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ACCESSING SUPPORT: YOUNG PEOPLE'S MENTAL HEALTH

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Submitted in partial fulfilment of the requirements for the degree of
Doctor of Clinical Psychology

June 2020

Declaration

I hereby declare that this thesis is the results of my own investigations, except where otherwise stated. All other sources are acknowledged by bibliographic references. This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree unless, as agreed by the University, for approved dual awards.

Yr wyf drwy hyn yn datgan mai canlyniad fy ymchwil fy hun yw'r thesis hwn, ac eithrio lle nodir yn wahanol. Caiff ffynonellau eraill eu cydnabod gan droednodiadau yn rhoi cyfeiriadau eglur. Nid yw sylwedd y gwaith hwn wedi cael ei dderbyn o'r blaen ar gyfer unrhyw radd, ac nid yw'n cael ei gyflwyno ar yr un pryd mewn ymgeisiaeth am unrhyw radd oni bai ei fod, fel y cytunwyd gan y Brifysgol, am gymwysterau deul cymeradwy.

Signed

Print name

Date26/06/2020.....

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I would like to take this opportunity to thank all those who contributed to this research and whose support got me to this point.

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Thesis Abstract

This thesis explores the current landscape with regards to how the mental health needs of children and young people are being met.

Section one explores the role that trauma-informed schools (TIS) play in supporting students, families and school staff. The scoping review presents key concepts within the current literature on TIS, evaluates and summarises the findings of specific TIS interventions, and identifies areas for further research. The paper includes 70 studies, grouped into one of four categories: theoretical; detailed rationale; tier 1 and 2 interventions evaluated; TIS intervention evaluated. The consensus is that schools are in a unique position to support the learning and development of all students. There is strong theoretical support for the development of TIS as systemic interventions to help mitigate the effects of trauma and prevent re-traumatisation. More rigorous evaluations of TIS and their outcomes would strengthen and increase the value of research in this field.

Section two examines data obtained via the Welsh Health Survey which relates to the mental health and wellbeing of children and young people in Wales. A binomial generalised mixed effects model regression was used to explore whether a young person's age, sex and socioeconomic status impacts their odds of receiving professional support for their mental health. The findings show that, after controlling for need, young people from low socioeconomic backgrounds are significantly less likely to receive professional support for their mental health than those from higher socioeconomic backgrounds. The study suggests that young people would benefit from the development of a system which is less reliant on the subjective evaluations of adults. These findings are discussed within the wider context of existing research.

Chapter three discusses clinical implications for both papers, ideas for further research, alongside personal reflections of the main researcher.

SECTION 1

Trauma-Informed Schools: A Scoping Review

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Abstract

Background: This scoping review aims to explore the literature on trauma-informed school (TIS) interventions as systemic, whole-school approaches for supporting children and young people who have experienced complex trauma. The review presents key concepts underpinning the current literature on TIS, summarises findings and evaluations of specific TIS interventions, and identifies areas where more research may be required. **Method:** The review follows the framework developed by Arksey and O'Malley (2005) and is reported according to the PRISMA statement extension outlined for scoping reviews (PRISMA-ScR; Tricco et al., 2018). Any deviations from the PRISMA-ScR are noted and identified as a study limitation. **Results:** The findings suggest that TIS interventions create systemic changes which benefit students, educators and families by increasing knowledge and skill, as well as creating supportive systems which promote the inclusion of students who have experienced trauma into learning environments which are suited to their needs. **Conclusions:** This review highlights the lack of consistency when it comes to defining and evaluating TIS. There is a need for clearer definitions with regards to what constitutes a TIS as a systemic, multi-tiered, whole-school approach. More rigorous evaluations of TIS and their outcomes would also strengthen and increase the value of research in this field.

Keywords: trauma-informed care; trauma-informed intervention; childhood trauma; mental health support; child psychology

Abbreviations: Adverse Childhood Experiences (ACEs), trauma-informed schools (TIS)

Introduction

Adverse Childhood Experiences (ACEs)

It has long been established that events during childhood have the power to shape how we experience the world and view ourselves within it. 'Adverse Childhood Experiences' (ACEs) are stressful experiences in which harm is caused either directly to a child (e.g. physical, emotional, and sexual abuse, neglect) or indirectly through their environment (e.g. family conflict or divorce, household mental health problems or substance abuse, death or incarceration of loved one; Bellis et al., 2016a; Hughes et al., 2017). There is substantial evidence demonstrating the negative impact that ACEs can have on a child's development and lifelong physical and mental health (e.g. Cambron, Gringeri & Vogel-Ferguson, 2014; Danese & McEwen, 2012; Hughes et al.; Reiser, McMillan, Wright & Asmundson, 2014).

Impact of Trauma on Learning

Trauma interferes with executive functions involved in the ability to regulate emotions, focus attention, remember instructions, plan ahead and multi-task (Aupperle et al., 2016; Lu et al., 2017; Op den Kelder et al., 2019). Overall, research suggests that young people who have experienced trauma are more likely to experience difficulties socially, behaviourally and academically (Merritt & Klein, 2014). Links between trauma, emotional difficulties and school exclusion are well reported (Finning et al., 2019; Parker et al., 2019).

Students who have experienced trauma can exhibit a range of symptoms in the classroom, including those which are readily observed (e.g. aggression) and those

which are less apparent (e.g. withdrawal; National Child Traumatic Stress Network, NCTSN, 2020). School personnel are in prime position for identifying the effects of trauma and providing access to support for their students. However, research suggests that teachers express feeling underprepared and ill-equipped for supporting students who have experienced trauma (Alisic, 2012; Baweja et al., 2016; Dyregrov, 2009; Longaretti & Toe, 2017). There is a call for trauma-informed competencies to be introduced into teacher training programmes, to increase awareness and support teachers in this way (Crosby, 2015; Hobbs et al., 2019). There is potential for trauma symptoms to be misunderstood or misdiagnosed within educational settings, with school staff often being quick to discipline behaviours which are deemed undesirable or disruptive (Berg, 2017). Differential diagnoses of mood disorders, Oppositional Defiant Disorder, and Attention Deficit Hyperactivity Disorder are common amongst young people who have experienced trauma (Becker-Blease & Freyd, 2008). Conceptualising the effects of trauma in these ways may hold some benefit in enabling access to specific support, however, there is also potential for difficulties to be seen as being held within the young person and for the impact of trauma experiences to be overlooked.

