mental health forum moderators provide support to forum users experiencing STBs (Study Three)

Figure 1 Thesis Concept Map



1.6. Thesis Outline

This thesis is comprised of six chapters. The purpose of each chapter is outlined below.

- **Chapter One – An Introduction to the Program of Research**

This chapter provided a high-level introduction to the program of research, including the need for the program of studies. It provided an outline of the foregrounding literature with respect to the key concepts of online mental health forums, professional moderators, and STBs. It further provided a justification for the program of research. The research aims and questions for the program of studies are provided, accompanied by an outline of the structure of the thesis document.

- **Chapter Two – A Introduction to the Three Studies**

In this chapter each of the three studies that made up the program of research is introduced in sequential order. Explanations are also provided as to how the studies interlink and inform one another with a focus on methodological decisions. Details about the submitted or published journal articles are included.

- **Chapter Three – Presentation of Study One - Paper One**

This chapter introduces Study One, which sought to answer the first research question of identifying what was known in the literature about moderators of online mental health forums who work to support forum users experiencing STBs in the online context. This chapter includes the Scoping Review Protocol (Perry et al., 2020) that was published by *BMJ Open*, and provided the method for answering the research question. To

demonstrate the critical engagement with the peer-review publishing process, peer review feedback and responses are included.

- **Chapter Four – Presentation of Study One - Paper Two**

This chapter is also focused on Study One and thus on answering the first research question. This chapter includes the completed Scoping Review article (Perry et al., 2021) that was published by *BMJ Open* and utilized the Scoping Review Protocol from the previous chapter. Evidence of engagement with the peer review process is also included.

- **Chapter Five– Presentation of Study Two – Paper Three**

This chapter introduces Study Two that sought to answer the second research question of identifying what professional moderators of online mental health forums say about their experiences of working to support forum users experiencing STBs. This chapter includes an article published by *Frontiers of Psychiatry* (Perry et al., 2022), as well as evidence of the critical engagement that occurred with peer reviewers' comments.

- **Chapter Six -Presentation of Study Three -Paper Four**

This chapter introduces Study Three, which is the third and final study in this program of research. This study sought to identify what professional moderators practically do to support forum users who are experiencing STBs online. The article was recently submitted for publication to *Cyberpsychology: Journal of Psychosocial Research on Cyberspace* (Perry et al., 2023) and is currently under review.

- **Chapter Seven–Discussion and Conclusions**

In this final chapter, an overarching discussion of the overall program of research is presented. This chapter focuses on the original and substantive contributions that the whole program of research has made to move the area forward. Suggestions regarding directions for future research are also included.

1.7. Chapter Summary

This chapter provided a high-level introduction to the program of research that was focused on better understanding the work that professional moderators of online mental health forums do to support forum users experiencing STBs, and thus a heightened state of suicide desire. The need for this research was justified through outlining that we do not know how safety and support occurs in online mental health forums, and whether the interventions provided by professional moderators to those experiencing STBs are effective. As peer moderators are at greater risk of being negatively impacted by their moderation work, combined with the different levels of autonomy and accountability in responding to forum users experiencing STBs, the research findings relating to peer moderators cannot easily be generalized to professional moderators. This is why it is important to focus specifically on professional moderators.

The previous professional experiences of the researcher as a professional moderator, and supervisor of professional moderators, were highlighted with reference made to how this prior experience may have

influenced the research and how it has been managed through the supervision process. Finally, the structure of the Thesis document was provided that outlined the journey that the reader will be taken on from the initial position of considering the overarching program of research, to reviewing each of three individual studies, and how this research has made original and significant contributions to move the field forward.

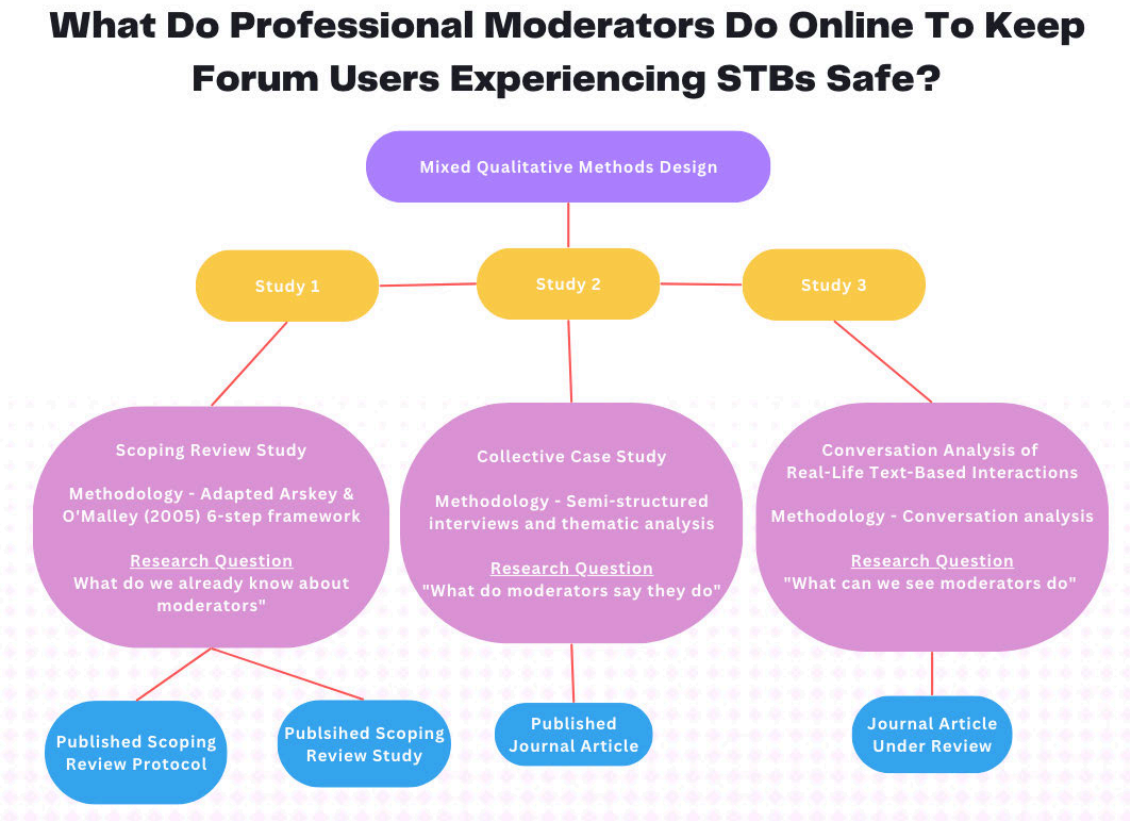
CHAPTER 2: RESEARCH METHODS

2. Introduction

This chapter introduces the three studies that comprise this Thesis by publication. The purpose of this chapter is to outline how the three studies informed and built upon each other, provide justification for the methodological decisions that were made, and to provide information about the resulting journal articles that includes researcher contribution statements. The three studies that comprise this Thesis by publication are:

- **Study One**: A scoping review study, including scoping review protocol. Both the study and protocol have been published.
- **Study Two**: A qualitative collective case study that used semi-structured interviews and inductive thematic analysis as the analytic framework. This study has also been published.
- **Study Three**: A conversation analysis study of real-life online text-based interactions (i.e., forum posts, responses to forum posts and private emails) between forum users experiencing STBs, other forum users providing peer support, and professional moderators. This study is currently under review.

Figure 2 Overview of Research Methods



2.1. Research Methods

This program of research adopted a mixed qualitative methods design, also known as an intra-paradigm design. An intra-paradigm design is defined as the combining of two or more different qualitative methods or approaches (O'Reilly et al., 2021). The rationale for adopting this approach reflects the rationale for using any form of mixed methods research design, in that it improves the robustness of the research findings and extends the scope of research findings (O'Reilly et al., 2021). The use of multiple qualitative methods or approaches enables differing forms of analysis to occur across the program of research (Morse, 2009; Morse, 2010). Utilizing different qualitative methods or approaches allows

for the use of different lenses from which to view the data, enabling different perspectives on the same issue to be bought forward and thus address the overarching aim of the program of research. This results in a broader and deeper understanding of the substantive area that increases the potential impact of the program of research (Morse, 2010).

Moreover, given that each study focused on collecting and analyzing different data and sought to investigate different participant perspectives, the adoption of a mixed qualitative methods approach was seen as appropriate and necessary (Morse, 2010). In this way the inter-paradigm design allowed this program of research to inductively develop and grow based on findings from each study. This program of research adopted a sequential qual + QUAL + qual mixed method design, which is an adaption of the Morse (2010) QUAL + qual design. The complete or core component study was in essence Study Two with the supplementary studies being Study One and Study Three. It is noted that as an approach, a mixed qualitative design is not as common as the more traditional mixed method designs, which brings together quantitative and qualitative methods, either sequentially or in parallel (Halcomb, 2019).

In this program of research, Study One consisted of a narrative scoping review, also known as an exploratory mapping review, to systematically map the literature. As an approach it was well suited to the intentions of Study One, which were to investigate what was known in the literature about professional moderators, rather than ask singular or more precise research questions typically required of traditional systematic

reviews (Arksey & O'Malley, 2005). The second qualitative study consisted of an inductive latent thematic analysis of semi-structured interviews with professional moderators about their experiences of being moderators working with online STBs presentation. For this study, approaching analysis as being located within the data and viewing themes as data driven (Braun & Clarke, 2019), was particularly important as the researcher held the dual lens of both a researcher and an individual with lived experience as a professional moderator. The final study adopted conversation analysis as both its theoretical and methodological framework to analyze the real-time interactions in the forum threads and emails between forum users experiencing STBs, the other-forum users supporting them, and professional moderators.

The utilization of a mixed qualitative approach afforded both benefits and challenges to the research journey. One benefit was the ability to extend the scope of the research findings through investigating essentially the same research aim from different lenses and perspectives. This was important as it enabled the research aim of identifying the experiences and practices of professional moderators to be approached in three different ways. Firstly, what was known from the literature (scoping review), what was known based on from professional moderators' own self-reflections (semi-structured interviews), and what could be identified from the real time interactions and practices of professional moderators (conversation analysis).

The process of viewing the findings from three different perspectives also enhanced the robustness of the findings as the different methods of gathering data supplemented and complemented one another and in doing so enhanced the validity and dependability of the program of research findings (O'Reilly et al., 2021). This meant that the differing qualitative data sets enhanced one another, as each study finding contributed to the overall story of the program of research, which may not have been gained if a single qualitative methodology was used. This was important to the program of research as the findings of Study Three (analysis of moderator posts and emails), revealed more about the practices of professional moderators than was what identified in the Study Two findings (interviews with moderators).

The additional findings were beneficial to the overall program of research, as it highlighted a gap between what moderators think they do, and therefore their understanding of the impact of their work, and the highly skilled nature of their work. Furthermore, the identification of this gap was an important finding as it prevented research recommendations being made that may have been to the detriment of the current practices of professional moderators. For this reason, the findings from the three studies provide a more comprehensive insight into the experiences and practices of professional moderators than what could be gained from one individual qualitative study.

A further benefit of a mixed qualitative approach was that it placed the voices of those with lived experience of STBs and those with lived

experience of helping those with STBs at the center of the research. This aligns with calls for more suicide prevention research of a qualitative nature, due to the assertion that quantitative research cannot capture the highly complex nature of human beings in the way that qualitative research can (Hjelmeland & Knizek, 2016). As previously highlighted, the past 50 years of suicide research has privileged quantitative risk focused research, however, we are no closer to being able to accurately predict who is most at risk of moving to take their own life (Franklin et al., 2017; O'Connor & Portzky, 2018). This lack of progress has resulted in suggestions that complex human processes and experiences (such as the lived experiences of STBs or supporting people experiencing STBs), "can only be studied meaningfully, in qualitative studies" (Hjelmeland & Knizek, 2016, p. 698). This program of research responded to this call by adopting a purely mixed qualitative methods approach.

A challenge for the overall design of the program of research was the lack of published literature about mixed qualitative approaches to guide and inform the design decisions. Access to published literature of this nature was perhaps more important for me, a beginning researcher, as looking at similar studies can be invaluable for making research design decisions with confidence.

A further challenge, while not exclusive to this research project, was the iterative and responsive nature of the research program structure. This meant that while an overall plan for the study was created at the beginning of the PhD journey, it was subject to change as each study was

informed by the study or studies that proceeded it. Some examples of changes include changing from a systematic literature review to a scoping review (Study One), as a scoping review was better suited to new research fields or those that have not been previously canvased (Munn et al., 2018).

There was also a change from interpretative phenomenological analysis (IPA) to thematic analysis to analyze the semi-structure interview data (Study Two). The change to thematic analysis was a consequence of the approach being more theoretically compatible with conversation analysis (Study Two), which was important to the overall project research design. That is, both thematic analysis and conversation analysis look for patterns of meaning across participants/interactions rather than the dual focus of patterns within and across participants of IPA (Smith et al., 2009).

2.1.1. Study One – Scoping Review Protocol and Review

As individuals increasingly turn to online mental health forums as a way to connect with both professional and informal support, it is crucial for health professionals and researchers to gain a better understanding of professional moderator practices in these spaces (Perry et al., 2020). As a first step a systematic review of the literature is warranted to gain a sense of what research has been conducted, what has been found, what the issues are with current research, and what future research is needed as such reviews more easily allow for understandings and future practices to

be evidence-based. The benefits of systematically synthesizing the literature include identifying and interpreting what is already known about a topic, and thus, having an evidence-base upon which to build new knowledge (Fink, 2019), identifying methodological concerns in past research so that this knowledge can be used to ensure more rigorous future research (Poklepovic Pericic & Turner, 2019), and demonstrating why new research is required (Aveyard, 2018). In doing so, the substantive area under review, in this case is online professional moderator STBs work, can strategically and systematically grow through challenging held assumptions, changing thinking about the area, and adopting new ways of researching the phenomena.

Given the above benefits of systematic reviews and as there was no synthesis of the literature pertaining to online professional moderators who work with individuals in a heightened state of suicidal desire, systematically reviewing and synthesizing the literature became the first step in the program of research. The objective of Study One was to identify what is empirically known about professional forum moderators of online mental health forums who work to support forum users experiencing heightened states of suicidal desire. The intention was to understand what was currently known, and therefore what was unknown, in order to inform the next phases in the program of research.

When selecting a suitable review methodology, a systematic literature review was initially considered. Systematic literature reviews are well-understood and commonly used in synthesizing literature related to

health areas (South & Lorenc, 2020) due to their ability to answer a specific question about a specific topic and their ability, when applied to health care areas, to address questions around health care practices, such as identifying new health care practices or confirming current practices (Munn et al., 2018). However, early in the systematic review protocol development process, after contrasting a systematic review methodology with a scoping review methodology, and with some refinement of Study One's research objective and questions, the decision was taken to conduct a scoping review instead of a systematic literature review. This was primarily because scoping reviews are highly suited to the investigation of topics that have not yet been comprehensively reviewed (Munn et al., 2018), as was the case with professional moderators who work in online suicide prevention spaces. Moreover, based on a preliminary overview of the literature it appeared that answering systematic review questions relating to the feasibility of using professional moderators in online spaces or their effectiveness or appropriateness, would be premature given what appeared to be the infancy of the field and the lack of research focused on these questions. The adoption of the scoping review methodology allowed for the current and wider state of research to be mapped, with any gaps in the literature to be identified, and the results used to inform future research, including the direction of Study Two and Three of this program of research (Pollock et al., 2021).

When developing the scoping protocol for this study (Study One), it was decided that there were benefits to publishing the protocol. These

benefits primarily included the opportunity to engage with rigorous peer-review of the proposed search and synthesis process as part of the journal article submission process. The feedback from the peer-reviewers became instrumental in ensuring a more robust protocol and subsequent publishable scoping review. The reviewer feedback helped to strengthen the rationale for the scoping review study and prompted more careful and considered thinking about how suicide-related constructs and statements about suicide rates were to be presented. The ability to successfully publish the protocol was also immensely beneficial in developing the researcher's confidence to competently complete the scoping review, and to write for a professional international audience as this was their first peer-reviewed publication. The reviewers' comments relating to the scoping review protocol and the feedback are included in Chapter Three of this Thesis document.

The scoping review protocol was published by *BMJ Open* (Perry et al., 2020). *BMJ Open* was selected as the outlet for this scoping review protocol as it is medical journal that publishes a range of research types, including qualitative approaches and studies in health services (BMJ Open, 2023, January 3). One of the intentions of publishing a scoping review protocol was to signal to the wider suicide prevention field that research was being undertaken in this area and to raise awareness of this important field of online work. For this reason, selecting an open-access medical journal that has an interest in clinical and public health, as well as

an openness to publishing scoping reviews (which are a reasonably new approach to evidence synthesis), was important.

The scoping review was guided by four research questions: "(1) What do we know from the existing literature about the work of online mental health moderators who work with suicidal forum users; (2) What research methodologies have been used to gain this knowledge; (3) What are the limitations of the research; and (4) What are the research gaps". The scoping review followed Arksey and O'Malley (2005) five stage scoping review methodology and Levac et al. (2010) six stage methodological framework and recommendations for scoping reviews. To enhance the methodological rigor, the protocol was developed in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Protocols statement (PRISMA) (Shamseer et al., 2015). The PRISMA statement consists of a 27 item checklist to help researchers to report on their systematic reviews in a way that enables the reader to assess the strengths and weaknesses of the review, replicate the review, and assess the quality of the review (Moher et al., 2009). The PRISMA statement provided a guiding framework to guide the planning and execution of the scoping review. The recommendations of Levac et al. (2010) were considered at each of the six stages of the scoping review methodology. A description of how the recommendations were implemented is provided below.

Stage 1 - identifying the questions. The key aim of this stage was to provide a roadmap for the following six stages and required the research

questions to be broad enough in nature to ensure a breadth of coverage (Arksey & O'Malley, 2005). In alignment with the recommendations of Levac et al. (2010), to carefully consider the concept, target, and population in order to clarify the focus of the scoping study and help to establish a clear search strategy, the Population-Concept-Context (PCC) mnemonic as recommended by the Joanna Briggs Institute (JBI) for scoping reviews was adopted. The PCC mnemonic was selected as a suitable alternative framework to the Population-Intervention-Comparator-Outcome (PICO) mnemonic, which is commonly used in systematic literature reviews but is considered too restrictive for scoping reviews due its narrow focus on therapy or treatment related research questions (Schiavenato & Chu, 2021).

Stage 2 - identifying relevant studies. The key purpose of this stage was to identify the relevant studies and it included deciding on the literature sources to search, the search terms, inclusion criteria, time span, and languages (Arksey & O'Malley, 2005). As per the recommendations of Levac et al. (2010), the research question and purpose guided the decision making around the scope of the study, with a suitable team assembled that reflected research skills and abilities that ranged from beginner to experienced researcher, to see the research project through to completion. The search strategy was iteratively developed in consultation with a specialist research librarian at the library where the researchers were employed. The professional knowledge of the specialist librarian was instrumental in ensuring a comprehensive search

of the health sciences literature. Several pilot tests of search terms were undertaken to ensure the literature was being comprehensively canvassed. This was especially important when seeking to select search terms that would accurately capture the topics of interest. The search terms for suicidal ideation, behaviors and attempt included 'suicide', 'self-harm', and NSSI (non-suicidal self-injury). In the pilot testing of the search strategy, it was determined that 'suicd*' would capture all suicide related literature, such as suicidal ideation, suicidal behaviors, and suicide attempts (Perry et al., 2021). If the search strategy were to be implemented again today it would be updated to include 'STBs' as this term has become more utilized since the scoping review was undertaken.

Stage 3 – study selection. The aim of this stage was to identify the studies to be included in the scoping review (Arksey & O'Malley, 2005). As recommended by Levac et al. (2010), this stage was considered an iterative process involving the searching of literature, refining of the search strategy, and reviewing the articles to be included. Refining the search strategy pertains to continuously accessing and being responsive to adapt the research strategy as needed, to ensure that findings are as reflective of the research question and scope as possible. Due to the iterative nature of scoping reviews and the need to be responsive to the search findings, a decision was taken at this stage of the scoping review process to deviate from the published Scoping Review protocol and broaden the moderator qualifications from health care qualifications to any

moderator who had received any form of moderator training (Perry et al., 2021).

This change occurred after deliberations by the research team where we reflected on the lack of research results returned during the original search process and the consequences for the program of research. On the one hand a lack of research results indicated that there was a dearth of professional moderator literature, and thus there was a need for further research on this professional population. On the other hand, the absence of research results challenged our perceptions that only those with such qualifications were engaging in this form of work. Thus, to continue with a narrow professional-only focus would not have helped to answer the overall aim of the program of research, which was to explicate how moderators practically support forum users experiencing STBs presentations online. It was believed that this broader focus would be more useful as a basis for the review and thus generating new research studies that would become part of this program of research. It was at this point that a change to the search criteria as published in the Scoping Review Protocol (Perry et al., 2020), was made to allow for more studies to be captured in the review.

Stage 4 – data extraction or 'charting the data'. The key purpose of this stage was to extract the data from each included study. As recommended by Levac et al. (2010), two researchers collectively adapted a JBI template (Aromataris & Munn, 2020), to extract the data. The extracted data included bibliographical information (i.e., author/s and

year) and study characteristics (i.e., methodology, online forum description, key findings). This is an iterative process as it required the researchers to continually refine the data extraction form as they became more familiar with the data (Levac et al., 2010). An example of being responsive to the data was updating the data extraction form to include any stated characteristics of the moderators featured in the included studies. This was to reflect that lack of information available, combined with the desire to encapsulate whatever information about moderators that was available.

As scoping reviews aim to map the existing literature and not produce a synthesized answer to a particular question (Munn et al., 2018), a risk of bias assessment was not required (Levac et al., 2010). However, as risk of bias assessments aim to prevent the likelihood of any features or the conduct of a study to produce misleading results that may potentially cause harm (Pollock et al., 2021), it is recommended that a quality assessment is conducted using published and validated assessment tools (Peters et al., 2020). For this reason, a quality assessment of the included articles was conducted using the adapted JBI Appraisal Checklist for Systematic Reviews and Research Synthesis (Joanna Briggs Institute, 2017). As per JBI guidelines, the primary researcher adopted a point scoring system to assist in making judgements about the overall quality of the studies (Perry et al., 2021). Some examples of judgement criteria include congruity between the stated philosophical perspective and the research methodology, a statement

locating the research culturally or theoretically, or whether there was evident of ethical approval by an appropriate body.

Each appraisal score was weighted evenly with 1 point given if scored as a 'yes' and 0 points if scored as a 'no'. Appraisal items that were not applicable were deducted from the total tally of possible scores. The total score for each study was calculated, resulting in a rating of poor (scored less than 50%), moderate (scoring between 50% and 80%), or high (scoring greater than 80%) research quality being applied. The quality assessments scores and rates were checked for accuracy by a second researcher and recorded on the data extraction form. A copy of the adapted JBI Appraisal Checklist for Systematic Reviews and Research Synthesis can be found in Appendix A.

Stage 5 – collating, summarizing, and reporting results. A key aim of this stage was to adopt an analytical framework or thematic construction to guide the reporting of the results and thus provide an overview of the breath of the included literature (Arksey & O'Malley, 2005). As noted by Levac et al. (2010) little detail was included about this stage where multiple steps were essentially summarized into a single framework. To address the lack of detail, this stage was broken into three steps of (1) analysis, which included descriptive numerical analysis and qualitative thematic analysis; (2) reporting the results in alignment with the research question; and (3) considering the meaning of the findings and discussing implications for future research and practice (Levac et al., 2010). To achieve these objectives The Preferred Reporting Items for

Systematic Reviews and Meta-Analyses and extension for Scoping Reviews (PRISMA-ScR) checklist for reporting scoping reviews was used (Tricco et al., 2018), with an example located in Appendix A.

This stepped synthesizing approach was selected as it is a well published and widely accepted tool in guiding the reporting of scoping reviews that ensures both transparency and rigor. This was especially important for a novice researcher such as I, who was new to conducting scoping reviews and needed to access literature to guide and inform the review process from beginning to end. The report combined numerical and qualitative synthesis and stated the number of articles present at each stage (Perry et al., 2020). A tabular synthesis was included that outlined the study methodologies, geographic locations, type of online community forums, and the characteristics of the moderators. Additionally, a qualitative narrative synthesis was presented that outlined the limitations of the reviewed studies and the identified gaps in the literature. A qualitative narrative synthesis approach was utilized as it provided a textual means to summarize and explain the synthesis and tell the story of the data (Popay et al., 2006).

Stage 6 – consultation. A central aim of this stage is to encourage researchers to engage and consult with stakeholders to enhance the usability of the findings by potentially gaining additional sources of information, perspectives, and meaning (Arksey & O'Malley, 2005). However, as noted by Levac et al. (2010), it is unclear how and when to consult with stakeholders and how to incorporate the additional data into

the findings. While this stage was initially considered as optional by Arksey and O'Malley (2005), it is considered by Levac et al. (2010) to be an essential component of the scoping review methodology to increase rigor. This is achieved by asking a range of stakeholders for their insights and perspectives of the scoping review process and/or findings, and it provides opportunity for researchers to be made aware of aspects that they may not be aware of or have not considered (Pollock et al., 2021). For this reason, consultation with professional moderators who support forum users experiencing STBs presentations online occurred as planned in the scoping reviewing protocol.

A total of 14 professional moderators were contacted by email and invited to provide feedback on the research findings based on their professional experiences. These professional moderators were known to the primary researcher as they had expressed interest in participating in the interviews as part of Study Two. There was a low response rate with only five professional moderators responding with their written feedback. The feedback ranged from general comments on the writing style of the research findings as well as their professional reflections in response to the overall findings. It was evident from the feedback received that the professional moderators perhaps did not feel equipped to provide feedback on the scoping review process, and therefore, approaching researchers who have conducted scoping reviews would have been advisable to gain feedback about the review process not just the outcomes.

The responses based on the professional moderators' experiences held value in that they could see their experiences reflected in the research findings. This affirmed the scoping review findings, and thus the direction of the research project, which was also beneficial to the confidence of the researcher in terms of submitting the article for publication.

If this scoping review were to be conducted again the recommendation of Levac et al. (2010) to include consultation at each stage of the process would be adopted to strengthen and enhance the review process. Ensuring consultation at each stage would help the research team to identify if the most appropriate stakeholders had been approached at each stage of the review and make changes as necessary to the benefit of the review process.

The scoping review revealed that there is a dearth of literature regarding moderators of online mental health forums, with even less known about moderators who hold professional health qualifications. There was a lack of research that identified how moderators knew which forum posts were reflective of potential risk, and how moderators respond to mitigate this risk. It was also evident that little that was known about the experiences, perceptions, and practices of moderators who work in spaces where individuals talk about risk associated with suicide (or STBs) (Perry et al., 2021). This highlighted and affirmed the need to ask moderators about their professional online work experiences of working with individuals in a heighted state of suicidal desire (Study Two), and

then to examine the actual work practices of moderators (Study Three). Thus, the findings of Study One informed the next two studies.

Like the scoping review protocol, the scoping review article was published in *BMJ Open* (Perry et al., 2021). It was a natural progression for the scoping review article to be published by the same journal that published the scoping review protocol, as the two articles essentially form a 'box set'. The open access nature of the journal was also important, as it enabled moderators to freely access the work, which may not have possible if journal subscriptions were required.

2.1.2. Study Two – A Collective Case Study: Interviews with Professional Moderators

A major finding of Study One was the lack of research focused on professional moderators who work to support online STBs presentations. Thus, the objective of Study Two was to begin to fill this gap in the literature through gaining a better understanding of the experiences of professional moderators. It did this by identifying what moderators say they do when working to support forum users experiencing STBs online, and what challenges they face when engaging in such work. As this information can only come from professional moderators, this study sought to access professional moderators to ask them about their lived experience of helping. For this reason, a qualitative research methodology of interviews was selected over a quantitative approach such as a survey, due to the belief that richer and more detailed data could be gained from

engaging directly with professional moderators and providing them with space to speak more freely about their professional lived experiences of helping (McGrath et al., 2019). Providing space for professional moderators to speak was especially important given the sensitive nature of working with individuals experiencing STBs, which allowed the interviewer to gauge any potential stress felt by interviewees as a consequence of the interview focus. Further, given the lack of research in the area, there was limited research that the researcher could draw upon to develop survey questions. A survey design study was thus seen as premature at this point given the more exploratory nature of the program of research.

A semi-structured and conversational-style interview format rather than a structured format was chosen due to their exploratory nature of this type of interview, as it allows for conversations to be led by the participants rather than the interviewer (Thomas, 2021). This approach also affords space for the interviewer to follow up any topical themes that arise from the conversation (Adeoye-Olatunde & Olenik, 2021). As Mahat-Shamir et al. (2021) posit, the semi-structured interview format allows for highly meaningful narratives to emerge on the part of participants, as set questions can be turned into story-telling invitations for participants with the ability for follow up questions to be asked by the interviewer, rather than all questions to be dictated by a rigidly structured interview guide.

An interview guide and a set of pre-organized questions rather than an open interview format was utilized to provide a guiding framework for

the interviewer. This was due to the interviewer being new to this form of research and feeling conscious of the participants' time, combined with the need to ensure that all participants had the same opportunity to provide responses to all of the questions (Roberts, 2020). The interview guide and interview questions were collaboratively generated by the researcher and a member of the supervisory team. The interview schedule and questions were pilot tested with the assistance of a professional moderator, who was ineligible to be a research participant due to their professional supervisory relationship with the primary researcher. Please refer to Appendix C for a copy of the interview guide that also contains the interview questions.

The pilot testing of interview questions is considered a vital component of preparation for interviews as these initial tests help to identify any flaws or weaknesses in the interview design, allowing time for refinements to the questions to be made (Turner & Hagstrom-Schmidt, 2022). While no changes were made to the interview guide or questions as a result of the pilot test, the researcher gained valuable insights into the skills that would be required when interviewing (Majid et al., 2017). These skills included being able to balance listening intently to the interviewee while also discretely making notes of interesting responses in order to ask follow-up questions and managing the time in a way that does not lead the direction of the interview, yet also ensuring sufficient time for all questions to be asked and responded to. The importance of capturing essential information such as qualifications held, professional

memberships, and time served in the position at the start of the interview were also realized, as they had the potential to be glossed over when trying to build rapport with the interviewee.

A collective case study methodology (Jónasdóttir et al., 2018) was selected as the research design and consists of multiple cases being studied simultaneously or sequentially in order to gain a broader understanding of the topic of interest (Crowe et al., 2011). In this context, each one of the 15 interviews were treated as an individual case study in that they were bounded by a specific professional moderator experience that was reflective of a specific organization unit and geographical location. While it is not the intention of qualitative research to make generalizations, the collective case study design provides the ability to compare analytic findings both within and between cases, thus making it possible for the generalizations of findings to be made (de Vries, 2020). This was the case in Study Two where a journal article was published that reported on the collective findings of the interviews or case studies. As this study included interviews with 15 professional moderators located in the United Kingdom, Canada, Australia, and New Zealand, who represented three separate online mental health organizations, the ability to compare analytic findings both within and between cases was particularly useful. This was in part due to the diversity of locations and employers, which had the potential to impact upon the perceptions and experiences of the professional moderators. In addition, there was also

the potential that cultural differences would influence moderators' views engaging with and supporting individuals with STBs.

The interview participants were purposefully sampled by the primary researcher, who at the time of undertaking this study was also a professional moderator with knowledge of mental health organizations who employ professionally qualified moderators to oversee their forums. The researcher approached three mental health organizations by email, to introduce the research project and request permission for details of the research project (including the participant information sheet and consent form) to be email forwarded to all moderators. Please refer to Appendix C for a copy of the participant information sheet and the consent form. The moderators who were interested in participating in the research where required to contact the primary researcher directly by email, which was intended to prevent the moderators from feeling any sense of coercion to participate in the research. Only three mental health organizations were approached as the research team were unsure how many moderators worked for each organization and how many of them would be interested in participating in the research. When deciding how many interviews needed to be conducted, a review of the literature was undertaken to identify if there were any optimum or recommended numbers, with work by Hennink et al. (2017) proposing that between nine and 17 interviews should achieve data saturation. Data saturation is important as refers to the point in the research where no new information is gained in the data

analysis process (Hennink & Kaiser, 2022). Collecting data beyond the point of saturation is of little benefit to the research project.

In accordance with human ethics approval, pseudonyms were used for the interview participants and the mental health forums were not named. This was to protect the identities of the interview participants, the online mental health forums, and, by extension, the forum users they serve. In a similar vein, it was made clear to the interview participants and the mental health forums that none of the interview responses would be shared with the employing organizations. This was intended to support the interview participants to speak freely about their experiences without fear or concern of consequences relating to the material they provided in their interviews (McGrath et al., 2019).

To acknowledge the potentially sensitive nature of talking about the process and experiences of supporting forum users experiencing STBs online, the interviewer was alert to any possible distress that may have been expressed by the participants (Dempsey et al., 2016; McGrath et al., 2019). This was aided by the interviewer being a qualified counsellor with skills in responding to the distress of others. The research team also provided supervisory support to the interviewer as required. To ensure that the interview participants were not negatively impacted by their participation in an interview, the interviewer sent a check-in email to each participant one week after their interview. The check-in email enquired about the well-being of the interview participant and shared the local helpline contact details should the participants want or need further

support. The participants all responded to the check-email, with none of them reporting that they were in want or need of additional support.

Inductive thematic analysis was selected as the analytic approach for this study over other approaches such as content analysis and narrative analysis due to its open, exploratory, and iterative nature. This was deemed especially useful for researching areas where there is little known about the area (Braun & Clarke, 2019), which is the case when it comes to the experiences of professional moderators.

Content analysis examines the frequency of concepts, themes, or certain words (Drisko & Maschi, 2016), to identify the intentions, focus, or communication trends of a focus population. Researchers can use this approach to quantify and analyze the presence, meanings, and relationships of certain words, themes, or concepts (Stemler, 2015). For this reason, content analysis can be considered a more surface level analytic approach that is best suited to research projects that seek to quantify the data (Vaismoradi & Snelgrove, 2019). As the research question for this study sought to understand professional moderator experiences rather than whether a theme, concept or keyword was present or not, thematic analysis was the most appropriate choice.

