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Sustaining interdisciplinary work in trauma-informed education

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Abstract

Schools respond to the complex needs of students exposed to traumatic and adverse experiences as part of an interconnected system of care that includes health care, child welfare, juvenile justice, housing and a variety of other community services. As legislation increasingly mandates inter-organisational collaboration, attention has turned to consider the ways in which educators and professionals of other disciplines and services interact. This paper analyses the partnership between an educator and a psychologist in the development, delivery and evaluation of a trauma-informed practice program for schools. Using a case study methodology, the research used qualitative analysis of the authors' reflections on their partnership to identify factors that have enabled and sustained interdisciplinary educational work. The findings highlight key elements of sustainable interdisciplinary joint work—including knowledge sharing, opportunities for expansive learning, adapting to changing working relationships and overcoming systemic barriers for collaboration. These themes are discussed in the context of implementing trauma-informed practices in schools.

Introduction

Educational policies in Australia and around the world have emphasised the need for students to be provided with equal opportunities for learning and development in the school environment (Kozleski, 2020; Ramberg & Watkins, 2020). Efforts to operationalise policies of inclusive education have led to educators needing to

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be responsive to a variety of academic and social-emotional needs (Ní Bhroin & King, 2020). Amongst the most challenging students to support in school environments are those who have been impacted by child maltreatment (i.e. child abuse and neglect) and exposed to adverse circumstances. Exposure to traumatic events has been found to have a significant impact on children's school engagement and attainment (Dorado et al., 2016; Perry & Daniels, 2016).

Strong associations have also been made between child maltreatment, learning difficulties and poor academic achievement (Gilbert et al., 2009; Veltman & Browne, 2001). With children spending a large portion of their lives in educational settings, schools and teachers are important partners in providing trauma-informed care (TIC) (Berger & Martin, 2021; Chafouleas et al., 2016). Trauma-informed approaches support the accommodation of vulnerabilities of those experiencing the negative impact of such adversity and trauma (Substance Abuse and Mental Health Services Administration, [SAMHSA], 2014). Although schools may not be able to prevent experiences of trauma per se with increased knowledge of the impact of traumatic events and how it influences behaviour, engagement, and learning, educators can provide 'trauma-informed' accommodations and supports (Christian-Brandt et al., 2020). Scholars have highlighted the need for an inter-organisational approach between child support services and schools in its successful implementation (Racine et al., 2020).

Interdisciplinary work in trauma-informed practice

Schools that respond to the complex needs of students affected by trauma do not function in isolation. Rather, they are interconnected components in a system of care that includes domains across health care, juvenile justice, housing and a variety of other intersecting community services (Colvin & Miller, 2020; Ogbonnaya & Kohl, 2018). A growing body of literature supports the value of inter-organisational collaboration in positively impacting child and family outcomes (He, 2017; Ogbonnaya & Keeney, 2018). As legislation increasingly mandates inter-organisational collaboration (Zlotnik et al., 2015), attention has turned to consider the ways in which educators and professionals of other disciplines and services interact. Both teachers and child support professionals often hold domain-specific knowledge, that when shared can promote a holistic, and comprehensive understanding of children with complex behavioural and mental health concerns.

Nevertheless, interdisciplinary work is often difficult to achieve (Colvin et al., 2020). For example, Colvin et al. (2020) identify numerous challenges to interdisciplinary collaboration in child welfare practice with regard to processes and procedures of each of the partners' service setting (e.g. high staff turnover, organisational bureaucracy), challenges to actively engaging in the partnership (e.g. different agency goals, lack of trust) and features of the shared working environment that may not be conducive to such partnerships (e.g. competition for resources, political and policy changes). Additionally, interdisciplinary work requires the crossing of boundaries of respective disciplines and services, with professionals requiring to share,

translate and sustain a working relationship to integrate and utilise the knowledge gained (Gerdes et al., 2020).

Research regarding interdisciplinary work in the support of children with complex needs has primarily focussed on the intersection between child welfare and mental health services (Bai et al., 2009; Darlington et al., 2005; Garcia et al., 2015); and child welfare and court professionals (Han et al., 2008). Very few studies to date have specifically studied the collaborations between educators and child support service professionals (see Gerdes et al., 2020). An understanding of interdisciplinary joint work may highlight the practice complexities of implementing inclusive education policies and support the implementation of trauma-informed approaches in schools in the future.