Trauma Interventions in Schools

Efforts to support students who have experienced trauma have led to trauma-specific interventions being delivered within education settings. Reviews into school-based programmes highlight how CBT based trauma interventions (e.g. Cognitive Behavioral Intervention for Trauma in Schools; CBITS) appear to be the most researched in this field (Yohannan & Carlson, 2018). Despite the widespread application of CBT based interventions for trauma, methodological issues (e.g. use

of teacher-rated outcomes) and the emergence of evidence for equally as effective alternatives (e.g. Child-Centered Play Therapy, CCPT; Schottelkorb et al., 2012) highlight the importance of continuing to develop and review the evidence-base for trauma interventions in schools.

Much of the research into school-based programmes involves time-limited trauma interventions being delivered to students following a single traumatic event (e.g. natural disasters, wartime experiences, acts of terrorism). The nature of complex trauma means that individuals may have been exposed to a number of events, the impact of which may not be as readily understood (Hughes et al., 2017). Young people whose trauma histories are not disclosed, or whose presentations do not fit within the typical PTSD framework, are therefore likely to go unsupported by school-based programmes of this kind. There is also a clear need to recognise the role that the education system itself can play in re-traumatising young people.

Trauma-Informed Schools (TIS)

For the majority of young people, attending school is one of the most predictable and consistent daily life events. For those who have experienced trauma, the school environment has the ability to provide much needed reparative experiences and opportunities for growth and recovery (Costa, 2017). While access to specialist support following childhood trauma may be limited or not sought, social connections formed by young people at school are often maintained and have potential to support healing in themselves (Brunzell, Waters & Stokes, 2015). School environments which promote feelings of safety, connectedness, and support have the benefit of

potentially helping all students, including those without disclosed histories of trauma (Rossen & Cowen, 2013).

Wall, Higgins and Hunter (2016) describe trauma approaches in schools as sitting along a continuum, starting with 'trauma-aware' as the least comprehensive approach and 'trauma-informed' being placed at the opposite end of the scale.

Trauma-Informed Schools (TIS) go beyond the inclusion of psychoeducation lessons within the curriculum or the delivery of evidence-based interventions for select students who have experienced trauma. By creating a school-wide system which fosters a culture of safety and connection for all students, which is able to identify and respond to the needs of those with trauma experiences, a TIS approach aims to provide all students with the skills and supportive environment they need to learn (Menschner & Maul, 2016). It is worth noting that the term TIS is used broadly within the literature and often refers to a range of school-based trauma interventions other than this which is outlined above.

Aims

The purpose of this review is to explore the current literature into TIS interventions as a systemic, whole-school approach for supporting students. Therefore, for the purpose of this review, a school is considered to be applying a TIS approach if it's policies, practices and procedures reflect the key elements outlined by the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014) definition of trauma-informed care: recognising the prevalence of trauma; understanding how trauma affects all individuals involved in the system; applies knowledge into practice. Within the context of a school, this involves providing:

- professional development for staff: trauma training and skill building; self-care; on-going staff support
- trauma focused service: trauma screening and assessment; evidence-based interventions; links to mental health professionals
- organisational change: measures which promote physical/emotional safety and learning for all students.

The primary research questions for this scoping review are as follows:

1. What is the current understanding of the role schools can play in supporting pupils who have experienced developmental trauma?
2. How do TIS aim to support young people who have experienced trauma?
3. Which interventions are being used in TIS?
4. How are TIS evaluated?

Method

Research methods for this review were informed by the procedures outlined in Arksey and O'Malley's (2005) framework, developed for conducting scoping reviews. This approach was chosen as it allows for a broad search of the literature relating to the specific topic of TIS to be conducted. Use of the term TIS as relating to a specific systemic intervention remains relatively new and it was therefore deemed useful to explore key concepts in this area alongside evaluations of specific TIS approaches. Conducting a scoping review allowed for the extent and range of evidence to be examined and for gaps in the research to be identified. The hope is that dissemination of this information will allow for an increased understanding of what

constitutes a TIS intervention and for this term to be used more appropriately in future.

Phase 1: Development of a research question: after consultation with professionals working within the Gwent Attachment Service, Wales, the parameters of this scoping review were defined according to the research questions outlined at the end of the previous section.

Phase 2: Identifying relevant studies: a broad search of the literature was initially conducted into trauma interventions in schools. Search terms were continuously refined in order to ensure a comprehensive search was completed. It was noted that many terms were used interchangeably within the literature and were used to refer to an array of concepts (e.g. 'trauma-sensitive', 'trauma approach', 'attachment aware', 'nurture school', 'trauma-informed school-based intervention'). In order to examine the information classifying itself as relating to TIS interventions as a specific systemic approach, search terms were eventually narrowed in order to capture only the literature which specifically referred to and used this term. The following search terms were entered: Trauma-Informed School, Trauma Informed School. Papers were sourced using the following electronic databases: University library, PsycINFO, Web of Science, and Google Scholar.

Phase 3: Study selection: the lead researcher initially screened study titles and abstracts for inclusion. After this initial screening and the removal of duplicates, the lead researcher screened the main body text against the following set of inclusion and exclusion criteria:

Inclusion:

1. The paper includes the term 'trauma-informed school(s)' or 'trauma informed school(s)' and discusses this in terms of a systemic, whole organisation approach to supporting students.
2. Interventions discussed relate to teacher practices and school-wide procedures/policies which concern the school and classroom structure. There is mention of promoting an overarching philosophy which understands, respects and responds to the needs of individual students.