Narrative analysis seeks to understand the lived experience of a particular event or phenomenon according to an individual or group of individuals (Smith & Monforte, 2020). As an approach, it does not provide access to what really happened or to the underlying psychological motives, as it uses the 'story' of the individual as the unit of analysis

(Griffin & May, 2012). For this reason, narrative analysis can be used to show how experiences are reconstructed and interpreted after they have occurred (Smith & Monforte, 2020). As this study was interested in what professional moderators thought about their work, rather than how they recall doing their work, thematic analysis was deemed the more suitable choice.

Furthermore, as thematic analysis does not require researchers to adhere to specific theoretical positions or data collection approaches, it can be used to examine lived experiences (Braun & Clarke, 2019). This was illustrated by the work of Baker and Lewis (2013), who explored reactions to online non-suicidal self-injury (NSSI) photographs using analysis of online testimonies from a database of people's reactions to the images. Thematic analysis was chosen by these researchers due to the dearth of available literature regarding reactions to NSSI images, and the need for an analytical approach that was exploratory and iterative in nature to explore the uncharted waters of the lived experiences of NSSI.

Inductive thematic analysis was also selected due to the flexibility that it affords, with respect to the different ways it can be utilized to answer almost any research question (Braun & Clarke, 2019) and with a range of theoretical frameworks (Nowell et al., 2017). The ability of thematic analysis to work with a range of theoretical frameworks was important for this program of research, as while each study utilized a different analytical method, each method needed to be compatible with that of the other two studies. As stated at the beginning of this chapter,

the data from Study Two study was initially going to be analyzed using IPA; however, this was changed to thematic analysis, as the latter approach is more theoretically compatible with conversation analysis (Study Three). Further, despite IPA and conversation analysis both valuing language as a means of exploring the experiences of participants (Braun & Clarke, 2021), they come from different theoretical positions, and it would have been challenging to reconcile these differences in a program of studies where each study is required to theoretically complement and inform the other studies. As an example of the difference, IPA believes that discourse is central to showing the cognitions of participants; whereas conversation analysis is interested in gaining insight into the interactional tasks being performed by participants as they engage with one another (Gauci, 2019).

An additional benefit of thematic analysis is that it can be used with a range of data types and sizes (Braun & Clarke, 2021). This was important as it was uncertain how many participants could be accessed and thus recruited to the study. Therefore, an analytical approach that could be used with both small and medium sized data corpuses was required. The flexibility of thematic analysis to be used with a range of data sizes placed it at a further advantage over IPA, which is best suited to smaller data sets of ten or less (Braun & Clarke, 2021).

When analyzing the data, an inductive rather than a deductive approach was chosen. This was due to the need for the researcher to approach the analysis without any preconceived ideas of the themes

based on their own existing professional moderator experiences and knowledge (Herrick et al., 2021). This was especially important due to the researcher holding a dual perspective of researcher with experience as a professional moderator practitioner. The decision to adopt an indictive analytical approach is similar to Östman et al. (2021), where the first author was a researcher with professional experience as a nurse in primary health care, and a researcher who conducted focus group interviews with nurses from a range of health settings, including primary health care. In this research, the data was analyzed inductively, where the themes were identified in the data, rather than the researcher approaching the data with preconceived ideas of what the themes may be thus allowing for any researcher bias to be better managed. To ensure the appropriate rigor the 15 Point Checklist of Criteria for Good Thematic Analysis was used (Clarke & Braun, 2013), and can be located in Appendix C. As the study was being planned, and as each stage was conducted, the researcher referred to the checklist as a framework to guide their practice ensuring that the practice aligned with the suggested points in the checklist.

A major finding of Study Two was that professional moderators experienced the moderator role as multifaceted, complex, and constrained and that they wanted to be able to use more of their skills to help forum users experiencing STBs online (Perry et al., 2022). Thus, Study Two identified that keeping forum-uses safe can be a challenge; it also provided information about professional moderators' own perspectives on

what they do when working to support forum users who are experiencing STBs online. However, there can be disconnect between what individuals say when they are being interviewed and what they actually do (Bergen & Labonté, 2020). This can be due to individuals being genuinely unaware of the effect of their interactions as they can only speak from their perspective, or because of social desirability bias. This form of bias refers to the importance of impression management or self-presentation (Blair et al., 2020). This can be a challenge for researchers as participant responses can be influenced by how the participant thinks they are perceived, and therefore, they can choose actions to improve, protect, or enhance that perception (Nichols, 2020).

A further limitation of thematic analysis is its inability to make claims about the effects of language use (Braun & Clarke, 2021), which were central to understanding how professional moderators made sense of text-based interactions with at-risk forum users. This, combined with the risk of social desirability bias and participants genuinely not being aware of the effect of their interactions, made it critical that Study Three built upon the findings with an analytical approach where claims about the effects of language use could be made, and testing if the tension of social desirability bias was present. This was achieved through identifying the practical on-the-job actions of professional moderators and determining whether these aligned with what the research participants had described in Study Two.

The findings of Study Two were published in *Frontiers of Psychiatry* (Perry et al., 2022). This journal was selected by the research team due to it being an interdisciplinary journal that is aimed at clinicians, scholars, and researchers with an interest in mental health and public services (Frontiers of Psychiatry, 2023). An open access publication was considered an importance attribute for any potential journal when seeking to contribute new knowledge about an under-researched field. Publishing via open access also aligned with the publishing intentions of the scoping review protocol and the scoping review article and allowed moderators to read about this research without being restricted by journal subscriptions.

2.1.3. Study Three – Conversation Analysis of Professional Moderator Forum Posts and Emails

The objective of Study Three was to explicate how keeping people safe is practically done by professional moderators, by looking at real-life interactions and practices of moderators in real-time. This study also sought to identify whether there was need, and therefore scope, for professional moderators to use more of their clinical skills, as suggested by the research participants in Study Two. The process for identifying whether there was a disconnect between what Study Two participants said they do and what they practically do online, occurred through the analysis of the social interactions that transpired in online forums posts and replies, and private emails between forum users and professional moderators.

The forum posts were sourced from one publicly available online mental health forum, meaning that any individual with access to the internet could browse the forums and view the content, however, membership status was required to post content. While the forum content was publicly accessible and the researcher could independently access it, permission was first gained from the large mental health organization that managed the online forum. This also aligned with human ethics requirements. The email data refers to the off-forum private exchanges between forum users experiencing STBs and the professional moderators of an online mental health forum. The email data was provided to the researcher by the mental health organization.

Initially, when formulating the plan for this study it was imagined that data from multiple online mental health forums would make up the data corpus. However, this was not the case as online mental health forums can be hard to reach populations (Sydor, 2013). This can be due to mental health organizations who oversee the online forums having concerns regarding the rights and privacy of their forum users (Parker et al., 2019), which can result in a reluctance to engage with researchers. Instead, these organizations can elect to either independently conduct their own in-house research projects or partner with external researchers where they maintain a high level of control over the data collection, analysis, and publication of results. This was case with this research project, where three mental health organizations were approached to be a part of this research project, however, consent was given by only one

organization. Consequently, there were initial concerns that it may not be possible to gain enough data from only one data site. However, this fear was mitigated in light of the recommendations of Wiggins (2017), who posits that 100 full pages of interactional data is sufficient for a PhD sized research project such as this. Additionally, access to both forum posts and email data meant that it quickly became apparent that there would be a sufficient amount of data that included data from different posters and different online moderators.

Gaining access to the email data required careful consideration and planning on the part of the research team in consultation with the mental health organization. The researcher provided the mental health organization with a written procedure for filtering and exporting emails from their Microsoft 365 software, that included the keyword search terms that are associated with suicidal behaviors (i.e., suicide, die, death, had enough, end it, hopeless, don't want to be here, nothing left, the end, no point, accepted death, at peace with death). The rationale for providing a written procedure was that it provided transparency for all concerned in relation to the data extraction process. There was some concern by the research team that the data provided by mental health organization may only include data that portrayed the organization in the best light. As the research team was unable to collect the email data in any other way, it was not possible to mitigate this risk of bias, and for this reason it is a limitation of the study.

The email data received consisted of over 10,000 emails dated between June 2014 and December 2020, which was much too much data for this research project. This was communicated to the mental health organization who gave consent for this data to be used in future research projects conducted by the university. To build the data corpus for this doctoral program of research, the researcher began reading through each email starting with the most recent (December 2020), and then locating the forum thread associated with the email. Details from the email such as the date, time stamp, and the subject line of the email, which was the same as the forum thread, where used to locate the corresponding online forum thread. This process was followed until a minimum of 100 full pages of interactional data was located. The data corpus was organized with emails and corresponding forum threads copied and pasted in chronological order into 34 Word documents for analysis. Bringing the email and corresponding forum threads together in separate Word documents provided clarity in terms of what was happening in the respective forum thread, then in the email, and at times back on the forum thread. The final data corpus spanned a 12-month period and consisted of 178 pages of data comprising 617 posts from 34 forum threads and 56 related emails, that featured 86 individual forum users and 16 moderators.

Conversation analysis (CA) was the analytical approach chosen to analyze the data, due to its data-driven and iterative procedures (Duitsman et al., 2019), which are suited to studying social interactions

(Peräkylä, 2019) and how people make sense of one another to accomplish social actions (Albert et al., 2018). For this reason, CA was selected over other analytic approaches such as membership categorization analysis, which is limited to studying how people categorize each other in an interaction (Martikainen, 2022). As the work of professional moderators is interactional, an analytical approach such as CA that is focused upon interactions was required. The interactions that occur in the online mental health forum featured in this research project were textual, meaning that forum users and moderators interact with one another using the written word. The written words shared in forum posts are visible to not only the forum users, but also for all internet users, due to the open nature of the online mental health forum. The emails between forum users and the moderators were separate to the forums, and therefore, were private to the sender and the recipient. As the forum posts and emails are asynchronous, there can be no expectation for immediate responses or replies. This is an interesting and potentially problematic aspect of these interactions, considering the high-risk nature of STBs presentations, where forum users can be experiencing heightened states of suicidal desire online, and timely responses are needed.

According to Sikveland et al. (2022) a key aspect of CA is the notion that conversation is not just talk; rather, it is talk that is purposeful and is used to do things such as seek help and give support. This is especially relevant to online mental health forums where the central premise is to give and receive mental health support (Perry et al., 2022). Furthermore,

CA investigates the sequential organization of talk as a means of accessing participants understanding of a social interaction (Albert et al., 2018). Thus, it is well suited to identifying not only what people do in interactions but how they interact with each other (Duitsman et al., 2019). For this reason, CA enables the study of what people do and how they do it, as they perform the task or action, rather than asking for a retrospective perspective, which may not be entirely accurate due to recall bias and social desirability.

The utilization of CA aligns with the assertion that a range of methodological approaches are required to help move the field of suicidology forward (O'Connor, 2021). The encouragement to adopt research approaches that include the voices of those with lived experience of STBs (O'Connor & Portzky, 2018), contributed to the decision to select CA for Study Three. As did, the inability of other qualitative approaches to identify and analyze what interactants do in interactions, including online interactions, and how this is understood by those in participating in the interaction were additional reasons.

Although CA has historically focused on verbal conversations or talk (Stokoe, 2018), researchers are increasingly using CA to analyze text-based digital discourses such as those that occur on online mental health forums (Wiggins, 2017). While adapting existing CA analytical methods to online environments may appear logical, concerns have been raised about the very different interactional landscapes of spoken and online or digital interactions, causing researchers to caution against an uncritical

application of CA to digital data (Jucker, 2021). Furthermore, it has been questioned whether the foundations and findings of CA that are based upon spoken interactions hold relevance for digital/text-based interactions (Meredith, 2019), or whether a different form of CA should be utilized to analyze digital data (Giles et al., 2015). One such alternative form of CA is digital conversation analysis (DCA), which investigates interactions that are non-verbal, asynchronous, and do not occur in face-to-face contexts (Jucker, 2021).

There are some challenges associated with DCA, the first being the nature of the data and how it can be made accessible for the analysis. While online digital interactions naturally occur in written form, it cannot be assumed that digital data is suitable for analysis in its raw state (Giles et al., 2015). This means that DCA analysts must approach the data in a similar way to CA analysts, by carefully considering the non-verbal aspects (such as layout, visual context, hashtags, and emojis) that may be important to their analysis, and thus included in or excluded from the data. However, these decisions are not easily determined, with all decisions holding impact for the analysis (Jucker, 2021). As an example, consider the order in which online forum posts are visually presented and how this layout may impact on whether the post receives replies or not. Therefore, it is possible that the layout of posts has some influence over the online interaction and should be factored into the analysis. As it is not possible for analysists to make this determination with any real certainty,

deciding which elements to include or ignore has implications for the overall data analysis that must be actively considered (Jucker, 2021).

A second challenge of DCA is the synchronicity of the spoken data of CA in contrast to the asynchronicity of some digital data, and the implication this difference has for the planning and receiving of messages (Jucker, 2021). As an example, spoken interactions generally require individuals to respond in the moment, with minimal time for planning one's response (Vepsäläinen, 2022). However, in online interactions, there is typically time for the planning and/or the editing of one's response, and once a response is posted it remains visible and accessible (Meredith, 2017). The persistence of the message allows for those in the interaction to refer back to it and embed it in their responses in a way that is not possible in spoken interactions (Giles et al., 2015). How DCA accounts for these different interactional landscapes requires careful consideration on the part of researchers. Much like the example of the visual layout and the challenge of ascertaining the impact it may have on the interaction, it is difficult for analysists to accurately determine what influence the ability to read and re-read messages may have on the interaction (Jucker, 2021)

Despite DCA offering an alternative way to analyze digital data (Jucker, 2021), it was not selected as the approach for this study. This was due to the aforementioned challenges. Instead, aspects of CA were modified and repurposed, whilst keeping true to the foundations of the CA approach as recommended by Jucker (2021). For example, this research maintained the central tenant of CA to approach all data without any

preconceived ideas or predetermined analytical categories (Meredith, 2019). In this respect, this was very similar to the inductive thematic analysis approach that was adopted for Study Two. Furthermore, approaching the data without preconceived ideas meant that the research team needed to carefully reconsider the CA methodological tools before applying them to the digital data, to ensure that the intricacies of the interaction had been examined (Jucker, 2021).

The findings from this study revealed that professional moderators work in complex and sophisticated ways to keep forum users experiencing STBs safe. An example of this complexity, which did not come through in the interview with moderators (Study Two), was the highly skilled way in which they work in collaboration with forum users to minimize risk and maximize safety online. The moderators achieved this by aligning to the risk presentations, with other-forum users affiliating to the relational needs of users, and thus focusing on safety. The findings from this built upon the findings of Study One and Two, by contributing new knowledge regarding the practical ways in which moderators work to keep those experiencing a heightened stated of suicidal desire safe.

An article based on Study Three was submitted to the *Journal of Computer-Mediated Communication* prior to the submission of this Thesis document. This journal was selected due to its interdisciplinary approach and interest in communication that occurs via computer-based media technologies (Oxford University Press, 2023). Furthermore, the open access publishing options also aligned with the publishing aspirations of

the previous two studies. Please note that this journal article was subsequently submitted to *Cyberpsychology: Journal of Psychosocial Research on Cyberspace* after it fell beyond the publishing scope of the *Journal of Computer-Mediated Communication.* This article is currently under review with *Cyberpsychology: Journal of Psychosocial Research on Cyberspace.*

2.2. Journal Articles

A total of four (Quartile Q1) journal articles were produced from the three interconnected studies. These articles are presented below along with contribution statements.

Study One: Article One

Perry, A., Lamont-Mills, A., du Plessis, C., du Preez, J., & Pyle, D. (2020). Suicidal behaviours and moderator support in online health communities: protocol for a scoping review. *BMJ open, 10*(1), e034162-e034162. https://doi.org/10.1136/bmjopen-2019-034162

(Quartile – 1 ranked; Impact Factor: 3.007; SJR = 0.98; SNIP = 1.252; Citation Count = 3; Field Citation Ratio = 1.56; Relative Citation Ratio = 0.74; Publisher BMJ Publishing Group)

Amanda Perry: 60%

Professor Andrea Lamont-Mills: 15%

Dr. Carol du Plessis: 10%

Dr. Jan du Preez: 10%

Denise Pyle: 5%

Mrs. Amanda Perry (PhD candidate) contributed to the conceptualization of the protocol, investigation, the development of the methodology including research aims and goals, project administration, investigation, analysis, and the writing and editing of the original draft. Professor Lamont-Mills contributed to the conceptualization of the protocol, the development of the methodology including research aims and goals, providing supervision and critical review and editing of writing at pre-publication stages. Dr. du Plessis and Dr. du Preez contributed to the conceptualization of the protocol, providing supervision, and writing and editing of the published work. Mrs. Pyle contributed to the conceptualization of the protocol and reviewing and editing of the published draft.

Study One: Article Two

Perry, A., Pyle, D., Lamont-Mills, A., du Plessis, C., & du Preez, J. (2021). Suicidal behaviours and moderator support in online health communities: a scoping review. *BMJ open, 11*(6), e047905-e047905. https://doi.org/10.1136/bmjopen-2020-047905

(Quartile – 1 ranked; Impact Factor: 3.007; SJR = 0.98; SNIP = 1.252; Citation Count = 5; Field Citation Ratio = 4.51; Relative Citation Ratio = 2.91; Publisher BMJ Publishing Group)

Amanda Perry: 65%

Denise Pyle: 10%

Professor Andrea Lamont-Mills: 10%

Dr. Carol du Plessis: 10%

Dr. Jan du Preez: 5%

Mrs. Amanda Perry (PhD candidate) contributed to the conceptualization of the study, the development of the methodology (including research aims and goals) investigation, project administration, analysis, and the writing of the original draft as well as reviewing and editing. Professor Lamont-Mills contributed to the conceptualization of the study, the development of the methodology including research aims and goals, supervision, and the critical review and editing of writing at pre-publication stages. Dr. du Plessis and Dr. du Preez contributed to the conceptualization of the study, supervision, and the critical review and editing of writing at the pre-publication stages. Mrs. Pyle contributed to the conceptualization of the protocol, investigation, analysis, and reviewing and editing of the published draft.

Study Two: Article Three

Perry, A., Lamont-Mills, A., Preez, J. d., & Plessis, C. d. (2022). "I Want to Be Stepping in More" - Professional Online Forum Moderators'

Experiences of Supporting Individuals in a Suicide Crisis. *Frontiers in Psychiatry,* 13:863509. https://doi.org/10.3389/fpsyt.2022.863509 (Quartile – 1 ranked; Impact Factor: 5.435; SJR = 1.28; SNIP = 1.29; Citation Count 0; Article impact factor 0; Publisher Frontiers Media S.A)

Amanda Perry: 65%

Professor Andrea Lamont-Mills: 15%

Dr. Carol du Plessis: 10%

Dr. Jan du Preez: 10%

Mrs. Amanda Perry (PhD candidate) contributed to the conceptualization of the study, the development of the methodology including research aims and goals, investigation, project administration, analysis, and the writing of the original draft as well as reviewing and editing. Professor Lamont-Mills contributed to the conceptualization of the study, the development of the methodology including research aims and goals, supervision, and the critical review and editing of writing at pre-publication stages. Dr. du Plessis and Dr. du Preez contributed to the conceptualization of the study, supervision, and the critical review and editing of writing at the pre-publication stages.

Study Three: Article Four

Perry, A., Christensen, S., Lamont-Mills, A., & du Plessis, C. (Submitted for publication). When stepping in more isn't actually needed:

Current text-based practices of professional online mental health forum moderators keep users experiencing a suicidal crisis safe. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace.* (Quartile – 1 ranked; Impact Factor: 2.9; SJR = 0.903; SNIP = 1.478; Publisher Wiley Blackwell)

Amanda Perry: 55%

Steven Christensen: 25%

Professor Andrea Lamont-Mills: 15%

Dr. Carol du Plessis: 5%

Mrs. Amanda Perry (PhD candidate) contributed to the conceptualization of the study, the development of the methodology (including research aims and goals), investigation, project administration, analysis, and the writing of the original draft as well as reviewing and editing. Mr. Christensen contributed to the formal analysis, supervision, writing, reviewing, and editing of the published work. Professor Lamont-Mills contributed to the conceptualization of the study, the development of the methodology including research aims and goals, supervision, and the critical review and editing of writing at pre-publication stages. Dr. du Plessis contributed to the conceptualization of the study, supervision, and the critical review and editing of writing at the pre-publication stages.

2.3. Chapter Summary

This chapter introduced the three interdependent and interconnected studies and their methodologies that comprise the program of research for this Thesis by publication. The intent of this chapter was to make clear the connections between the three studies, as well as the thinking that underpinned the methodological decisions of the program of research. The next four chapters focus on the published and submitted for publication articles that are the research outputs associated with each study.

CHAPTER 3: PAPER 1 – MENTAL HEALTH FORUM MODERATORS WHO WORK WITH SUICIDAL FORUM USERS: SCOPING REVIEW PROTOCOL

3. Introduction

The first study in this program of research included a published scoping review protocol and a published scoping review article, which aimed to answer the first research question: '*What is empirically known about mental health forum moderators who work with suicidal forum users.'*

In this chapter the Scoping Review Protocol article and the corresponding peer reviewers' comments are presented. The peer reviewer comment documents are displayed in the format in which they were collated and published by the journal. For all materials related to this Study One please refer to Appendix A.

3.1. Published Article

Open access Protocol

BMJ Open

Suicidal behaviours and moderator support in online health communities: protocol for a scoping review

Amanda Perry ,[1,2] Andrea Lamont-Mills,[3] Carol du Plessis,[3] Jan du Preez,[1] Denise Pyle[3]

To cite: Perry A, Lamont-Mills A, du Plessis C, *et al*. Suicidal behaviours and moderator support in online health communities: protocol for a scoping review. *BMJ Open* 2020;**10**:e034162. doi:10.1136/bmjopen-2019-034162

► Prepublication history and additional material for this paper are available online. To view these files, please visit the journal online (http://dx.doi.org/10.1136/bmjopen-2019-034162).

Received 08 September 2019
Revised 19 December 2019
Accepted 30 December 2019

Check for updates

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ABSTRACT

Introduction Suicidal ideation and suicidal behaviours are common yet complex mental health presentations that can pose significant challenges for health professionals. The inability to accurately predict the individuals who may move from experiencing suicidal ideation and associated behaviours, to completing suicide, presents one such challenge. This can make it difficult to provide interventions and support to those most in need. Online health communities are one possible source of support for individuals who experience suicidal ideation and behaviours. These communities are becoming an increasingly popular way of accessing support, often with life-saving consequences. Within online communities, support is offered by various individuals including, in some instances, health professionals from various backgrounds, who work as online health community moderators. Given the growth of online communities and the increasing number of health professionals working as moderators, this scoping review seeks to map the literature that has focused on health professionals working as online community moderators, who interact with members experiencing suicidal ideation and behaviours. Mapping the existing literature offers benefits to both research and practice by identifying gaps in the research and providing a beginning knowledge base of current practice that can inform the training and development of health professionals working as community moderators.

Methods and analysis This scoping review will follow the methodological framework of Arksey and O'Malley, later adapted by Levac *et al*. To ensure appropriate rigour, this protocol uses the 20-item Preferred Reporting Items for Systematic Reviews and Meta-Analyses and extension for Scoping Reviews. Literature will be identified using a search strategy developed in consultation with a specialist research librarian at the university where the researchers are employed. Ten multidisciplinary databases will be independently searched by two researchers, and both researchers will screen for inclusion, and undertake the data extraction. The first author will perform a quality assessment of the articles that are selected for inclusion. A second researcher will complete a random audit of 20% of the included articles to assess for quality and suitability in answering the research questions. The first author will complete the analysis and synthesis of the data. A numerical and narrative synthesis of the included studies will be provided.

Strengths and limitations of this study

- ► To our knowledge, this scoping review will be the first to review and summarise research that has focused on health professionals working as online community moderators who support individuals experiencing suicidal behaviours (suicidal ideation, suicidal behaviours and suicide attempt). It will provide a baseline for future research.
- ► Strengths of this study include the use of an established scoping review methodology, a rigorous search strategy developed in consultation with a specialist research librarian, a systematic study selection carried out by two researchers, and a quality assessment of included literature.
- ► The scoping review will focus on peer-reviewed articles and findings will be limited to articles that are written in English (or translated into English).

Ethics and dissemination The scoping review has been deemed as being exempt from ethical review as no data will be collected from human participants. The results of the scoping review may be published in a peer-reviewed journal, thesis, presented at relevant conferences, and shared with relevant knowledge users.

INTRODUCTION

Suicidal behaviours are a significant cause of death and disability worldwide, with close to 800 000 people dying by suicide every year.[1] Despite a growing awareness of the need for suicide prevention, suicide remains a serious public health concern.[1] While there are publicly available statistics for completed suicides, the same cannot be said where suicide is attempted but not completed, as many suicide attempts are not reported to health professionals. Despite this lack of data, it is estimated that more people attempt suicide than die by suicide.[1] For this reason, it is estimated that the number of people who are impacted by suicidal behaviours is far greater than the 800 000 recorded suicides.[1] Advances in technology have impacted on suicidal behaviours, in that individuals with

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internet capability can access a range of support and content that can positively and negatively influence suicidal ideation and suicidal behaviours.[2] For example, access to online support forums are likely to help keep individuals safe as they can connect to peer or professional support in times of need, conversely, individuals can also access content that may promote suicidal behaviours.[3]

Online health communities are internet-based platforms that have become increasingly popular due to their ability to facilitate the sharing of information, advice and support, which can be especially important for individuals who are experiencing suicidal behaviours and therefore may be at risk of serious harm or death.[3] There is a lack of research that specifically measures the effectiveness of online support health communities. However, the effectiveness and usefulness of these forums for members can be inferred from the growing membership in these forums as well as member retention within these communities.[3]

When considering how to intervene and prevent suicide, it is important to distinguish between the separate, but interconnected, constructs of suicidal ideation, suicidal behaviours or attempts and suicide. Suicidal ideation consists of thoughts about how to kill oneself, which can range from fleeting thoughts, to extensive considerations and detailed plans.[4] Suicidal behaviours and suicide attempts are deliberate and consciously self-destructive where the intent is to kill oneself,[5] and suicide is when intentional death occurs.[1] Most individuals who experience suicidal ideation do not act on the thoughts or carry them through to their conclusion.[2] Therefore, while suicidal ideation can place an individual at risk for engaging in suicidal behaviours, suicidal ideation in isolation is not necessarily a high-risk marker for a future suicide attempt.

According to Klonsky and May's[5] Three Step Theory of Suicide, connectedness plays a critical role in whether an individual moves from ideation towards suicidal behaviours, including a suicide attempt. The first step towards movement begins with psychological or emotional pain and a sense of hopelessness.[5] If an individual who is experiencing suicidal thoughts has hope that their situation may improve, and that the pain can be diminished, the individual is likely to work towards reducing the pain they feel, rather than consider attempting suicide.[5] An individual, who experiences psychological pain combined with a sense of hopelessness, is more likely to experience suicidal ideation and be more at risk of moving towards an attempt.[5]

The second step towards a suicide attempt occurs when pain exceeds connectedness.[5] Connectedness refers to the connection with other people, interests, roles, projects or a sense of meaning that gives one's life purpose. When an individual experiences pain and hopelessness and considers suicide, they are believed to be experiencing moderate suicidal ideation. This does not mean the individual is moving towards suicide, provided their sense of connectedness remains greater than their pain.[5] However, when their pain overwhelms any sense of connectedness, suicidal ideation is likely to become stronger, and may result in the individual actively considering ending their life, or being on the move towards suicide.[5]

The third step reflects the progression from ideation to attempt and requires individuals to have the capacity to make an attempt on their own life, by overcoming the natural human instinct of fearing death.[5] An individual is more likely to attempt suicide when they have overcome their fear of death, and they experience a sense of pain and hopelessness that overwhelms any sense of connectedness.[5] It is at this point that an individual may move towards an attempt.

Individuals struggling with suicidal ideation and suicidal behaviours are traditionally seen by health professionals working in face-to-face settings. While professionals are well positioned to provide support, barriers, such as social stigma[6] and negative perceptions regarding suicide, can prevent individuals from accessing and engaging in support.[5] It is acknowledged that not all individuals who seek in-person support receive it, for reasons such as not meeting set assessment criteria, a shortage of resources and wait list times. A lack of suitable support services, particularly for those in rural settings, combined with other barriers such as privacy concerns, time requirements, financial costs, distance and transport required to access support, are further reasons why individuals may not be willing or able to engage with in-person psychological support.[2] For individuals unable or unwilling to engage with face-to-face support, online health communities offer an easily accessible alternative source of support.[7 8]

Online health communities typically include a large element of peer support, where members use their previous experiences and resulting insights to offer support. Peer support refers to people's natural tendency to seek support and advice from informal social sources in their immediate environment.[9] A central tenet of peer support is the commonality of experience between the peers engaged in the supportive interactions. Peer support differs from professional support in that the interactions between peers are voluntary, flexible and informal.[10]

Online health communities can follow different models of support, with one such example being forums that exclusively offer peer interactions without moderation from either peers or professionals. Alternatively, there are forums where peers within the online community fulfil the roles and functions of moderators. In addition, some peer support forums are overseen by professional moderators who either hold formal tertiary-level qualifications or have completed in-house moderator training. Professional moderators can undertake administrative functions such as editing content, and guiding members with the features and functions of the forum, as well as providing professional support to members who may be at risk of engaging in suicidal behaviours.[7]

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Atanasova *et al*[7] argue that although online health communities are increasingly becoming the focus of health research, this research has typically focused on forum users and not on forum moderators, whether these are professional or peer moderators. This is despite online health communities providing a new way for health professionals and clients (online community members) to interact with one another.[11] The increasing use of online health communities as a means of gaining professional support[12] makes it crucial for health providers and researchers to gain a better understanding of moderator practices in these spaces.[13] This is due to the traditional face-to-face communication practices of health professionals requiring adaptation in the online environment,[14] as communication in these spaces is asynchronous, and devoid of non-verbal cues such as body language and movement, details of dress and nuances of the voice. Understanding how health professionals who are moderators offer support to those experiencing suicidal ideation or engaging in suicidal behaviours (including a suicide attempt) is important, given the 24 hours availability and relatively instant nature of moderator support, which can reduce risk to life. Furthermore, the ability of moderators to reach and support a larger number of vulnerable individuals, when compared with individual face-to-face health professionals, makes understanding what constitutes effective moderation practices essential in replicating these practices across online communities. Moderator support is also important as it can be the first professional interaction an individual may have with regard to their mental health. This is significant as the quality of the interaction may influence whether an individual then reaches out for support in their immediate setting. Understanding how moderators interpret, make sense of and then respond to members at risk allows healthcare professionals to further capitalise on the opportunities for positive and potentially life-saving support that are offered by online communities.[3]

The findings from this review will provide a synthesis of the research that has focused on professional moderators who work with members experiencing suicidal ideation, suicidal behaviours, or engaging in a suicide attempt. Currently, there is no systematic review of the literature regarding professional moderators, and therefore, there is no clear understanding of what research has been completed, what research needs to be undertaken and where research needs to focus in the future. The finding of this review will offer implications for practice in that it will provide an evidence base on which organisations can train online moderators.

METHODS

This review will follow the six-stage scoping review methodological framework proposed by Arksey and O'Malley,[15] which has been further developed by Levac *et al*.[16] The six stages are: (1) identifying the research question; (2) identifying the relevant literature; (3) study selection; (4) charting the data; (5) collating, summarising and reporting the data; and (6) consultation with knowledge users of online community forums.

Patient and public involvement

Patients and the public were not involved in the writing of this scoping review protocol.

Stage 1: identifying the research questions

The aim of this scoping review is to identify what is empirically known about health professionals working as online health community moderators. It is intended that the findings from this review will inform further studies into the work of online community moderators, in order to achieve a greater understanding of the challenges and complexities of the role, especially when supporting members experiencing suicidal ideation and behaviours. It is anticipated that the findings of this review may be used to inform and enhance the recruitment and training of online community moderators, which can lead to improved service delivery to members of online forums.

To assist in the creation of the study research questions, the broad Population–Concept–Context mnemonic by the Joanna Briggs Institute (JBI) was adopted as a suitable alternative to the Population, Intervention, Comparator and Outcome mnemonic for systematic reviews.[17]

Population

There is one population associated with this research study; online health forum moderators. In the context of this study, a moderator is a qualified healthcare professional who is employed to oversee the content and interactions of an online health community. This moderator will intervene in the forum and interact with members where necessary to ensure their safety. As scoping reviews are an iterative process, the definition of professional moderator and what it means to be qualified may become more clearly defined as a result of the search.

Concept

Identifying what is known about health professionals working as moderators in online forums where members freely post about suicidal ideation, suicidal behaviours, self-harm and non-suicidal self-injury (NSSI).

Context

No geographical limitations will be placed on the literature. This is due to suicide and associated behaviours being a global health issue. Furthermore, while the head office of a community forum may be physically located in one country, it is not uncommon for membership access to be available to individuals in other countries, thus making some online community forums international support providers.

To meet these aims the review will be guided by the following questions:

1. What do we know from the existing literature about online mental health moderators who work with suicidal community members?

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2. What methodologies have been used to gain this knowledge?
3. What are the limitations of the research?
4. What are the research gaps?

Stage 2: identifying relevant studies

The search strategy was iteratively developed in consultation with a specialist research librarian at the university where the researchers are employed. To ensure a comprehensive search of the health sciences literature the following electronic databases will be searched:

- CINAHL with full text, PsycINFO, PsycArticles, Psychology and Behavioral Sciences Collection, Academic Search Ultimate, Health Source: Nursing/Academic Edition and Sociology Source Ultimate. All of these are located within EBSCOhost.
- ScienceDirect.
- Medline.
- SAGE Journals.
- Taylor and Francis Online.

The search strategy will include subject headings, keywords and related terms for the concepts of suicide (including suicidal ideation, suicidal behaviours and suicide attempts), moderator or facilitator, online community, online health forum or online forum. The search terms for suicidal ideation, behaviours and attempt include 'suicide, 'self-harm' and NSSI. Self-harm and NSSI will be included in the search terms as often the behaviours associated with self-harm and NSSI are classified as suicidal ideation and behaviours, or the deliberate desire to end one's life. For this reason, the inclusion of the terms self-harm and NSSI will ensure adequate coverage of the literature. In the pilot testing of the search strategy, it was determined that the term 'suicd*' would capture all suicide-related literature, including articles that discuss suicidal ideation, suicidal behaviours and suicide attempts. A detailed search strategy can be found in table 1.