Conceptual background

The concept *boundary crossing* is means to effectively transverse an apparent impasse between two disparate organisations such as a school and child support services, like child and adolescent mental health services (Gerdes et al., 2020). Much like physical borders between countries, boundaries between neighbouring practices of two disciplines can be defined as the border between what is familiar to one discipline and what is unfamiliar to the other (Akkerman & Bakker, 2011). Successfully crossing the boundary may be facilitated with the use of boundary objects, "the stuff of action" (Leigh Star, 2010, p. 603). Taking a wide variety of forms, the object sits in the boundary space between the two neighbouring practices, inviting encounters that connect the neighbours through the growth of knowledge.

When crossing a boundary in an interdisciplinary context, members of each discipline aim to reduce the discontinuity that may arise from unfamiliar knowledge that each party possesses, and differences in understanding (Flynn, 2018). Knowledge is shared, altered, and expanded upon—potentially leading to innovations in practice (Gerdes et al., 2020). Engeström describes this boundary crossing of knowledges as expansive learning where mastery, creation and development "of a new way of working" (Engeström & Glăveanu, 2012, p. 516) occur simultaneously. In the context of students with complex needs, interdisciplinary work forces participants to move away from sticking to knowledge in their own domain, to combining expertise creatively to develop novel solutions, strategies and approaches to supporting students.

Drawing on these theories, Gerdes et al. (2020) proposed an 'analytic framework for analysing collaboration' to understand interdisciplinary joint work specific to inclusive educational settings (see Table 1). The framework most closely aligns with the interdisciplinary work required for the implementation of trauma-informed practice in schools. According to the framework, joint work is seen as a continuum, beginning with loose connections between professionals, through communication and cooperation, to more integrated forms of co-work, through coordination and collaboration. Gerdes et al. (2020) describe the first phase of the joint work as 'cooperation'—two or more organisations striving for similar objectives, with communication between the partners being minimal. Boundary crossing at this stage

Table 1 Phases of interdisciplinary collaboration in inclusive education (as described by Gerdes et al., 2020) and corresponding critical incidences

Phases of interdisciplinary work	Critical incidences of joint work
Cooperation	Individual student support through public education and public child and youth mental health services
Coordination	'Teaching and Mental Health' seminar series for educators
Collaboration	'Trauma-Informed Behaviour Support' program and supporting resources

is described as 'syntactical'—with communication being incidental, formal and restricted to informing each other of work undertaken within the siloed services. This could include a student receiving treatment from a private psychologist, who then reports updates of the child's progress to the school with caregiver consent. The foundations of trust in the working relationships are established through reliability, that is, by keeping one's word and being punctual.

The next position in the model is 'coordination'. Gerdes et al. (2020) describe this as joint work characterised with more formally regulated communications, such as the meeting minutes from regular stakeholder meetings as part of wraparound supports provided to a student. In an inclusive education context joint work is characterised by the alignment of interventions and a division of tasks and resources between services and professionals involved. Boundary crossing is said to occur at the semantic level—with the 'joining of forces' requiring each party to function at professional standards to meet each other's perceptions of competence.

The final and most integrated form of joint work proposed by Gerdes et al (2020) is 'collaboration'. Here, interdisciplinary professionals move beyond the division of tasks and resources to synthesise and design an integrated intervention to support the child. The connections between collaborators are stronger with higher degrees of "informality and intensity" (Gerdes et al., 2020). Boundary crossing at this stage is described as 'political'—the integration of objective leading to greater interdependence, trustworthiness, and reduced threats to each other's interests. This novel framework is yet to be used to analyse interdisciplinary partnerships in the practice of trauma-informed education. This framework in this paper will be at the forefront of discovering new ways of achieving successful partnerships.

Aims of the study

This paper aims to critically apply Gerdes et al.'s (2020) analytic framework for interdisciplinary collaboration to analyse the partnership between an educator and a psychologist in the development, delivery and evaluation of a trauma-informed practice program for schools. Using a case study methodology, the research used qualitative analysis of the authors' reflections on their partnership to identify factors that have enabled and sustained interdisciplinary educational work.