Exclusion:

1. The paper does not include the term 'trauma-informed school(s)' or 'trauma informed school(s)' within the main body of the text.
2. The term 'trauma-informed school(s)' or 'trauma informed school(s)' is mentioned in the main body of the text, but it does not refer to a systemic, whole organisation approach aimed at all pupils, involving school-wide procedure and policy changes.

In order to test the robustness of this process, a sample of papers were sent to the second researcher to screen by applying the same inclusion/exclusion criteria.

Differing opinions relating to the inclusion or exclusion of certain papers were discussed within the context of the above criteria until agreement was met. A total of 70 papers were included in the review.

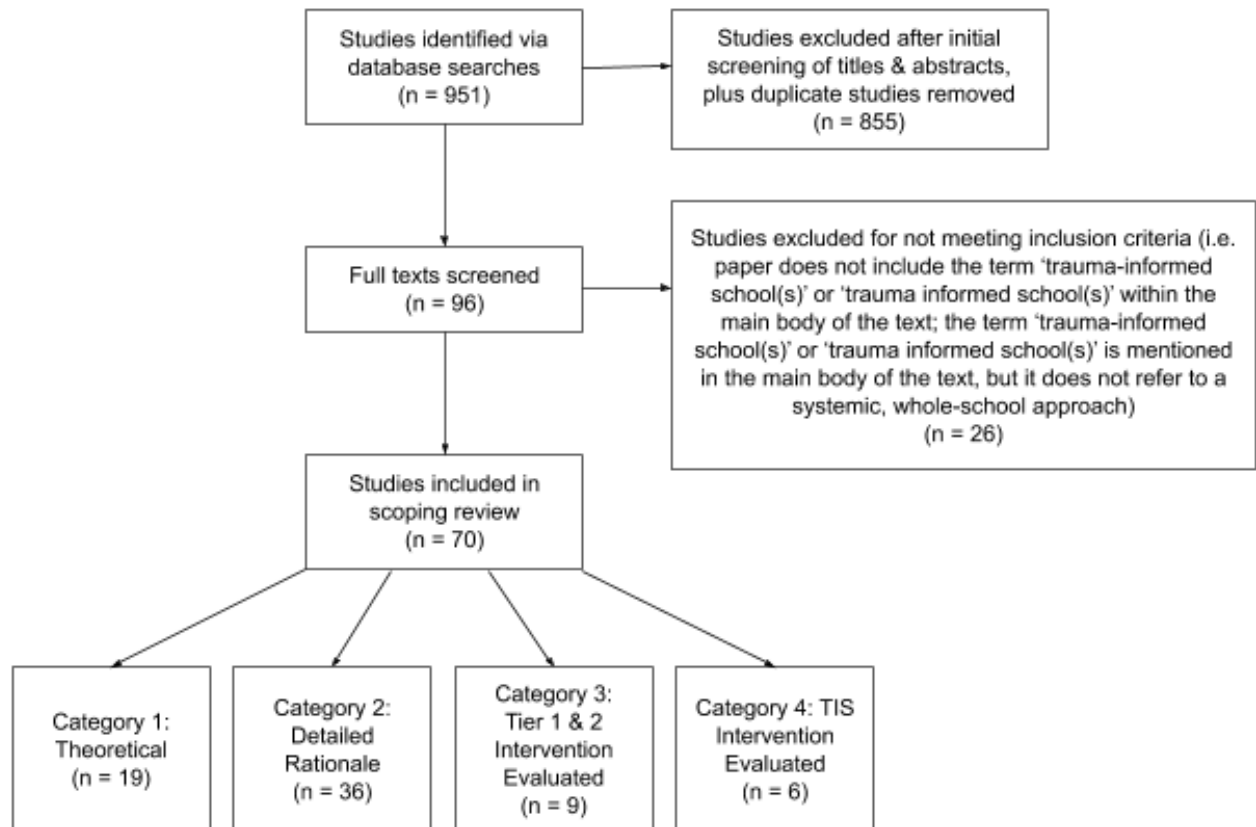
Phase 4: Charting data: information relating to each paper was extracted and stored on an Excel spreadsheet, as part of the 'charting' phase of analysis (Arksey & O'Malley, 2005). Information relating to the author(s), publication year, name and nature of intervention, methodology, sample, outcome measures, results, and important findings were recorded. During this phase, papers were grouped into one of four categories: Theoretical, Detailed Rationale, Tier 1 & 2 Intervention Evaluated, TIS Intervention Evaluated (see Figure 1.) which was also recorded.

Phase 5: Reporting findings: the four categories identified above provided an appropriate framework to inform the collating, summarising and reporting of findings. In line with the recommendations outlined by Arksey and O'Malley (2005), this study aims to present a narrative account of the material reviewed by presenting key findings and themes identified in the literature relating to TIS, as well as important critiques and recommendations reported by authors. This part of the review aims to shed light on how TIS are discussed within the context of developmental trauma and to explore the key elements of what constitutes a TIS. A table was used to clearly show the details of studies which explicitly evaluated a TIS intervention. This part of the review aims to identify specific ways in which TIS interventions are implemented and how researchers evaluated these. This, alongside the narrative summary, enabled research gaps to be identified and discussed.

Results

Following the selection process, 70 relevant studies were included in the analysis and were grouped into one of four categories (see below).

Figure 1. Flowchart showing the selection process and the categorisation of studies.