The search will be limited to English articles or those translated into English. A date restriction will be articles published from 1990 to the day of the search. The initial search results will be collated in the reference management programme EndNote (V.9), where duplicates will be removed at the first stage of review. The search will be independently undertaken by two reviewers, who will seek to resolve discrepancies collaboratively. Where this is not possible, a third reviewer will adjudicate to ensure agreement is achieved.

Stage 3: study selection

All articles will be independently screened for eligibility, beginning with a title and abstract review, followed by a full-text review. The reference lists of the articles selected for inclusion at the full-text review stage will also be searched to identify any further potential sources. The two reviewers who will undertake the initial literature search will also complete the two subsequent levels of screening.

In order to be included in the review studies must meet the following criteria:

1. Published from 1990 when computer-mediated support first appears in the literature.
2. Peer reviewed to ensure only credible and high-quality studies are included.
3. Written in or translated into English (due to a lack of resources for translating articles), with articles that are not written or translated into English excluded at the beginning.
4. Focused on online health forums where members can post freely about suicidal ideation, suicidal behaviours, previous suicide attempts, self-harm or NSSI.

Table 1 Search strings and limiters for each of the selected databases

Database	Search strings	Limiters
CINAHL with full text, PsycINFO, PsycArticles, Psychology and Behavioral Sciences Collection, Academic Search Ultimate, Health Source: Nursing/Academic Edition and Sociology Source Ultimate	("online community" OR "online health community" OR "online forum") AND moderator OR facilitator AND suicid* OR self harm OR NSSI	Time frame: From 1990 Language: English
ScienceDirect	("online community" OR "online health community" OR "online forum") AND (moderator OR facilitator) AND ("suicidal ideation" OR suicide OR "self harm" OR NSSI)	Time frame: From 1990 Language: English
Medline (Web of Science)	("online community" OR "online health community" OR "online forum") AND moderator AND suicid* OR "self harm"OR NSSI	Time frame: From 1990 Language: English
SAGE Journals	"online community" OR "online health community" OR "online forum" AND moderator OR facilitator AND suicid* OR "self harm" OR NSSI	Time frame: From 1990 Language: English
Taylor and Frances Online	"online community" OR "online health community" OR "online forum"~4 AND moderator OR facilitator AND suicid* OR "self harm" OR NSSI	Time frame: From 1990 Language: English

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5. Participants included in the studies must be qualified healthcare professionals who work as moderators. The qualifications of the professionals would be indicated in the article by listing the professions of the moderators or stating that they are qualified. The definition of qualified healthcare professional is very broad and will include any qualified individual, including professions such as counselling, psychology, social work and mental health nursing.

Exclusion criteria include studies focused on peer or volunteer moderators. It is possible that a professional moderator may hold a dual identity as a professional moderator and a peer, in that they are a qualified professional who has similar personal experiences or mental health concerns as the members of the community that they are overseeing. In instances where a professional moderator also identifies as a peer, their formal and professional role as a moderator will be prioritised over the peer identity.

At the end of each review round, the articles selected for review will be compared by the reviewers. Any discrepancies will be resolved by the two reviewers, or by a third reviewer if consensus cannot be not achieved.

Stage 4: data extraction or 'charting the data'

The data extraction framework presented in figure 1 will be developed by the research team to confirm study relevance and to extract study characteristics. The extracted data will include bibliographic information (such as author, year and location) and study characteristics (aim, design, methodology, participant characteristics, online community description, outcome measures, key findings, conclusions and quality). This form will be reviewed by the research team and pretested before use to ensure that the required information is being captured. As recommended by Levac *et al*,[16] the data extraction form will be continually refined in accordance with the nature and extent of the data, as the reviewers become more familiar with the data during the data collection process.

Data Extraction Framework
Scoping Review Details
Scoping Review title:
Review objective/s:
Review question/s:
Inclusion/Exclusion Criteria
Population
Concept
Context
Types of Study
Study Details and Characteristics
Study citation details (e.g. author/s, date, title, journal, volume, issue, pages)
Country
Context
Participants (details e.g. age/sex and number)
Details/Results extracted from study (in relation to the concept of the scoping review)
Quality Assessment Comments

Figure 1 Data extraction framework. Adapted from: Joanna Briggs Institute.[21]

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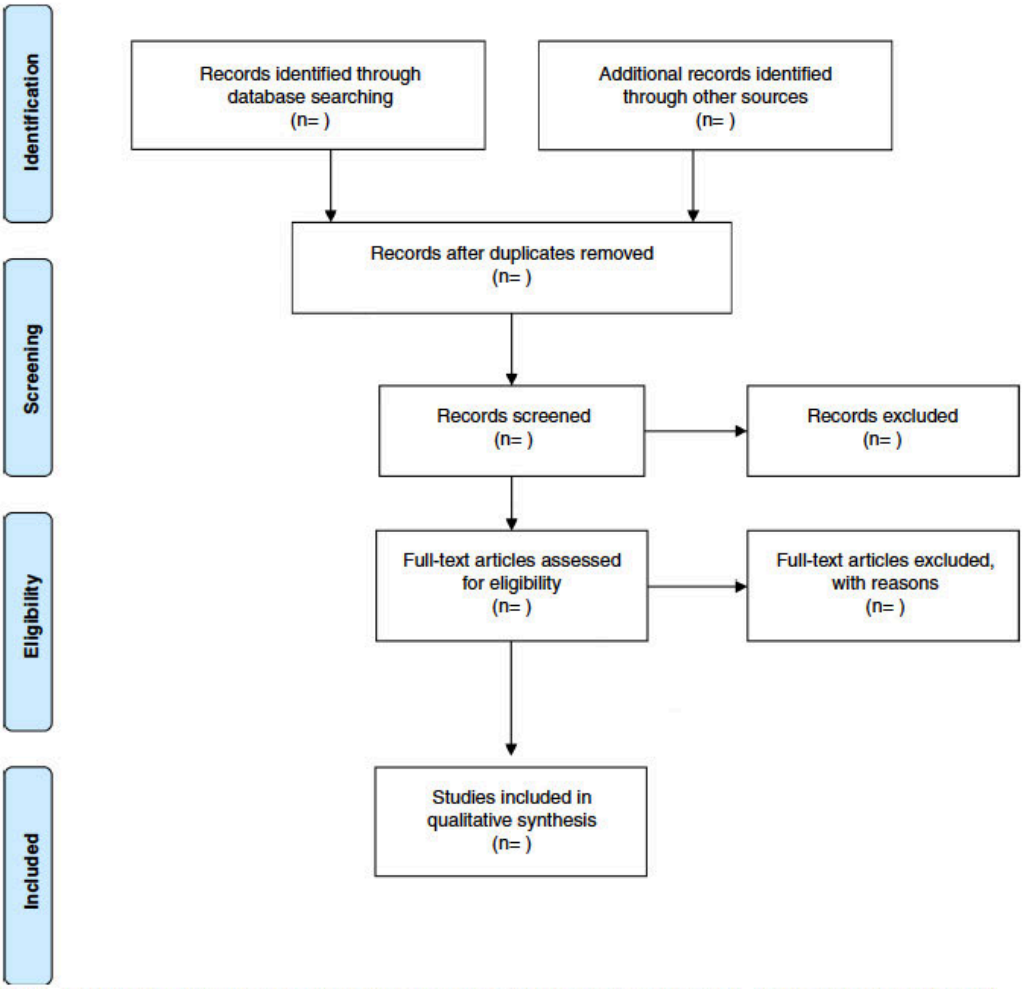

Figure 2 Preferred Reporting Items for Systematic Reviews and Meta-Analyses flow chart. Adapted from: Moher *et al*.[22]

Consultation on any proposed changes to the extraction form will occur between the two reviewers undertaking the data extraction, with all changes requiring consensus. The data extraction process will be audited for quality and accuracy by sending a random selection (20% of the final article number) of extraction article information to an independent reviewer. Any identified issues will be resolved by consensus and a third reviewer will adjudicate if consensus cannot be reached. The process of extraction and sorting will occur in Microsoft Excel, using the data items in the data extraction framework (see figure 1). This will allow for comparison of key items across studies.

As scoping reviews aim to map the existing literature and not to produce a critically synthesised answer to a particular question, a risk of bias assessment is not required for this study.[18] Assessments of research quality are not typically required by scoping reviews, however, as this scoping review seeks to identify the limitations within the existing moderator literature, an assessment of the quality of the included articles will be performed.[15] The first author will independently assess the quality of the included articles. The quality assessment process will be audited for accuracy by sending a random selection (20% of the final article number) of article quality assessment information to an independent reviewer. Any issues that arise will be resolved by consensus and where consensus cannot be achieved, a third reviewer will adjudicate to ensure agreement is achieved. The JBI Appraisal Checklist for Systematic Reviews and Research Syntheses[19] will be adapted and used for the quality assessment process. The appraisal checklist provides reviewers with a process of critique or appraisal of the research evidence, through

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the assessment of the methodological quality of a study. When appraising a study, reviewers are looking to assess how the possibility of bias has been addressed.[19] Some examples of the criteria that are used to assess the quality of a study include whether the review question is clearly and explicitly stated and if the inclusion criteria were appropriate for the review question.[19] Studies that meet more than 80% of the critical appraisal criteria will be judged to have good methodological quality. Studies that are assessed to have between 50% and 80% of the critical appraisal criteria will be deemed to have moderate methodological quality, and studies achieving less than 50% of the critical appraisal criteria will be judged to have poor methodological quality. Results of the quality assessment undertaken for each included article will be recorded in the data extraction form. It is important to note that unlike systematic literature reviews, studies will not be excluded from this review due to quality assessment outcomes.

Stage 5: collating, summarising and reporting the results

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and extension for Scoping Reviews[20] checklist for reporting scoping reviews will be used to guide the reporting of the results of this review. It is proposed that the review will combine quantitative and qualitative syntheses to provide an overview of the findings. In order to provide an overview of the breadth of the literature a PRISMA flow chart, presented in figure 2, will be used to report the number of articles present at each stage. A tabular synthesis of the study methodologies, distribution of the studies (geographically), type of online community forums and the characterises of moderators will also be included. A qualitative narrative synthesis will be included and will discuss the limitations of the reviewed studies and identified research gaps.

Stage 6: consultation

Arksey and O'Malley[15] suggest that the consultation stage is optional, however, Levac *et al*[16] posit that this stage is imperative to ensuring the methodological rigour of scoping reviews. As part of the consultation process, stakeholders who are subject matter experts will be given the opportunity to become involved in this research by reviewing the preliminary findings, in order to offer their expert perspectives on the findings, make suggestions and offer higher level meanings. For the purpose of this review, the stakeholders selected for consultation will be the service managers of three separate online health community forums. The stakeholders will be contacted via email and invited to review the preliminary findings and share their feedback either via email or a video conferencing meeting. The research questions and outcome measures were informed by the experiences of the first author who is an online community moderator.

LIMITATIONS OF THE PROPOSED REVIEW

While the search terms and the included databases have been developed to capture all relevant studies, it is noted that the lack of systematic reviews on this topic indicates that there are limited studies that have focused on the substantive area. It is possible that this scoping review may be limited by the small number of studies that are identified and included. This limitation may be mitigated in part by the flexibility of the scoping review design itself. Scoping reviews can be used with a range of data pool sizes and have been proposed as an appropriate design when there is limited data on a topic.[15] Some literature may also be missed by excluding studies that have not been peer reviewed.

ETHICS AND DISSEMINATION

To our knowledge, this is the first scoping review to synthesise what is known about health professionals working as online community moderators, in the context of supporting members who are experiencing suicidal ideation and behaviours. This review will identify gaps in the knowledge and research, while also helping to inform the best practice and contribute to the advancement of research and practice on this subject. The results of the scoping review may be published in a peer-reviewed journal, a thesis, presented at relevant conferences, and shared with relevant knowledge users.

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Acknowledgements The authors gratefully acknowledge the helpful comments of the peer reviewers.

Contributors The design and development of this study was led by AP, who also drafted the protocol. AL-M, CdP, JdP and DP provided guidance to the study conceptualisation and protocol development. All authors have revised all drafts of this manuscript and give approval for the publishing of this protocol manuscript.

Funding The primary author is the recipient of the University of Southern Queensland Research Training Program Stipend Scholarship.

Competing interests None declared.

Patient consent for publication Not required.

Ethics approval This scoping review was exempt from ethics review as no data is being collected from human participants (see page 7 and sections 5.1.22 and 5.1.23 of the Australian National Statement on Ethical Conduct in Human Research).

Provenance and peer review Not commissioned; externally peer reviewed.

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3.2. Peer Review Comments

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (**http://bmjopen.bmj.com/site/about/resources/checklist.pdf**) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Suicidal behaviours and moderator support in online health communities: Protocol for a scoping review
AUTHORS	Perry, Amanda; Lamont-Mills, Andrea; du Plessis, Carol; du Preez, Jan; Pyle, Denise

VERSION 1 – REVIEW

REVIEWER	Angela Nicholas The University of Melbourne, Australia
REVIEW RETURNED	25-Sep-2019

GENERAL COMMENTS	Thank you for the opportunity to review this protocol for a scoping review of literature regarding professional moderators of online forums where users discuss suicidal thoughts and behaviours. I have some specific feedback regarding the protocol. Abstract: Line 33 should read 'increasingly popular' Generally, I think the rationale for this review could be strengthened by citing further evidence for the usefulness or effectiveness of online community forums for people at risk of suicide. I recognise there might be a limited evidence base, but currently it is not entirely convincing as to why these online forums are essential. Are there also any advantages of having professional moderators over peer moderators or purely peer interaction? I think the introduction could be more compelling. Page 6: Lines 24 to 29 don't flow logically. They refer to three separate constructs: suicide attempt, suicidal crisis and suicide. No link is provided here between previous suicide attempt and current suicidal crisis or crisis and suicide. In order to make sense, the authors need to state what is a 'suicidal crisis' and to link it to previous suicide attempt and/or suicide. Page 6, Lines 29-36. I think the points that there is social stigma around suicide, and separately, that there is a lack of adequate supports requires further citations, rather than just one at the end. I am uncertain whether this reference supports all three points? It may also be worth noting other common barriers to accessing face-to-face support, such as time, cost, transport, travel distance. This would support your point that online supports are a valuable source of support. Line 49: 'tenant' should be 'tenet' Page 8, lines 24-31: the punctuation in the list of six stages is inconsistent and needs editing. Page 10, line 26: 'PsychINFO' should be 'PsycINFO' and 'PsychArticles' should be 'PsycArticles'.

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	Page 10: Lines 42-59 - there is no reference made to suicidal thoughts or ideation here. While including the search term 'suicid*' should capture these articles, it might be worth mentioning in the text if you also intend to include articles referring to suicidal thought/ideation without other suicidal behaviours. Page 13, point (4): perhaps swap this with (5) and delete the repetition about 'where community members can post freely, etc'.'. Page 13, line 31: I imagine the situation is likely to arise where moderators are both peers and qualified. It might be worth considering this in advance and mentioning how this would be resolved. Page 14, line 29: should this read 'bias assessment'? Page 14, line 47: state what JBI critical tool checklists are and provide a citation. Give examples of the criteria used to assess quality. Page 16, line 3 should say 'synthesise' The manuscript requires editing for punctuation, as the readability of it is currently affected by poor punctuation.

REVIEWER	LOPEZ CASTROMAN, JORGE University of Montpellier, France NImes University Hospital, France INSERM 1061, Montpellier, France
REVIEW RETURNED	06-Oct-2019

GENERAL COMMENTS	The authors propose a scoping review on the role of professional moderators concerning suicidal behaviors in online health forums. This is a timely idea and I find the protocol well-written. The methodology described seems robust and in accordance with the state of the art for scoping reviews. Minor details: The abstract should be shortened and streamlined. I think the authors should also mention the foreseeable limitations of the literature regarding this topic, to my knowledge there is a paucity of studies (the authors mention the absence of previous systematic reviews on the topic). How will the stakeholders be contacted for consultation about the review?

VERSION 1 – AUTHOR RESPONSE

Responses to Reviewer 1:

Abstract: Line 33 should read 'increasingly popular'. Thank you - we have made this correction (marked up copy, page 3)

Generally, I think the rationale for this review could be strengthened by citing further evidence for the usefulness or effectiveness of online community forums for people at risk of suicide. I recognise there might be a limited evidence base, but currently it is not entirely convincing as to why these online forums are essential. Are there also any advantages of having professional moderators over peer moderators or purely peer interaction? I think the introduction could be more compelling. Thank you, we have restructured this section and included more information on the effectiveness of online community forums (marked up copy, page 5), and the advantages of having professional moderators (marked up copy, page 8).

Page 6: Lines 24 to 29 don't flow logically. They refer to three separate constructs: suicide attempt,

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suicidal crisis and suicide. No link is provided here between previous suicide attempt and current suicidal crisis or crisis and suicide. In order to make sense, the authors need to state what is a 'suicidal crisis' and to link it to previous suicide attempt and/or suicide. We have separated the three constructs out and defined them, making it clear to the reader that suicidal ideation and suicidal behaviours are separate constructs. (marked up copy, page 5)

Page 6, Lines 29-36. I think the points that there is social stigma around suicide, and separately, that there is a lack of adequate supports requires further citations, rather than just one at the end. I am uncertain whether this reference supports all three points? It may also be worth noting other common barriers to accessing face-to-face support, such as time, cost, transport, travel distance. This would support your point that online supports are a valuable source of support. Thank you - we have have included another citation, as well as common barriers to accessing face-to-face support (marked up copy, page 7)

Line 49: 'tenant' should be 'tenet' Thank you - we have made this correction (marked up copy, page 7).

Page 8, lines 24-31: the punctuation in the list of six stages is inconsistent and needs editing. Thank you - we have made this correction (marked up copy, page 9).

Page 10, line 26: 'PsychINFO' should be 'PsycINFO' and 'PsychArticles' should be 'PsycArticles'. (Marked up copy, page 11)

Page 10: Lines 42-59 - there is no reference made to suicidal thoughts or ideation here. While including the search term 'suicid*' should capture these articles, it might be worth mentioning in the text if you also intend to include articles referring to suicidal thought/ideation without other suicidal behaviours. We have included a statement to explain why we have used the search term of 'suicid*'. (marked up copy, page 12)

Page 13, point (4): perhaps swap this with (5) and delete the repetition about 'where community members can post freely, etc'.'. Thank you - we have made this correction. (Marked up copy, page 14).

Page 13, line 31: I imagine the situation is likely to arise where moderators are both peers and qualified. It might be worth considering this in advance and mentioning how this would be resolved. We have included a paragraph that outlines what will happen if a moderator is both a professional as well as a peer, in that they have a lived experience of a mental health concern. (Marked up copy, page 14)

Page 14, line 29: should this read 'bias assessment'? Thank you - we have made this correction. (Marked up copy, page 15)

Page 14, line 47: state what JBI critical tool checklists are and provide a citation. Give examples of the criteria used to assess quality. We have now included a statement as to what JBI critical checklists are and we have provided a citation. We have also stated examples of the criteria used to assess quality. (Marked up copy, page 16)

Page 16, line 3 should say 'synthesise' Thank you - we have made this correction. (Marked up copy, page 17)

The manuscript requires editing for punctuation, as the readability of it is currently affected by poor punctuation. We have reviewed and edited the document to ensure there is sufficient punctuation.

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Reviewer 2:

The abstract should be shortened and streamlined. We have carefully considered this feedback. After much review and discussion we felt that all of the content in the abstract was required in order to sufficiently introduce the readers to the topic.

I think the authors should also mention the foreseeable limitations of the literature regarding this topic, to my knowledge there is a paucity of studies (the authors mention the absence of previous systematic reviews on the topic). We have provided a limitations section that discusses the foreseeable limitations of the literature. We have also highlighted that the strengths of scoping reviews are that they can navigate data pools that are either very small or at the other extreme, very large. (Marked up copy, page 17).

How will the stakeholders be contacted for consultation about the review? We have added a sentence that states that stakeholders will be contacted via email. (Marked up copy, page 17).

VERSION 2 – REVIEW

REVIEWER	Angela Nicholas Centre for Mental Health, Melbourne School of Population and Global Health, the Unversity of Melbourne.
REVIEW RETURNED	21-Nov-2019

GENERAL COMMENTS	I am satisfied with the revisions based on the original peer reviews. A few small points remaining: - page 33, line 31 - there is some data collected on suicide attempts in some countries, e.g. the UK, following admission to hospital for suicide attempt. I realised this is not commonplace nor exhaustive, but the statement that 'no figures are collected on suicidal behaviours included suicide attempts' might need qualifiying. - there are a number of missing full-stops on page 34 - lines 45 and 50; and page 35 - lines 6 and 10. - "Limitations' on page 46, line 17 is missing an 'i'. Thank you.

VERSION 2 – AUTHOR RESPONSE

Thank you for reviewing our work and offering feedback and suggestions. We can confirm the following amendments.

- page 33, line 31 - there is some data collected on suicide attempts in some countries, e.g. the UK, following admission to hospital for suicide attempt. I realised this is not commonplace nor exhaustive, but the statement that 'no figures are collected on suicidal behaviours included suicide attempts' might need qualifying.

We have added 2 -3 sentences here to provide more context to our statement regarding suicide attempt data not being as readily available as suicide data.

- there are a number of missing full-stops on page 34 - lines 45 and 50; and page 35 - lines 6 and 10.

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We have reviewed the document and added full stops as suggested.

- "Limitations' on page 46, line 17 is missing an 'i'.

We have made this correction - thank you.

VERSION 3 – REVIEW

REVIEWER	Angela Nicholas Centre for Mental Health, Melbourne School of Population and Global Health, The University of Melbourne, Australia
REVIEW RETURNED	17-Dec-2019

GENERAL COMMENTS	Thank you for inviting me to review the revised copy of this manuscript. I have some minimal suggestions to minor edits to the manuscript. - In the introduction, there is a statement about global suicide continuing to increase. I don't think this is correct. while increasing in some countries, I believe the global suicide rate is decreasing.

VERSION 3 – AUTHOR RESPONSE

- In the introduction, there is a statement about global suicide continuing to increase. I don't think this is correct. while increasing in some countries, I believe the global suicide rate is decreasing.

Thank you for highlighting this statement, which has been cause for pause and reflection. This statement has been changed to read; "Despite a growing awareness of the need for suicide prevention, suicide remains a serious public health concern.[1]"

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3.3. Links and Implications

The publication of this Scoping Review Protocol enabled the search strings, and the scoping review steps to be peer reviewed prior to the review being conducted, which enhanced the rigor of the study. It also provided the researcher with confidence that they were able to publish in Q1 quality journals.

The initial investigation of the topic, as required by the preparation of a scoping review protocol, provided early confirmation that moderators working with suicidal presentations online were an under-researched population, resulting in gaps in the literature

CHAPTER 4: PAPER 2 – MENTAL HEALTH FORUM MODERATORS WHO WORK WITH SUICIDAL FORUM USERS: A SCOPING REVIEW

4. Introduction

As previously stated, the first study in this program of research was comprised of two articles, a published scoping review protocol and a scoping review article, which aimed to answer the first research question: *'What is empirically known about mental health forum moderators who work with suicidal forum users.'* The scoping review article provided a rigorous and systematic mapping of the existing literature. A systematic search of the literature ensured the best possible chance of relevant literature being included for consideration and synthesis. In doing this, this study identified what is already known, and by default what is not known, about moderators who work on online mental health forums where STB risk presentations occur.

In this chapter, the scoping review article and the corresponding peer reviewers' comments are sequentially presented. The peer reviewer documents are displayed in the format in which they were collated and published by the journal. For all materials related to Study One please refer to Appendix A.

4.1. Published Article

Open access Original research

BMJ Open

Suicidal behaviours and moderator support in online health communities: a scoping review

Amanda Perry ,[1] Denise Pyle,[2] Andrea Lamont-Mills,[2] Carol du Plessis,[2] Jan du Preez[1]

To cite: Perry A, Pyle D, Lamont-Mills A, *et al*. Suicidal behaviours and moderator support in online health communities: a scoping review. *BMJ Open* 2021;**11**:e047905. doi:10.1136/bmjopen-2020-047905

► Prepublication history for this paper is available online. To view these files, please visit the journal online (http://dx.doi.org/10.1136/bmjopen-2020-047905).

Received 13 December 2020
Accepted 16 June 2021

Check for updates

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ABSTRACT

Objectives Online support can be a crucial source of support for individuals experiencing suicidal behaviours, with forum moderators being pivotal in terms of the role they play in times of personal mental health emergencies. This study identified what is empirically known about the professional practices of health professionals who are online mental health forum moderators and provide support to individuals experiencing suicidal behaviours.

Design The Levac, Colquhoun and O'Brien extension of the Arksey and O'Malley scoping review framework was used.

Search strategy The Psychology Collection (EBSCO), PsycINFO (EBSCO), Web of Science, Taylor and Francis Online, SAGE Journals and Science Direct databases were searched for articles that featured a result relating to an online forum; included participants who worked as online moderators or facilitators and focused on suicide or self-harm. Results were limited to peer-reviewed articles published in English from 1990 onwards. As a quality assurance measure, grey literature (nonacademic literature) was not included. Reference lists of included articles were hand-searched.

Results There were 397 articles initially identified after applying inclusion and exclusion criteria, with five articles included for synthesis. All articles received a moderate quality rating. Only one article featured a moderator who was a qualified health professional; the moderators in the remaining articles were volunteers who undertook preservice training. We found that there is little research that examines the professional working practices of online moderators who support individuals experiencing suicidal behaviours.

Conclusions The dearth of research focusing on the professional practices of online forum moderators is cause for concern given that individuals experiencing suicidal behaviours are increasingly turning to online forums when in crisis. Future research should focus on online moderators' practice through interviewing moderators about their professional practices and by examining online moderator practice as it occurs in situ.

Strengths and limitations of this study

- An established scoping review methodology was used.
- A rigorous search strategy and systematic study selection was carried out by two researchers.
- A quality assessment was undertaken to identify and synthesise knowledge in this area.
- Search criteria were limited to peer-reviewed articles and articles published in English or translated into English.
- Grey literature (nonacademic literature) was excluded.

INTRODUCTION

Individuals are increasingly turning to online forums to seek help for mental health concerns including suicidal behaviours.[1 2] Examples of mental health forums include Togetherall (UK), SANE (Australia) and Kooth (USA). The growing popularity of online forums has been attributed to the ease with which information, advice and support can be accessed.[3–5] This ease of access, combined with anonymity, can be especially important for individuals experiencing suicidal behaviours; a population that is less likely to seek professional face-to-face support[2 6–8] due to issues such as the stigma that still surrounds suicide.[2] This reluctance is problematic due to the risk of serious harm or death that is associated with suicidal behaviours.[9 10]

Recent research framed within the suicide ideation to action framework[11] distinguishes between the separate, yet connected constructs of suicidal ideation, behaviours and suicide. Suicidal ideation refers to the thoughts of killing oneself and can range from fleeting thoughts to detailed plans.[1] Suicidal behaviours refer to the deliberate and intentional acts to kill oneself[12] and suicide is when intentional and self-inflicted death occurs.[2] These constructs are separate in that individuals can experience suicidal thoughts without engaging in suicidal behaviours, or attempting, and dying by suicide. Although previous suicide attempts are the strongest predictor of future suicide

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attempts[13] and death by suicide, some suicidal individuals can hold a range of intentions at one time. These intentions can potentially shift throughout a suicidal event, with ambivalence experienced as to the outcome of acts where death is a possibility.[14] A further related concept is nonsuicidal self-injury (NSSI), which refers to acts of deliberate self-injury without the intent to die; however, research posits that NSSI can provide emotional relief, which may enable the individual, through increased capability, to inflict more serious self-injury (or attempt suicide) in the future.[15] It is for this reason that NSSI can be viewed as a risk factor for suicidal behaviours.

Some individuals who experience suicidal behaviours engage in online mental health forums for information and support. Online mental health forums are virtual communities where members can interact with one another by asynchronously posting and responding to messages.[16 17] These forums can be open and visible to all internet users or closed and limited to select membership populations with online support forums being accessed by millions of people each day.[18] Research suggests that 20% of online users in the USA and 10% of users in the UK regularly use online mental health forums.[19] While there are no suicide-specific usage data figures that we could locate, in terms of general mental health forum, there has been a noted increase in use, evident in online help seeking for mental health becoming frequent enough for study via large sample national surveys.[20]

Support in online forums can be provided by peers or those in formal moderator roles.[21] Online mental health moderators, hereafter referred to as moderators, are concerned with the safety of members and the forum as a whole and will intervene and interact with members as necessary to ensure that the forum remains a safe space.[22] Moderators generally oversee content posted by members to ensure compliance with the forum rules.[23] Specific tasks may include welcoming new members, editing content that contravenes the forum rules, and for some forums, supporting members in crisis.[24] Moderators may be unqualified individuals, often with lived experience of mental illness, who are working in a paid or voluntary capacity, or professionally qualified and employed health workers.[4]

There is a body of evidence that reports both benefits and risks associated with talking about suicide on mental health focused online forums. Benefits include reducing stigma and increasing self-disclosure,[2] and possible risks include suicide contagion in others and the promotion of suicide.[25] Despite these identified benefits of online help seeking, there has been no synthesis of research focusing on the professional practices of moderators in supporting individuals. Here, professional practices pertain to the work and conduct of the moderator that ensures the safety of forum members and those at risk of suicidal behaviours. Without such a synthesis, the field risks engaging in research that reproduces rather than advances understandings of online moderator work practices, thereby potentially overlooking opportunities to inform practice recommendations.

A scoping literature review was, therefore, undertaken to identify what research has been conducted on health professionals working as online moderators who engage with, and offer support to, community members experiencing suicidal behaviours. The review sought to map research approaches, limitations and gaps to guide future research.

METHODS

The scoping review protocol as specified by Perry *et al*[11] was used in this study. It followed the six-stage scoping review methodology proposed by Arksey and O'Malley,[26] and further developed by Levac *et al*[27] and the Joanna Briggs Institute (JBI).[28] The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) reporting guidelines were used.[29]

Stage 1: identifying the question

Using the broad population–concept–context mnemonic,[28] initially online moderators with a health qualification were the population. Pilot literature searches yielded only one article that met this definition; hence, the population was broadened to focus on moderators who had received some form of moderator training (ie, external or in house). Given that a scoping review is broad in nature, this change was viewed as consistent with this approach and also with the underlying intent of the study to understand the professional practices of moderators who have training in providing support online. This change is also reflective of the iterative process of scoping reviews.[30]

The revised concept focused on moderators who had received some form of moderator training and worked as moderators of online mental health forums where members post about suicidal behaviours, self-harm and NSSI. No geographical limitations were placed on the literature as suicidal behaviours are a global concern.[10]

The scoping questions were:

1. What do we know from the existing literature about trained online mental health moderators who work with suicidal community members?
2. What methodologies have been used to gain this knowledge?
3. What are the limitations of this research?
4. What are the research gaps?

Stage 2: identifying relevant studies

The following electronic databases were selected and searched on the 3 March 2019 in order to ensure a comprehensive search of the health sciences literature as recommended by the university research librarian:

- CINAHL with full text, PsycINFO, PsycArticles, Psychology and Behavioral Sciences Collection, Academic Search Ultimate, Health Source: Nursing/

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Table 1 Database-specific search strings and limiters

Database	Search string	Limiters
EBSCOhost (CINAHL with full text, PsychINFO, PsychArticles, Psychology and Behavioral Sciences Collection, Academic Search Ultimate, Health Source: Nursing/Academic Edition and Sociology Source Ultimate)	("online community" OR "online health community" OR "online forum") AND moderator OR facilitator AND suicid* OR self harm OR NSSI	Published date >1990 Language: English
ScienceDirect	("online community" OR "online health community" OR "online forum") AND (moderator OR facilitator) AND ("suicidal ideation" OR suicide OR "self harm" OR NSSI)	Published date >1990 Language: English *Research articles only*
Medline (Web of Science)	("online community") OR ("online health community") OR ("online forum") AND moderator AND suicid* OR "self harm"OR NSSI	From 1990 to 2019 *(Basic search)* Language: English
SAGE Journals	"online community" OR "online health community" OR "online forum" AND moderator OR facilitator AND suicid* OR "self harm" OR NSSI	From 1990 to 2019 Language: English
Taylor and Francis Online	"online community" OR "online health community" OR "online forum"~4 AND moderator OR facilitator AND suicid* OR "self harm" OR NSSI	1990–2019 Language: English

Academic Edition and Sociology Ultimate. All of these databases are located within EBSCOhost.

- ScienceDirect.
- Medline.
- SAGE Journals.
- Taylor and Francis Online.

The detailed search strategy and search strings can be located in the published protocol[11] (table 1). The search strategy was conducted independently by two reviewers (AP, DP) and 395 results were returned as well as an additional two articles identified through hand searching of reference lists. Six articles were initially selected for inclusion; however, one article was a systematic review and was excluded at the data analysis stage, resulting in five included studies.[7 16 29 31 32] While the excluded systematic review was not part of this scoping review, the reference list was carefully reviewed to ensure that all relevant studies were included. The reference management programme EndNote (V.9) was used to manage the search results, with duplicate results (n=2) eliminated at the first stage of the review.

Stage 3: study selection

Each remaining article was independently screened for eligibility by two reviewers (AP and DP). The following inclusion criteria were applied to studies identified in step 2.

1. Each study needed to have undergone a peer review process to ensure only high-quality and credible studies were included. As such, grey literature (nonacademic literature) was explicitly excluded.
2. Each study had to be primarily focused on online mental health forums; therefore, comparative studies of online mental health forums and other mediums were excluded.
3. Any study that included moderators of an online health forum as a participant were included.

Reviewers independently completed each level of screening as outlined below. The first level of screening was limited to title and abstract review, followed by a full-text review of the remaining articles. The reference list of each included article was also screened to identify any potential additional articles that may not have been identified in stage 2. A conservative approach was adopted when screening studies to ensure relevant studies were not inadvertently screened out at the title and abstract stage. Thus, for any studies, where it was not clear if the exclusion or inclusion criteria were present, the studies were included for full screening. The reviewers met at the end of each stage of screening to discuss and compare findings. There was one discrepancy when identifying duplicates and two discrepancies at full-text review. In each instance, the discrepancies were resolved through discussion resulting in consensus. The PRISMA flowchart (refer to figure 1) records the number of articles at each stage and provides an overview of the breadth of the literature.