The research question informing this paper was:

What are the characteristics of a sustainable interdisciplinary partnership in promoting trauma-informed education in schools?

Research design

The study employed case study design, as it appears to be best suited to investigate interdisciplinary research (Repko et al., 2011). The methodology offered an opportunity to explore the complexities of joint work, as well as boundary crossing between the two authors, who are the developers of the trauma-informed care program. A critical incident narrative methodology was utilised to document the perspectives and reflections of the co-authors in their collaborative journey. Fitzgerald (2000) identifies critical incidents as follows:

> … distinct occurrences or events which involve two or more people; they are neither inherently negative nor positive, they are merely distinct occurrences or events which require some attention, action or explanation; they are situations for which there is a need to attach meaning. (p. 190)

Reflective conversations conducted between the authors began with individual recollections of the joint work in the form of oral storytelling (Parr et al., 2015). Particular happenings were then identified in relation to the key project being discussed, prompting deeper consideration of the complexities of the collaborative partnership. The narratives focussed on three key projects of the joint work that represented three phases of the interdisciplinary collaboration.

Participants

The experience and collaboration of the two co-authors of the paper formed the focus of the study. Author 2 is a lecturer in the School of Education at Edith Cowan University, Western Australia. With 32 years' experience working for the Department of Education in Queensland as a classroom teacher, deputy principal and specialist behaviour support teacher, it was during her work as a specialist behaviour support teacher, that the partnership with Author 1 began. During the first phase of the partnership, between 2009 and 2010, Author 2 was a behaviour teacher in an alternative school setting for children requiring individualised, intensive behaviour intervention and support. During the second phase of the partnership, between 2010 and 2014, Author 2 worked as an advisory behaviour support teacher across many school sites and contexts supporting students demonstrating challenging behaviour, their teachers, and other school staff. During phase three, Author 2 moved into an academic position at the University of Southern Queensland in 2014 and subsequently to Edith Cowan University in 2019 continuing to work in partnership with Author 1 to the present day.

Author 1 is a clinical psychologist who has worked in public child and youth mental health service for 14 years. During his work with Author 2, Author 1 worked as part of a specialist child and youth mental health service for children who were in the care of child welfare services. During the first phase of the partnership Author

1's role in this service included the provision of wrap-around care, which included working closely with educators and school professionals. In the second phase, Author 1 worked in the role of a clinical educator—working with a variety of child services, including schools, in the provision of professional development regarding mental health and trauma-informed care. During the third phase, in 2019, Author 1 moved into his current role of academic at the School of Psychology and Counselling, at the University of Southern Queensland.

Critical incidents

The three phases of the partnership were marked by three projects that constitute 'critical incidents' and formed the basis of our joint work (see Table 1). The three projects aligned with the three phases of the collaborative partnership. During the first phase, we were working in public education and public child and adolescent mental health professional contexts. This phase required us to work together across two separate public agencies to support the adjustment and re-engagement of students with mental health concerns into mainstream schools. Interactions in this phase were reflective of Gerdes et al.'s (2020) conceptualisation of 'Cooperation' with a focus on developing support plans to facilitate the student's effective re-engagement with school. The student support plan was a boundary object, an artefact or tool reflective of multiple perspectives "enabling communication and collaboration across sites" (Akkerman & Bakker, 2011, p. 140).

The second phase saw the creation and delivery of a 'Teaching and Mental Health' professional development series for educators to build knowledge. The process of developing and delivering this professional development series constituted the critical incident that closely aligns with Gerdes et al.'s (2020) conceptualisation of 'Coordination' in interdisciplinary partnerships. Reliability (e.g. organising the workshop schedule to meet requirements including guest speakers), competence (e.g. marketing, registration procedures and networking with relevant experts in the field), and transfer of knowledge (shared frameworks to bridge the gap between mental health and education behaviour services) were characteristic of this phase where the focus was on co-producing a boundary object—the seminar series for teachers.

The final phase of the partnership concerned the development and dissemination of a trauma-informed education program. The activities in this phase are best captured by Gerdes' (2020) description of 'Collaboration'. This phase was multi-layered and added an unexpected degree of complexity to our "landscape of practice" (Clark, 2017, p. 254). These complexities proved to be opportunities for collaboration and dissemination of information using a variety of boundary objects including:

- professional development sessions for teachers and school staff in trauma-informed practice.
- conference presentations
- research projects (joint work with schools and participants to evaluate the impact of the TIPBS program).