Narrative summary

All of the studies provided detailed background information linking the impact of ACEs and trauma to school performance, behaviour and life-long outcomes (e.g. Berg, 2019; Hosinger & Brown, 2019; Segal & Collin-Vézina, 2019). The consensus was that research in this area has implications for societies as a whole and that the amount of emerging evidence was also acknowledgement of the high level of public interest in this field. All studies supported the view that schools are considered

unique in their ability to provide support which reaches large groups of young people and that systemic changes within the education system provide an opportune setting to enhance young people's learning and development as well as their futures (e.g. Ridgard et al., 2015). For clarity, a narrative summary of the research within each category will now be reported separately. A more detailed analysis of the literature evaluating specific TIS interventions (category 4) is also provided.

Theoretical

Studies in this category offered strong theoretical support for the development of TIS as a way of supporting young people and mitigating the effects of trauma and preventing long term-consequences associated with early adversity (Paccione-Dyszlewski, 2016). Many studies advocate for teacher involvement in the development of a TIS approach, in order to increase trauma awareness and knowledge within the culture and practices of the school (Blitz & Mulcahy, 2017; Davis, 2019). Blitz, Yull & Clauhs' (2020) research highlights how educators' own biases and beliefs about race, culture and trauma can negatively impact their responsiveness to students. Research shows that even when teachers are aware of students' exposures to trauma, they report lacking the confidence, skill knowledge and tools required to support students effectively in these areas (Blitz & Anderson, 2016; Blitz, Anderson & Saastamoinen, 2016).

Crosby et al. (2017) reported that school attunement (measured by levels of engagement in school activities, school connectedness, and perceived levels of support from teachers, school staff and peers) was key to reducing trauma-symptoms within their sample of students placed in residential care and propose that

TIS offer a way of delivering this. Rokholt, Schultz and Langballe (2016) extended this further by reporting how trauma can negatively impact school engagement as well as the relationship between home and school for students and parents alike. The results of their qualitative study showed that trauma knowledge amongst parents and teachers was low, with both groups being unlikely to recognise students' poor functioning as relating to trauma symptoms. The study highlights how personal beliefs about the effects and duration of trauma can influence practices and further supports the implementation of TIS as a way of supporting students.

Research advocating the involvement of parents as well as specialist children's services gives further emphasis to the systemic, multi-tiered nature of TIS (e.g. Karp, 2012). Tan et al. (2018) noted the important role that TIS plays in bridging the gap between students who thrive within the education system and those at risk of poorer outcomes due to their experience of trauma. The researchers refer to school social workers being key players in removing barriers to best practice and creating pathways to evidence-based interventions for young people who are at risk of poorer outcomes. This emphasises the importance of creating a network of support for young people within schools, which goes beyond that of what is possible to achieve in a teacher's role alone.

Barriers to implementing TIS were discussed by Gubi et al. (2019) who emphasised the need to develop more rigorous research in order to inform delivery. The researchers advocate the development of working groups to connect professionals with an interest in TIS practices; to share information on building and sustaining the delivery of TIS approaches, promote the connection between research and practice,

and therefore drive best-practice. Gubi et al. express concern that the public interest in adopting TIS is currently outrunning the scientific evidence and availability of training. This is echoed by Chafouleas et al. (2019) whose summary of promising outcomes relating to TIS also called for the development of more detailed analyses in relation to both the short-term and long-term outcomes of TIS for students, teachers and schools alike. The researchers are curious as to whether an increased understanding of the effects of trauma has the potential to result in secondary traumatic stress amongst teaching staff, suggesting that this be monitored as a potential long-term outcome of TIS approaches.

Detailed Rationale

Building on what was discussed above, studies in this category also provided a clear definition of what constitutes a TIS. The research emphasises how the systemic, multi-tiered aspect of TIS means the approach stands apart from other school-based trauma interventions (e.g. Cognitive Behavioural Intervention for Trauma in Schools). NCTSN describes the development of TIS as an important step towards imbedding trauma-informed practices into the fabric of the education system (NCTSN, 2017). Research emphasises the importance of whole-school organisational changes across key areas: staff training and support; school policies and procedures; school infrastructure, environment and culture; non-academic strategies; clear pathways for identifying and supporting traumatised students; and partnerships with families and other professionals (e.g. Cole et al., 2015; McInerney & McKlindon, 2014; NCTSN; Saxton, 2019).

Described as being at the heart of a TIS approach, is a layered system which acknowledges the effects of trauma and both recognises and responds to this. TIS interventions aim to reduce the effects of trauma and avoid re-traumatisation (Maynard et al., 2019). Traditional school policies and procedures (e.g. zero-tolerance disciplinary policies) are highlighted as having potential to re-traumatise students and reduce opportunities to support young people in meaningful ways (Cole et al., 2015; Saxton et al., 2019). The research proposes that TIS offer an alternative framework which helps to create a safe and welcoming environment which addresses the needs of all students, staff and families (Crosby, Howell & Thomas, 2018; Von Dohlen et al., 2019; Walkley & Cox, 2013; Wiest-Stevenson & Lee, 2016).

Multi-tiered Intervention

Many studies refer to interventions, policies and procedures as corresponding to different tiers of support, implemented within the TIS framework (e.g. NCTSN, 2017; Fondren et al., 2020; Phifer & Hull, 2016). For the purpose of clarity, further details of these support tiers are outlined in the table below, along with examples of specific interventions for each.

Table 1. Details of support tiers outlined in the literature on TIS.