Stage 4: data extraction

The first reviewer (AP) extracted data from the five included studies using an adapted JBI template for evidence details, characteristics and results extraction instrument.[33] Extracted data included bibliographical information (ie, author, year) and study characteristics (ie, aim, methodology, online forum description, key findings, conclusions). To ensure quality and accuracy

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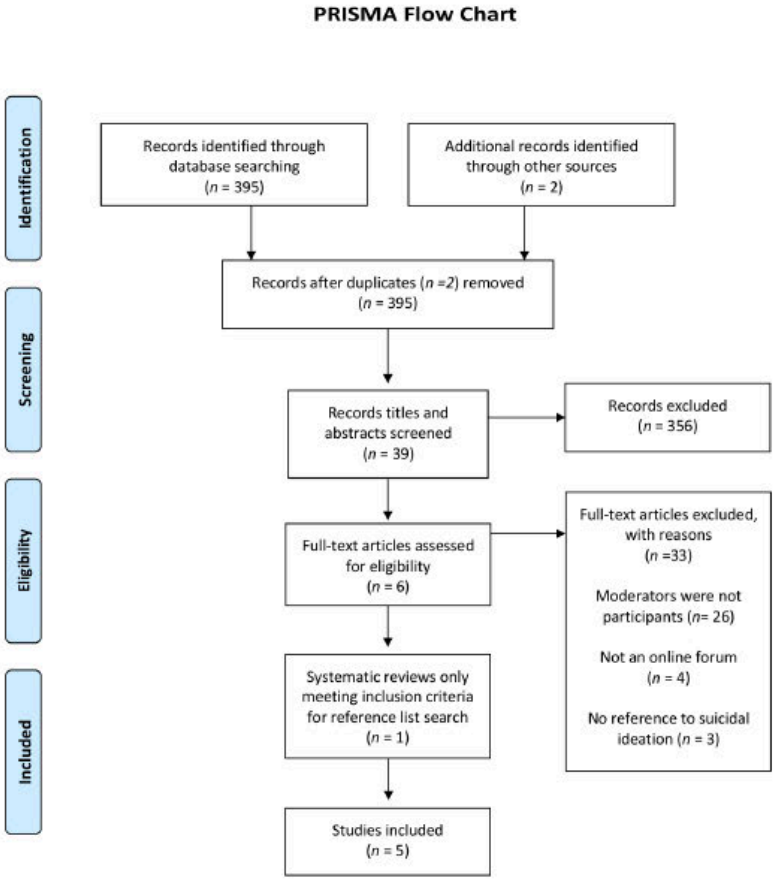

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

Figure 1 Search process overview as captured by PRISMA. PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses.

of the data extraction process, an audit of the extraction process was undertaken by reviewer DP, who directly compared and contrasted the extracted data with the articles of origin. All articles were included in the audit with no errors being identified.

While assessments of research quality are not mandatory for scoping reviews,[28] a quality assessment of included articles was undertaken. AP rated the research quality of studies using an adaption of the JBI critical appraisal tool checklists.[28] As per JBI guidelines, reviewers can adopt a point scoring system to assist in making judgements about the overall quality of studies. To this end, each appraisal item was weighted equally and given 1 point if scored as 'yes' and 0 points if scored as 'no'. Appraisal items not applicable to the study were not counted and deducted from the total tally scores. The total score for each study was calculated and the rating of poor, moderate or high research quality allocated. After consultation with the research team, we established a set of criteria to determine poor, moderate and high research quality. Poor-quality research was defined as scoring less than 50%, moderate-quality research scoring between 50% and 80% and high-quality research scoring greater than 80%.

The overall appraisal of quality and supporting comments for each included article were recorded on the data extraction form. These quality assessments were checked for accuracy by DP at the same time as the aforementioned extraction audit was undertaken. No studies were excluded based on quality assessment judgements. As this scoping review sought to map the existing literature

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rather than critically synthesise and answer a set question, a bias risk assessment was not undertaken.[34] The possibility of bias and how it had been addressed was assessed using criteria such as clarity of the review question and appropriateness of inclusion criteria when making the quality assessments.

Stage 5: Collate, summarise and report the data

The reporting of results was guided by PRISMA and extension for Scoping Reviews checklist. A tabular synthesis was used to record the study characteristics, quality assessments, moderator characteristics, study limitations and research gaps. A narrative summary was included to provide an account and interpretation of the findings.[35]

Stage 6: consultation

While consultation is considered an optional stage[26] Levac *et al*[27] assert that the consultative process is essential in ensuring methodological rigour, as experts in the field of the review may be able to offer additional perspectives or critique on the findings and suggest additional sources of information for the scoping study. The lead author consulted with 14 moderators, five of whom provided feedback on the findings of the scoping review. These moderators were considered to have expert knowledge of forums and the professional practices of moderators who provide support for individuals experiencing suicidal thoughts and behaviours. The moderators were surprised at the dearth of research that has focused on online mental health forum moderators, and they affirmed the need for more focused research in the future.

Patient and public involvement

No patients or members of the public were involved in this scoping review.

RESULTS

Study characteristics

The aims and characteristics of included studies are outlined in table 2. The study aims of the included articles varied and included reviewing or describing an online forum,[23 31] exploring the experiences or responses of members,[7 32] and comparing trained volunteer moderator responses to lay individuals' responses.[16] Included publications came from a small number of developed countries with no one country dominating results. Publication dates ranged from 2007[31 32] to 2012,[16] reflecting a lack of recent peer-reviewed research. All five articles adopted a qualitative research approach; two studies used content analysis[7 16] and the remaining articles adopted descriptive narratives.[23 31 32]

Three articles featured general mental health forums that catered for a range of mental health needs[16 31 32]; the others focused on suicide prevention,[7 23] with one focusing specifically on distressed adolescents.[23] While all studies where qualitative, there is little methodological similarity between them with content analysis, linguistic analysis, descriptive narrative report, narrative field project report and a descriptive case report all being used. Further the professional practices, or 'the how', were not the key focus of included articles, rather moderator tasks or 'the what', were explored as part of the overview function of the online forum.

Characteristics of moderators

The training and practices of moderators are outlined in table 3. The majority of study participants was moderators without specific professional mental health training or qualifications[7 16 23 31] and were volunteers who had completed preservice training provided by the forum. Preservice training differed in terms of length of time, content and mode of delivery. Training duration ranged from 2 days[23] to 6 months[31] with training content ranging from 1 to 3-day skill-based workshops,[23] 60 hours of suicide prevention training,[16] to 16 weekly simulation training sessions.[31] The mode of delivery was not explicitly stated in all included articles, with one article referring to online classroom sessions and simulations[31] and another referring to 12 group sessions.[16]

Entry requirements for the moderation role were unclear from the included articles. One study stated that no specific training or qualification was required, however, practical experience of helping others was.[31] The same study outlined a typical selection process where 15 people from an applicant pool of up to 160 people are selected to engage in the 6-month preservice training programme, however, only half the number of selected applicants would successfully complete the training.[31] No explanation was given for the low completion rate other than the challenge of volunteers maintaining discipline and commitment.[31] One article[32] included a qualified health professional (medical doctor) as the sole moderator, with no information provided as to whether the health professional engaged in any training to transfer their clinical in-person skills to the online space. These findings indicate that there does not appear to be standardised training requirements and, therefore, guidance regarding what training and background is needed for individuals to become moderators for forums where suicide content and associated behaviours are discussed.

Across all studies, moderators were required to ensure that the forum was a supportive and safe environment for members; however, what moderators did to enact this differed. A majority of the articles included reference to moderators offering resources and referrals to external sources of support.[7 16 23 31] One article[23] stated that moderators were trained to recognise posts that may be harmful and to respond accordingly, which may consist of alerting a supervisor to potential risk, especially if the moderator is unsure of how to respond. It was not clear how moderators identified what content could be harmful, and what action was required in order to respond accordingly. In other articles,[7 31 32] the moderators themselves responded to distressed members. In one article,[32] any post with an intention or suicide

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Table 2 Summary of study characteristics and outcomes of quality assessment

Authors and country	Research aims	Methodology	Study participants	Quality assessment result	Appraisal comments
Greidanus and Everall[7] Canada	To explore what are the experiences of adolescents seeking help online for suicidality, to provide a rich description of a working online community.	Qualitative: content analysis (thematic analysis)	Online forum members Trained volunteers (moderators)	77% Moderate Quality	Location of participants could not be determined. Due to the parameter of anonymity the exact number of community members, as well as their ages and genders could not be determined. There was little description provided about the trained volunteers beyond the training they received, and the patterns identified in their posts/responses to members.
Gilat *et al*[16] Israel	To compare trained volunteers and lay individuals' responses to distressed messages on an online community forum.	Qualitative: linguistic and content analysis	Forum members and moderators	77% Moderate Quality	No statement locating the cultural or theoretical orientation of the researchers. Number of members and moderators involved in the study is not stated. Only one online community was reviewed and therefore may not be representative of all online mental health communities.
Webb *et al*[23] Australia	To describe the development and conceptual underpinnings of the Reach Out! Online Community Forum.	Qualitative: descriptive narrative report	Forum members and moderators	50% Moderate Quality	No statement locating the cultural or theoretical orientation of the researchers. No information provided as to the number of forum members or moderations included in the study. Ethical considerations relating to the conduct of the study not discussed. Only one online community was reviewed and therefore may not be representative of all online mental health communities.
Barak[31] Israel	To review an Israeli-based suicide-prevention initiative, which provides free and open for-all emotional support, that is based on clear psychological foundations.	Qualitative: descriptive narrative field project report (n=1)	Anonymous skilled helpers (moderators)	50% Moderate Quality	No philosophical perspective stated. The online forum is a Hebrew website, using only the Hebrew language, and therefore may not be representative of all online mental health forums. There was little description provided about the participants beyond the training the received in order to become anonymous skilled helpers (moderators).
Hsiung[32] USA	To describe the responses of online group members to a suicide within the forum and make recommendations for suicide prevention in online support groups/forums.	Qualitative: descriptive case report (n=1)	Forum members and the sole moderator	66% Moderate Quality	No philosophical perspective stated. No statement locating the cultural or theoretical orientation of the researchers. Only one online community was reviewed and therefore may not be representative of all online mental health communities. As the researcher was a participant-observer, they may be less objective than an independent investigator.

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Table 3 Summary of moderator characteristics

Authors and country	Moderator training	Moderator practices
Greidanus and Everall[7] Canada	Telephone suicide prevention training (60 hours) Training in translating their person helping skills to the online environment.	Moderator messages to members were similar and conveyed empathy and understanding. Moderators offered statements that affirmed the members feelings, experiences and if applicable, an aspect of the member's character. Moderators encouraged members to consider the resources they have in their immediate setting, as well as resources that are external to them such as supportive adults. Moderators suggested specific resources such as local telephone support lines. Moderators monitor posts/threads and never author posts. Moderators made reference to the whole community when trying to establish boundaries of acceptable behaviour that is, 'In order to keep this a safe place for everyone to talk about what is going on for them'
Gilat *et al*[16] Israel	12 group sessions to develop interpersonal therapeutic skills and gain information about psychological disorders. Four sessions of personal supervision.	Establish and enforce the formal rules for group discussions and foster an environment characterised by a positive attitude towards living. Moderators discourage promotion of suicide and respond to distressed members offering messages emotional support and referrals to external services.
Webb *et al*[23] Australia	Aged 18 years or older. Completed at least one Youth Ambassador skills workshops. Compulsory participation on a 2-day scenario-based training session.	Moderators to foster a safe and positive environment, and ensure members follow the rules. Moderators read all posts and respond to any inappropriate content, as well as any referral requests or content that has not received a response from the community in 24 hours (or an adequate response). Moderators are trained to recognise and respond to any posts which may be harmful that is, include methods or intentions to self-harm or suicide by deleting them and supporting the member. Moderators must report crisis posts to the supervisor, as well as any posts they are unsure of how to respond to.
Barak[31] Israel	No required to have a mental health background or training but must have practical experience in some form of helping. Computer skills are essential. 6 month training programme comprised of 16-weekly 4 hour face to face classroom sessions, and 10 hours of online discussions, exercise and simulations. Moderators commence a 2-month internship at the end of their training.	Moderators follow strict guidelines and protocols across all channels. Moderators responses are to reflect empathetic understanding and non-judgement. Moderators offer information and external referrals as needed.
Hsiung[32] USA	A health professional (medical doctor)	The moderator removed any false information, particularly ingenuine expressions of suicidality. Suicide contagion was minimised by electing not to make special announcements.

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plan was investigated, and any false reports of suicidality where treated as a breach of forum guidelines and removed. In all articles, the moderators were responsible for discouraging the legitimisation and promotion of suicide; instead fostering a positive attitude towards life. It was unclear from the articles what training equipped moderators to recognise harmful content, respond to distressed members and those at risk of making an attempt on their life and promote a positive attitude towards life nor how they did this.

All studies received a moderate quality rating of between 50% and 80% (see table 2). The absence of high-quality studies is a limitation, indicating the need for better-designed studies in the future. Such studies would include more participant information (forum members and moderators) and explore more than one forum and include more information on the training moderators receive to be able to work online with distressed individuals. The absence of recent research is a further limitation given the increasing interest in online interventions and changing patterns of internet use[36] and highlights the need for current research in order to progress the field.

Each study featured one individual online mental health forum. The diversity of mental health forums in terms of concerns catered for, characteristics of forums members and approaches to moderation meant that a singular forum cannot be deemed as representative of all mental health forums. For this reason, the potential for transferability of specific insights into forums is limited given the different methodological approaches and, in particular, the utilisation of descriptive case and narrative reports that are intended to capture a particular experience. However, transferability of broader findings that are not context specific per se is possible. The included studies came from four countries, with a notable lack of representation from areas such as the UK and Asia despite these being locations where online mental help is available.[37 38] This narrow global representation is a limitation as the results from these countries cannot be generalised given that cultural understandings of suicide can influence suicidal behaviours.[39]

Moderators featured in all studies; however, as moderators were not the primary research focus, a gap in understanding the professional practices of moderators has resulted. Furthermore, moderators were not asked about their professional practices or experience of working on online forums. This means researchers do not know what it is like for moderators to work with individuals experiencing a suicidal crisis in the online space, in terms of the aspects they enjoy and the challenges they face. The lack of research that focuses on qualified health professionals who work as moderators is a further gap, as only one included study featured a qualified health professional as the moderator.

DISCUSSION

The included studies highlighted that the broader work of moderators is to maintain safe and positive online spaces, and that online forums can play a part in improving mental health and are becoming increasing popular. However, despite an increasing number of people turning to online forums to seek help for mental health concerns such as suicidal behaviours, this review has highlighted that little research has explored the professional practices of moderators who are responsible for keeping forums a safe space. Of the research that has been conducted, this review identified that focus has been on volunteer moderators rather than qualified health professionals. It appears that an examination of how those who work online, with individuals experiencing suicidal behaviours provide safety and support, has not yet occurred. The existing research provides little insight as to how and when moderators knew to respond to members who were experiencing a suicidal crisis or how moderators felt about working in such an online space.

This review identified that the professional practices of moderators were often conceptualised as work tasks such as 'read all posts and respond to anything inappropriate'.[23] Viewing the professional practices of moderators as a list of specific task risks adopting a reductionist or simplistic approach to what are often complex and multifaceted decisions and interactions.[23] Equating practices with tasks provides little information about the deeper theoretical and procedural knowledge and skills that are used by a moderator to identify what constitutes inappropriate content and how to respond to the content in ways that mitigate and manage risk, especially if the inappropriate content reflects suicidality. This is an issue as moderators are responsible for working with vulnerable populations online, with little research available that explicates how these professional practices are enacted or what knowledge informs these practices. This makes it difficult to assess the effectiveness of online forums in providing support and help to individuals experiencing suicidal behaviours and ideation. It also makes it difficult to raise awareness of the potential value of this suicide prevention work. This is important because in face-to-face therapy, examining how therapy is enacted within the confines of the consultation has provided a better understanding of the process of behavioural, emotional and cognitive change that occurs between client and therapist.[40] This is currently missing in the online space.

This review showed that there is a dearth of research that has specifically focused on qualified mental health professionals who work as moderators. Perhaps this is reflective of the moderator role as one that is more facilitative than therapeutic in nature. This aside, it is unknown how such moderators' transition from working face-to-face with individuals displaying suicidal behaviours and ideation to working online; often with additional factors such as anonymity, and the absence of visual cues such as personal presentation and body language. Review findings indicate that there are varying degrees of training

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and preparedness of online moderators across forums and potentially raises questions as to the efficacy of moderator support for forum members who are experiencing a suicidal crisis. It also raises questions around the safety and well-being of moderators in terms of their level of preparedness to engage with the degree and frequency of risk presented in the online space. While this study did not focus on the risks associated with moderators who provide online mental health support and who were not provided with training (in-house or formal), there is the potential for these untrained moderators to miss key suicidal behaviour indicators when interacting online.

A further gap in the literature is the absence of asking moderators about their experiences as moderators. In this context, experience pertains not only to the tasks moderators undertake but to the professional and procedural knowledge and skills that they call on to complete these tasks and engage with members who are experiencing a suicidal crisis. Critically what is missing is what aspects of working online with those experiencing a suicidal crisis, do moderators find challenging. The field does not know what it is like for moderators to work in the online space, how they perform their work or what skills and knowledge they drawn on to support those members in crisis.

It is vital for clinicians and policymakers to gain a better understanding of the professional practices of moderators to ensure the adequate support and safety of both moderators and forum members. To move the field forward, a starting point may be asking moderators about their moderation experiences to find out what they do (and do not do) in practice in the online space when working with those experiencing a suicidal crisis. Gaining this information can be achieved through interviewing moderators about their online forum moderation work in terms of their training, the aspects of the role they enjoy or find challenging and when and how they know to respond to support members analysing moderator interactions with members who are experiencing suicidal behaviours will also enable researchers to contrast and compare what moderators believe they do in theory to what actually occurs in practice. Gaining insight into the forum moderators is likely to assist in enhancing the recruitment, training and retention of forum moderators to the benefit of forums as organisations, the moderators themselves in terms of job satisfaction and the vulnerable populations that they serve.

The strengths of this study include it being the first study to systematically and rigorously review the work of online forum moderators who work with individuals experiencing suicidal behaviours and ideation. It did this by adopting a scoping review methodology and the completion of quality assessments. A limitation of this study is the exclusion of grey literature and publications that were not subjected to peer review in order to ensure a level of quality assurance that scoping reviews are often criticised as lacking.[41] Furthermore, the inclusion of English-only articles means that potentially relevant sources of information may have been excluded from this review and, therefore, from the analysis, and this may have changed the review outcomes.

CONCLUSION

This scoping review provides an overview of what is currently known about forum moderators who support members experiencing suicidal behaviours. This review initially sets out to focus on mental health professionals who work as moderators; however, as there was only one available article that focused on this specific population, a wider scope was adopted to review the work of moderators regardless of qualifications. Five articles met the inclusion criteria and were qualitative and descriptive in their approach. No specific information was provided as to how moderators identify those who are experiencing a suicidal crisis or how they know to respond in the way that they do, instead the studies included information on what specific task moderators undertook. We posit that more research is required to understand the professional practices of moderators and that a rigorous and robust research strategy is needed to guide future research. The next steps must include interviewing moderators about their professional moderation experiences and closely examining and analysing moderator interactions with forum members experiencing suicidal behaviours.

Twitter Amanda Perry @mandiperry and Andrea Lamont-Mills @ALamontMills

Acknowledgements The authors would like to thank all stakeholders who participated in the review, including Rowena McGregor for guiding with the selection of appropriate databases and the development of the search strategies. Special thanks to the online community moderators who provided consultation on the initial findings. We also acknowledge all stakeholders and we thank Tony Machin, Justin Canty, Raquel Peel, Angela Nicholas, and Brian O'Shea for their insightful peer review comments that improved this article.

Collaborators Tony Machin; Justin Canty; Raquel Peel.

Contributors AP led the design and development of this study and wrote the first draft of this paper. AP and DP conducted the searches and applied the selection criteria, with AP completing the data extraction and research quality assessment. DP conducted a quality assessment audit. AL-M, CdP, JdP and DP provided guidance and constructive feedback at all stages of the research. All authors approved the final manuscript and have given consent to the publishing of this article.

Funding The primary author is the recipient of the University of Southern Queensland Research Training Program Stipend Scholarship. The award/grant number is not applicable.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not required.

Ethics approval As this study did no involve human participants, human ethics approval was not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement No data are available. N/A.

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4.2. Peer Review Comments

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (**http://bmjopen.bmj.com/site/about/resources/checklist.pdf**) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Suicidal behaviours and moderator support in online health communities: a scoping review
AUTHORS	Perry, Amanda; Pyle, Denise; Lamont-Mills, Andrea; du Plessis, Carol; du Preez, Jan

VERSION 1 – REVIEW

REVIEWER	Nicholas, Angela The University of Melbourne, Centre for Mental Health
REVIEW RETURNED	08-Feb-2021

GENERAL COMMENTS	Thank you for the opportunity to further review this manuscript. This is a review of the literature related to moderated online forums sought by people experiencing suicide risk. The purpose of this review was primarily to understand the training undertaken by moderators of these forums. The findings suggest that these moderators are largely non-mental health professionals who receive training prior to undertaking their moderator role, thought the details of this training remain unclear. The review also states that how these moderators respond to indications of suicide risk online is also largely unclear, and moderators' experiences of undertaking this role remain unexplored. Overall, I believe the authors have used a rigorous scoping review methodology to answer their review questions, have accurately describe the results, and provide a thoughtful discussion regarding the study outcomes. Abstract: - Page 2, line 54 should perhaps read 'As a quality assurance measure, grey literature was not included' as the current reading has a different meaning - Page 4, line 3, 'were' is repeated. Introduction - Page 5 , line 38 - suggest removing the term 'completing suicide' which is generally advised against, and using 'dying by suicide' or similar. Methods: Page 7, line 13 - missing full-stop. Page 10, line 26. Specify what is JBI extraction form and provide reference Page 12, line 31 - should be 'exploring', not 'explore' page 12, line 49 - 'where' should be 'were'

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	Discussion: Page 19, line 22 - 'increasingly' should be 'increasing'

REVIEWER	O'Shea, Brian Harvard University
REVIEW RETURNED	02-Apr-2021

GENERAL COMMENTS	Overall, this manuscript entitled "Suicidal behaviours and moderator support in online health communities: a scoping review" addresses a fairly simple yet important research question, namely: "what research has been conducted on health professionals working as online moderators who engage with, and offer support to, community members experiencing suicidal behaviours." From only 5 papers identified, it is clear there is a dearth of information on this topic. Moreover, in the 5 papers identified "No specific information was provided as to how moderators identify those who are experiencing a suicidal crisis, or how they know to respond in the way that they do". I agree with their substantive conclusion and future steps "the next steps must include interviewing moderators about their professional moderation experiences, and closely examining and analysing moderator interactions with forum members experiencing suicidal behaviours". Below I have specified some areas that could be improved, however, there is no need for me to review the paper again as I will trust the authors best judgments. In the keywords box, there is a "<" that looks out of place. Page 3, line 31: I am not sure what you mean by emergencies (personal emergencies, the covid-19 emergency etc.). Page 3, line 52: I had to look up what was meant by grey literature (my ignorance) but perhaps put a brief explanation in brackets (i.e., non-academic publications) to help dim readers like myself. Page 5, line 33: I would change "thoughts of how to kill oneself" to "thoughts of killing oneself". Connected to this point, since you refer to NSSI in other parts of the document, I would briefly clarify how NSSI differs from suicidal ideation but can also be a risk factor for future suicide attempts. Page 5, line 40: You mention "strongest predictor of future suicide", yet you do not provide a reference. Also, the last sentence in that paragraph is not clear to me, is it adding value? Perhaps rewrite. General introduction: Would you be able to provide any numbers of people that use suicide forums (traffic on these websites etc.)? You followed your selection criteria well, but perhaps mentioning something in the discussion about moderators that do not receive any training and the risks that may be associated with this group. It would be great if you have any numbers of studies/manuscripts that were excluded because the moderators did not receive any external or in-house training. Years ago, I moderated a website related to mental health, and all I was given was some generic guidelines. Page 9, line 46-48: How is an online mental health community forum different from online mental health communities? If you are allowed, perhaps giving examples of websites would be useful.

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	Page 9, line 55: "The first level of screening was limited to title and abstract review" I worry that important studies slipped past because of this overly simple method. I would encourage you to give a quick look through the full text in future projects, especially if the manuscripts identified isn't extremely high (<400) . Page 10, line 45: Do you write out JBI the first time a reader encounters this acronym? Table 3, Line 19-20: by offering messages of emotional… Table 3, Line 29: Not required…. In the discussion section, I wonder whether there are any reviews or literature related to how moderators are trained and deal with suicide in other settings, such as phone line services like samaritans. Adding some information related to this point might be useful for the reader. Surely the training might be similar. Overall, I enjoyed the paper and agree that more research is needed in this sensitive domain.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1 Feedback	Author Response
Page 2, line 54 should perhaps read 'As a quality assurance measure, grey literature was not included' as the current reading has a different meaning	Thank you for your feedback. We have made the suggested change.
Page 4, line 3, 'were' is repeated.	We have removed the duplicate *'were'*.
Introduction - Page 5 , line 38 - suggest removing the term 'completing suicide' which is generally advised against, and using 'dying by suicide' or similar.	We have changed this term to 'dying by suicide'
Page 7, line 13 - missing full-stop.	We have added a full stop.
Page 10, line 26. Specify what is JBI extraction form and provide reference	We have specified the adapted version and included a citation.
Page 12, line 31 - should be 'exploring', not 'explore'	We have made the change from *'explore'* to *'exploring'*
Page 12, line 49 - 'where' should be 'were'	We have changed *'where'* to *'were'*.
Discussion: Page 19, line 22 - 'increasingly' should be 'increasing'	We have changed *'increasingly'* to *'increasing'*.
Reviewer 2 Feedback	**Author Response**
In the keywords box, there is a "<" that looks out of place.	Thank you for your feedback. As we cannot see a '<' in our version of the document we have not been able to make the suggested correction.
Page 3, line 31: I am not sure what you mean by emergencies (personal emergencies, the covid-19 emergency etc.).	We have added *'personal mental health'* before emergencies.
Page 3, line 52: I had to look up what was	We have added *(i.e., non-academic*

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meant by grey literature (my ignorance) but perhaps put a brief explanation in brackets (i.e., non-academic publications) to help dim readers like myself.	*publications)* as suggested.
Page 5, line 33: I would change "thoughts of how to kill oneself" to "thoughts of killing oneself". Connected to this point, since you refer to NSSI in other parts of the document, I would briefly clarify how NSSI differs from suicidal ideation but can also be a risk factor for future suicide attempts.	We have made the suggested change to *'thoughts of killing oneself.'* We have provided some additional clarification of NSSI as suggested.
Page 5, line 40: You mention "strongest predictor of future suicide", yet you do not provide a reference. Also, the last sentence in that paragraph is not clear to me, is it adding value? Perhaps rewrite.	We have added a reference for *'strongest predictor of future suicide.'* We have reflected on the last sentence and in combination with an additional sentence that clarifies NSSI, we think this sentence should remain in the paragraph.
General introduction: Would you be able to provide any numbers of people that use suicide forums (traffic on these websites etc.)?	Thank you for this suggestion. It is very difficult to quantify the traffic on mental health forums. We were not able to locate any data, however, we have included the following statement. *Research suggests that 20% of online users in the United States of America, and 10% of users in the United Kingdom regularly use online mental health forums [19]. Whilst there are no suicide specific usage data figures that we could locate for the usage of mental health forums, in terms of general mental health forum, there has been a noted increase in use, evident in online help seeking for mental health becoming frequent enough for study via large sample national surveys [20].*
You followed your selection criteria well, but perhaps mentioning something in the discussion about moderators that do not receive any training and the risks that may be associated with this group.	Thank you for this comment, we have included the following statement *'While this study did not focus on the risks associated with moderators who provide online mental health support and who were not provided with training (in-house or formal), there is the potential for these untrained moderators to miss key suicidal behaviour indicators when interacting online.'*
It would be great if you have any numbers of studies/manuscripts that were excluded because the moderators did not receive any external or in-house training. Years ago, I moderated a website related to mental health, and all I was given was some generic guidelines.	Unfortunately we did not record this information as we excluded studies where moderators were not the participants of the studies. Of the studies that were included for analysis, all moderatos received some form of training.
Page 9, line 46-48: How is an online mental health community forum different from online mental health communities?	Thank you, as these terms mean the same thing we have elected to consistently use *'online mental health forum'* throughout the document.
If you are allowed, perhaps giving examples of	In the second sentence of the introduction

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websites would be useful.	section we have added *'Examples of mental health forums include Togetherall (United Kingdom), SANE (Australia) and Kooth (USA).'*
Page 9, line 55: "The first level of screening was limited to title and abstract review" I worry that important studies slipped past because of this overly simple method. I would encourage you to give a quick look through the full text in future projects, especially if the manuscripts identified isn't extremely high (<400) .	Thank you for your suggestion. We were consistent with the scoping and systematic review protocol, and we took a conservative approach when deciding to include a study or not. Where it was not clear if the exclusion or inclusion criteria were present, the studies were included for full screening. We have now made this clearer in the methods section by including the following statement: *'A conservative approach was adopted when screening studies; for any studies where it was not clear if the exclusion or inclusion criteria were present, the studies were included for full screening.'*

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4.3. Links and Implications

The findings of the scoping review confirmed the initial hypothesis that professional moderators represent an under-researched population of professionals working in the field of suicide intervention and prevention, with online mental health forum research typically focusing on the perspectives of forum users or peer moderators. Given concerns around the safety of these online spaces for suicide prevention and intervention (Robinson et al., 2016), this lack of research on professional moderators is problematic. It means that the potentiality of these online spaces is likely to continue to be unrealized. This finding therefore highlighted a need for further research concerning the practices and experiences of the professionals who are responsible for ensuring the safety of online mental health forum users. Generalizing research findings associated with peer moderator to professional moderators is contentious given the differences in the autonomy afforded to professional moderators to meet the higher expectations that are held of them to keep forum users safe.

As people are increasingly turning to online mental health forums for support with their mental health, it is essential for researchers, practitioners, and online mental forums to have a clear understanding of both the practices and experiences of professional moderators. This knowledge will help to identify and define what constitutes best practice, whether those practices are currently occurring, and if anything needs to change to maximize positive forum user benefits of going online to talk about their STBs.

CHAPTER 5: PAPER 3 - THE EXPERIENCES OF ONLINE MENTAL HEALTH FORUM MODERATORS SUPPORTING FORUM USERS EXPERIENCING STBS

5. Introduction

This second study took the form of a published study that aimed to answer the second research question: "*What are the experiences of online mental health forum moderators when interacting with forum users who are experiencing STBs."* Semi-structured interviews with moderators from four countries, representing three organizations that manage online mental health forums were conducted. Research participants were asked about their experiences of working with STB presentations online, and what they do to support at-risk forum users.

This study is presented as a full journal article published in *Frontiers of Psychiatry* and is accompanied by the two peer reviewers' comments. The peer reviewer comment documents are displayed in the format in which they were submitted to the journal. For all materials related to this study please see Appendix B.

5.1. Published Article

frontiers | Frontiers in Psychiatry

ORIGINAL RESEARCH
published: 13 June 2022
doi: 10.3389/fpsyt.2022.863509

"I Want to Be Stepping in More" - Professional Online Forum Moderators' Experiences of Supporting Individuals in a Suicide Crisis

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OPEN ACCESS

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Reviewed by:
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Specialty section:
This article was submitted to Digital Mental Health, a section of the journal Frontiers in Psychiatry

Received: 27 January 2022
Accepted: 20 May 2022
Published: 13 June 2022

Citation:
Perry A, Lamont-Mills A, Preez Jd and Plessis Cd (2022) "I Want to Be Stepping in More" - Professional Online Forum Moderators' Experiences of Supporting Individuals in a Suicide Crisis. Front. Psychiatry 13:863509. doi: 10.3389/fpsyt.2022.863509

Introduction: Individuals experiencing suicidal crises increasingly turn to online mental health forums for support. Support can come from peers but also from online moderators, many of whom are trained health professionals. Much is known about users' forum experiences; however, the experiences of professional moderators who work to keep users safe has been overlooked. The beneficial nature of online forums cannot be fully realized until there is a clearer understanding of both parties' participation. This study explored the experiences of professional online forum moderators engaged in suicide prevention.

Materials and Methods: A purposive sample of professionally qualified moderators was recruited from three online mental health organizations. In-depth semi-structured, video-recorded interviews were conducted with 15 moderators (3 male, 12 female), to explore their experiences and perceptions of working in online suicide prevention spaces. Data was analyzed using inductive thematic analysis.

Results: Five themes were identified related to the experiences and challenges for moderators. These were the sense of the unknown, the scope of the role, limitations of the written word, volume of tasks, and balancing individual vs. community needs.

Discussion: Findings indicate that the professionally qualified moderator role is complex and multifaceted, with organizations failing to recognize these aspects. Organizations restrict moderators from using their full therapeutic skill set, limiting them to only identifying and re-directing at-risk users to crisis services. The benefits of moderated online forums could be enhanced by allowing moderators to use more of their skills. To facilitate this, *in-situ* research is needed that examines how moderators use their skills to identify at-risk users.

Keywords: online health community, health professional, online moderator, suicide, suicidal behavior (SB), online forum

INTRODUCTION

Suicide is a leading cause of death and disability globally (1) where for every death by suicide it is estimated that more than 20 people attempt suicide (2). While many individuals who attempt or die by suicide reach out for support prior to their attempt (3) it is noted that some individuals do not reach out even when help is available (4). For those who do reach out, some are unable to access the support they need (5). It is for this reason that many individuals in crisis are turning to online forums for support and help (6). On some forums moderators are present to ensure the safety of forum users (7). For individuals experiencing suicidal behaviors, the support afforded by online forums may be lifesaving (8). While there has been research that examines the benefits of online forums from the perspective of forum users (9), most of the work has focused on users of bereavement forums, where it was assumed that the perspectives of users could be different to those held by the forum moderators (10). Therefore, for the beneficial nature online forums to be fully realized, research is needed that focuses on the perspectives of online forum moderators, as well as the roles they play in keeping online users safe.

Online forums can be associated with formal health support services (e.g., 'Side by Side', which is the online community of Mind, a UK based Mental Health Charity) or be part of larger informal online spaces (e.g., r/SuicideWatch on the social media platform Reddit). Online mental health forums are specifically focused on mental health issues and are spaces where individuals can freely discuss their mental health issues (9). Such forums are available 24/7 meaning that support can be accessed when it is needed most (11). Both general health and mental health forums are typically constructed around peers providing support and advice to each other (12), however some forums are also overseen by moderators (13).