- online courses: Trauma-informed positive behaviour support (TIPBS) and Trauma Aware Educator (www.tipbs.com).
- a postgraduate unit of study about trauma, behaviour, and learning (Course specification link: https://www.usq.edu.au/course/synopses/2020/EDU5324.html).
- the 'Trauma-Informed Education' podcast (podcast link: https://podcasts.apple.com/au/podcast/trauma-informed-education/id1202867697)
- open access book: 'Trauma Informed Behaviour Support: A Practical Guide to Developing Resilient Learners' (https://usq.pressbooks.pub/traumainformedpractice)
- toolkits and resources (Link: https://www.tipbs.com/freeresources.html)
- social media accounts (e.g. Facebook, Instagram and Twitter).

Each object was accompanied by frequent and consistent communication via face-to-face meetings, email correspondence, video conference and telephone conversations.

Data creation

To start, the two authors documented recent recollections about their interdisciplinary collaboration in a journal utilising a critical incident narrative format. These reflections were focussed on the three key projects or 'critical moments' that occurred sequentially over the course of the authors' 10-year partnership. These three key projects comprised (1) casework concerning individual students, (2) professional development seminars for educators and (3) a program in trauma-informed education. Following the journalling, we engaged in reflective discussions conducted across a series of three Zoom teleconference meetings (1 h each; 3 h in total) which corresponded to the three key projects. To promote the accuracy of the recollections, *critical dialogues* in these meetings were marked by us actively challenging each other's ideas in order to probe more deeply into each of our individual reflections (Hayler & Williams, 2018).

These teleconference meetings were recorded and transcribed. This transcription, together with written journal reflections, was utilised as qualitative data for the purposes of the study. The critical incident narratives and transcribed discussions constituted the main data source for this study (13,756 words in total).

Data analysis

The analysis of the data began during the reflective discussions, as the authors identified common ideas in each of the narratives. Following the transcription of the reflective discussions, the authors met on several occasions to review the critical incident narratives and reflective discussion text to further distil key narratives and themes. These themes / ideas were shared electronically via a table on a Microsoft Word document. The first coding cycle used in the analysis of the data was In Vivo coding (Saldaña, 2013), which was used to re-familiarise the coders with the language and perspectives in the reflective discussions and provide opportunity to think

more deeply and critically about what was said. As Stake (1995, p. 19) reminds "Good research is not about good methods as much as it is about good thinking." Annotations were used simultaneously with coding to capture significant connections and insights emerging from the data. Line-by-line analysis was conducted for emergent themes. Pattern coding was then used as a second cycle to categorise the similarly coded data to inform the formation of major themes (Saldaña, 2013).

Following deliberation, the following major themes were agreed upon: (1) knowledge sharing, (2) expansive learning and shared language, (3) goals of the working relationship and (4) overcoming challenges.

Findings

Analysis of the reflective discussions illuminated differences, similarities and connections that have formed the foundation for the growth and sustainability of the interdisciplinary partnership. The findings are presented under the four major themes from the reflective discussions. Each theme contains reflections relevant to each of the three phases of the partnership. Themes and subthemes are displayed in Table 2.

Knowledge sharing: transfer, translation and transformation

In this first phase of our joint work, we were working in the bounded units of public child and youth mental health services (Author 1) and the department of education specialist behaviour service (Author 2). While these two professional contexts were different, the same objective was the driving force for our work and the foundation for the cooperative interactions. This objective was to support students with mental health concerns, to successfully re-engage into mainstream schools and to sustain that re-engagement. Data suggest that the emphasis in this phase was on the *transfer of knowledge* between the two domains of practice. During the initial stages of the phase Author 1 acknowledged the isolated ways of working, commenting: "I think a lot of the work happened in quite a siloed sort of way … there wasn't that face-to-face discussion and the explanations that needed to go with it. That sharing of knowledges, it just didn't happen." This highlights the clear demarcation between the different domains. Interactions

Table 2 Phases of interdisciplinary collaboration in inclusive education (as described by Gerdes et al., 2020), corresponding themes and sub-themes