Support Tier	Description	Examples of Intervention
Tier 1	Preventive measures which promote physical/emotional safety and wellbeing along with learning for all students within the classroom environment.	Trauma-informed school policies (e.g. Cole et al., 2015); funding for trauma-informed initiatives (e.g. Kataoka et al., 2018); socio-emotional teaching and coping strategies included in the curriculum (e.g. Berardi & Morton, 2019); trauma teaching for school staff (e.g. Crosby et al., 2018; Chafouleas et al.,

		2016; Paleyo, 2020); trauma responsive teaching practices (e.g. Hoover, 2019); ongoing professional development, coaching/supervision for staff (e.g. Morton & Berardi, 2018; Pavia, 2019); self-care training for staff (e.g. Thomas, Crosby & Vanderhaarl, 2019); sense of school community (e.g. Rumsey & Milsom, 2019; Von Dohlen et al., 2019); compassionate school climate (e.g. Biliass-Lolis et al., 2017)
Tier 2	Enable the identification and targeted support of 'at risk' students.	Trauma screening (e.g. Meister, 2019); data collection (e.g. Morton & Berardi, 2018); psycho-education on trauma included in curriculum (e.g. Mendez et al., 2018); strengthening of student support systems (e.g. Gill, Gottfredson & Hutzell, 2016; Phifer & Hull, 2016); academic instruction for traumatised students (e.g. McNerney & McKlinton, 2014)
Tier 3	Most intensive support, reserved for students who require individualised trauma support.	Links to mental health professionals (e.g. Morton & Berardi, 2018); wrap around support (e.g. Crosby, 2015); referrals for individual and family psychological therapy (NCTSN, 2019); links to community-based interventions (e.g. Blodgett & Dorado, 2016).

Systemic Change

Morton and Berardi (2018) emphasise how TIS approaches cannot be viewed as additional tools or activities which are occasionally applied and acknowledge the paradigm changes required in order to create a TIS. The importance of strategic planning and leadership is emphasised throughout the literature (e.g. Berardi & Morton, 2019; Howell et al., 2019; Krassnoff, n.d.). The involvement of all stakeholders (e.g. students, parents, school administrators, school leaders, mental health professionals) is identified as key to the success of a TIS (Berardi & Morton,

2019; McIntyre et al., 2016; Morton & Berardi, 2018). Administration which prioritises the wellbeing of staff and takes steps towards monitoring and mitigating burnout is reported as central to supporting the effective implementation of TIS approaches (Howell et al.).

It is acknowledged that systemic changes take time to develop and implement and that shifts in approaches are likely to significantly influence the training of school staff. A consensus within the literature is that increasing teachers' awareness of trauma is an important step in developing TIS. Howard (2019) also emphasised the importance of informed leadership within schools. The researcher states that outcomes are enhanced in schools where, in addition to teaching staff, leaders have also received training in complex trauma and trauma-informed approaches. Providing all school staff with this training therefore signifies a significant shift in culture and the challenges associated with this cannot be underplayed.

Tier 1 & 2 Systemic Interventions Evaluated

Evaluations of specific systemic interventions which sit within the framework of TIS approaches provide valuable information when considering the design and implementation of a TIS. Research in this category examines the effectiveness of systemic interventions on the tier one and tier two level, which involve changes being made to school procedures, policies and environments. While these interventions lack elements of the multi-tiered approach required in order to be considered within the context of a full TIS intervention, many of these systemic interventions are used in TIS and therefore evaluations of these contribute to the field of research.

Trauma Teaching

The professional development of educators features heavily within the literature on TIS. Research suggests that training school personnel in trauma, its effects on students and the application of trauma-informed approaches in the classroom, helps to increase staff knowledge, awareness and confidence in these areas (Law et al., 2019; Woodside-Jiron et al., 2019). Law et al. invited fourteen teachers to complete pre and post Knowledge Attitude, and Practices (KAP) questionnaires, which showed increases in participants' scores across each domain following a two hour training session, with moderate to large effect size being reported. As the KAP questionnaire is designed to capture an opinion, the application of knowledge was not measured directly and therefore it is not known whether increased intention to apply trauma-knowledge translated into behavioural change for this sample.

Woodside-Jiron et al. (2019) aimed to address this issue via their 'academy' for professionals enrolled on a graduate course and referred to measuring the application of trauma skills. The researchers ran workshops specifically aimed at introducing participants to a range of evidence-based applications of trauma-practices and encouraged participants to contact trainers (via telephone) to receive additional training and consultation as necessary. After nine months of the intervention, participants' scores on the skill application scale were significantly higher than their pre-intervention scores. Again, this data was self-rated, however, triangulation with qualitative data taken from the participants suggested a level of information integration and real life application, with participants providing examples of when they had/would draw upon the approaches learnt. The research suggests that a combination of training and coaching support teachers to implement

techniques learned and to effectively respond to students' needs and manage distress in the classroom (McConnico et al., 2016).

Anderson, Blitz and Saastamoinen's (2015) research highlights how wider workplace cultural and environmental factors can act as barriers for staff when attempting to apply trauma knowledge and implement trauma strategies in the classroom.

Classroom support staff reported feeling uncomfortable feeding back knowledge to teachers following trauma workshops, referred to a power imbalance and feared being sacked if they were seen challenging usual practices. The researchers discuss how staff who experience disempowerment and feel a lack of support or teamwork within the workplace are less likely to develop and practice new skills following trauma workshops. This emphasises the importance of involving all school staff in the development of trauma-informed training and also highlights the impact that school culture can have on the development of TIS.

McIntyre et al. (2019) explored whether trauma knowledge was associated with teachers' perceptions of acceptability of trauma approaches. Using adapted versions of the 'Acceptability' and 'System Climate' subscales from the Usage Rating Profile-Intervention Revised (URP-IR), the researchers explored whether teachers across six public schools viewed trauma approaches as being in line with the culture and ethos of the school ('system fit') and whether this moderated the relationship between knowledge and acceptability. Interestingly, the findings showed that primary school teachers reported greater 'system fit' for trauma-informed approaches in their schools, compared to secondary school teachers. The research also indicated greater knowledge growth amongst staff who perceived higher levels of 'system fit'.

For staff who perceived less of a 'system fit', increased knowledge about trauma-informed approaches was in fact linked to a decrease in acceptability of these approaches. Meister (2019) noted that, in order to be successful, practices need to be in line with the needs of staff as well as those of schools and students. Staff buy-in is identified as crucial for the effective implementation of training (McIntyre et al., 2016; Walkley & Cox, 2013). Collaboration between educators, parents and mental health professionals with trauma-informed experience and expertise is therefore encouraged in order to implement strategies and ongoing support relevant to the specific needs of parties involved (Morton & Berardi, 2018). These findings emphasise the importance of assessing school climate prior to delivering trauma-training of staff.