Moderators are usually categorized as either professionally qualified or peers (14). Peer moderators are often unpaid volunteers, selected because they have lived experience of mental illness and they are encouraged to draw upon and share this experience in order to support their forum peers (15). Conversely, professionally qualified moderators (henceforth professional moderators) hold either a tertiary level qualification in communications or a mental health related field and/or have completed in-house training, and are typically paid for their moderation work (16). Professional moderators often engage in administrative functions such as welcoming new users, editing content, providing technical support, as well as directly engaging and offering support to users in distress, which most commonly involves referring them to crisis services (17). While both professional and peer moderators are tasked with ensuring the safety of online forum communities (14), little is known about the moderation role from the perspective of the moderator. A recent study that examined internet forums for suicide bereavement found that some users held concerns regarding the ability of peer moderators (also referred to as designated users) to provide distressed users with appropriate and adequate support (10). The study further identified the need to ascertain if forum users and moderators held the same or different perceptions of what constitutes positive or negative forum experiences (10).

A scoping review undertaken by Perry et al. (18) that examined suicidal behaviors and moderator support in online mental health communities, found limited research focused specifically on moderator experiences. The research that they did identify focused on peer moderators ($n = 4$) rather than professional moderators ($n = 1$). The review noted that induction training requirements for peer moderators ranged from **2** days [see (19)] to **6** months [see (20)]. Furthermore, to fulfill the role of peer moderator, peers were not required to have a mental health background or training, however, they were required to have some form of people helping experience, such as having worked in education, rehabilitation, or the military [see (20)]. The scoping review featured **one** study where a professional moderator was present and was identified through their credentials of 'M.D' (medical doctor) [see (21)]. The study by Hsiung (21) did not state any recruitment or induction training requirements for the professional moderator.

Findings from the review suggested that due to differing tasks and level of responsibilities between peer and professional moderators, it is not possible to generalize findings from peer moderators to professional moderators and vice-a-versa. For example, peer moderators were required to contact a clinical supervisor when at-risk forum users were identified [see (23)], whereas professional moderators did not have to escalate at-risk users to supervisors for instruction on how to support forums users in crisis [see (21)]. Therefore, because of their roles, professional and peer moderators have different levels of responsibility when it comes to interacting with forum users who are experiencing a suicidal crisis.

While there is some understanding of the beneficial nature of online mental health forums from the perspective of forum users (9), the experiences and perceptions of professional moderators who work within these forums to keep users safe, has been overlooked. Understanding the role of professional moderators within these forums will aid in understanding how moderators act within these forums in order to meet users' needs. It will also allow for the identification of challenges, missed opportunities and additional possibilities within this online space. Ultimately, understanding the work that is done by professional moderators will assist in ensuring that the online spaces that are created by suicide prevention organizations are safe spaces for individuals experiencing mental health difficulties. It will also assist these organizations in providing appropriate training to future professional online moderators.

In this study we sought to explore suicide prevention on online forums from the perspective of professionally qualified moderators through a series of qualitative, semi-structured interviews. Within this study suicide prevention is defined as the identification of risk and subsequent interventions employed to prevent an at-risk individual from moving from suicidal ideation to suicide attempt (22). We chose to specifically focus on professional moderators, because of the different skills that these moderators bring to the online space (18); the different ways they can work with individuals who are in crisis compared to peer moderators (23); and the different

responsibilities they may have toward users in preventing suicide. As demand for online support increases, it is likely that more qualified health professionals will be working in online mental health forums in the future to meet this increased user demand. For this reason, it is critical that we understand not just what professional moderators do, but how they experience and perceive their role in online suicide prevention. Given that working with suicidal individuals face-to-face is seen as a demanding, challenging, and at times a confronting task (24), we expect working in the online environment will bring its own unique experiences and challenges. Therefore, the aim of our study was to explore the experiences and challenges that professional moderators encounter when interacting with users who are experiencing suicidal behaviors.

MATERIALS AND METHODS

Study Setting

This study was a qualitative, interview, collective case study. A collective case study consists of more than one case with data coming from several different sources or individuals who are located at different sites (25). A collective case study allows for an increase in generalization of findings because data analytic findings are able to be compared both within and between cases (26). Thus, a collective case study was deemed appropriate to best capture the contextual aspects of professional online moderator work. Data was collected using semi-structured interviews that were completed between October 2019 and February 2020 using online Zoom software (27), and included participants from the United Kingdom, Canada, Australia, and New Zealand. Participants were employed at one of three online mental health organizations that conduct online forums that center upon communication via the written word, with forums being underpinned by the principles of peer support. This means that peers are the predominant form of support available to forum users, with moderators acting to identify risk and redirect those at risk to crisis services such as local Mental Health Crisis Teams. To be consistent with ethics approval, the forum organizations have been discussed collectively and not individually named to ensure the confidentiality of moderators and the organizations.

The role of the forums was similar with a shared focus on providing mental health support and engagement in suicide prevention practices through the identification of risk and subsequent intervention; however, none of the organizations were crisis services. At the time of this study, the organizations had been operating for between 8 and 22 years. The average number of yearly posts ranged from 69,365 to 240,000, and the average number of yearly page views ranged from 960,000 to 3.96 million views.

The official roles of the moderators who oversaw each of the three forums ranged from working in the background of the forum to review and monitor user posted content to ensure a safe online space; to assisting and supporting people to find and engage with appropriate support services; to interceding when conflict amongst users is present; and providing empathetic support through online listening, questioning and engagement. According to the participants of this study, they received in-house training provided by the organization that employed them. The training consisted of reading forum handbooks and completing shifts where they 'shadowed' or observed the practices of an experienced moderator at work, until they eventually began undertaking the moderator tasks themselves.

Participants and Recruitment

Participants were recruited via purposive sampling. The first author had worked as an online moderator for 5 years and was aware of online mental health organizations that employed professional moderators to oversee forums. Three organizations who provide online mental health forums that support individuals who experience suicidal behaviors were contacted via email to introduce the research project, and to ask permission to invite moderators to participate in this study. All three organizations agreed to provide the research team with access to their moderators, by way of forwarding a research invitation email to moderators in their employment.

Moderators who were interested in participating in the research were required to email the first author, who replied with a Participation Information Sheet and Consent Form that was completed and returned prior to the interview commencing. A total of 15 participants (3 male, 12 female) were recruited from the United Kingdom ($n = 6$), Australia ($n = 5$), New Zealand ($n = 3$), and Canada ($n = 1$). Two of the participants had previously been moderators and had assumed management responsibilities and thus were considered to still be able to speak to their experiences as moderators. The remaining 13 participants were working as moderators at the time of the interview. All participants held a tertiary level qualification in a relevant field (i.e., counseling, psychology, social work, or communications), and had completed an in-house programme of training that was specific to the forum they worked for. All were paid for their moderation work. Most of the participants ($n = 10$) were registered with a professional health governing body (i.e., British Association for Counseling and Psychotherapy or the New Zealand Christian Counsellors Association). The average time working as a professional moderator was 3 years, with time in the position ranging from 3 months to 10 years. Participation was voluntary and at the completion of the data collection phase, participants who had completed the interview in their own time, as opposed to completing the interview as part of their work duties, were sent the equivalent of a NZ$20 gift card as a thank you for their participation.

Procedure

After gaining informed consent, dates and times for the semi-structured interview were negotiated and finalized between the participant and the first author. The first author conducted and recorded all the interviews. A conversational style of interviewing was utilized to gather insights into participants' experiences and perceptions (28). An interview schedule was used as a guide to ensure that all aspects of the topic were discussed, while also providing flexibility to explore unanticipated content (29). Questions included: How do you know when a user is feeling suicidal (i.e., what gives it away?) How do you know what to

do when engaging with a user who is feeling suicidal? From your experience, what are the challenges of engaging with users who are feeling suicidal? A copy of the interview schedule is in **Supplementary File 1.**

Due to the potential sensitivity surrounding suicide, a follow-up email was sent to each participant 1 week after their interview enquiring about their well-being and thanking them again for their participation. The recorded interviews were confidentially transcribed verbatim by a professional transcription company. As the three forum organizations represented in this study offer anonymity to forum users and moderators, participant pseudonyms were generated using the Masterpiece Name Generator website[1]

Analysis Strategy

This study used Braun and Clarke (30) thematic analysis as the analytic approach. Initially, the first author read and re-read each transcript several times in order to become familiar with the data, making notes of repeating content or initial analytic ideas. At the next stage of analysis, codes were generated and assigned to the data. Codes were then grouped together to identify patterns or themes in the data, with the first author comparing within and across themes to identify the essence of each theme and to propose candidate names for the themes. Next, the first author reviewed the themes to ensure that all data allocated to each theme was consistent with the essence of the theme. As a part of this, quotes that best reflected each theme were identified to be included in the report. All authors then reviewed and discussed the themes over several research meetings before confirming and naming them. At this point, the writing up of the report began. To ensure the appropriate rigor and reliability, the '15-Point Checklist of Criteria for Good Thematic Analysis' (30) was used throughout the course of this study to guide the progression of the research.

Ethics

The study was approved by the University Ethics Committee where the authors are located prior to data collection commencing.

RESULTS

Five themes were identified from the data that relate to core aspects of working to support users experiencing suicidal behaviors. They reflect the complex working environment of professional moderators. Themes were the unknown; constraints of the moderator role; limitations of the written word; the volume of tasks; and balancing individual and community needs. These themes are sequentially presented with illustrative quotations.

Theme 1: The Unknown

Participants perceived their moderation work to occur within highly uncertain environments. Almost all participants referred to a sense of the unknown, uncertainty, and unsureness that permeated many aspects of their moderator work. The unknown often began with not knowing the identities of users due to the anonymous nature of the forums which whilst being seen as an essential feature of the service for users, bought with it, its own work challenges for the participants.

> *It can be very difficult not knowing and that's what I've always struggled to sit with the not knowing. With the moderator role there is a greater sense of not knowing because of the anonymity of the site, and sometimes it can be hard to sit with that.* (Beatrice)

The unknown was also be felt as uncertainty regarding whether a user responded honestly to moderator questions about their present level of safety. Participants shared how in some situations they felt uncertain of how to respond to forum users in a way that would be useful for the user but would also provide the information that participants needed to ascertain risk, and therefore assess the safety of the user.

> *One aspect when you sort of immediately see something and it feels a bit overwhelming, oh God, how - how do I respond to this? I'm not quite sure how to approach it.* (Clare)

The not knowing also extended to the actions undertaken by participants to support individuals in crisis. Participants often did not know if they had made a difference to the forum user experiencing a suicidal crisis, or whether the forum user had connected with suggested crisis services, which further contributed to the sense of the unknown that surrounds their online working environment. This not knowing was seen by participants as the result of moderator shift changes occurring during suicidal crises, emergency services not reporting outcomes back to the forum organization, forum users not sharing outcomes, or users not returning to the forum. In all instances the multiplicities of the unknowns and related uncertainties were framed by participants as challenging; something that could be overwhelming and have a negative impact.

> *It's human nature to wonder and to sort of want more and sometimes people don't give that or they won't return or you'll think the worst. That can lead you to make assumptions, but, it's just not a space where you can do that, otherwise it will become too overwhelming, you have to take what you've got in this space.* (Freya)

The struggle associated with the sense of unknown was exacerbated for participants due to the nature of a suicidal crisis being a matter of life and death for the individual in the crisis. The participants expressed a deep sense of responsibility for keeping users safe whilst acknowledging the difficulties associated with not knowing if they have, in fact, kept them safe.

> *That'd be the hardest bit because we just, we just don't have a picture and I'm sure that inevitably we have had people that have logged onto the forums and have died by suicide like statistically. We don't know. So that can be challenging.* (Anna)

[1]https://masterpiece-generator.org.uk

Theme 2: Constraints of the Role

Many of the participants perceived the moderation role as a constrained role, due to forum users wanting more support from moderators than what moderators are permitted by forum organizations to offer. The participants explained that professional moderators employed in peer support focused forums are not intended to be the main form of support for users, as peers are meant to provide support to one another. Instead, moderators work in the background to make risk assessments and re-direct at-risk users to formal crisis services; they do not provide direct crisis care themselves. This sense of constraint was experienced as a tension between participants wanting to provide the psychological support that they are qualified to offer people experiencing a suicidal crisis, and the limited parameters of their moderator role which are defined by the organization that employs them.

> *We do fall into members feeling or seeming dependent on us, and often they're not able to access supports outside of the forum for whatever reason, whether it's financial or geographical, and so they come to us looking for that support and it can be hard not to want to provide it, but unfortunately the format doesn't allow that.* (Maria)

The constrained moderator role was further experienced by participants as challenging. It was seen to be difficult to put professional skills aside and not help users in crisis in the way the forum user wanted to be helped, knowing that they have the very skills to meet the user's needs. This was seen as especially problematic when considering that a large portion of professional moderator work consists of identifying crises and then re-directing at-risk users to external crisis services. Anna, who held a leadership position with a forum organization but had worked for 2 years as a moderator, shared "*It's really hard with moderation because we actually have to train them (moderators) to kind of scale back a lot of their skills.*"

One participant spoke specifically to this challenge, of wanting to do more for forum users who had previously felt unsupported by crisis services and was therefore reluctant to reach out again. Not being able to offer crisis support left the participant wanting to reach out and support the forum user in the way that the user wanted.

> *I was just supporting someone who had spent hours today with the crisis team on the phone and was describing how they had a plan and intention, not immediate, we found out afterwards, but a plan and intention, and my best suggestion was to send them back to that same crisis team that they felt let them down. It just feels like I don't have much control, like what good am I able to offer them, right then? And then that's when I want to be stepping in more.* (Maria)

What became evident in the data is that many participants experienced a discrepancy between what they as professional moderators wanted to be able to offer forum user experiencing a suicidal crisis or behaviors and the constraining nature of their role.

Theme 3: Limitations of the Written Word

The participants in this study communicated with forum users via the written word. Users textually posted on forums with moderators responding to these posts with textual replies. Most participants perceived that using only the written word was limiting as without verbal and visual cues, they felt their meaning-making was comprised, which is problematic given the potentially high stakes involved with assessing individuals who may be in a suicidal crisis. The limitations of communicating using only the written word were experienced by participants as a particular challenge when English is perceived to not be the first language of a user, and in times of user distress when coherency of the message can be compromised and potentially misinterpreted. This sense of compromise was seen as negatively impacting upon the participant's ability to do their job and therefore their ability to keep forum users safe. Put simply, if moderators cannot make sense of the posted messages of users, they can struggle to confidently determine whether risk to safety is present for the user and if so, the degree of risk. Participants also reported difficulties in their own efforts to communicate in clear and impactful ways with users to assess risk, and if needed, direct distressed users to official crisis supports. As participant Jasmine shared "*Some of the challenge is sitting with the nuance of what I can write that could make a difference in the way they see both life and death.*" Here the written word was perceived as limiting for moderators, with the limitation having the potential to significantly impact the safety of the user.

> *How do you hold all of that and react in a way that is sort of calm, holding, and measured but gets them all the information they need to hopefully get themselves safe as soon as possible? It feels like a lot goes on in those moments and I always feel in those moments like everything we say really matters. Every sentence you type when you respond to a member in that stage really matters.* (Ivan)

Participants also spoke of balancing the need to communicate enough information to keep a user safe, while also not overloading the user, and potentially causing overwhelm and risk their disengagement with the moderator or the forum. This was conveyed as requiring skill and discernment on the part of the moderator, which at times of high user posting on the forum or multiple instances of at-risk user presentations, made for a pressurized and stressful moderation experience.

Theme 4: The Volume of Tasks

All participants perceived there to be an overwhelming amount of forum work at times that was complicated by the need to complete a range of differing moderation tasks simultaneously.

> *The forums are very, very busy, and there's lots of posts kind of coming through, lots of traffic on the forums, at the same time, there's breaches of guidelines or suicide risk, and just being able to kind of multitask and manage those things together.* (Helen)

These tasks range from the menial (e.g., checking if post content contains words from a predetermined list of words that may or may not indicate risk), to the enforcement of the forum house rules that govern safe practices, to responding to users in

suicidal crisis. These tasks were perceived to draw upon different moderator skill sets such as technical skills to complete the tasks, procedural knowledge of the forum and organization, and also clinical skills to determine which actions may be required. Thus, it was a multiplicity of tasks, skill sets, and knowledges that were being activated at any one time and in any combination. The number of tasks engaged in was seen as further complicated by the need to be constantly alert and responsive to risk.

> *We moderate every single post. When there's lots of posts that aren't really risky, aren't really breaching guidelines, and we're kind of spending time looking at that, rather than paying more attention and focus to the ones that do demonstrate risk or are breaching our guidelines. It can be quite time-consuming with the one moderator, and it can be hard and busy, and you're trying to balance all of that. It can be hard.* (Lottie)

The sheer volume of work was experienced by participants as a source of stress and pressure, not just in terms of the number of tasks, but also in relation to the variety of different tasks that must be simultaneously attended to. Some participants commented that the volume and diversity of tasks they are required to concurrently manage was one of the most challenging aspects of the professional moderator role. Several participants contrasted their moderator work to their face-to-face clinical work, highlighting the often-singular focus of their in-person therapeutic support in comparison to their moderator work which they saw as requiring a highly developed ability to multitask especially when working with risk.

> *With one-to-one work you have a single focus in that moment. On the forum there's the multitasking aspect where it feels like you can be dealing with so many different varied issues at once and you're multitasking a bunch of other different things too. I really enjoy the work and I think we do a lot of good. But I do think it is an inherently stressful job. Probably more so than I gave it credit for when I started.* (Ivan)

Theme 5: Balancing Needs

All participants referred to the tension of balancing user disclosure with forum safety. To seek help, forum users must disclose their suicidal crisis, however, there is an inherent tension associated with this disclosure that becomes relevant for the professional moderator. If users do this and disclose too much information to the wider forum community, their posted content may be, albeit reluctantly edited by the moderator. Moderators edit or remove content to keep the wider forum community safe, to prevent other users from potentially being triggered and therefore becoming unsafe. This relates to the concept of contagion where the sharing of content such as specific methods or means to end one's life may cause distress and heightened risk in another individual (31). However, participants also spoke of the right of users to share their own experiences without censorship. All participants demonstrated an understanding that as moderators they play a key role in keeping people safe in the forums, however, this comes with the need to balance the right of individual expression with the safety of the wider community of forum users.

> *There's great freedom in online communication and just being able to put things out, but we definitely work with the community in reminding them, that when you're putting things out there, there needs to be some safety around how you do that.* (Shona)

Participants experienced the balancing of this individual right to expression and collective safety needs as a tension, beginning with the decision of, if and then when, or when not to moderate the content. The editing or removing a forum users' posted content was described by some participants as a personally difficult and challenging task.

> *I think this is one of the biggest challenges for me because it feels so invasive. They very specifically have chosen words that express something inside whether it is intentional or whether it is a process of intent. Their intent is very seldom to hurt anyone else and so when we edit, we do that because we let them know that it could actually hurt someone else. And even though we know that that's not the intent, and even though they know we know that it, I think it is incredibly shaming, and I find that part of the process really, really, difficult.* (Jasmine)

This was attributed to participant perception that the posting of content on a forum often requires a lot of courage on the part of forum users to share their distress and is recognized as an essential step in reaching out for the support they may desperately need. This was further compacted by the feeling that editing or removal of content was often interpreted by the posting forum user to represent a moderator's intention to silence or reject them. Participants reported that often users are not expecting to be silenced or rejected when reaching out for support in an online mental health forum.

> *There are instances where editing, I think, is a lot more challenging. And we kind of need to balance, allowing the member to tell their story and have that heard, which I think is extremely validating. And having it as much in their own words as possible. But then having to silence them somewhat by moderating or editing their post. Or sometimes removing parts of it, or all of it, in order for their post to fit within the house rules. So, although it's a simple, practical task I find it the most challenging.* (Heidi)

Participants shared that users whose content had been moderated could respond in anger directed at the moderator, as the forum user is often unable to see how their post and its content may cause distress to others. Alternatively, participants spoke of how forum users reacted with a shame response and retreated from the community after having their posts edited or removed. For some participants, forum users' responses of anger, shame, or retreating caused personal discomfort and were described as having a negative impact on them.

> *You can imagine if you're feeling really vulnerable and exposed and then your first response from that service provider is, "Sorry, we can't have your narrative. It's too triggering for other members." I literally had an email this morning where he used the phrase*

'disheartened, disappointed' and he just said he wouldn't come back to the service. (Beatrice)

Participants appeared to deeply feel the therapeutic disconnect between moderating content and their professional understanding of how important it is for individuals to disclose how they are feeling, in order to get the support that they need. Participants felt that balancing forum community safety needs over the individual right to expression, and therefore moderating content, could have unintended consequences for individual forum users in terms of their willingness to reach out and seek help again in the future.

DISCUSSION

The study sought to explore the experiences and challenges that professional moderators encounter when interacting with users who are experiencing suicidal behaviors. What is clear from the results is that participants experience the moderator role as one that is multifaceted, complex, and constrained. An implication of the complexity and constraint included the impact that the professional moderator role had on participants, in terms of the challenge of sitting with the unknown when it came to the identity of users, the severity of risk presented, and the outcome of crises. For some participants it was identified as a potentially overwhelming aspect of their role if it was not carefully managed by the moderator. Additionally, this study showed that the participants wanted to be able to do more within the moderator role to support forum users in crisis. Professional moderators ensure forum safety but do so in constrained ways that often leave them wishing they could be stepping in more to support those in crisis. As qualified health practitioners the professional moderators have the clinical skills to support users in crisis but are unable to use these skills due to the remit of the mental health forums not being crisis forums. Instead of using their clinical skills as other clinicians would when working with individuals in crisis, they are limited to referring users to crisis services. Given the complexity of the multiple unknowns that moderators must manage and the wish to be able to use more of their skills, we propose that with more people turning to online spaces for support, particularly during the COVID-19 pandemic (32), the experiences of professional moderators must be a central consideration for improving online suicide prevention practices and research.

An unexpected finding from this study was the toll that forum moderation work can take on professional moderators. Such a toll and burden has been identified for peer moderators (33), but has not been previously considered for professional moderators. Given that the burdens identified in this study were associated with perceptions of distressed users not getting the support that they need (33), this finding has implications for the perceived benefits of online suicide prevention forums. In this study, this toll was evident in the tension that participants felt between encouraging those in distress to reach out for much-needed support using their own voice, and therefore their own words, while also working to ensure the overall safety of the forum community was not negatively impacted. This means that if an in-crisis forum user posted content that had the potential to cause other forum users to become unsafe, the content could be edited or removed by the moderators. The tension of having to edit an individual's content for the 'greater good' of the forum community was felt on both professional and personal levels.

A possible explanation for this tension is that health professionals enter their profession to help those in need (34), and they are not often required to censor expressions of distress as can be required when working in online forums. Indeed, it is the role of the health professional during a consultation to encourage client exploration and give voice to that distress in ways in which the client feels best suits their needs (35). Given the public nature of online work and the impact editing content can have on moderators and forum users, future research should seek to examine the efficacy of current moderator editing practices with respect to reducing factors that increase suicide risk. Moderators noted that when they edited content to avoid other forum users potentially becoming unsafe, they felt this was invasive with some users finding moderator edits problematic. More research is needed to identify whether editing content that could be considered triggering for other users, exasperates risk or if it is preventative as intended.

Findings could help to identify alternative practices that maintain forum safety whilst also minimizing the negative impacts of such editing for both forum users and moderators. Such research may be in exploring whether the therapeutic alliance exists between a moderator and a user in crisis and if it does, how is this developed and maintained in online forums spaces and how is it ruptured and repaired. Client perceptions of the therapeutic alliance associated with e-mental health interventions has been found to be high and equivalent to face-to-face therapy (36). More importantly for the current study, this perception does not seem to be impacted by communication mode or the amount of contact between therapist and client. Alternatively, given the body of research identifying the ability to freely express thoughts, feelings, and plans online as a reason why individuals with lived experience of suicidal behaviors are attracted to online spaces (37), this tension felt by participants may be reflective of this. It is the lived disconnect between what users want and what some forums can offer.

A unique finding from this study was that while the participants may have been hired by the forum organizations for their professional skills, with their presence as qualified health practitioners promoted on forum websites as a means of creating a safer online forum experience for users, their response to those in crisis is limited by the organization to identifying and redirecting at-risk users to crisis services. While this may not necessarily be a problem for the forum organizations *per se*, the issue is that when there is a referral to an external service it is not always known whether the referred forum user takes up the referral and encouragement to seek external support. The participants shared that often users reported not wanting to seek help external to the forum, with referrals to crisis services potentially becoming barriers to getting help.

What this means for forum organizations is that they are failing to use the full skill sets of professional moderators. This is due to online forums not being a crisis service *per se*,

despite an increasing number of individuals in crisis turning to online forums for support (38). A possible explanation is that while moderators may make the forums safer (i.e., by removing challenging content or checking in with users to assess their safety), it is potentially not in the way that the forum users may want or expect. This finding also signals a possible incongruence between what is promoted by the online forum organizations and the support that is available to forum users. This raises questions, not answered by this study, as to whether there are missed opportunities for suicide prevention work on forums that are professionally moderated (39). Missed opportunities in terms of clinically trained professionals using more of their skill sets to help users in ways that users come to the forums seeking and even possibly expecting. It may be that forum organizations need to be clearer in their signaling of the purpose and intention of their forum, given the wide variety of online forums that users may be simultaneously using, where the understanding of which forum offers what, may become blurred when the user is in crisis.

Future research to advance the field should include *in-situ* research that examines how moderators use their skills to identify at-risk users. Engaging with practice-based experiences is needed to further innovate online forum support. Research findings could identify the professionally qualified moderator practices that are most effective in encouraging at-risk individuals to engage with crisis services and help to identify what support may be possible if professional moderators were permitted to use more of their professional skills. This information could be used to inform the training of both professional moderators and peer moderators, to the benefit and safety of the forum users. Furthermore, as the demand for online support is increasing, it is likely that more qualified professionals will be working in online forums in the future to meet user demand. For this reason, it is crucial that we understand what currently occurs in these spaces, how moderators are working with users to alleviate distress, and what may be possible for forum moderators in the future when it comes to keeping online users at risk of suicide safe.

The impact of professionally moderated forums could be enhanced by reviewing and adapting the scope of the professional moderator role, to allow these moderators to use more of their professional skills. This assertion is supported by research that shows online counseling to be as effective as in-person counseling practices (40, 41), indicating that moderators asking to use more of their skills to be both reasonable and possible. The authors acknowledge that any changes to the scope of the professional moderator role may bring a range of ethical and practical challenges that are likely to require careful consideration. Practically, this may begin with considering how face-to-face skills translate to online text-based crisis work. For instance how will the lack of visual cues that are greatly valued in face-to-face crisis work be managed when working with crisis online (42). An ethical challenge may include considering how moderators employed by forums that serve users from a number of states or countries, will comply with the geographical restrictions of their practicing licenses (43). These licenses tend to limit practitioners to working with individuals who reside in the state or country of where they are licensed (44). An additional ethical concern includes how moderators would balance the anonymity that users value, with the requirements of moderators to avoid dual relationships. A dual relationship would not be possible to identify without knowing the identity of the user (43). Just as it would be difficult to overcome cultural blindness that can occur from not knowing the identity or other identifying information of a user (43).

This study has several strengths and weaknesses. It featured 15 participants from three online mental health forum organizations, with the results suggesting that there are similarities of professional experience across, as well as within, different organizations. This indicates that the experiences of professional moderators engaged in online suicide prevention reported here may be more generalizable than expected. Given the assertion that more qualitative studies in the field of suicidology are required to move the field forward (45), taking a qualitative approach to understanding professionally qualified moderator experiences is a strength of this study in that it provides an in-depth insight into the challenges of engaging in online suicide prevention. Moreover, it does that from the moderator perspective rather than the forum user, bringing new insights and potential learnings to online suicide prevention practice and research.

A further strength of this study was the utilization of thematic analysis. As a methodology, thematic analysis offers an highly flexible approach to analyzing study data (46) that can be useful in examining the perspectives of different research participants, to highlight the similarities and differences that exist, and to generate unanticipated insights. The disadvantages of using thematic analysis include the inability of researchers to infer meaning associated with the language use of research participants, as well as the lack of supporting thematic analysis literature when compared to other qualitative research methods, which can inhibit the ability and confidence of inexperienced researchers in conducting rigorous analysis (47).

A further limitation of this study was that it featured professional moderators from four English speaking countries, which means the themes identified in this study may not be relevant or applicable to professional moderators in non-English speaking countries. This is due to forums of English speaking countries being more likely to reflect Western perspectives of suicide, that may not align with non-Western perspectives. For example, in English speaking countries suicide is more often attributed to mental disorders than in non-English speaking countries (48). In non-English speaking countries, psychosocial stress and social isolation rather than mental disorders are deemed the predominant factors for suicide (49). For this reason, professional moderators in non-English speaking countries may experience different challenges when it comes to supporting forum users in crisis.

CONCLUSION

This study illustrates the experiences of professional forum moderators when working to support individuals experiencing a suicidal crisis online. We suggest that professional moderators

have skill sets that are not fully utilized by the forum organizations that employ them, indicating that professional moderators are both willing to, and are capable of, doing more when it comes to online suicide prevention. Given that people in crisis are increasingly turning to online forums for support, regardless of whether forum organizations provide crisis services or not, our findings suggest that it may be time for forum organizations to reconsider their support models. Our findings help to establish a body of literature and encourage practitioners, researchers, and policymakers to engage with practice-based experiences to further innovate online support for those in crisis. Reviewing and adapting the scope of the professional moderator role may be a key element to harnessing the full potential of online forum support, with *in-situ* research needed that examines moderator practices to identify what currently happens and what may be possible in the future.

DATA AVAILABILITY STATEMENT

The datasets presented in this article are not readily available because of the potentially identifiable nature of the data. Requests to access the datasets should be directed to amanda.perry@usq.edu.au

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the University of Southern Queensland Ethics Committee. The patients/participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

AUTHOR CONTRIBUTIONS

AP, AL-M, JdP, and CdP contributed to the conception and design of the study. AP conducted the interviews and wrote the first draft of the manuscript. AL-M, JdP, and CdP provided guidance, supervision during the data analysis, and edited and contributed to the manuscript. All authors contributed to the article and approved the submitted version.

FUNDING

The primary author is the recipient of a Research Training Program Stipend Scholarship.

ACKNOWLEDGMENTS

The authors would like to thank all stakeholders who contributed to the development of this study. Special thank to the online community forums who supported this study and to the forum moderators who generously participated in the interviews, sharing their knowledge and experience. We would like to acknowledge the insightful and helpful feedback of the peer-reviewers.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyt.2022.863509/full#supplementary-material

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Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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5.2. Peer Review Comments

Response to Reviewers

Reviewer 2:

Abstract: Can you please, clarify the last sentence of discussion, starting with 'engaging with practice-based experience...'?	We have reflected on this sentence and decided to remove it from this section.
Introduction, line 37-39: please note that some suicidal people do not reach out for help, even if support are potentially available.	We have added a sentence to reflect that some suicidal people do not reach out for support, even if there is support available. *"it is noted that some individuals do not reach out even when help is available."*
Line 77-78: please, clarify sentence with 'professional moderators worked independently and did not have...'.	We have changed the order of the sentence to highlight that professional moderators have greater clinical scope than peer moderators.
Introduction line 90 and the rest of the mss: please, explain what you mean by 'suicide prevention' in the context of the study.	We have provided more information to explain what we mean by suicide prevention in the online space. *"Within this study suicide prevention is defined as the identification of risk and subsequent interventions employed to prevent an at-risk individual from moving from suicidal ideation to suicide attempt."*
I suggest removing 'not because of the dearth of the literature that currently exists for this particular population' (line 94) as it's potentially confusing.	Thank you, we have followed your suggestion and removed this statement.
Study setting: there is need to provide more information on the three organisations represented in the study. How big, how long in operation, the role of the online forum etc	We have provided additional information about the duration of operation, the average number of yearly posts and page views across the three forum organizations. We have also included information of the role of the three forum organisations.
Also, please provide information on the official roles and training and tasks of the moderators interviewed in the study. This information is necessary to better understand the data collected and their implications.	We have provided information regarding the official roles of the moderators from across the three forum organizations as well as some information regarding their training. As per the Human Ethics approval process we are not able to identify the forum organisations in order to protect the identity of the moderators. We are very interested in the reviewer's thoughts as to whether we have done this sensitively enough to preserve anonymity.

Discussion, line 386: please, clarify 'wishing they could be stepping in more to support those in crisis'. This relates to my earlier query - what is the 'job description' for the professional moderators, there is a risk of a 'saviour fantasy' blurring the role.	We have added more information to clarify what we mean here. In our opinion there is no risk of a 'saviour fantasy' as professional moderators have the clinical skills to be assisting in ways other than redirecting members to crisis services, however, the remit of the forum does not allow for this, hence the moderators wishing that they could do more. We have changed suicide prevention to *"reducing the factors that increase suicide risk"*
Line 407: clarify 'editing practices with respect to suicide prevention.	We have also added the additional sentences to clarify our meaning: *"Moderators felt that when they edited content in order to avoid other forum members potentially becoming unsafe, it could feel invasive and they said some members found it problematic. More research is needed to identify whether editing content that could be considered to be triggering for other members, exasperates risk or if it is preventative."*
Discussion, line 422-425: I am not sure why referral to other services is seen as a problem by the interviewees and authors of the mss. Again, this relates to the boundaries of the online service and moderator's role.	We have added three additional sentences to provide greater clarity in moderators have the clinical skills to be doing more than referring to crisis services. *"While this may not necessarily a problem for the forum organizations per se, the issue, is that when there is a referral to an external service it is not always known whether the referred forum member takes up the referral and encouragement to seek external support. The participants said that often members reported not wanting to seek help external to the forum, with referrals to crisis services potentially becoming barriers to getting help, and therefore, boundaries which may be potentially harmful for those who are in crisis."*
Line 447: the phrase 'to strengthen suicide prevention practices online' seems vague.	We have changed the sentence to *"may be possible for forum moderators in the future when it comes to keeping online users at risk of suicide, safe"*
Line 467: I am not sure of the meaning of 'the lack of available supporting literature'.	We have reviewed and revised the statement to provide greater clarifty. *"Further disadvantages of thematic analysis include the inability of researchers to infer meaning associated with the language use of research participants, as well as the lack of supporting thematic analysis literature when compared to other qualitative research methods, which can inhibit the ability and confidence of inexperienced researchers in conducting rigorous analysis."*

Limitations, line 472: I suggest changing 'Western countries' to 'English-speaking countries'.	Thank you for your suggestion. We have made the suggested change.
I wonder if the following reference can be of interest for the authors: Bailey, E., Krysinska, K., O'Dea, B., & Robinson, J. (2017). Internet forums for suicide bereavement. Crisis.	Thank you for sharing this reference with it. It was most helpful and we have included two citations in the article.