Phases of interdisciplinary work	Themes: knowledge sharing	Theme: expansive learning	Theme: goals of the working relationship	Theme: overcoming challenges
Cooperation	Transfer	About	Discovery	Using
Coordination	Translation	Alongside	Development	Sharing
Collaboration	Transformation	With	Dissemination	Creating

were very limited and "on a need to know" basis taking the form of infrequent telephone conversations or one-off emails. Interdisciplinary stakeholder meetings were a core activity of our joint work in this phase. These meetings brought those people supporting the student together, to review what was working and how best to work together. Both participants indicated that it was simple behaviours associated with the meetings such as being punctual, organised, prepared, checking in with each other prior to the meeting to ensure "we were on the same page" and following through "keeping one's word", that were key factors in building trust.

The second phase of the partnership required the *translation of knowledge* and skills which was achieved through the creation and delivery of the professional development seminars for teachers. As the target audience were teachers, the designing of this intervention prompted mental health staff to reframe their view of teachers and their role in helping students with mental health difficulties. The need to contextualise and translate mental health knowledge to the school context, arose from shared observations of school staff during the second phase. Author 1 explained, "Mental health knowledge is often a bit like a black box to a lot of people, it [the seminars] kind of destigmatised it and translated it in a way that's helpful for teachers." In this way, the mental health professionals involved in designing the intervention were equally challenged to review their beliefs about teachers, prompting a shift in their thinking from a very medical, individual patient care point of view to thinking more systemically, seeing teachers as partners in helping the child and the family recover.

The successful translation of information was achieved by using case study scenarios delivered by specialist behaviour teachers working in schools. Author 2 stated, "We had teachers speaking up, making those links, explaining it within the realms and constraints of a school context in terms of what can actually be done." Author 1 suggested that this pragmatic approach broke down barriers by changing perceptions: "I think it communicated a lot about each of our systems and our responsiveness towards teachers, it also built a level of trust and familiarity." Planning and delivery of the monthly professional development sessions required a coordinated effort that relied upon recognising and bringing together the skills needed to cross boundaries and bring together "competencies from both our ends. The approach taken was a collective endeavour to share and distribute expertise.

Knowledge transformation was demonstrated in the third phase of the partnership through the development of a trauma-informed education program. Navigating new roles and competing demands (Author 2 was an early career academic and Author 1 was working privately and in public health) with developing the new program proved to be an initial challenge due to infrastructure in phase two no longer being available (e.g. venue, marketing support, professional development part of job description). A key factor in overcoming this challenge was the commitment of both partners to the development of innovative, digital educational products (e.g. online course content, podcasts, social media posts), as a means of disseminating learnings of the interdisciplinary work. Designing and developing such resources required the authors to "carve out time outside of work hours to be able to make space and time for us to continue to work together" (Author 1).

Instrumental to the successful transformation of knowledge, was the regularly timetabled collaborative conversations regarding digital resources being developed and making time for conducting interviews with international experts for the Trauma-Informed Education podcast. The authors were also committed to coming together to develop audio and visual content for the communities of practice on various social media platforms that aimed to provoke curiosity and interest in educators. These conversations focussed on connecting practical challenges of inclusive education, emerging theoretical and research findings and learning needs of educators with regard to trauma-informed practice. Author 1 explained: "that constant drive to come back to daily practice, to practical things, from lofty ideas to practice…I think was a driving force behind how that transformation occurred." This then provided opportunity to develop novel and creative ways to share and distribute knowledge using various boundary objects. The boundary objects (e.g. online course content, podcasts, social media) were facilitators of knowledge transformation and dissemination.

Expansive learning and shared language: about, alongside, with

Characteristic of the expansive learning (Engeström, 2001) arising from the joint work in phase one of the partnership, was *learning about each other* for example, roles and areas of expertise. This *learning about each other* formed the foundation of future boundary crossing experiences and collaboration across the two diverse domains of education and psychology (Akkerman & Bakker, 2011). From the reflective conversations, we acknowledged that the information shared during this beginning phase of the partnership highlighted significant knowledge gaps that had previously gone unnoticed. For Author 2, the increased complexities of student concerns brought into sharp focus the limitations of her own expertise and the need to collaborate to promote more complex interventions: "That was my first intentional goal of cooperating because I thought Author 2 here is expertise that I need to help me help this child and yeah, I just don't have it."