Discipline Procedures

Alternatives to school discipline procedures and suspension have also been evaluated within the context of creating a TIS. The 'monarch room' (MR) is an intervention aimed at providing students with access to trauma-informed support and tools to help them manage their emotions, following an escalation of distress in the classroom (Baroni et al., 2016). These spaces are supported by trauma trained staff and provide students with an opportunity to problem solve, access talk therapy and sensory-motor activities for brief periods of time during the school day, with the aim of supporting students back into the classroom once they feel able to do so. The aim of a MR is to not only support students to recognise and regulate their emotions effectively, but to also help create a safe environment for all students to learn.

Baroni et al. (2016) used secondary data relating to MR referral and suspension data within a public school for court-involved female students, collected over the course of three years. As each individual who received a suspension during the time period had also been referred to the MR at least once, the researchers conclude that the rate of MR use is an indication that teachers support this as an alternative approach. However, the researchers did not retrieve any data from teachers directly and this summation could therefore be an artefact of the researchers own interpretations and/or biases. Building on this research, Crosby et al. (2018) explored the experiences of students who accessed the MR. The results of the qualitative research showed that students reported benefitting from an opportunity to manage their distress and overcome problems skilfully.

Day et al. (2015) evaluated the effectiveness of both teacher training and alternative discipline procedures on reported levels of need and objective measures of trauma symptoms for court-involved females attending a residential school. The study explored the effects of introducing the Heart of Teaching and Learning (HTL; Wolpaw et al., 2009) curriculum for teachers, alongside the introduction of a MR, and a Dream Catcher Room (DC) for extended support. Pre and post intervention data were collected using a series of self-report measures (Student Needs Survey (SNS), Burns, Vance, Szadokierski & Stockwell, 2006; Child Report of Post-traumatic Symptoms (CROPS), Greenwald & Rubin, 1999; Rosenberg Self-Esteem Scale (RSE), Rosenberg, 1989) alongside responses to close-ended interview questions. Significant reductions in post-traumatic symptoms were reported following the introduction of the intervention, with moderate effects. Interestingly, overall scores on the SNS did not significantly change following the introduction of the intervention.

Students indicated a significant increase in needs relating to the 'survival' and 'power' subscales, suggesting that they believed their needs in these areas were being met to a lesser degree following the intervention. Day et al. conclude that the process of implementing and evaluating the intervention resulted in students becoming more aware of their needs and therefore what they felt was missing. An alternative view may be that these results reflect an unintended consequence of the study, with students simply feeling more supported in these areas prior to the intervention.

Together, these findings highlight the complexity of systemic interventions and emphasise the need to assess the climate of a school and develop policies and procedures which help create a school-wide culture which values and feels empowered to implement systemic interventions (Crosby et al., 2019).

TIS Intervention Evaluated

Specific examples of TIS interventions being applied and evaluated were also found in the literature. These studies build on that which is outlined above by providing and evaluating a TIS framework involving multi-tiered systems of support. A detailed breakdown of the studies included in this category are presented in Table 2.

The studies summarised (Table 2) are specific examples of how multi-tiered systems of support can be applied within a TIS framework. Methodological approaches applied by the studies varied, with researchers using a number of different outcome measures to evaluate the effectiveness of the TIS interventions. These differences are discussed in more detail, within the context of the studies' main findings.

Table 2. *Details of specific TIS programmes evaluated within the literature*

Author(s) & Publication Year	Sample	Design	Intervention Framework	Intervention Key Concepts	Outcome Measures	Key Findings	Limitations
Rishel et al. (2019)	51 classrooms across 11 schools (pre-K, kindergarten, & first grade) Intervention Group: 39 classrooms Control Group: 12 classrooms	Between-subjects	Trauma-Informed Elementary Schools (TIES)	TIES model: 1. School & Teacher Training: learning to manage own reactions; create a sense of safety for students; help students build skills to understand, manage & express emotions. 2) Classroom Consultation: foster a trauma-informed environment, interactions to promote attunement, model affect management, increase student & teacher coping skills. 3) Family Engagement & Intervention: validating/normalising parental experiences; provide psycho-education about trauma & development; emphasise the importance of parent-child relationships; assist families with accessing resources; promote parent & community groups; provide direct interventions for students.	CLASS (Classroom Assessment Scoring System) three domains. Emotional support: positive climate; negative climate; regard for student perspectives; teacher sensitivity Classroom organization: productivity; behaviour management; instructional learning formats Instructional support: language modelling; quality of feedback; concept development	TIES classrooms demonstrated significant improvement from baseline to follow-up in multiple domains. Control classrooms showed decline.	Pilot study: Concerns over small numbers & statistical power
Shamblin, Graham & Bianco (2016)	11 teachers from 11 pre-school classrooms (217 students) across five elementary schools.	Within-subjects	Partnership Program (Early Childhood Mental Health and Project LAUNCH)	Tier 1. Universal Consultation: strategies for teachers to support the social-emotional development needs of all students; implementation of social-emotional curriculum Tier 2. Targeted Consultation: strategies for teachers to implement with individual students who present with behaviours which challenge; initiate home-school communication strategies. Tier 3. Intensive	Teacher Opinion Scale (TOS; Geller & Lynch, 1999); Preschool Mental Health Climate Scale (PMHCS; Gilliam, 2008); Devereux Early Childhood Assessment (DECA; LeBuffe & Naglieri, 1999);	Significant pre/post-improvement in teacher confidence & hopefulness in positively managing behaviours which challenge; significant decrease in negative attributes of pre-school learning environment; significant increase in teacher ratings of child resilience.	Generalisability of model. Small sample size. Fidelity of teachers to model not measured.