Response to Reviewer

Reviewer 4:

In general, there were several typos and grammatical errors throughout, the authors should proof-read before re-submitting.	Thank you, we have carefully proof-read the article and made corrections.
Introduction Paragraph 2 - The example of "Side by Side" as a formal health service should be elaborated on, readers will not necessarily know what this means.	We have added the following detail *(e.g., 'Side by Side', which is the online community of Mind, a UK based Mental Health Charity)*
Introduction The results of the Perry et al review are discussed as though they are completely generalizable and true of all moderators. The language could be softened slightly, to reflect the fact that recruitment and reimbursement of forum moderators likely varies between different forums.	Thank you, we have introduced some clarity to peer moderators as traditionally volunteering their time. The point is not about recruitment or reimbursement it is about the different roles of each type of moderator. Peers could be renumerated but by the very fact they are peers means that the role is not that of a professionally trained moderator and vice-a-versa. Each comes with its own set of rights and obligations that have different levels of accountability. We have adjusted the discussion of the results to better reflect that point.
Introduction Paragraph 6 Could the authors please elaborate on exactly why they think it is important to understand the role of the moderator when thinking about forum efficacy? This link is not clearly established, doing so would strengthen the rationale and also the implications of the findings	We have reflected on this section and we have added some additional sentences to help clarify why it is important to understand the role of the moderator in assessing benefits of online mental health forums. *"Understanding the role of professional moderators within these forums will aid in understanding how moderators act within these forums in order to meet users' needs. It will also allow for the identification of challenges, missed opportunities and additional possibilities within this online space. Ultimately, understanding the work that is done by professional moderators will assist in ensuring that the online spaces that are created by suicide prevention organizations are safe spaces for individuals experiencing mental health difficulties. It will also assist these organizations in providing appropriate training to future professional online moderators."*
Introduction Relatedly, I also wonder if efficacy is truly what is being assessed here. From the introduction, I expected that the	Thank you, we have reflected on this feedback and contrasted our intentions against the suggested terms of acceptability/feasibility. We were not seeking to assess efficacy rather to consider how

moderators would be asked questions about what they've observed in terms of user outcomes. It seems to me that this study actually contributes to knowledge about acceptability/feasibility, rather than efficacy.	moderators perceived and experienced their role in working to keep people safe online. We have decided to change from using 'efficacy' to the 'beneficial nature' (or similar) of online mental health forums. We have made this change throughout article.
Discussion Line 417 – please explain why moderator burden would mean users are not able to access necessary support.	Thank you for highlighting this sentence as we have realised that it does not read as clearly as it needs to. We have reworded this sentence to read *"Given that the burdens identified in this study were associated with perceptions of distressed users not getting the support that they need, this finding has implications for the perceived benefits of online suicide prevention forums."*
Discussion Limitations – I can see the authors have added in a lengthy paragraph about the advantages and disadvantages of thematic analysis, personally I do not believe this is necessary (particularly as the manuscript is already quite long). The benefits/limitations of the current study with regard to its use of TA could be summarised in one or two sentences.	Thank you for this feedback. We have revised this paragraph and streamlined it. *"A further strength of this study was the utilisation of thematic analysis. As a methodology, thematic analysis offers an highly flexible approach to analysing study data that can be useful in examining the perspectives of different research participants, to highlight the similarities and differences that exist, and to generate unanticipated insights. The disadvantages of using of thematic analysis include the inability of researchers to infer meaning associated with the language use of research participants, as well as the lack of supporting thematic analysis literature when compared to other qualitative research methods, which can inhibit the ability and confidence of inexperienced researchers in conducting rigorous analysis."*
Discussion The authors assert that forums should capitalise on the skills of moderators by allowing them to provide more intervention to users in crisis, however this would bring with it a range of ethical and practical challenges which are not mentioned. These could be given brief consideration in the discussion.	We have added the following statement. *"This assertion is supported by research that shows online counselling to be as effective as in-person counselling practices, indicating that moderators asking to use more of their skills to be both reasonable and possible. The authors acknowledge that any changes to the scope of the professional moderator role may bring a range of ethical and practical challenges that are likely to require careful consideration. Practically, this may begin with considering how face-to-face skills translate to online text-based crisis work. For instance how will the lack of visual cues that are greatly valued in face-to-face*

	crisis work be managed when working with crisis online. An ethical challenge may include considering how moderators employed by forums that serve users from a number of states or countries, will comply with the geographical restrictions of their practicing licenses. These licenses tend to limit practitioners to working with individuals who reside in the state or country of where they are licensed. An additional ethical concern includes how moderators would balance the anonymity that users value, with the requirements of moderators to avoid dual relationships. A dual relationship would not be possible to identify without knowing the identity of the user. Just as it would be difficult to overcome cultural blindness that can occur from not knowing the identity or other identifying information of a user."

5.3. Links and Implications

It became evident from the findings of this study that the professional moderator role is not only multifaceted and complex but also constrained, requiring professional moderators to balance several tensions. Such tensions if not managed well by the moderator were said take a personal toll, potentially turning the helper into a help seeker. One such tension was moderators not being able to use all of their skills to help individuals experiencing a heightened state of suicidal desire because of organizational constraints. As online spaces are not crisis services moderators are required to redirect such individuals to crisis support services that are external to the forum. This often occurs to the disappointment of the forum users in crisis, who would prefer to be supported by the professional moderators. The lived disconnect between professional skills and the parameters of online practice, raises further questions that are best answered by an in-situ examination of what professional moderators practically do to keep forum users safe online.

CHAPTER 6: PAPER 4 - HOW ONLINE MENTAL HEALTH FORUM MODERATORS PROVIDE SUPPORT TO FORUM USERS EXPERIENCING STBS

6. Introduction

This third and final study includes an article that has been submitted for publication, which aimed to answer the third research question: *"How do online mental health forum moderators provide support to forum users experiencing STBs."* To answer this question, publicly accessible forum posts of forum users experiencing a heightened state of suicidal desire, and responses from other-forum users and professional moderators, along with the private emails between forum users and professional moderators were analyzed using conversation analysis (CA).

This study is presented as the article that was submitted to the *Journal of Computer-Mediated Communication* and *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*. As the article is under review and is yet to be published, the formatting of the article aligns with that of the broader PhD document. For this reason, the reference list for this article is included in the reference list for the Thesis document.

For all materials related to this study please see Appendix C.

6.1. Article Submitted for Publication

6.1.1. Abstract

Individuals in crisis utilize online mental health forums for support, and while there is some understanding of the perspectives of forum users and professional moderators engaged in these forums, no research has explored what professional moderators do to keep-users safe online. Conversation analysis was used to analyze 34 publicly available forum posts and corresponding emails between users in crisis and professional moderators. Findings showed that a pattern exists for keeping users safe, requiring collaboration between moderators and users. Thus, moderators align to risk presentations, with users affiliating to the relational needs of other users. While previous research suggested that professional moderators wanted to be able to use more of their skills, these findings show that current moderator practices keep users safe. Future research should continue to investigate the intersubjectivity of professional moderators and users, and how they interact and collaborate to ensure the safety of these online spaces.

6.1.2. Lay Summary

Online mental health forums are spaces where users can go to both give and receive support from others with lived mental health experiences. Professional moderators may be present to ensure the safety of users in the forum community, however, little is known about what professional moderators do to keep crisis-users safe. In this study 34

publicly available forum posts and corresponding emails between users experiencing a suicidal crisis and professional moderators, were analyzed using conversation analysis. The findings showed that professional moderators follow a pattern to keep users safe, with moderators and forum users working collaboratively to achieve safety online. Professional moderators focus on the risk presentations, while users tend to the relational needs of crisis-users. This collaboration is a powerful example of bringing together the lived experience of people-helping with the lived experience of mental illness. Previous research has suggested that professional moderators wanted to be able to use more of their skills when working with crisis online. This research demonstrates that the current actions of professional moderators keep forum users safe, however, future research should continue to investigate how moderators and users interact and work together to ensure the safety of these online spaces.

6.1.3. Title

When stepping in more isn't actually needed: Current text-based practices of professional online mental health forum moderators keep users experiencing a suicidal crisis safe

6.1.4. Introduction

Individuals experiencing suicidal thoughts and/or behaviors (STBs) can have difficulty accessing appropriate and/or timely mental health support (Lundstrom, 2018). The World Health Organization recognizes

support access as an issue and actively promotes online mental health services to address unmet psychosocial support needs (WHO, 2020). The 24/7 accessibility and potential anonymity of online services enables support to be available when and where it is needed (Prescott et al., 2020).

There are two types of online support that those experiencing STBs can access. One is formal such as e-therapy services that are provided by mental health professionals (e.g., BetterHelp Online Therapy). The second is informal and is typically peer focused and led (e.g., 'Side by Side' the online community of Mind, a UK based Mental Health Charity). Here peers interact anonymously, giving and receiving support based on their shared lived experiences (Smith-Merry et al., 2019). Such online peer interaction may be overseen by a moderator whose role it is to keep such spaces safe for users (Kendal et al., 2017; Smedley & Coulson, 2017; Webb et al., 2008).

The safety of online formal spaces as places to talk about suicide has not been called into question, most likely because of who is providing the service, mental health professionals. However, the safety of online informal spaces for talking about suicide has been (Nathan & Nathan, 2020), regardless of whether a moderator is present or not. Moderators who may be unpaid peer volunteers with lived/living experience or paid and professionally qualified as they hold tertiary level qualifications and/or have completed in-house training (Smedley & Coulson, 2017). Little is known about how professional moderators keep online spaces and users who are experiencing suicidal thoughts and behaviours (STBs) safe (Perry

et al., 2021). Recent research has identified professional online moderator work as complex yet constrained due to role parameters that limit moderators to risk identification and at-risk user referral to external crisis services (Perry et al., 2022). Thus, safety is conceptualized as ensuring risks to the online space and users are minimized through early risk identification and removal of the person at risk from the online space.

Online safety for people experiencing STBs has traditionally been seen through a user lens, with researchers typically juxtaposing risk against user benefits. In this instance an example of risk may include the potential for forum users to learn more about suicide methods (Mokkenstorm et al., 2020), and consequently engage in offline risky behaviours (Kvardova et al., 2021). With user benefits taking the form of a reduction in suicidal thoughts (Dodemaide et al., 2019), and an increased sense of acceptance (Mokkenstorm et al., 2020). A potential drawback of juxtaposing risk against user benefits is that it adopts a retrospective, user-focused approach, that draws upon the tension between potentially uncontained hazards and user benefits that are linked to peer support. What has emerged from the literature is conjecture about whether online spaces are in fact safe places for people to interact with others and talk about suicide. On one hand online spaces are places that "do not necessarily pose a risk to participants" (Mok et al., 2015, p. 703), on the other there is "significant potential for harm from online behaviour" (Marchant et al., 2017, p. 2).

A different way of examining if online spaces are safe places to talk about suicide is to look at the intersubjectivity of safety. Intersubjectivity enables us to consider how professional moderators interact with users in these online spaces to accomplish safety. This is a pivot away from a focus on the user risks or benefits inherent in the space, toward how professional moderators engage and interact with forum users to keep them safe online. This is important because people experiencing STBs who go online for suicide related reasons have been found to have elevated levels of suicidality, when compared to people who do not go online for such reasons (Bell et al., 2018; Harris et al., 2009; Mok et al., 2016; Niederkrotenthaler et al., 2017; Wong et al., 2021). Further, they are also more likely to make a future suicide attempt (Harris et al., 2009; Mok et al., 2016; Niederkrotenthaler et al., 2017). Given these individuals may already be in a heightened suicide desire state (Klonsky & May, 2015), it is critical that we look at how such users are kept safe in that moment when they may be at most risk of taking their own life rather than what are the benefits or risks to users engaging in online spaces. In this sense safety becomes a process that is managed in-situ between professional moderators and users.

To do this a safety guiding framework that focuses on how these spaces are made safe needs to be utilized. This requires the adoption of different theoretical and methodical approaches to researching suicidality (O'Connor, 2021), that includes approaches that are prospective and observational rather than retrospective and reflective. A safety guiding

framework requires taking an in-situ interactional perspective that allows for the intersubjectivity of safety to be explicated. In this way we can identify how safety is achieved in place through moderators interacting with users during moments of heightened suicidal desire.

Moving toward understanding how safety is achieved online complements previous suicidology research. It does this by allowing us to better understand how the benefits of these spaces are realized and accomplished (Cherba et al., 2019), and conversely how risks are minimized through online interactions. As a starting point in considering the intersubjectivity of online safety, we have focused on online spaces that proport to be safe spaces. Further, we have looked at how professional moderators keep forum users safe during moments of potential heightened suicide desire. Professional rather than peer moderators have been chosen because, despite their professional backgrounds, the spaces that they oversee are not automatically seen as safe unlike formal spaces where those with similar professional backgrounds work.

We are not aware of any in-situ research that has explored how professional online moderators keep forum users safe from acting on STBs. Previous research has suggested that professional moderators wished that they could be 'stepping in more' and using more of their skills to assist forum users who are in a heightened suicide desire state (Perry et al., 2022). This present study extended on this by investigating how moderators practically keep forum users safe online. That is, we sought to

identify the actions professional moderators undertake to keep forum users safe through analyzing forum posts and corresponding off-forum emails between professional moderators and forum users. The questions that guided our analysis were (1) When do professional moderators intervene? (2) How do they intervene? (3) What happens next following the intervention?

6.1.5. Data Collection and Analysis

The data in this study was collected from an online professionally moderated mental health forum run by a large mental health organization. User and post numbers are not reported by individual forum, however, over 32,000 members interact across the two forums run by the organization with there being 800,000+ posts per year. University Ethics Committee approval was gained prior to data collection commencing. Permission to use publicly available forum posts was granted by the organization who also provided additional moderator-user interactional data (i.e., emails) that were not publicly available. When professional moderators become aware of a forum user who is in a heighted suicide desire state, they can intervene by posting on the forum, which is visible to all users, and follow up by sending an off-forum (private) email to the user.

The initial email data received by the forum organization consisted of over 10,000 emails dated between June 2014 to December 2020, which according to Wiggins (2017) was too large for a PhD research project. For

this reason, the research team began searching by hand the most recent emails (December 2020) and worked backward until a sufficient amount of data of at least 100 pages was identified (Wiggins, 2017). The data corpus reflects 166 pages of data consisting of 617 posts across 34 forum threads and 56 emails, that featured 90 individual forum users and 15 moderators. The data spanned a 12-month period and includes traditional peaks in suicidality (Hofstra et al., 2018). The data corpus was determined by first searching the email data that was supplied by the forum organization, and then locating the corresponding forum thread. The emails included in this study were sent by professional moderators or users and were identified through the searching of keyword terms associated with suicidal behaviors (i.e., suicide, die, death, had enough, end it, hopeless, don't want to be here, nothing left, the end, no point, accepted death, at peace with death). These emails were identified by the mental health organization using Microsoft 365 software to filter and export emails, as per the instructions provided by the authors (a copy of the instructions is available upon request).

The forum threads were found by using the date and time stamp of the emails, and the subject line of the email, which was the same as the name of the forum thread. Once emails and the corresponding forum threads were identified, they were copied and pasted in chronological order into 34 individual Word documents for analysis. Bringing the emails and associated forum posts together in this way allowed the research team to analyse what was occurring in a publicly available forum thread,

and then what happened once an interaction between a professional moderator and a user moved from the public space to the private email space, and at times, back to the thread.

Through the data analysis process the research became aware of three types of forum users present on the forum. There were new/occasional, regularly contributing, and experienced forum users whose role it was not to moderate, but to explicitly give and receive support, and thus model the reciprocal nature of peer support of which the forum was founded on. Some of the tasks of the experienced forum users consisted of welcoming new forum users to the forum, posting in quieter forums threads to promote interaction, and alerting the professional moderators to forum users who may need more than peer support to be safe. In our results we have identified which type of user authored the forum posts or emails.

Data analysis drew upon conversation analysis (CA) which has been developed to study social interactions (Sidnell, 2009). It is interested in how talk is socially organized and how people make sense of one another to accomplish interactional tasks (Albert et al., 2018). Although CA has traditionally focused on naturalistic and spoken interaction (Wiggins, 2017), increasing research attention has been given to synchronous and asynchronous digital interactions (Paulus et al., 2016). This has raised concerns about whether CA foundations and findings derived from spoken interactions have relevancy to digital interactions (Meredith, 2019) and that perhaps a different form of CA should be used to analyze

digital data, Digital CA (Giles et al., 2015). For the purposes of this study, as per the recommendations of Jucker (2021) we have adapted, modified, and repurposed aspects of CA whilst keeping true to the foundations of CA rather than adopt a pure digital CA approach.

6.1.6. Findings

Professional moderators used a regular pattern of interaction to keep forum users safe in the forum threads. This pattern was used to transform a user's 'risk-talk' into 'safety-talk' for the forum user and the other-forum users. That is, it concurrently services the user-in-crisis and others who may find the forum thread content triggering. As shown across Extracts 1-15, professional moderators enter a forum thread when a forum user shows a heightened suicidal desire, with the moderators responding in ways that transform the forum user's at-risk talk into talk that proposes an immediate safety action.

A consistent pattern was observed across the data threads regardless of whether the user-in-crisis was a new/occasional forum user, a regularly contributing forum user, or an experienced forum user. This pattern involved professional moderators entering at a critical moment and aligning their response to the subjective risk of STBs, to transform a topic of subjective risk into a topic of intersubjective safety. Other forum users, often experienced forum users, supported the actions of the professional moderators, therefore, co-constructing intersubjective safety for in-crisis users and the wider forum community.

6.1.6.1. Interaction 1

This interaction opens with a troubles-telling post from a regularly contributing forum user who is presenting at risk. The following sequence is comprised of two forum posts and two emails and comes from an ongoing forum thread consisting of 6,906 forum posts. The sequence includes a professional moderator, two experienced forum users, and a regularly contributing forum user, who in this instance is the in-crisis user.

Excerpts 1, 2, 3, and 4 are from the same forum thread and show the pattern of interaction for keeping users safe. Excerpt 1 is the post of a forum user struggling with suicidal thoughts. Excerpt 2 is a reply by a professional moderator to the in-crisis user in Excerpt 1. Excerpt 3 is the email of the professional moderator to the in-crisis user, and Excerpt 4 is the user's reply email

Excerpt 1 (forum post by a regularly contributing forum user)

1. Swallow me now please. Too many changes, too much lost. I am
2. struggling to see a way out of here.

In Excerpt 1, a regularly contributing forum user makes their post indicating that they have experienced change and loss that has left them struggling to see a way out (Excerpt 1: lines 1-2). This combined with the words "swallow me now" (Excerpt 1: line 1) and "I am struggling to see a way out of here" (Excerpt 1:lines 1-2) suggest that the forum user may be experiencing a heightened state of suicidal desire.

Excerpt 2 (forum post by a professional moderator)

1. @(user1 in-crisis), I'm going to drop you an email to check in.

In Excerpt 2, a professional moderator posts in response to the in-crisis user in Excerpt 1. The professional moderator addresses the forum user and advises that they are going to send them an email, indicating for the forum user to check their email inbox. The professional moderator does not attempt to relationally affiliate with the in-crisis user, nor do they display empathy, or endorse the stance of the posting user. Instead, the moderator appears to structurally align with the risk, as it is understood from the word choices in lines 1-2 by focusing on the safety actions of checking in with this user off the forum.

While this post is addressed to the in-crisis user, it is visible to all the users of the forum. For this reason, the post serves a dual purpose of indicating to the in-crisis user to check their email inbox as a professional moderator wants to interact with them in that space. The second purpose is to allow the other users of the forum to know that the professional moderators are aware of the potential risk and are taking steps to minimize it. Posts with a dual purpose contribute to constructing intersubjective safety for users. Using the metaphor of a fence, the place of the professional moderators appears to be in aligning with the presenting risk, via the identification and containment of risk through the construction of a fence around the presenting risk. This fence enables the other forum users to offer relational affiliation and support based on their own experiences, without also having to balance this with a responsibility

of risk minimization. In this excerpt, by notifying all users that a professional moderator was working to ensure the safety of the at-risk user, it relieved the other users of this responsibility, enabling them to focus on providing interpersonal support for the in-crisis user. Thus, providing an illustration of constructing intersubjective safety.

Two other experienced users contributed posts following this (not shown here) where they advised the in-crisis user that they were thinking of them, before moving the conversation on to discuss other unrelated topics. These interactions demonstrated relational affiliation on the part of the experienced users, as well as an awareness that as risk intervention actions were being undertaken by the professional moderator, they did not have to work to address or minimize potential risk.

Excerpt 3 (email by a professional moderator)

1. Hey (user1 in-crisis),
2. Sounds like you're really struggling at the moment so I just
3. wanted to let you know you're not alone. It really is a time of
4. change and uncertainty, and so many people are impacted quite
5. heavily at the moment. Do you have someone you can speak to
6. right now? Are you worried about your immediate safety?
7. As you know we aren't a crisis service but you can call any of the
8. following services for immediate support:
9. [Organization name and number redacted]
10. [Organization name and number redacted]
11. [Organization name and number redacted]
12. If in immediate danger: [number redacted]
13. Let us know if you're safe for now, and I hope you keep posting
14. on the forums tonight and get some support.
15. Warmest regards,
16. Moderator

Excerpt 3 is the professional moderator's off-forum private email that was sent to the in-crisis user, as signaled in the forum thread (see

Excerpt 2). Across the data corpus it was common for the professional moderator to initially post to in-crisis users in the forum, and then send an email. In a small number of instances in the data corpus, the professional moderator reversed this process by first sending a private email to the in-crisis user, and then posting publicly in the forum. In this excerpt, the moderator aligns with the subjective risk of STBs, and asks two polar questions of the in at-risk user to ascertain their level of safety (Excerpt 3: lines 5-6). In the data corpus, the professional moderators rarely ask questions of users in forum posts, and in the instances where they do ask questions, it is to gain more information about the level of safety and risk that the user is experiencing so to shape the nature of the safety message.

Excerpt 4 (email by a regularly contributing forum user)

1. Hi moderator, I am safe, my ex husband has temporarily moved
2. back in to monitor me

Excerpt 4 is the in-crisis user's off-forum private email reply that was sent to the professional moderator. In this email reply the in-crisis user advises that they were safe as they had someone with them to monitor them (Excerpt 4: line 1). As the user was able to confirm their safety, it completes the interaction from the perspective of the professional moderator, with no further action being required on their part to reduce risk and maximize safety. We note in this instance the moderator sends a brief one-line email to the forum user that acknowledges the update of the user and then ends the interaction. This

was not always the case across the data corpus, with some moderators not responding via email or forum post once the safety of a user was ascertained.

Extracts 1-4 display a safety transforming action. It illustrates a pattern of interaction that professional moderators use to keep users safe online. Here, a professional moderator enters a forum thread when a forum user has heightened suicidal desire to propose a safety action via a forum post and emails.

6.1.6.2. Interaction 2

This interaction opens with a troubles-telling post from a regularly contributing forum user. The sequence is made up of 15 forum posts from a forum thread of 38 forum posts. The posts are made by two professional moderators, two experienced forum users, and a regularly contributing forum user who is presenting at risk. Excerpts 5, 6, 7, and 8 are from this forum thread and show the pattern of interaction for keeping forum users safe. Excerpt 5 is posted by a forum user who is struggling with suicidal thoughts. Excerpt 6 is a reply by an experienced user to the in-crisis user. Excerpt 7 is the forum post by the professional moderator, and Excerpt 8 is the forum post reply by the in-crisis user.

Excerpt 5 (forum post by a regularly contributing forum user)

1. Seriously what's the point

In Excerpt 5, a regularly contributing forum user makes an ambiguous post. However, as they are a regular contributor, they are familiar with how opening posts usually include a user telling their troubles. It may appear unclear what the forum user is referring to when they question 'what's the point' (Excerpt 5: line 1), but regular and experienced contributors can see it differently. For example, this user could be questioning 'what's the point' of working, which could carry very different risk implications to posing the question of 'what's the point' of living. The forum post response by an experienced user could serve to resolve the ambiguity of the original post. Their responding post may trigger concern for the regularly contributing forum user, as well as for the other forum users.

Excerpt 6 (forum post by an experienced forum user)

1. I'm happy to see you @(user2 in-crisis).
2. I know you can't see any point at the moment. But you are worthy
3. of a good life (everyone is)…. and things will get better if you can
4. just hang on.
5. @Moderator

In Excerpt 6, an experienced forum user responds to the in-crisis user presented in Excerpt 5. This post confirms some of the ambiguity. The experienced forum user provides relational affiliation by stating that they are happy to see the user. Their response displays empathy and endorses the stance of the in-crisis user, while also providing support and encouragement to 'hang on' as 'things will get better' (Excerpt 6: lines 3-4). In this post, the experienced forum user ends their post by 'tagging in'

a moderator, which alerts a professional moderator that this conversation may require their attention and intervention (Excerpt 6: line 5). This shows a dual understanding on the part of the experienced forum user. It indicates to user2 that they recognize the risks in their opening post and links between this and their previous in-crisis posts. It also indicates an understanding by the experienced forum user that they work collaboratively with the professional moderators when it comes to identifying and minimizing risk in the online space. We also note that in all instances where the '@Moderator' tag was used in the data corpus, reference to mental health issues or concerns were stated.

Excerpt 7 (forum post by a professional moderator)

1. Hi @(user2 in-crisis) I can hear things are really tough right now.
2. Do you think it might be time to reach out to one of the following
3. helplines?
4. [Organization name and number redacted]
5. [Organization name and number redacted]

In Excerpt 7, a professional moderator enters the forum thread, and therefore the conversation in response to the '@Moderator' tag. The professional moderator aligns to the subjective risk of STBs, by reflecting to user2 that things sound tough and suggesting some helplines that may be useful (Excerpt 7: lines 1-5). In this post the professional moderator adopted some of the users posted content and incorporated it into their response, to show their understanding of the user's experience, thus framing their interaction as a safety activity. Consequently, the professional moderator did not attempt to relationally align with the forum

user. As this post was publicly visible, all forum users could see it and therefore know that a moderator was working to ensure the safety of the in-crisis user, relieving users of the responsibility of risk minimization.

Excerpt 8 (forum post by a regularly contributing forum user)

1. Eh...I'm in emergency getting medical attention. Really don't see
2. the point but eh.

In Excerpt 8, the in-crisis user posts a forum response to the professional moderator, advising that they are receiving medical attention, and they maintain their initial stance of not seeing the point (Excerpt 8: lines 1-2). We note that the in-crisis user continued to post in the forum thread advising the other forum users that they were going to be ok. As the in-crisis user advised that they were receiving medical attention, combined with their further posts to the other forum users, the professional moderator took no further action to engage with the user. This was due to the primary moderator activity of offering a safety action was completed, further demonstrating that professional moderators structurally align with forum users, rather than relationally affiliate. Therefore, once the structure no longer requires a response, the professional moderators disengage. This differs from relational affiliation, which may require more on the part of the professional moderators, such as a pro-social acknowledgment of, and support for, a user's sense of safety.

Extracts 5-8 display a safety transforming action. It illustrates how an elegant, complex, but imperfect troubles-telling post of an in-crisis user

can be managed using the regular safety pattern of professional moderators. Here, an in-crisis forum user shares their troubles (albeit briefly and ambiguously), causing another other forum user to infer that a heightened suicidal desire may be present, bringing about the tagging in of a moderator. The professional moderator thus enters the complex and imperfect interaction to propose a safety action, resulting in the in-crisis user moving away from risk and towards safety.

6.1.6.3. Interaction 3

This interaction opens with a troubles-telling post from a new/occasional forum user who is presenting at risk. The sequence comes a forum thread of 9 posts and includes one email. There were four new/occasional forum users (one of which is the in-crisis user), two experienced forum users, and two professional moderators who contributed the posts and email. Excerpts 9–15 are from this forum thread and show the intersubjectivity of keeping forum users safe online. Excerpt 9 is the first post in the forum thread and was posted by a forum user struggling with suicidal thoughts and desires. Excerpt 10 is a reply by an experienced forum user to the user in Excerpt 9, who tags in a professional moderator for their support. Excerpts 11 and 12 are the forum and email responses of the professional moderator, and Excerpt 13 is the response of the in-crisis user. Excerpts 14 and 15 are responses of an occasional and an experienced forum user who post in support of the in-crisis user.

Excerpt 9 (forum post by a new/occasional forum user)

1. Apart from the trauma it would cause my family, I really can't see
2. the point of even trying anymore. I am not looking forward to my
3. future, my past is a source of awful trauma and anxiety to me,
4. and I can't even find a reason to get out of bed right now,
5. apart from the feed the dog. Letting the dog down is yet another
6. source of anxiety. I just want to curl up in a ball and die. I have
7. everything planned and I think I'm just waiting for one more bad
8. thing to happen to justify it to myself. I cannot bring myself to talk
9. to someone about it face to face, and I don't know why.

In Excerpt 9, a new/occasional forum user discusses their anxiety and heightened state of suicidal desire, while signaling that they have both a plan and an increasing intent to end their life (Excerpt 9: lines 6 – 8). Given this is the users first post, we note the absence of social connectedness as the user does not offer a greeting or self-introduction. In this excerpt the forum user does not explicitly mention suicide, which was common across the data corpus, rather it is implied. This excerpt is a deviant example as across the data corpus it was not common for forum users to infer or explicitly state that they had a suicide plan nor for them to indicate their readiness to activate their plan. While this forum user included reference to why they were discussing their concerns online, possibly to give context as to why they were making their post on the forum, this was not common across the data.

Excerpt 10 (forum post by an experienced forum user)

1. Hi, (user3 in-crisis), and welcome. I'm glad you've reached out
2. to the forums, as that shows some spark of hope. Many people
3. here can relate and understand what you're going through. I'm
4. sorry to hear you've had such trauma in your life. I'm concerned
5. that you might not have enough professional support at the
6. moment for your severe depression...can I ask if you are on any

7. medication for it, or seeing a counsellor? You say you can't talk
8. about your SI (suicidal ideation) face-to face, which makes it
9. hard. Is it easier to write about it, as you have done here? That
10. way you could use the [Names and contact details of crisis
11. services redacted] would that be easier than face to face? Thank
12. you for posting here. Please stay safe, (@user3 in-crisis). I'm
13. also going to call a @Moderator, as I'm concerned about you.

In Excerpt 10, an experienced forum user posts in response to 'user3 in-crisis' in Excerpt 9. The posting forum user begins their post by focusing on social connectedness, which is evident through the words of welcome; and acknowledgement of the forum user being new to the forum community. The experienced forum user expresses concern for the in-crisis user and encourages them to stay safe, which occurs in approximately half of the posts in the data corpus. They point the in-crisis user to external services (Excerpt 10: lines 10-11), while also bringing attention to their action of calling on a professional moderator, which occurs only one other time in the data corpus (Excerpt 10: line 13: "I'm also going to call a @Moderator, as I am concerned about you"). By tagging in a professional moderator, the posting forum user signals that a different level of support may be required. This indicates that while forum users can become skilled at sharing from their own experiences, asking questions, and pointing forum users to both internal and external sources of support, they still want or require the services of professional moderators when it comes to moments of heightened suicidal desire that may have life and death consequences.

The posting forum user in this excerpt was an experienced forum user, meaning that the forum organization identified them as a forum user who had made numerous posts and demonstrated an awareness of their rights and obligations as a forum user. These rights and obligations refer to each user's right to access a safe and supportive environment, that is coupled with the responsibility to offer support to other forum users, to ensure the safety of the forum. Tasks associated with responsibility include reaching out to forum users whose posts have not yet received a response or acting as the additional 'eyes and ears' of the professional moderators, alerting them to posts where risk intervention and minimization may be needed. The post in Excerpt 10 is followed by the professional moderator post displayed in Excerpt 11.

Excerpt 11 (forum post by a professional moderator)

1. Hey there (user3 at-risk),
2. I'm the moderator on shift. I'm so sorry to hear that you are in so
3. much pain and don't feel you have anything to look forward to. I
4. can hear how hard it is to speak about this, which is why it is so
5. brave that you have reached out here. I am going to send you an
6. email to check in with you as I'm worried about you

In Excerpt 11, the professional moderator posts and contributes to the thread, and therefore, enters the conversation as result of being tagged in (alerted) by the experienced forum user in Excerpt 10. The professional moderator begins their post by introducing themselves, which acknowledges that the in-crisis user is new to the forum community. They reflect the issues stated by the user, signaling that despite not previously posting in the conversation, they are 'up-to-date' with user's concerns and

current state of risk. The professional moderator then advises of the worry they feel for the user, as well the next steps they are going to take (Excerpt 11: lines 5-6: "I am going to send you an email to check in with you as I'm worried about you"). The post includes low level relational affiliation which does not occur in all posts to in-crisis users. It is for safety reasons that we suspect that professional moderators include low level affiliation in their posts to new/occasional forum users. This is due to new/occasional users potentially not having formed connections with other users, or perhaps, them not fully understanding how support is constructed on the forum. In this excerpt, like Excerpt 2, by notifying all users that a professional moderator was working to ensure the safety of the at-risk forum user, it relieved the other forum users of this responsibility and ensured that the moderator was balancing their dual focus on individual and wider forum community need.