When working together to help students with complex needs, both participants reported that a lack of a shared language was indeed a hurdle of communication that was critical to overcome. Author 1's perspective recognised the restrictive nature of communication: "We were kind of communicating in our own language giving just the information you need and not necessarily collaborating." He also noted that through simple cooperative behaviours such being punctual, keeping one's word and following through "you start to have a more realistic view of what it is that the person brings to the table." This shifting perspective facilitated the emergence of trust, which promoted confidence in each other's intentions (e.g. being child focussed). This in turn encouraged ongoing conversations where the exchange of contextual information was critical to overcoming the barrier of understanding the context in which each partner worked and the development of a shared language. This boundary encounter was viewed as a 'disruption' to enrich and facilitate collaboration across sites rather than a hurdle to be overcome.

Learning alongside each other was at the heart of the second phase of the partnership, centred on the boundary object of the professional development series for teachers. Central to the creation of new knowledges and practices in this phase was to learn "…what is not yet there, learning to master a new way of working…" (Engeström & Glăveanu, 2012, p. 516) from experts in education and mental health. The implementation of the joint framework detailing roles, responsibilities, resources, and seminar content required the identification of complementary skills and the crossing of boundaries in an intentional way to create shared learning experiences. Author 1 "developed a certain number of skills around instructional design, marketing, training materials and coordinating speakers", while Author 2 worked in collaboration with behaviour support teachers to ensure practical application of the health 'expert' content to the school/classroom context, increasing knowledges across the different disciplines. Not evident within the cooperative actions of phase one, Author 1 commented that "Knowledge of these skills only comes from building the relationships that asks what else can this person offer?".

Drawing on each partner's skills, and that of experts, was part of a targeted response to utilise available resources, as Author 1 indicated: "I think part of the joint work is about being able to access those resources and put them into areas that are perhaps under-resourced." Both of us were clear, that preparing and delivering the seminar series was an instructional process, and the repeated contact not only established expansive learning but generated shared experiences and deepened shared values and visions, thus further strengthening the joint working relationship. The fact that the professional development sessions were delivered once a month for a period of four years was testament to this.

In the third phase of the partnership collaborative behaviours were instrumental to growing the expansive learning acquired in phase two. *Learning with each other* about new and innovative ways to support students was the goal of our joint work in this phase and was operationalised through the creation of the trauma-informed behaviour support program (Ayre & Krishnamoorthy, 2020). Embarking together into the unchartered waters of developing an information website for teachers required trust in each other being able to meet the demands of the challenges faced. This was supported by each partner having sufficient skills to sustain the collaborative partnership, and being a reliable presence, as evidenced in the previous two phases. Trustworthiness made negotiating and overcoming challenges associated with "…designing and implementing the new ways of working" (Engeström & Glăveanu, 2012, p. 516), possible. As Author 1 observed: "…trust is almost like a foundation that you can meet those other challenges as you are kind of working your way through it."

Goals of the working relationship: discovery, development and dissemination

In the first phase of the partnership, brief conversations about student needs revealed commonalities and shared goals. The *discovery* of such shared professional skills, knowledge and competencies assisted in the development of a cooperative working relationship. Author 1 described this as "beavering away and doing our part" which

included "turning up on time" "keeping one's word" and "following up" as small gestures that demonstrated reliability and communicated collective commitment to continuing to discover shared goals and learning. The joint working relationship slowly moved towards more co-ordinated efforts in developing shared goals through interactions centred on strategies and interventions for students.

Building credibility and familiarity amongst the two *bounded spaces* (mental health workers and teachers; Akkerman & Bakker, 2011) was instrumental to the development of trust and openness and a greater understanding of the value of others. A less biassed, more positive perspective of the identity of the 'out-group' viewed members as having "expertise as equivalent, just different" (Author 2) and as "potential, worthwhile collaborators helpful for kids" (Author 1). Having the capacity to put yourself in another's shoes and see things from their perspective, enabled commitment to *developing* shared goals and learning. As Williams (2014) states "Looking at the world through the eyes of others can lead to the generation of new ideas and ways of being and is essentially a dialogic and creative process" (p. 317).