				Services: on-site mental health assessment; provision of evidence-based interventions for students & families on or off site. Partnerships Program: consultants embedded in schools to provide on-site mental health assessments/interventions for students & increase positive supports for teachers.	Georgetown University ECMHC Satisfaction survey		
Dorado et al. (2016)	1243 students across 4 schools (kindergarten to 8th grade). 175 school personnel (teachers, administrators, school social workers, attendance counselors, special education professionals)	Within-subjects	Healthy Environments and Response to Trauma in Schools (HEARTS) Program	Five year programme informed my evidence-based complex trauma research. Tier 1: school-wide universal support to change school cultures into learning environments that are more safe, supportive and trauma-informed. Tier 2: capacity building with school staff to facilitate the incorporation of a trauma-informed lens into the development of supports for at-risk students, school-wide concerns and disciplinary procedures. Tier 3: Intensive interventions for students suffering from the impact of trauma.	Program Evaluation Questionnaire, measuring: 1. Knowledge about & use of trauma-sensitive practices. 2. Students' school engagement. 3. Disciplinary office referrals, incidents of physical aggression, out-of-school suspensions. 4. Trauma-related symptoms.	Significant increases in teachers' understanding of trauma & use of trauma-informed practices; significant improvements in students' reported abilities to learn, school attendance & time spent on task. Data for the school where the programme was implemented for the full 5 years indicated a significant drop in referrals to disciplinary office, incidents of physical aggression & out-of-school suspensions. Significant decrease in trauma-related symptoms for the 88 students who received HEARTS therapy.	Generalisability of model.
Baez et al. (2019)	Over 500 students from two middle schools over two academic years.	Quasi-experimental design	Wediko trauma-informed multi-tiered socio-emotional learning (SEL) service	Tier 1: School-wide support & socio-emotional learning: advisory/extended learning time/side by side; clinical consultation, professional development for staff; SEL & trauma-informed care coaching; field trips & assemblies; milieu support: cafeteria, transitions, classroom; family events, groups & celebrations. Tier 2: Group	Social Skills Improvement System Rating Scales (SSIS-RS); Adverse Childhood Events (ACE) Questionnaire (Felitti et al., 1998); semi-structured interviews	Increased school attendance. Significant decrease in social skills at the end of first year of intervention. No significant changes in social skills during the following year. Increased trauma exposure is related to decrease social skills. No significant changes in problem	Use of self-report data. Lack of generalisability. No set prescribed dosage of services.

				counselling & supports: mentoring for chronic absenteeism; crisis de-escalation & mediation; small group work; identification of students in need of intensive support. Tier 3: Individual counselling and case management: case consultation & referrals; individual counselling; home visits & family meetings; outreach phone calls.		behaviours post-intervention.	
Pataky, Baez & Renshaw (2019)	Over 500 students from two middle schools over two academic years.	Case study	Wediko trauma-informed multi-tiered socio-emotional learning (SEL) service School-based universal childhood trauma screening protocol	Tier 1: Pre-service and in-service training for school staff; individual staff supervision; group staff supervision; coaching, consultation & feedback for staff. Tier 2: ACEs interview with students (following the ACE Questionnaire Procedure); resilience building; systematic data collection of students' ACEs scores. Tier 3: Evidence-based interventions for students in need; case conferences between school, parents & agency staff; referrals to external agencies.	Staff performance assessment ; Adverse Childhood Events (ACE) Questionnaire (Felitti et al., 1998).	Core components of successful implementation: staff selection, pre-service & in-service training, coaching & consultation, staff performance assessment, effective data systems to inform service development, support from school administration, & systemic interventions. School staff took a more active role in learning about trauma; achieved buy-in for ongoing research & conversations about trauma & evidence-based practices. Research team needed to lead the project; communication with administration about the project is crucial. Systematic interventions require resources.	Outcomes are based on researchers' reflections. Measurable outcomes not reported. Staff performance assessment used to inform the development of the project (e.g. need for staff workshops) rather than to assess the effectiveness of the intervention.
Perry & Daniels (2016)	32 teachers; 19 Care Coordination families; 77 students received	Within-subjects	New Haven Trauma Coalition	Tier 1: Professional Development - promote a culture shift; increase the capacity of staff to respond to students in trauma-informed ways; create expertise within the	Professional Development Satisfaction Survey; Student Satisfaction Survey;	Staff's knowledge of trauma-informed practices: increased knowledge about trauma; increased skills for recognising	Outcomes dependent on staff feedback. Behavioural changes & implementation of skills not measured.

	classroom workshop s; 17 students received the CBITS programme			<p>school. Workshops - evaluate needs & existing support structures; build relationships with administrators, teachers, support staff & students; provide classroom-wide psychoeducation workshops.</p> <p>Tier 2: Trauma screening & small group interventions to students.</p> <p>Tier 3: Care Coordination - promote supportive relationships with families, offer resources & care coordination. Provide individualised, family-driven, & student-guided support to meet the needs of families with complex challenges.</p> <p>Intervention - identify students in need of intensive support; provide Cognitive Behavioral Intervention for Trauma in the Schools (CBITS) programme.</p>	Trauma Exposure & Symptoms Screener (UCLA PTSD Index; Pynoos et al., 1998)	<p>trauma; increase in ability to apply techniques to reduce distress in the classroom; changes in attitude towards students & the trauma they experience; implementing more self-care techniques & using these in their work with students.</p> <p>Families: positive improvements in communication between school & families; families created a community support system; system established for providing trauma-informed services to students & families.</p> <p>Student knowledge/wellbeing: increased understanding of relaxation, trust & managing anxiety post workshop.</p>	
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Teacher Knowledge and Skill

As part of the evaluation of their TIS intervention, Shamblin, Graham and Bianco (2016) used self-report measures to examine pre and post teacher knowledge and confidence in applying trauma-informed approaches within the classroom. Scores on the Teacher Opinion Scale (TOS; Geller & Lynch, 1999) were significantly higher post intervention, indicating significant increases in teachers' knowledge of trauma related symptoms and confidence in recognising these amongst their students.