Excerpt 12 (email sent by a professional moderator to user3)

Hey there (user3),
I'm really sorry to hear that things are so difficult for you at the
moment. You've shown a lot of strength in coming to the forums
and seeking help. It's really important to talk about how you're
feeling if you're having thoughts of suicide like this.
Do you have someone you can speak to right now? Are you
worried about your immediate safety?
Unfortunately, the Forums aren't a counselling or crisis service,
however you can contact any of the following services for
immediate support. [Organization name and number redacted] if
it's hard to speak face to face right now.
[Organization name and number redacted]
You don't deserve to go through this alone. For lots of people who
experience thoughts of suicide, they can find it helpful to put
together a safety plan. We really encourage you to give it a
go here [weblink redacted]. You might also like to have a read of
this resource on coping with thoughts of suicide [weblink

redacted]. You've shown great courage in reaching out for help & I hope you continue to do so. You're more than welcome to continue to post in the forums. However if you're concerned about your safety, it's important to contact one of the numbers above or call [number redacted] in an emergency.
Please take care of yourself and let us know if you're safe for now,
Warmly,
Moderator

Excerpt 12 is the professional moderator's off-forum private email to the in-crisis forum user, as signaled in the forum thread (see Excerpt 11). Across the data corpus it was common for the professional moderator to initially post to the in-crisis users in the forum, and then send an email. In this excerpt, we can see that the professional moderator asks questions of the in-crisis user to ascertain their level of safety and the imminency of risk. In the data corpus, the professional moderators rarely ask questions of users in their posts, and in the instances where they do ask questions, it is to gain more information about the level of safety and risk that the user was experiencing. When considering the email data, professional moderators, do ask more questions of in-crisis users, however, again these questions are focused on gaining information about safety and risk. Therefore, while more content is shared in this email excerpt than in the associated forum threads, the focus of the professional moderator is less on aligning to the in-crisis user relationally as an individual, and more on aligning to the safety of the user and the presenting risk.

Excerpt 13 (forum post of a new/occasional forum user)

1. Thanks all. It is serious. I'm not going to lie. I just feel low right

now, instead of suicidal, but I know the dip is going to come back again at some point soon, and that's when things get really scary. I have an appointment for a care plan on Thursday, but worried I won't make it that far. It's weird, because I have felt much worse in the past, but not so unsafe. I think it's the quick swing to bad. That is new for me.

Excerpt 13 is the in-crisis forum users' forum response, and it is addressed to all users in the forum thread. The in-crisis forum user advises that the level of risk has shifted from suicidal to feeling low, indicating that they are feeling safer than they were, and that they have an appointment for a care plan on Thursday (Excerpt 13: lines 1-5). This forum user did not respond to the professional moderator's email, which was a common trend across the data corpus, with only 20% of forum users responding to the risk-focused emails of the professional moderators.

The forum user's post indicates that the state of heighted suicidal desire has passed, and they are no longer unsafe. This means that there is no further action required by the professional moderator, with the moderator not posting a response to the forum user on the forum. The absence of a professional moderator response further reflects the structural alignment of moderators rather than the affective affiliation. This occurs as the role of moderators is to initiate a safety sequence of identifying risk and working to minimize it. Therefore, when risk is no longer present, professional moderators are not compelled to act or engage.

Excerpt 14 (forum post of an experienced forum user)

1. [text omitted] Have you tried any of the phone services
2. @username has suggested?
3. Since you are still feeling like you may slide down it could be
4. good to actually talk to someone about it and not face to face.
5. Hope you can reach out like you have here.

Excerpt 15 (forum post of an occasional forum user)

1. [text omitted] You are not alone. I've survived the same chaos,
2. I know you can do the same. You just need professional support
3. [text omitted]

In Excerpts 14 and 15, an experienced forum user and an occasional forum user post responses to the in-crisis forum user in Excerpt 13, following the posts of the moderator and the confirmation of decreased risk by the in-crisis user. These occasional and experienced users are demonstrating that once a safety transformation activity is introduced by a professional moderator, forum users can assist with the safety redirection of an in-crisis forum user (Excerpt 14: line 1: "Have you tried any of the phone services?). They do this by aligning their posts to the safety actions initiated by the professional moderator, reducing their relational affiliation, and focusing it on the safety transforming action. Therefore, encouraging the in-crisis forum user to reach out for support external to the forum (Excerpt 15: line 2: "You just need professional support") as per the moderator's email. Thus, forum users co-construct intersubjective safety for in-crisis forum users and the wider community. They do this by noticing the actions of the moderators that seek to transform 'risk' talk into 'safety' talk and supporting these actions by the

words they choose to post to the in-crisis user. In turn, the professional moderators monitor these collaborative user contributions, in terms of how they are received by in-crisis users.

In summary, professional moderators follow a pattern in their work of ensuring the safety of online forums. This pattern seeks to transform the 'risk talk' of in-crisis forum users to 'safety talk' for the benefit of those in-crisis and the wider forum community. This means that professional moderators hold a dual risk and safety focus that seeks to balance individual and community safety needs. To achieve this, professional moderators enter forum threads at times of heightened suicidal desire and propose an immediate safety action, regardless of whether the forum user is a new/occasional, regularly contributing, or experienced user. The safety-focused actions of the professional moderators can be supported or co-constructed by the other forum users and suggests that safety may be an intersubjective concept that is collaboratively managed in the online space.

6.1.7. Discussion

The current study contributes to the ongoing discussion over whether online forums are safe or unsafe spaces for individuals. We suggest that online mental health forums are elegant, complex, and imperfect public spaces for risk presentations to occur (Jefferson, 1988). Adding to this complexity, is the assertion that online mental health forums are not crisis services, and therefore, not suicide intervention

spaces. However, as this research demonstrates, in instances of heightened suicidal desire, online mental health forums where professional forum moderators are present, do offer interventions that can move in-crisis users closer to safety, and therefore, engage in suicide intervention work.

Professional moderators are present to keep the online space safe (Kendal et al., 2017), by bringing order to messy (crisis) situations, requiring them to maintain a concurrent safety and risk focus. Moderators can detect a heightened state of suicidal desire in a user's post, resulting in the initiation of a safety pattern to keep users safe. This pattern consists of moderators entering conversations at critical moments (Perowne & Gutman, 2022), to transform the conversation from subjective risk to intersubjective safety. In this process, the professional moderator aligns to the risk presentation, which often occurs with either low relational affiliation or no relational affiliation at all (Jefferson et al., 2015; Steensig, 2019). This means they may not explicitly provide empathetic responses or endorse the stance of the in-crisis user (Steensig, 2019). Rather, the professional moderators will demonstrate an understanding of the forum user's experience and focus on the presenting risk by asking safety related questions and making suggestions targeted at transforming risk into safety actions. In essence, professional moderators co-construct their online interactions with forum users, by incorporating some of the content of a forum user's post within their own response to the forum

user; however, their interactions reflect a safety rather than a relational activity.

A unexpected finding from this study was that professional moderators can specifically focus on risk presentations of forum users, because the other-forum users attend to the relational affiliation needs of in-crisis users (Jefferson, 1988). Simply put, when forum users relationally affiliate, professional moderators do not need to, instead they can align with the presenting risk to intervene and transform it. A possible explanation for this finding is that professional moderators and forum users work collaboratively, with each party attending to different and complementary user needs, to ensure the minimization of risk and the maintenance of safety on the forum. This means that professional moderator and forum user collaboration and engagement, make it possible for both risk and safety to co-exist on the forum; providing an example of lived experience of people-helping and lived experience of mental unwellness working together to keep users safe. Forum users in-crisis can talk of their suicidality and other-forum users can respond with practical support to keep them safe. This was an unexpected finding, as there is little research available that has directly explored the interactions between professional moderators and forum users to indicate that collaboration of this degree was possible, and with the impact that is suggested by this study.

Through understanding how the professional moderator role works in collaboration with the actions of forum users, it becomes clear just how

highly skilled the professional moderator role is (Perowne & Gutman, 2022), with the skills of the moderators being constructed for the moment of need. Professional moderators ensure the safety of the forum by undertaking tasks that must be done (Webb et al., 2008), and yet cannot be completed by the forum users (Smith-Merry et al., 2019). These actions include identifying and ascertaining risk and taking responsibility for the referral to the most appropriate external crisis services. Working in partnership with forum users is a challenging and unusual aspect of the professional moderator role, as forum users are supporting their peers while also balancing their own mental health concerns. Therein lays the complexity for professional moderators when it comes to balancing the safety of all forum users. Much like the work of peer support who work alongside qualified professionals in face-to-face settings (White et al., 2020), there is scope for role confusion and a sense of undervaluing of the skills that both professionals and peers bring to the work (Shalaby & Agyapong, 2020). However, in the online space, forum users (peers) and professional moderators appear to be able to support each other's roles in ways that may not be achieved in person. More research is needed to understand how forum users and professional moderators work together to provide, often, life-saving support.

While our own previous research found that professional moderators wished they could be stepping in more to help crisis-users (Perry et al., 2022), the examination of forum posts and emails showed that professional moderators already do a lot to keep the online space safe. It

is possible that professional moderators are not cognizant of how 'highly skilled' (Perowne & Gutman, 2022), and sophisticated their work in the online space is. For these reasons, professional moderators can be assured that their current practices are effective in keeping forum users in crisis safe. Furthermore, professional moderators can be confident that they do not need to be 'everything to everyone' as by holding back on some of their skills, they provide space for other-forum users to step forward and to contribute. However, despite this, it still may be possible for professional moderators to use more of their skills. We posit that it could be in the private spaces, such as emails, where professional moderators could be 'stepping in more' to assist crisis-users during moments of heightened suicidal desire.

As online mental health forums have been in operation form some time now, with individuals routinely turning to these online spaces (Pretorius et al., 2019), to talk about their troubles and receive support, more research is needed to more fully understand the richness of opportunity afforded by online forums. This includes identifying whether these research findings are unique to mental health forums where professional moderators are present, and whether moderators of these forums need to be qualified health professionals. Future research should include practice-based research that further investigates the interactions and collaborations that occur between professional moderators and forum users to achieve safety in these online spaces. Research is also needed to examine how professional moderators speak online, as there appears to

be some modelling and copying of professional moderator skills by forum users, which requires closer attention. Furthermore, there are opportunities for longitudinal research that follows specific forum users over time to examine if and how their engagement with other-users and professional moderators changes. When considering the clinical implications of the findings of this study, future research could also examine whether we are seeing different and better engagement online with regards to mental health support, than what can be achieved in person.

The study has several strengths and limitations. A strength of this study includes the large data set of 34 threads and associated emails between moderators and users in crisis. Access to emails between in-crisis forum users and professional moderators afforded a rare glimpse into the private interactions between forum users and professional moderators that can occur away from the publicly accessible forum. Additionally, the data spans a 12-month period, and therefore includes traditional peaks in suicidality (Hofstra et al., 2018), such as Easter and the Christmas holiday season. Furthermore, as this is the first study to offer an in-situ exploration of how moderators work to keep users safe, it makes an original contribution to the CA literature regarding troubles telling and the complexities of ensuring safety in online spaces.

Several limitations of this study must be acknowledged, such as the research data coming from only one data site, making the findings difficult to generalize to other mental health forums, or to forums where

professional moderators are not present. As the email data was sourced by the partnering forum organization there was opportunity for selection bias on the part of the forum organization, to ensure that only data that presented the forum in the best light was shared. Finally, as the data corpus comes from an online mental health forum based in an English-speaking country, which is likely to reflect the Westernized views of suicide, the findings may not be applicable to forums of non-English speaking countries that do not hold Westernized views of suicide.

6.1.8. Conclusion

This study demonstrates that professional moderators use a regular pattern of interaction to transform 'risk-talk' into 'safety-talk' to ensure the safety of in-crisis forum users and the wider forum community. This is achieved through professional moderators and users working collaboratively and attending to different user needs, to minimize risk and maximize safety online. Additional research is needed to more fully understand the intersubjectivity of professional moderators and forum users online, in terms of how collaboration occurs, and what may be possible in the future. Furthermore, while professional moderators may want to be able to use more of their skills to help in-crisis forum users, we posit that their current practices are keeping users safe, and potentially highlights an underappreciation of the highly sophisticated work of professional moderators. That is not to say that additional benefit would not be gained by permitting professional moderators to use more of their

skills online, with private spaces, such as email, being one possible avenue for these skills to be utilised more. Our findings contribute to the growing body of literature that encourages practice-based research to further innovate online support for those in crisis.

6.2. Links and Implications

The findings from this study showed that the practices of professional moderators are highly sophisticated, which sees them concurrently manage risk and safety, so that both can exist on the forum. The moderators achieve this through working collaboratively with forum users to ensure the safety of those forum users experiencing a heightened state of suicidal desire. In so doing, the safety of the forum community and the online space is also upheld. To illustrate this point, moderators align with, or focus on, the presenting risk, thus transforming risk presentations into safety actions (or recommendations) intended to move the at-risk-user closer to safety. Moderators are able to have a risk focus due to the other-forum users providing relational affiliation, or in other words, tending to the personable needs so that moderators do not need to attend to these needs.

The implications of these findings are important given the Study Two findings where participants felt the tension and constraint of not being able to use all of their skills, and thus they wanted to be able to do more to support at-risk forum users. However, the present findings suggest that allowing moderators to do more in their role may have an

impact on the positive collaborations that currently occur between moderators and the other-forum users. Put simply, moderators doing more may take away from the other-forum users the experience, and the associated benefits, of supporting a peer to move away from risk and closer towards safety. For this reason, it may not be a case of moderators doing more in their role, but rather they are supported to understand what they are already achieving in complex and masterful ways.

CHAPTER 7: DISCUSSION AND CONCLUSIONS

7. Introduction

This chapter provides an overall general discussion that integrates the most significant findings from each study and the consequent contributions that this program of research has made. The chapter concludes by offering suggestions for future research and outlining the limitations of the program of research.

7.1. Significant Findings of the Program of Research

The overarching aim of this Thesis was to gain a better understanding of what professional moderators of online mental health forums do to keep forum users experiencing STBs safe. It sought to address the gap in the literature regarding how forum users and professional moderators communicate and enact safety and support practices for STBs presentations. A beginning step was to understand what professional moderators do in the online space, then what challenges they face, and finally how they work with forum users who are experiencing a heightened sense of suicide desire. A significant contribution of this research is that it has examined how suicide prevention and intervention unfolds in real-time in online mental health forums where professional moderators are present. It has helped us to better understand how online spaces can in fact be safe places for forum users to talk about their STBs presentations.

The most significant finding associated with Study One was that the professionals who are tasked with keeping individuals experiencing STBs presentations safe online have not been the focus of online suicide prevention and intervention research (Perry et al., 2021). In Study Two, findings noted that despite the personal and professional challenges of working with STBs presentations, professional moderators want to work with this population (Perry et al., 2022). Moreover they were eager to do more online to keep at-risk forum users safe (Perry et al., 2022). In Study Three, the practices of professional moderators were explicated to explore whether there was scope and in fact a need for professional moderators to do more to keep forum users experiencing STBs safe online. The key findings were that safety is not the just the purview of professional moderators, rather it is treated as a collective and collaborative responsibility, with professional moderators and forum users working together to achieve safety online (Perry et al., 2023).

An implication of this finding for viewers and other people on the forum is that they are potentially contributing more to the forum community and making more of a difference to the experiences of others, than they may realize. A by-product of forum users working in collaboration with professional moderators, is that they can learn the skills associated with moving away from risk towards safety that they can implement with themselves and with other forum users. In short, forum users are much like moderators in-training who learn from shadow observing, in that forum users learn potentially lifesaving skills from their

observations of, and engagements with, online mental health forums. Forum users are able to observe the interactions associated with moving at-risk forum users away from risk and closer to safety, and then emulate this process themselves should they encounter another at-risk user on the forum at a later time. This is an area that requires further research and exploration in the future to better understand the change that can occur for forum users as a result of what they observe online and what they post to other forum-users who present at-risk.

A further implication of these findings for professional moderators is it highlights that they may be achieving more than they realize when it comes to keeping forum users safe. For this reason, forum moderators may not need to do more to keep forum users safe despite wanting to. These findings suggest that professional moderators may need support through training materials or associated literature to understand the impact and influence of their work more fully in the online space, not just for the forum users they directly engage with, but also the forum users who observe their interactions. What is meant by this is that professional moderators constantly model for forum users how to offer support to those in crisis. Forum users observe these interactions and can later apply the strategies to themselves or with other forums users they seek to support. Therefore, these research findings help to demonstrate the work of professional moderators and to reassure and affirm them for their current practices which are doing a lot to keep forum users safe online.

7.2. Contributions to Move the Field Forward

At present online suicide prevention and intervention research appears to be mirroring research that has focused on the offline context whereby at-risk individuals are the population of interest, with the phenomenon of interest being better identification of psychosocial and intra-individual risk factors. That is, online research has generally focused on user characteristics with the aim to identify who goes online for support (Mok et al., 2016), and user perceived benefits or risks of online support (Lamont-Mills et al., 2022). This general risk focus has been argued to assist in being able to better predict which individuals are more likely to go on to make an attempt on their life (Klonsky et al., 2017). It has long been thought that the ability to accurately predict which individuals may move from ideation to attempt will reduce suicide rates (Paris, 2021). However, as Franklin et al. (2017) argue, after 50 years of examining intra-individual risk factors researchers are no closer to accurately making such predictions than when they first started. This focus on the at-risk individual is understandable; however, a continued focus on online user characteristics and risk factors in isolation from those who work with this risk, is unlikely to reduce the numbers of deaths by suicide at the rate that is needed.

In a similar vein, when seeking to identify the reasons why at-risk individuals do not reach out for much-needed professional support, research has tended to explore intrapersonal barriers such as shame and stigma (Dadašev et al., 2016; Kučukalić & Kučukalić, 2017), as well as

systems barriers like accessibility and affordability (Blattert et al., 2022). Interestingly, it would seem that practitioners have not been overly considered in terms of what role, if any, they may play in influencing whether at-risk individuals reach out for life-saving support. Given that focusing on at-risk user characteristics has not produced the desired results, it is perhaps timely to consider alternative perspectives to find these answers. An alternative perspective has typically meant the lived experience workforce, where individuals (peers) bring the expertise developed from their own mental health experiences to their engagements with others in need of support (McCosker, 2018). It is the believed that this lived experience is what equips peers to relate to those experiencing mental health challenges (Gillard et al., 2022). However, as highlighted by the findings of this program of research there is an additional voice of the lived experience of suicide that could be considered. To unpack this a reframing of what constitutes a lived experience of STBs and suicide is needed.

Lived experience is a term that has traditionally been attributed to individuals with a personal experience of suicide (Schlichthorst et al., 2020), or those bereaved by suicide (Robinson & Pond, 2019). Practitioners who work in the field of suicide prevention and intervention have not readily been considered to have a lived experience of suicide, regardless of their professional learnt experiences of suicide helping. This is despite the potential for these professional helping experiences to have a negative impact on practitioners in similar ways to those of individuals

with the traditional lived-experience of STBs (Malik et al., 2022), or those bereaved by suicide (Worden, 2018). For example, practitioners can experience a form of bereavement when a client they are supporting takes their own life, with some practitioners choosing to no longer work with this particular client population or to not work at all (Gutin, 2019; Jahn et al., 2016). Working with STBs presentations can take both a personal and professional toll on practitioners (Malik et al., 2022), and this is supported by Study Two findings, where professional moderators spoke of the sense of the unknown in terms of whether at-risk users were safe or if they had gone on to take their own life, and how the unknown could be difficult to sit with if it was not well managed by the practitioner (Perry et al., 2022).

This indicates that professional moderators, and thus practitioners, may offer an additional and alternative voice of lived experience, that being their learnt experience of professional helping, whereby their experience is of how at-risk forum users are supported to keep safe. This additional voice contributes another perspective of STBs that the suicide prevention and intervention field is yet to fully consider. Thus, an original contribution of this program of research is this highlighting of an additional voice of experience of STBs and suicide, and it includes the recommendation for the parameters of what constitutes lived experience be broadened, to include the lived experience of professional helping. Furthermore, it is important for future research to prioritize this additional voice of lived experience and answers the call to vastly increase the pool of experience and knowledge that could be drawn upon to move the

suicide prevention and intervention field forward and save lives (Briggs et al., 2017).

When considering the additional voice of lived experience, it appears that online research is similar to offline research, in that it has privileged the voices of at-risk individuals or those with lived experience of STBs as peers and has overlooked the voices of practitioners and the role they play in keeping such individuals safe. While this focus on at-risk individuals and those with lived-experience of STBs is understandable, the insufficient progress in reducing death by suicide rates has resulted in calls for a different research focus (O'Connor, 2021). What this meant is unclear however, researchers have tended to take this to mean a change from examining risk factors to understanding how at-risk individuals move from suicide-related thoughts to exhibiting suicidal behaviors (Klonsky et al., 2021). Thus, the research focus has remained on risk and how individuals are prevented from becoming at risk or at greater risk, rather than how those experiencing risk are kept safe. Such a reframe requires different ways of researching suicide prevention.

This program of study adopted such different ways. In relation to the overall design, one of the benefits of a mixed qualitative methods approach is it allows for the consideration and challenging of assumptions, and the consequent changing of thinking (Morse, 2016) that O'Connor (2021) has called for. This program of research has demonstrated that there is an opportunity for online research to learn from the offline context and move from focusing on online risk, user risk, and user characteristics,

to focusing on those who work with that risk, and how they work to keep forum users safe.

Given the findings of this program of research, an original and significant contribution of this work is showing how a pivot from focusing on risk and how people become at risk (or move closer to risk), to focusing on safety, and how people are kept safe, may help us understand suicide prevention and intervention better. This pivot first requires an understanding that risk and safety are two sides of the same coin so to speak (Oexle et al., 2019). Therefore, adopting a safety lens means looking at risk from another perspective, in order to gain a better understanding of risk (Breux et al., 2017). This begins with understanding that safety is a temporary and fluctuating state that individuals experiencing STBs continually cycle through. At varying points of this cycle individuals are closer to risk and at other points they are closer to safety (Brodsky et al., 2018). However, given the rapid cycling through risk that those experiencing STBs can experience, a focus on keeping safe is needed (Kivelä et al., 2022). This is especially so given that the knowledge of risk and the ability to make risk assessments are not sufficient in, and of themselves, to decrease the likelihood of suicide for those at-risk (Jabbarpour, 2016). This further supports the notion that practitioners need to have more than a focus on risk and risk factors when working to keep individuals safe (Jabbarpour, 2016).

A beginning point for considering safety in the online mental health forum context is to look at the people who are responsible for ensuring

this safety, as was the case with the second and third studies. This move from suicide risk as an intra individual phenomena to safety as a interactional and collaborative relationship, allowed for an understanding of safety online being co-constructed by the professional moderators and forum users to be gained (Perry et al., 2023). This collaborative partnership between professional moderators and forum users may be a unique feature of the online space, not just because peer support is more freely available but that it enables both risk and safety to co-exist on online mental health forums where STBs presentations occur.

In online contexts, safety is achieved by professional moderators performing unique functions of transforming risk presentations to safety actions, and they do this by holding a concurrent risk and safety focus (Perry et al., 2023). This dual focus requires moderators to simultaneously consider the individual at-risk forum user, as well as the safety of the wider community who may be negatively impacted by the presenting risk. However, the professional moderators do not operate alone when working to transform risk to safety, rather they work in collaboration with other forum users. This collaboration sees the moderators align with the presenting risk through displaying attentiveness and specifically focusing on the presenting risk, by asking questions to gain information about the degree of risk and providing directions to move them closer to safety. This aligning occurs at the structural level of the conversation and takes the form of an interactional sequence that is largely similar or routine, that forum users can become accustomed to, and thus, able to anticipate the

course the interaction will take (Etelämäki et al., 2021). Put simply, when working to achieve safety online, moderators can target the presenting risk by following pre-ordered steps or scripts, of which forum users can easily recognize and come to expect.

The role of the other forum users is to provide affiliation, which occurs at an affective level and is intended to portray an understanding of the at-risk forum user's stance or perspective (Lee & Tanaka, 2016). In this sense, shared knowledge and experience plays a central role in achieving relational affiliation to maintain relationships long-term, rather than the typical transactional nature of alignment interactions (Etelämäki et al., 2021). In the online context, the other forum users tend to the relational needs of an at-risk forum user by endorsing their current situation or perspective and sharing personal experience and advice (Perry et al., 2023). In doing so, they relieve the professional moderators of needing to relationally affiliate, so that the moderators can remain focused on moving the at-risk forum user closer to safety.

This does not mean that other forum users never align with risk or that professional moderators never relationally affiliate, rather that moderators gravitate to their clinical experience of risk management or their lived experience of professional helping, and thus, focus on moving forum users closer to safety (Perry et al., 2023). The other forum users also draw on their strengths which are their lived experiences of mental illness and use this to experience to offer affirmations, encouragement, and advice to the forum user at risk. The ability of moderators and forum

users to adopt positions to respond from, while also not being limited to these positions, reflects the collaborative and relational nature of online mental health forums, where the responsibility for keeping forum users safe is shared, rather than being the sole responsibility of practitioners. It also reflects what Jabbarpour (2016) describes as a culture of safety, where a system of safety exists to support clinicians in their provision of professional care.

A significant and original contribution of this program of research is it offers a lens into how suicide intervention and prevention practices unfold in real time online, where risk is not examined from the angle of a psycho-social and intra-individual phenomena, but from a lens that views safety through the interactions with others. This means that safety is seen as a concept that is not the sole responsibility or work of expert professionals, but rather is the result of the collaborative efforts of moderators who work in partnership with the communities of individuals they seek to serve. An important by-product of this collaboration is that it allows for both risk and safety to co-exist on the mental health forum, as it is appreciated that individuals will cycle through differing stages of safety, however, through their interactions with moderators and other forum users they can be helped to move closer to safety. These findings provide assurances to the suicide prevention and intervention field that online mental health forums where professional moderations operate can be, and often are, safe spaces for individuals to discuss their STBs presentations.

Another original contribution of this program of research is the identification of professional moderators being a unique professional population who are willing work with STBs presentations, and they want to be able to do more to support at-risk forum users. This is in contrast to offline research that suggests practitioners are often reluctant to engage with individuals experiencing STBs (Levi-Belz et al., 2020), due to their training not equipping them to work with high-risk presentations (Bellairs-Walsh et al., 2021), the associated legal risks of working with this population (Sandford et al., 2021), and a sense of hopelessness that can be associated with working with suicidality (Levi-Belz et al., 2020). Hopelessness can pertain to the long-term recovery journey associated with managing suicidality, that can cause practitioners to feel they must take a central and ongoing role to prevent harm (Peterson & Collings, 2015). These feelings of hopelessness are often exasperated when a client dies by suicide (Malik et al., 2022).

Some of the above challenges identified by offline practitioners were also felt by online practitioners, as the professional moderators felt deeply impacted by their engagement with forum users experiencing STBs, both in terms of the intensity of the content shared and the volume of at-risk forum users presenting at one time (Perry et al., 2022). Feelings of hopelessness were also a possibility given the unknown elements of moderator work, in terms of not knowing the identity of the forum user, not knowing if forum users were responding honestly to questions about risk, and whether the forum user had followed moderator guidance to get

support external to the online forum. However, despite this, participants saw value in their online work, they wanted to work with this population, and importantly do more to keep these forum users safe (Perry et al., 2022).

The value the professional moderators saw in their role was reflected in the satisfaction they reported when observing forum users supporting one another. This was especially so when forum users offering support were themselves struggling, however, despite these struggles they were able to use their experiences to help other forum users, which in turn helped them to keep safe. This concept of helping others as a means of helping yourself is a central tenant of peer support (Barr et al., 2022), and was an aspect that the moderators felt satisfaction in seeing. This was due to their presence as moderators enabling peer support interactions to occur amongst the assured backdrop of safety. Put simply, forum users are enabled to support others as additional support from moderators is available when and as needed.

A further aspect that contributed to the professional moderators seeing value in their work was when at-risk forum users later returned to the online forum to thank the moderators for their lifesaving support. Interestingly, messages such as these from forum users were encouraging for not just the moderators who had directly helped the at-risk forum user, but for the whole team of moderators. This is possibly due to online moderation being a team endeavor, where both the responsibilities and successes of keeping forum users safe are shared, reflecting a culture of

safety for forum users and moderators (Jabbarpour, 2016). This sharing of responsibility and success may be the reason for moderators wanting to work with STBs presentations, in that they are not alone in keeping forum users struggling with STBs presentations safe. Moderators work collaboratively with not only their colleagues but also other forum users to achieve safety online, which is dissimilar to many offline practitioners who work independently to manage risk, and thus solely carry the burden of this responsibility too.

As previously outlined, a culture of safety is needed when it comes to managing STBs presentations, and naturally includes the safety management of clients or forum users. However, a culture of safety should also take into consideration the safety of practitioners (Jabbarpour, 2016). For this reason, the findings from this program suggest that there may be opportunities for offline practitioners to learn from the practices of online practitioners, and to consider adapting some of these practices to the offline context. Offline practitioners working collaboratively in ways where safety is co-constructed with clients and colleagues, could help to ensure the safety of not only clients, but also the well-being of practitioners. This could potentially reduce some of the burden of responsibility, and the sense of hopelessness experienced by offline practitioners as a result of working with this specialist population, ultimately enhancing the field of suicide prevention and intervention, and saving lives.

7.3. Suggestions for Future Research

The current findings offer a first analysis of the experiences and practices of professional moderators, and thus establishes a foundation for more studies to be built upon. To ensure continued momentum and progression, several suggestions for future research are offered. The first suggestion pertains to the need for more in-situ research to be undertaken to establish a systematic and credible base of knowledge. Future research should initially seek to implement similar methodologies and compare findings, to confirm their accuracy and promote greater confidence in these findings (Plucker & Makel, 2021). Once this has been achieved, further research should aim to gain both a deeper and broader understanding of the experiences and practices of professional moderators. A better understanding of how risk and safety co-exist in fluctuating states on online mental health forums is also required, and may consist of following at-risk forum users as they rapidly cycle from risk and towards safety while present on the forum. The information gained would be useful to inform the way that forums are set up, operate, and enable other forum users to respond to those at-risk.

It is imagined that in time once more data is gathered, researchers could re-engage with professional moderators to share excerpts of forum posts experiencing STBs online being supported by professional moderators. The moderators could be asked how they decide what to say to which forum user and when. Furthermore, forum moderators should also be asked about the instances when their actions or interventions with

forum users experiencing STBs do not go as intended. The data gained from the future research suggested here would help to make the thinking processes of forum moderators more transparent and could assist in the development of training materials for new professional moderators. This is likely to include times when, despite best efforts to move an at-risk user closer to safety, the forum user is resistant to taking actions to move them closer to safety. Research of this nature could be a further step in investigating whether a therapeutic alliance develops between professional moderators and forum users.

A further suggestion for future suicide prevention and intervention research is to explore a pivot away from a focus on risk and user characteristics that have not produced the desired suicide reduction outcomes (Franklin et al., 2017), and a move towards a focus on safety. This pivot will require an appreciation of safety being a constantly fluctuating state that individuals continuously move in and out of (Brodsky et al., 2018). This is especially so for those experiencing chronic suicidality, where continually fluctuating degrees of risk occur (Denneson et al., 2020). Individuals who experience chronic suicidality can be attracted to online mental health forums due to the 24/7 access to support (Seward & Harris, 2016). The use of online services such as mental health forums is increasing and has been influenced by the recent Covid-19 pandemic where support become limited to what was available online (Biester et al., 2021). However, the current online-forum practice of redirecting at-risk presentations to external crisis services, may

represent missed opportunities to offer the type of support that is actually needed. This is especially so when viewed from a safety lens that perceives safety as being co-constructed in relationship with others (Brodsky et al., 2018) and when taking into account the needs of the forum user (Maple et al., 2020). This claim is supported by the desire of forum users who during times of being at-risk want to remain on the forum and be supported by the professional moderators (Perry et al., 2022). As this program of research shows, moderators also wish they could be doing more to support these forum users to be safe on the forums, rather than directing them to external sources (Perry et al., 2022). Future research could consider exploring possible alternatives to directing at-risk forum users to external crisis services. A potential starting point for mental health forum organizations and researchers may be asking professional moderators what specific support they would offer forum users experiencing STBs presentations, should they be permitted to do more than directing these forum users to external crisis services.

Additionally, careful consideration is needed as to how online mental health forums can feed into online service settings to help keep more people safe. This is particularly important in places where access to formal services is limited or where there are long wait times to access these services. This is likely to require involvement at a government policy level to make a pathway for formal service settings to engage in partnerships with online mental health organizations. Such partnerships would provide a wraparound 24-hour service to individuals with the

potential to relieve the pressures placed on in-person clinicians and ensure that clients have access to support between their therapy sessions. Organizations such as Togetherall (based in the UK) are partnering with government organizations and universities to provide specific populations access to online mental health forum. Research into the effectiveness of such partnerships requires closer examination, as may form a template for other online mental health organizations and offline formal services in the future.

The current research was interested in how professional moderators work with one specific challenging forum user presentation of STBs. However, there are other challenging forum user presentations that should also be investigated with the support of online mental health forum organizations. Some examples include trolling (negative online behaviors deliberately intended to upset others) (Navarro-Carrillo et al., 2021), and the interpersonal challenges often associated with borderline personality disorder, such as fluctuations between neediness and angry withdrawal (Beeney et al., 2018). Both of which can cause conflict on the forum community, potentially impacting on the safety of forum users and the online space (Saha et al., 2020). For this reason, how professional moderators engage with challenging forum user presentations other than STBs could be examined, analyzed, and potentially contrasted with STBs presentations. This would enable a broader understanding of moderator practices, in terms of whether similar approaches are, or could be, used across a range of similar challenging forum user presentations, and if so,

to what effect (Saha et al., 2020). Gaining this information would help online mental health forum organizations to highlight if there are any missed opportunities when it comes to selecting ways to respond to such presentations, and ensuring the safety of the forum users, the forum community, or the online space.

Future research is also needed that considers the additional voice of lived experience that was introduced by this program of research. This additional voice of lived experience of suicide helping offers a unique perspective in terms of what practitioners perceive works and what does not work when it comes to keeping at-risk individuals safe (Boukouvalas et al., 2020). More research is therefore needed that extensively examines the lived experience of professional helping of suicide prevention and intervention that provides space for the thoughts and knowledge of professionals to be heard and analyzed. At present, practitioners represent an untapped source of knowledge and experience that is yet to be mined (Wärdig et al., 2022). The insights that may be gained from this professional population are likely to play a key role in moving the suicide prevention and interventions field forward, to the benefit of those struggling from STBs and suicidality.

Future research of this nature may consist of interviews, focus groups, questionnaires, and well as the analysis of practical experiences in real time, such as those that occurred in this program of study. The researcher encourages other researchers to ensure that any future research includes both asking practitioners about their experiences, and

then reviewing their practices (Perry et al., 2023). This is not because practitioners are incapable of accurately reporting on their practices, but rather as indicated by the present findings, practitioners may not always be cognizant of the extent nor impact of their professional skills. Thus, limiting research to only asking practitioners about their practices may result in gaining only half the story of how these practitioners work to achieve moments of safety in online spaces.