The core goal shared by the partners in this phase two of the partnership was described by Author 1 as "… a wider impact, a broader impact, a systemic impact" hence the realisation and commitment to the developing of the professional development seminar series for teachers signalled acceptance of partners as being allies, with boundary crossing occurring at the semantic level (Gerdes et al., 2020). The discovery and development of shared goals and learnings in phases one and two of the partnership laid the groundwork for determining goals of *dissemination* of shared learnings.

In the third phase, finding novel and innovative ways to disseminate information to teachers in a sustained way was core to the continuation of the working relationship. We collaboratively determined that creating an online program was the most efficient and effective way to disseminate the information. We also used a variety of digital tools and platforms to promote our work, including social media. The use of such technological solutions to dissemination assisted us to overcome limitations related to overcoming systemic barriers and limited resources.

Overcoming challenges: using, sharing and creating

Systems that offer stable resources and have an explicit remit for collaboration, may contribute to sustaining the cooperative use of resources and the partnership relationship. A systemic barrier that was noted in the first phase of the partnership was the notion of school environments under high levels of chronic stress. Teachers working with students who have highly complex needs including serious, disruptive behaviours, often feel overly responsible for the conduct and addressing the needs of such students. The cooperative partnership between mental health services and educators appeared to alleviate some of the stress educators feel when supporting students with mental health concerns by adopting a team approach that shared the responsibility when catering for students with complex needs.

In the second phase of the partnership the rationale for the new shared goal, which shifted the focus from the students (as in phase one) to the teachers, was a product

of the cooperative interactions in phase one. Leveraging established relationships allowed us to gain access to resources to promote joint work. These resources were both human e.g. expert practitioners from the health services and behaviour support specialists from education services, and material e.g. a suitable physical space, stationery supplies, food and marketing.

Such resources were a stabilising factor within services systems that routinely see people regularly come and go from roles within organisations. The focus was on *sharing* existing resources across boundaries and services. Our joint work in creating and developing the seminar series for teachers provided the opportunity to redirect resources towards areas of need that had not been prioritised and were poorly resourced. Author 1 elaborated: "… joint work is about being able to access those resources and put them to use in areas that are perhaps under-resourced in a way." Together this was possible, working in isolation would have indeed made this much more difficult to achieve.

The final phase of the partnership saw us focussed on *creating* new resources. Author 1 stated: "We spent a lot of time making …brain science and attachment science into very practical, tangible, usable strategies." The strategic use of existing resources was an important element in helping us to measure the impact of the content of the new resources e.g. through research projects involving joint work with schools that have implemented the trauma-informed education program. Author 1 reflected this ongoing state of flux noting that the partners were "… still grappling with those fundamental issues about reliability and meetings and transfer of knowledge" and "we're still grappling with us and them". As Waitoller and Kozleski (2013, p. 31) assert, "the work of partnerships is always in a state of incompleteness; barriers rarely disappear although they do diminish." This highlights the ongoing struggles with systemic forces that can make collaboration difficult.

Discussion

As demands on educators to meet the diverse needs of students continue to grow, the challenge of providing an inclusive educational experience to students places a significant burden on educators. Teachers are required to be informed about a myriad of learning and mental health concerns facing children in the school environment. Such a task necessitates interdisciplinary collaborations both within a school and with those in other services and sectors. Attitudinal and systemic barriers have long kept educational institutions siloed from other child services, with recent policy and legislative changes enabling such interdisciplinary partnerships to occur more readily. Despite such changes, sustaining interdisciplinary work continues to be a challenge. In this paper, we have outlined the challenges and opportunities faced by an educator and a psychologist in boundary crossing and engaging in joint work across a decade. The three phases of the partnership highlight how the partners came together to develop and disseminate a trauma-informed education program. The analysis of the 10-year partnership makes visible the need to adapt to the competing demands of changing roles, while maintaining a focus on learning how to better serve vulnerable students.

The analysis of the critical incident narratives revealed the evolution of how knowledge is shared and co-created over time in the context of the joint work. Information shared was found then to be 'translated' into comprehensible terms for each party, and then transformed in the creation of a novel approach to support vulnerable students. A shared concern, together with an openness to new perspectives on understanding the student, acted as a catalyst in the process of transformation. These findings are consistent with Gerdes et al.'s (2020) framework of how knowledge is changed across time in interdisciplinary joint work.