Following on from the idea of more broadly understanding the experiences and practices of professional moderators, is for future research to investigate the sense of role satisfaction that was shared by the moderators of Study Two (Perry et al., 2022). Future studies could investigate which aspects of the role contribute to the sense of satisfaction reported by professional moderators, to help establish a more complete and balanced understanding of the moderator role. This information may be useful to online mental health forum organizations in attracting and recruiting practitioners to the online moderation role, and in generally raising the profile of online moderation work. As previously highlighted in this program of research, individuals are increasingly turning to the online space for support (Bucci et al., 2019; Marchant et al., 2017) and, the need for practitioners in the online context is thus likely to increase (Perry et al., 2020). For this reason, the work of online moderation must be more fully understood, with awareness of this type of mental health helping elevated, to ensure that there are sufficient numbers of

practitioners working in this capacity of making online spaces safe for forum users.

Future research could also investigate the induction and training of professional moderators. In Study One, the scoping review findings highlighted that while moderators received some form of training, no specific information regarding training content was provided in the included studies (Perry et al., 2021). In Study Two, the professional moderators shared that they received in-house training that consisted of shadow observing experienced professional moderators for a number of shifts until they were deemed ready to work independently (Perry et al., 2022). The potential problems associated with this form of training is that it is dependent on the skills and abilities of the experienced professional moderator on shift at the time of the training, as well as the nature of the posts that are encountered during the shadow shift. It may be possible for trainee moderators to encounter very few posts that contain risk whilst completing their shadow observing training. Furthermore, this form of training is likely to focus on the actions of the moderator and less on the broader interaction that is occurring between the moderator, the at-risk forum user, and the other forum users on the forum at the time who are also interacting on the forum thread. This means trainee moderators may not gain a full understanding, nor appreciation, of the influence their work has on keeping forum users safe in the moment of risk and in the future. For this reason, more research into the training and development of professional moderators is needed.

Furthermore, the findings from Study Two suggest that the suicide prevention and intervention field is unclear on what training professional moderators actually need, as well as the efficacy of such training in preparing moderators to feel equipped to work with as STBs presentations and ensure safety online. Identifying what training is provided and the efficacy of this training, would to help to ensure that moderators are fully equipped and confident in their ability to work collaboratively to keep those who go online for support safe (Perry et al., 2022). It would also provide further assurances to the suicide prevention and intervention field of how online mental health forums are made safe spaces for those experiencing STBs presentations. It is recommended that training consisting of shadow observing continues to be a part of new moderator training, however, there also needs to be a specific and set training curriculum which does not leave important training content such as working effectively with STBs presentations to the chance of these presentations occurring during shadow observing. This training curriculum should also include modules of learning focused on self-care when navigating high volumes of risk presentations on a daily basis, as well as strategies to cope with the unknown elements of working with anonymous forum users who can disengage from the interaction at any time, leaving professional moderators unsure of whether the forum user is safe. It is recommended that experienced professional moderators are included in the process of developing and testing a new training curriculum to ensure that it is fit for purpose, and more importantly includes a moderator voice.

Given that use of text-based support solutions such as online mental health forums and online apps are on the increase, and practitioners are needed to facilitate these services, it is timely for professional bodies to embrace the concept of therapeutic practices extending beyond the traditional in-person counselling setting. These professional bodies are also encouraged to recognize the work of professional moderators and other e-health practitioners and incorporate this form of practice into the number of hours practitioners must complete when applying for professional body membership. It is also recommended that professional bodies move to require all initial counsellor training programs to include content that specifically prepares practitioners to work in text-only or e-health contexts as well as face to face contexts.

Finally, professional bodies should be working in collaboration with the relevant government departments to commission research that is focused on counselling professionals working in online or text-based contexts. Such research findings would enable professional bodies to best support and regulate the professional practice of their members, to the benefit and safety of the clients they serve. This research would enable government departments to begin to bring together and connect the various components of the mental health sector for greater synergies and efficiencies within the mental health sector.

7.4. Limitations of the Program of Research

Like any program of research, this program of research has several limitations. The first being the methodological challenges that are associated with a mixed qualitative research design. Qualitative research can be exploratory in nature and is often utilized with areas that have not been studied in depth (Swedberg, 2020). Such studies reflect a tentative first analysis of a new topic, as was the case with this program of research. As an approach, qualitative research methodology is interested in producing knowledge about the experiences of individuals, to describe and understand the meanings that they attach to their encounters with others and their environment (Hamilton & Finley, 2019). This means the research data is focused on words rather than numbers (Clarke & Braun, 2013), and produces rich data that is both unique and difficult to replicate (Barrett & Twycross, 2018). As the analysis of qualitative data is influenced by the prior experiences, opinions, and judgments of researchers (Busetto et al., 2020), the research findings are often considered subjective, limited, and inconclusive (Swedberg, 2020). These limitations are further compounded by the inability of the qualitative research findings to be statistically significant (Bryman, 2017), and thus be generalized (Hays & McKibben, 2021). Furthermore, with qualitative research claims regarding causation cannot be made (Johnson et al., 2019).

As this program of research was comprised of three separate yet interconnected qualitative approaches, the aforementioned limitations of

qualitative research are present here. While this program of research provided new insights into the experiences and practices of professional moderators of online mental health forums, this new knowledge is still inconclusive, and the generalizability of findings unclear. For this reason it should be considered as a beginning step for future research comprised of both qualitative and quantitative approaches, which would allow for both a breadth and depth of findings beyond a tentative first analysis (Dawadi et al., 2021).

A second limitation of this program of research was that all three studies reflect Westernized views of suicide prevention and intervention. This occurred through the scoping review inclusion requirement of English-only literature (Perry et al., 2021), as well as via the semi-structured interviews with moderators in Study Two (Perry et al., 2022), and the analysis of professional moderators practices in Study Three (Perry et al., 2023). Moderators and practices represented online mental health forums where forum membership is restricted to Westernized countries. Such restrictions are not uncommon as many well-known online mental health forums restrict forum membership to the country where the online forum is based. By examining the professional experiences and practices of professional moderators from Westernized mental health forums, the Westernized views that have dominated suicide prevention and intervention literature have been further reproduced and reinforced (Eyetsemitan, 2021). Thus, the knowledge gained about professional moderator experiences and practices cannot be generalized to online

mental health forum moderators of non-Westernized countries, where different views of suicide prevention and interventions may be held, resulting in varying moderator experiences and practices.

The anonymity offered to online mental health forum users, and thus the inability of professional moderators to easily identify key characteristics such as culture (Perry et al., 2022), reflects an additional limitation of this program of research. Suicide prevention and intervention research posits that suicidal behavior is culturally scripted, meaning culture affects and influences the ways in which individuals express emotional distress (Canetto, 2021). Thus, when seeking to help those struggling with STBs presentations, culture is a key aspect that must be consider (Chan & Thambu, 2016). As previously discussed, membership for most online mental health forums is restricted to the residents of the country where the online forum is located, however, this does not mean that cultural diversity is not present on forums (Pendse et al., 2019). This is problematic for professional moderators who cannot visually 'see' forum users to infer or identify the culture of those they are engaging with (Perry et al., 2022). In many ways, unless a forum user discloses their cultural information, professional moderators must work without this knowledge as they intervene to keep forum users safe (Pendse et al., 2019). The experiences of professional moderators of working with STBs without access to cultural knowledge of forum users was not explored in this research and thus is a limitation of this research. It is recommended for future research to explore possible ways for the culture of forum users to

be incorporated into, or reflected on the forum, in ways that will not negatively impact on the anonymity of the forum users. It would be interesting to understand how knowing some cultural information of forum users may assist moderators to provide a more holistic, and thus effective service to forum users.

A further limitation of this program of research pertains to the unexamined cultural differences of working online that may be present for professional moderators. For example, moderators may work online collectively in a team or as the sole moderator on shift and often remotely from their home. For Study Two, a case study methodology was adopted that allowed for a comparison of experiences between professional moderators to be undertaken (de Vries, 2020). However, as the focus was on understanding how professional moderators experience their work of supporting forum users with STBs presentations, comparisons between moderators were not made. Instead, the collective responses of the moderators were analyzed and synthesized, resulting in a gap in understanding how professional moderators more broadly experience working in the online context. This gap is important given that professional moderators in Study Two were from the United Kingdom, Canada, Australia, and New Zealand (Perry et al., 2022), where differences in online working approaches are likely. This means that there are aspects of the professional moderator experience that are yet to be investigated and examined, and signals important opportunities for future

research especially as increasing numbers of professional moderators are likely to be needed in the future.

Another limitation of this research is that it is cross-sectional, reflecting a single point of time (Kesmodel, 2018). This was most evident in Study Two, where 15 professional moderators were individually interviewed about their professional experiences, allowing the researcher to look at numerous characteristics at one time (Cummings, 2018), such as demographics, qualifications, and length of service. The moderators were not interviewed again at a later time to confirm their perspectives, or check if they had remembered additional information following on from their interview, as would have been the case if a longitudinal study design had been adopted (Connelly, 2016). For this reason, it is possible for additional information to be missing from the research findings that could have enhanced the findings and insights gained about professional experiences of moderators. As suggested earlier in the chapter, future research should consider returning to moderators to see whether their perspectives had changed over time, but also to share forum posts with them and ask them the thinking process that was associated with the actions that were taken. It is likely that once this step is undertaken with moderators and their thinking is extrapolated, they may have additional information or perspectives to share.

A further limitation pertains to the speed of online technological changes (Bucci et al., 2019), that may cause the insights gained from this research to become somewhat outdated. An example of one such change

is the inclusion of artificial intelligence (AI), to aid forum moderators as they undertake their work of keeping forum users safe (Howard et al., 2020). It is imagined that AI technology will increasingly assist online forum moderators by detecting and alerting them to risk presentations on the forum (Milne et al., 2019). This has the potential to change the way that professional moderators operate online, such as reducing the need for them to visually check all posted content looking for risk, and instead enabling more time to be spent focused on engaging with forum users (Cohan et al., 2017). Technological advancements such as the inclusion of AI technology will change the practices, and thus the experiences of professional moderators, therefore, future findings are likely to differ to those found in this research. However, such an inclusion offers up new ways of considering suicide prevention and intervention research.

7.5. Conclusion

This chapter has sought to provide an overview of the key findings of this program of research. In doing so it highlighted that the professional moderators who are responsible for ensuring safety online have been overlooked in the literature, leaving gaps in our understanding of how these online practitioners work in the online context. Furthermore, when asked, moderators described the moderation role as complex, multifaceted and constrained, however, despite this they wanted to work with STBs presentations, and do more to support struggling forum users. When the practices of moderators were analyzed, the findings revealed

that safety online is shared and co-constructed responsibility that sees professional moderators and forum users working in a collaborative partnership.

This program of research has made several original contributions to the suicide prevention and intervention field, such as the recommendation for the parameters of lived experience to be extended to include the additional voice of the practitioner who has the lived experience of helping. Practitioners have a lived (learned) experience of suicide and understanding these experiences will help to identify what does and does not work when supporting individuals at risk to be safe. A second contribution is the recommendation for a pivot away from a focus on risk to a focus on safety, to allow for a better of understanding of risk to emerge and to help establish a culture of safety. A further contribution was examining the collaborative nature of the professional moderator role, where the responsibility for risk and safety is shared, that offline practitioners should consider exploring and applying within their context.

A number of recommendations for future research has arisen from this program of research. The first is the need for more research to be undertaken, starting with studies that seek to replicate the current findings. Additional studies should also seek to develop a broader understanding of the lived experience of professional helping, including exploring the areas of role satisfaction according to professional moderators. The training of moderators is another area that requires examination in order for the suicide prevention and intervention field to

gain certainty as to how well prepared these practitioners are to ensure safety online. Further research could also examine other challenging forum user presentations and explore if there are missed opportunities in current moderator practices when viewed from a safety rather than a risk lens.

A number of limitations exist for this program of research such as the methodological challenges associated with a mixed qualitative research method. Furthermore, Westernized views of suicide have been reproduced and perpetuated, limiting the findings to Westernized countries. This research also reflects a single point of time, which when combined with the speed of online technological advances, places these findings at risk of quickly becoming outdated. For this reason, this program of research should be seen as a beginning step in understanding the experiences and practices of professional moderators of online mental health forums and examining how suicide prevention and intervention unfolds in real time in online. From here, more quality research is needed to build a systematic base of knowledge to move the field forward, and further develop our understanding of how online spaces can be safe places for forum users who talk about their STBs presentations. It is hoped that this program of research has moved us one step closer to this safety.

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APPENDIX A

JBI Critical Appraisal Checklist for Qualitative Research

Reviewer_____Date_____.

Author_____Year_____Record Number

	Yes	No	Unclear	Not applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	☐	☐	☐	☐
2. Is there congruity between the research methodology and the research question or objectives?	☐	☐	☐	☐
3. Is there congruity between the research methodology and the methods used to collect data?	☐	☐	☐	☐
4. Is there congruity between the research methodology and the representation and analysis of data?	☐	☐	☐	☐
5. Is there congruity between the research methodology and the interpretation of results?	☐	☐	☐	☐
6. Is there a statement locating the researcher culturally or theoretically?	☐	☐	☐	☐
7. Is the influence of the researcher on the research, and vice- versa, addressed?	☐	☐	☐	☐
8. Are participants, and their voices, adequately represented?	☐	☐	☐	☐
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	☐	☐	☐	☐
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	☐	☐	☐	☐

Quality Score:

Overall appraisal: Poor (<50%) ☐ Moderate (50-80%) ☐ High (>80%) ☐

Comments

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Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
TITLE			
Title	1	Identify the report as a scoping review.	Click here to enter text.
ABSTRACT			
Structured summary	2	Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives.	Click here to enter text.
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	Click here to enter text.
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives.	Click here to enter text.
METHODS			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number.	Click here to enter text.
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale.	Click here to enter text.
Information sources*	7	Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed.	Click here to enter text.
Search	8	Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated.	Click here to enter text.
Selection of sources of evidence†	9	State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review.	Click here to enter text.
Data charting process‡	10	Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators.	Click here to enter text.
Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	Click here to enter text.
Critical appraisal of individual sources of evidence§	12	If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	Click here to enter text.

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
Synthesis of results	13	Describe the methods of handling and summarizing the data that were charted.	Click here to enter text.
RESULTS			
Selection of sources of evidence	14	Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	Click here to enter text.
Characteristics of sources of evidence	15	For each source of evidence, present characteristics for which data were charted and provide the citations.	Click here to enter text.
Critical appraisal within sources of evidence	16	If done, present data on critical appraisal of included sources of evidence (see item 12).	Click here to enter text.
Results of individual sources of evidence	17	For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives.	Click here to enter text.
Synthesis of results	18	Summarize and/or present the charting results as they relate to the review questions and objectives.	Click here to enter text.
DISCUSSION			
Summary of evidence	19	Summarize the main results (including an overview of concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups.	Click here to enter text.
Limitations	20	Discuss the limitations of the scoping review process.	Click here to enter text.
Conclusions	21	Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps.	Click here to enter text.
FUNDING			
Funding	22	Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review.	Click here to enter text.

APPENDIX B

Email Invitation:

Subject: Invitation to participate in a research study on suicidal behaviours and moderator support in online forums.

Dear moderator,

My name is Amanda Perry and I am a PhD candidate in the School of Psychology and Counselling at the University of Southern Queensland.

I am writing to you to invite you to participate in a study entitled "Suicidal behaviours and moderator support in online health communities." This study aims to gain insight into the work of online forum moderators and their work in supporting forum members who are experiencing suicidal ideation.

This study involves the completion of one 60-minute online interview, with the possibility of a follow up 60-minute online interview should further clarification of your answers be required. The interviews will take place online on a date and at a time that is convenient for you. The interviews will be recorded for transcription purposes.

While this project does involve some professional and emotional risks, care will be taken to protect your identity. This will be done by keeping all responses anonymous. Please be assured that your data will not be shared with anyone outside of the Research Team unless you give permission for this to occur.

You will have the right to end your participation in the study at any time, for any reason. If you choose to withdraw, all the information you have provided will be destroyed.

All research data, including recordings and any notes will be encrypted. Any hard copies of data (including any handwritten notes) will be kept in a locked filing cabinet. Research data will only be accessible to the Principal Investigator, the Research Supervisory Team and a third-party transcription team. Please note that all transcribers sign a confidentiality agreement as part of their work conditions.

This study has been given ethics approval (H19REA120).

If you would like to participate in this research project, or have any questions, please contact me at [redacted] by 30th of August 2019.

Warm regards,

Amanda Perry
PhD Candidate

University of Southern Queensland

Participant Information for USQ Research Project Interview

Project Details

Title of Project:	Suicidal behaviours and moderator support in online health communities
Human Research Ethics Approval Number:	H19REA120 (V1)

Research Team Contact Details

Principal Investigator Details

Mrs. Amanda Perry

[redacted]

Supervisor Details

Associate Professor Andrea Lamont-Mills

[redacted]

Description

This research project is being undertaken as part of a program of studies for a Doctor of Philosophy (PhD) degree.

The purpose of this project is to interview online forum moderators to learn about the challenges moderators experience when supporting members online who are feeling suicidal. Furthermore, this research hopes to identify how moderators know when a member is feeling suicidal, what happens once a member has been identified as feeling suicidal, and what informs any next steps by moderators.

The research team requests your assistance because you are an employed community forum moderator and have worked with suicidal clients.

The findings of this study will be used as part of a PhD thesis as well as in academic publications such as journal articles, conference presentations, and book chapters.

Participation

Your participation will involve the completion of an online video recorded interview that will take approximately one hour of your time. A second interview may be requested should clarification of your answers be required, or should you wish to share more about your professional experiences as a moderator. This interview will also take approximately one hour.

The interview will be undertaken by video conference at a date and time that is convenient to you. If you do not wish for video recording to occur, please advise the researcher as this will mean that you cannot participate in the research.

Questions will include how you identify online members who are feeling suicidal, what actions you take once you have identified an online member is feeling suicidal, and any challenges you perceive to be associated with supporting such members. Example questions are listed below:

1. Can you tell me what the most common mental health issues you encounter as a moderator?
2. Which aspects of the moderator role do you find most challenging and why?
3. How do you know when a member is feeling suicidal i.e. what gives it away?

Your participation in this project is entirely voluntary. If you do not wish to take part, you are not obliged to do so. If you decide to take part and later change your mind, you are free to withdraw from the project and any data that you have provided. If you do wish to withdraw from this project, please contact the Research Team (contact details at the top of this form).

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 the University of Southern Queensland or your employer.

If you agree to participate in this research and you are selected for an interview, your employer has agreed that you can participate in the interview during work time. If you choose to complete the interview during work hours, confidentiality of your participation is no longer guaranteed as your employer will need to know this so they do not schedule work for you during this period. However be assured that the content of your interview will remain confidential and only accessible by the research team.

If you choose to complete the interview in your own time, you will be given a $20 gift card to compensate you for your time.

Expected Benefits

It is expected that this project will not directly benefit you. The outcomes of the interviews are likely to result in greater insight and understanding into the work of online moderators in terms of the challenges you encounter in this hybrid counselling role, especially when working with a vulnerable population of members who feel suicidal.

It is hoped that the outcomes of this research will contribute to the professional training of moderators in that it will highlight the work of online moderators in terms of how you approach working with suicidal ideation in the online space and extrapolate out the knowledge and practices you draw upon to do this. Analysis of the interview responses may allow for the identification of current best practices.

A possible indirect benefit to you is that you will have the opportunity to give voice to your somewhat silent professional experiences, due to a lack of recognition of the moderator role in existing research.

There are likely to be benefits to the online community members who use online mental health forums. These benefits may include improved health outcomes through enhancing the practice of clinicians working in online spaces.

Risks

There are minimal risks associated with your participation and these may impact negatively upon your well-being.

You may feel inconvenienced due to the time imposition associated with the completion of an online video interview, and potentially a second follow up interview. To help minimise the time imposition of the online interviews, these interviews will occur on a day and time of your preference.

You may feel distress or guilt when recalling past work experience in terms of not knowing how effective the support you offered was. You may have feelings of vulnerability with respect to honestly discussing your work experiences.

Sometimes thinking about the sorts of issues raised in the interview can create some uncomfortable or distressing feelings. If you need to talk to someone about this immediately, please contact

Australia – Lifeline on 13 11 14
New Zealand – Lifeline on 0800 LIFELINE (0800 543 354)
United Kingdom – Samaritans National Lifeline – 116 123
Canada – https://thelifelinecanada.ca/
America – 1-0800-273-8255

You may also wish to consider consulting your General Practitioner (GP) and your clinical supervisor for additional support.

The Principal Investigator will make contact with you one week following your online interview in order to check in on your well-being following the interview, and to answer any questions that you have.

Privacy and Confidentiality

All comments and responses will be treated confidentially unless required by law.

The interviews will be video recorded for the purpose of transcription. It is not possible to participate in the project without being video recorded in some way.

The research team and a third-party transcription organisation (Digital Transcription), will have access to the video recording. Digital Transcription will be engaged to professionally and confidentially transcribe the interviews. All Digital Transcription transcribers sign a confidentiality agreement as part of their work conditions. The data transfer between the research team and Digital Transcription will utilise end to end protection using 128 bit SSL encryption that is password protected.

Your data will not be shared with your employer.

If you give permission, your data will be made available for future research purposes for similar projects. The data from your interview will be anonymized so that it is non-identifiable.

You can access the project summary of results by requesting a copy from the Principal Investigator at the time of the interview, or by email as well as from other members of the Research Team.

Any data collected as a part of this project will be stored securely as per University of Southern Queensland's Research Data Management policy.

Consent to Participate

You will need to provide written consent to participate in this research. Before an appointment can be made for an online interview, you must email a completed consent form to the Principal Investigator.

Questions or Further Information about the Project

Please refer to the Research Team Contact Details at the top of the form to have any questions answered or to request further information about this project.

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 the University of Southern Queensland Manager of Research Integrity and Ethics on +61 7 4631 1839 or email researchintegrity@usq.edu.au. The Manager of Research Integrity and Ethics 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.

University of Southern Queensland

Consent Form for USQ Research Project Interview

Project Details

Title of Project:	Suicidal behaviours and moderator support in online health communities
Human Research Ethics Approval Number:	H19REA120 (v1)

Research Team Contact Details

Principal Investigator Details

Mrs. Amanda Perry

[redacted]

Supervisor Details

Associate Professor Andrea Lamont-Mills

[redacted]

Statement of Consent

By signing below, you are indicating that you:

- Have read and understood the information document regarding this project. ☐Yes / ☐No
- Have had any questions answered to your satisfaction. ☐Yes / ☐No
- Understand that if you have any additional questions you can contact the research team. ☐Yes / ☐No
- Understand that the interview will be recorded (video) ☐Yes / ☐No
    - Understand that you cannot participate in the interview without being video recorded. ☐Yes / ☐No
- Are over 18 years of age. ☐Yes / ☐No
- Understand that my data may be used for future unless otherwise indicated below. ☐Yes / ☐No
- I do not wish for my data to be used in future research _____ (please initial if you do not want your data to be used for future research).
- Agree to participate in the project. ☐Yes / ☐No

- Are aware that the Primary Investigator, the Research Supervisory Team and a third-party transcription service (Digital Transcription) will have access to your interview data. ☐Yes / ☐No

Participant Name	
Participant Signature	
Date	

Please email this completed form to the Principal Investigator to proceed to the interview phase of this study.

Interview Protocol Form

Title of Project: Suicidal behaviours and moderator support in online health communities

Human Research Ethics Approval Number: H19REA120 (v1)

Date _____

Time _____

Location _____

Interviewer _____

Interviewee _____

Interview Qualifications

Professional Body Affiliation:

Consent form signed? ____

Notes to interviewee:

Thank you for your participation. I believe your input will be valuable to this research.

Confidentiality of responses is guaranteed

Approximate length of interview: 60 minutes, 10 questions

Purpose of research:
The identify the perceived challenges of moderators, associated with the engagement and support of forum community members who are experiencing suicidal ideation.

Methods of disseminating results: Published article or thesis

1. **Take me back through the history in your career that brought you to be a moderator.**
   What are your qualifications?
   Which professional bodies are you associated with?
   How long (in months and years) have you worked as a moderator?

Response from Interviewee

Reflection by Interviewer

2. Can you tell me about are the most common mental health issues you encounter as a moderator?

You have said X, Y and Z. Are there any others?

Response from Interviewee:

Reflection by Interviewer

3. Tell me, what aspects of the moderator role do you find the most challenging and why?

Response from Interviewee

Reflection by Interviewer

4. You have mentioned that suicidal ideation is a common member presentation. How do you know when a member is feeling suicidal i.e. what gives it away?

Look for examples of behaviour from the moderator
Are the cues only in written form?
Are there any prompts from the system?

Response from Interviewee

Reflection by Interviewer

5. So once you have identified that a member is feeling suicidal, what happens next?
Consider the participants thoughts, assessments, and actions.

Response from Interviewee

Reflection by Interviewer

6. So I can hear that you can take a number of steps in support members who presented as feeling suicidal. How do you know what to do when engaging with a member who is feeling suicidal?

Look for previous experience
Training
Research based practice

Response from Interviewee

Reflection by Interviewer

7. From your experience, what are the challenges of engaging with members who are feeling suicidal?

Thinking about lack of visual cues
Anonymity
For the moderator personally

Response from Interviewee

Reflection by Interviewer

8. What support is available to a moderator when engaging with members who are feeling suicidal?

Consider support from the forum
Consider support from beyond the forum

Response from Interviewee

Reflection by Interviewer

9. Tell me, what aspects of the moderator role do you enjoy the most and why?

Response from Interviewee

Reflection by Interviewer

10. Is there anything else about your experience of the moderator that you would like to tell me?

Response from Interviewee

Reflection by Interviewer

- Closure
  - Thank you to interviewee
  - reassure confidentiality
  - ask permission to follow-up _____

A 15-Point Checklist of Criteria for Good Thematic Analysis Process (Braun and Clarke, 2006)

Transcription	1.	The data have been transcribed to an appropriate level of detail, and the transcripts have been checked against the tapes for 'accuracy'.
Coding	2.	Each data item has been given equal attention in the coding process.
	3.	Themes have not been generated from a few vivid examples (an anecdotal approach) but, instead, the coding process has been thorough, inclusive, and comprehensive.
	4.	All relevant extracts for all each theme have been collated.
	5.	Themes have been checked against each other and back to the original data set.
	6.	Themes are internally coherent, consistent, and distinctive.
Analysis	7.	Data have been analysed rather than just paraphrased or described.
	8.	Analysis and data match each other – the extracts illustrate the analytic claims.
	9.	Analysis tells a convincing and well-organised story about the data and topic.
	10.	A good balance between analytic narrative and illustrative extracts is provided.
Overall	11.	Enough time has been allocated to complete all phases of the analysis adequately, without rushing a phase or giving it a once-over-lightly.
Written report	12.	The assumptions about thematic analysis are clearly explicated.
	13.	There is a good fit between what you claim you do, and what you show you have done – i.e., described method and reported analysis are consistent.
	14.	The language and concepts used in the report are consistent with the epistemological position of the analysis.
	15.	The researcher is positioned as *active* in the research process; themes do not just 'emerge'.

APPENDIX C

Email Invitation:

Subject: Invitation to participate in a research study on online forum moderators and suicidal ideation of online forum members.

Dear moderator,

My name is Amanda Perry, and I am a PhD candidate in the School of Psychology and Counselling at the University of Southern Queensland.

I am writing to you to invite you to participate in a study entitled "Suicidal ideation and moderator support in online health communities." This project seeks to analyse the posts and email communication that occurs between forum members who are experiencing suicidal behaviours and professional forum moderators.

The aim of this project is to understand how professional moderators identify which members need support, what support is needed, and how they practically offer such support to members in need. Communication includes forum posts and where applicable, emails/one-to-one posts to members. This communication relates to past, resolved/closed, and no longer active events of suicidal ideation or crisis.

The research team would like your consent to use your past moderator posts, and where applicable your past emails to members, in the data for this project. These are posts and emails from closed and resolved events where you provide support to a forum member who was experiencing suicidal behaviours or ideation. Other than providing consent to use your past posts and emails, no further action is required by you. Your employer has given their permission for this data to be used for research purposes, however we wish to also seek your consent for this data to be used.

While this project does involve some professional and emotional risks, care will be taken to protect your identity. This will be done by keeping all responses anonymous.

Your decision to provide consent or not provide consent is entirely voluntary. If you do not wish to provide consent, you are not obliged to do so. If you decide to provide consent and later change your mind, you are free to withdraw any data that you have provided.

The data will be stored securely as per USQ's Research Data Management policy. Research data will only be accessible to the researcher and the research supervisory team.

This study has been given ethics approval (H20REA023).

If you would like to participate in this research project, or have any questions, please contact me at [redacted]

Warm regards,

Amanda Perry
PhD Student

University of Southern Queensland

Participant Information for USQ Research Project – Moderator Communication

Project Details

Title of Project:	Suicidal behaviours and moderator support in online health communities
Human Research Ethics Approval Number:	H20REA023

Research Team Contact Details

Principal Investigator Details

Mrs. Amanda Perry

[redacted]

Supervisor Details

Professor Andrea Lamont-Mills

[redacted]

Description

This research project is being undertaken as part of a program of studies for a Doctor of Philosophy (PhD) degree. This is study three in this program.

This project seeks to analyse the posts and email communication that occurs between forum members who are experiencing suicidal behaviours and professional forum moderators. The aim of this project is to understand how professional moderators identify which members need support, what support is needed, and how they practically offer such support to members in need. Communication includes forum posts and where applicable, emails/one-to-one posts to members. This communication relates to past, resolved/closed, and no longer active events of suicidal ideation or crisis.

We need your help because you are a professional moderator who is working for, or has worked for, a mental health organisations that provides online support for individuals with mental health issues. We request your assistance because you are (or you previously have) worked with suicidal clients. We are interested in how you as a moderator provide life-saving support to individuals who are experiencing suicidal ideation or crisis. Currently there is little research that has looked at the skillful work of forum moderators. This research seeks to address this gap.

The findings of this study will be used as part of a PhD thesis as well as in academic publications such as journal articles, conference presentations, and book chapters.

What is Required?

The research team would like your consent to use your past moderator posts, and where applicable your past emails to members, in the data for this project. These are posts and emails from closed and

resolved events where you provide support to a forum member who was experiencing suicidal behaviours or ideation. Other than providing consent to use your past posts and emails, no further action is required by you. Your employer has given their permission for this data to be used for research purposes, however we wish to also seek your consent for this data to be used.

Your decision to provide consent or not provide consent is entirely voluntary. If you do not wish to provide consent, you are not obliged to do so. If you decide to provide consent and later change your mind, you are free to withdraw any data that you have provided. If you do wish to withdraw your data from this project at any time, please contact the Research Team (contact details at the top of this form).

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 the University of Southern Queensland or your employer.

Expected Benefits

It is expected that this project will not directly benefit you. The outcomes of the data analysis are likely to result in greater insight and understanding into the work of professional online moderators in terms of the in-practice support you offer vulnerable populations. In this way you may be indirectly benefited by this project.

It is hoped that the outcomes of this research will contribute to the professional training of moderators in terms of how you approach working with individuals experiencing suicidal ideation and suicidal behaviours in the online spaces. Analysis of moderator communication may allow for the identification of current best practices that can be used by future professional moderators when they are working with suicidal forum members.

There are likely to be benefits to the online community members who use online mental health forums. These benefits may include improved health outcomes through enhancing the practice of professional moderators working in online spaces.

Risks

There are minimal risks associated with consenting to your moderator posts and emails being included in this research.

You may have feelings of vulnerability with respect to researchers analysing your professional work. However the analysis is similar to that which would have already occurred in your work supervisory sessions. If you do feel you need to talk to someone, we encourage you to contact:

Australia – Lifeline on 13 11 14
New Zealand – Lifeline on 0800 LIFELINE (0800 543 354)
United Kingdom – Samaritans National Lifeline – 116 123
Canada – https://thelifelinecanada.ca/
America – 1-0800-273-8255

You may also wish to consider consulting your General Practitioner (GP) and your clinical work supervisor for additional support.

Privacy and Confidentiality

All data and content will be treated confidentially unless required by law.

The research team will have access to your data.

The identities of moderators and the forum they work for, (or previously worked for), will not be reported in the research findings. All identifying information will be removed and replaced with pseudonyms.

If you give permission, your data will be made available for future research purposes for similar projects.

You can access the project summary of results by requesting a copy from the Principal Investigator (contact details at the top of this form).

Any data collected as a part of this project will be stored securely as per University of Southern Queensland's Research Data Management policy.

Consent to Use Moderation Content

If you would like for your moderation content/data to be included in this research, you will need to provide written consent, by completing the consent form and emailing it to the Principal Investigator (contact details at the top of this form).

Questions or Further Information about the Project

Please refer to the Research Team Contact Details at the top of the form to have any questions answered or to request further information about this project.

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 the University of Southern Queensland Manager of Research Integrity and Ethics on +61 7 4631 1839 or email researchintegrity@usq.edu.au. The Manager of Research Integrity and Ethics 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.

University of Southern Queensland

Consent Form for USQ Research Project – Moderator Communication

Project Details

Title of Project:	Suicidal behaviours and moderator support in online health communities
Human Research Ethics Approval Number:	H20REA023

Research Team Contact Details

Principal Investigator Details

Mrs. Amanda Perry

[redacted]

Supervisor Details

Professor Andrea Lamont-Mills

[redacted]

Statement of Consent

By signing below, you are indicating that you:

- Have read and understood the information document regarding this project. ☐Yes / ☐No
- Have had any questions answered to your satisfaction. ☐Yes / ☐No
- Understand that if you have any additional questions, you can contact the research team. ☐Yes / ☐No
- Are over 18 years of age. ☐Yes / ☐No
- Understand that your data may be used for future unless otherwise indicated below. ☐Yes / ☐No
    - I do not wish for my data to be used in future research _____ (please initial if you do not want your data to be used for future research).
- Agree for your past moderator communications to be included in the data to be analyzed as part of this research project. ☐Yes / ☐No
- Are aware that the Primary Investigator and the Research Supervisory Team will have access to your moderator content/data. ☐Yes / ☐No

Participant Name	
Participant Signature	
Date	

Please email this completed form to the Principal Investigator to proceed to the interview phase of this study.

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