Overall, the exchange of novel information, knowledge and ideas required a commitment to boundary crossing from each party. The analysis revealed that a key element of sustainable joint work was the shared belief that interdisciplinary perspectives are vital to each of the partners being critical and generative in their respective fields of work—a form of enrichment that may not have occurred without boundary crossing (Clark et al., 2017; Edelenbos et al., 2017; Hancock & Miller, 2018).

As previously discussed, in literature relating to interdisciplinary work, expansive learning (Engeström, 2001; Hancock & Miller, 2018) was facilitated through consistent and reliable conversations between partners, and a willingness to develop new and more complex understanding of the challenges faced by students and teachers. It was revealed that while mutual learning is beneficial, interdisciplinary partnerships have the potential of transforming such learning to novel modes of interventions and pedagogies. The benefits of such mutual learning and communication inform the prevalent guidelines on working with such children and families and advocates for a multi-systemic, wrap-around approach (Morton & Berardi, 2018).

The analysis of the critical incidents revealed the utility of the 'objects' of the interdisciplinary work as serving to document an emerging shared language between the collaborators, while gathering evidence of the efficacy and utility of such work. The objects also provided a 'how to' guide to the partners of how interdisciplinary work could occur in the field of inclusive education. The objects of the partnership also highlight the efforts to integrate interdisciplinary perspectives with the needs of teachers and vulnerable students. In this way, we were able to continually focus their efforts at translating emerging understandings to providing novel and much needed support to a community of educators, and other child service practitioners. By creating an interdisciplinary community of practice, particularly through the use of technology and social media (e.g. Facebook groups), we were able to leverage the wisdom and resources of a range of practitioners from around the world in disseminating and co-creating interdisciplinary resources. Such efforts represent a 'scaling' of the interdisciplinary joint work with interactions between diverse community members representing increasingly sophisticated levels of interdisciplinary boundary crossing. Edwards and D'arcy (2004, p. 149) refer to this as *relational agency*: "It is an ability to seek out and use others as resources for action and equally to be able to respond to the need for support from others". In this way, the partners were invited to continually re-evaluate their assumptions about the needs of children from those outside of the partnership within the community. This process of reflection, and the process of building capacities for reflexivity (Edelenbos et al., 2017), are essential elements of being a trauma-informed practitioner, and one who can sustain working relationships with interdisciplinary professionals around the student.

The projects linked to each phase also formed the foundation for the development of a differentiated identity of the partnership compared to others that may also be engaging in similar collaborations within the learning community. Such processes were vital in shaping the vision of trauma-informed education, and the specific program of practice developed by the partners (Trauma Informed Behaviour Support; Ayre & Krishnamoorthy 2020; Morton & Berardi, 2018). While the program may represent the culmination of the learning and collaboration over a decade, the dissemination and evaluation of the program required the partners to revisit the challenges faced in earlier phases of joint work. While these challenges necessitated the partners to develop novel knowledge and skills, it also required them to reflect on past objects of the partnership and the elements that contributed to the boundary crossing efforts. Such reflections, enabled through the present research, promoted a deeper understanding for the future of products and processes of sustainable interdisciplinary work.

In summary, the analysis of the partnership revealed the benefits of boundary crossing and engaging in interdisciplinary work particularly when confronted with complex difficulties. The willingness to be curious and continually learning is an essential aspect of sustaining interdisciplinary work in inclusive education. The respect and acceptance of another's perspective and the consistent and critical exchange of ideas is a hallmark of productive interdisciplinary work (Williams, 2014). The prioritisation of such "coming together" requires practitioners to actively seek out opportunities to meet and collaborate with those from other disciplines. While institutions, like universities, continue to develop such places and forums of collaboration, there continues to be a dearth of such platforms in public health and education. In this way, the partnership analysed is unique in terms of the partners' ability to continue to value interdisciplinary input and prioritise such collaborations over discipline-specific relationships. Interdisciplinary work, therefore, mirrors the efforts of a traumatised child looking to build new relationships, risking a state of vulnerability and uncertainty, in the hope of new learning and growth.

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