These findings are supported by Dorado et al.'s (2016) study which also showed a significant increase in trauma-related knowledge and practice reported by teachers post-intervention, as measured using a Program Evaluation Survey. It is worth noting

that effect sizes were not reported in either research. Furthermore, both studies utilised non-standardised self-report tools for assessing teacher knowledge, which raises some concerns when considering the reliability of these findings.

To explore whether increased knowledge translated into behavioural change within the classroom, Shamblin et al. (2016) also used the Preschool Mental Health Climate Scale (PMHCS; Gilliam, 2008) to assess teachers' use of strategies which supported the social-emotional development of students ('positive attributes'), as well as those which may increase behaviours which challenge ('negative attributes'). Pre and post findings showed a significant reduction in 'negative attributes' being observed in the classrooms following intervention. Again, effect sizes were not reported. Interestingly, mean scores for the 'positive attributes' scale did not differ significantly, suggesting that teachers engaged in similar levels of strategies for promoting social-emotional development pre and post intervention.

Rishel et al. (2019) used the Classroom Assessment Scoring System (CLASS; Pianta, LaParo & Hamre, 2008) to formally assess the presence/absence of trauma-informed support within the classroom and used a mixed methods design (within-subjects and between-subjects) to evaluate the effectiveness of the TIS intervention. The findings showed that the TIS intervention led to a significant increase in levels of trauma-informed support being observed in the TIS classrooms, compared to a marked decrease in support being observed over time in the control group classrooms. Within-subjects analysis showed significant increase in observable measures of emotional support (large effects) and classroom organisation (medium effects) for TIS classrooms post-intervention. No significant differences were found in

the level of instructional support observed in the TIS classrooms post-intervention. The researchers conclude that the study would benefit from further replication in order to increase statistical power and generate more generalisable findings.

Student Outcomes

Student related outcomes were reported in four of the studies (Dorado et al., 2016; Perry & Daniel, 2016; Shamblin et al., 2016). Shamblin et al. used teacher-rated measures to explore pre and post levels of social, emotional and behavioural functioning amongst students (Devereux Early Childhood Assessment, DECA; LeBuffe & Naglieri, 1999). The researchers used a between-subjects design to explore whether scores differed for students whose teachers had consultants embedded in their classrooms, versus those whose teachers had access to consultation when requested. The findings show that pre-intervention DECA scores did not differ significantly between each group. Post-intervention scores indicated that teachers who had consultants embedded in the classroom reported significantly higher levels of resilience scores amongst their students following the intervention compared to teachers who received consultation upon request. However, the use of teacher-rated measures of student outcomes are potentially problematic as they are open to being influenced by a number of additional factors (i.e. biases), which risk reducing the reliability of these findings. In addition, the researchers' decision to use a between-subjects design rather than a pre-post evaluation of the DECA data means that the impact of the intervention on student outcomes as a whole is not fully understood. Shamblin et al., also measured teachers' satisfaction with the ECMHC strand of the intervention using the Georgetown University ECMHC Satisfaction survey. Unfortunately, the researchers did not publish these results in full, meaning

that additional information relating to teachers' experiences and evaluations of the intervention is not known.

Perry and Daniels (2016) used an internal survey of students to help inform the development of their whole-school psychoeducation workshops, as part of their TIS intervention. Pre-post evaluation of survey scores showed an increased understanding of relaxation, anxiety and trust amongst students following the workshops. The researchers presented these findings as percentages and did not comment on the significance of the increases. Perry and Daniels' intervention included a Cognitive Behavioral Intervention for Trauma in Schools (CBITS) program for students identified as exhibiting symptoms of PTSD. Using the University of California at Los Angeles PTSD Reaction Index (UCLA PTSD Index) as an outcome measure, the findings showed a significant decrease in trauma symptoms reported by students post-intervention. While this decrease resulted in a large reduction in the number of students who met the symptom criteria for PTSD following intervention, the researchers note that many students still met the criteria for at least one of the categories relating to the re-experiencing of trauma, suggesting more support may be required. It is also worth noting that only students exhibiting moderate-high levels of what teachers viewed as 'negative behaviour' were referred for this intensive support. It is acknowledged that students who express distress in the form of withdrawal were therefore likely to be missed, suggesting that teachers may require further training on the differing ways in which distress may be expressed and that a more comprehensive system for identifying and supporting these students would need to be developed.

Dorado et al. (2016) also reported significant reductions in trauma-related symptoms amongst students who received intensive support within their TIS programme, as measured by the Child and Adolescent Needs and Strengths (CANS; Praed Foundation, 1999). In addition, the researchers reported a significant reduction in incidents of physical aggression, referrals to the disciplinary office and suspensions, but only for the school which received intervention for the full 5 years of the study. This emphasises the level of investment required in order to create systemic change and also highlights the high level of continued resources needed to implement a TIS framework successfully, as identified by many of the researchers (e.g. Pataky, Baez & Renshaw, 2019). Dorado et al. also measured levels of school engagement amongst students, pre and post-intervention. Teachers were asked to rate the amount of time students spent in the classroom, the amount of time spent on task, students' abilities to learn, and school attendance. Findings show a significant increase in teachers' ratings of student engagement post-intervention. However, the use of teacher-rated measures means that there are potential biases to consider when interpreting this data. For example, teachers may have wanted the intervention to have increased school engagement and may therefore have interpreted behaviour as supporting this. Preconceptions relating to how students express trauma-related symptoms in the classroom, means that there is potential for certain symptoms to be interpreted as engagement (e.g. withdrawal; Perry & Daniel, 2016). Additionally, teachers were asked to rate their students' engagement as a collective, meaning that changes on the individual level were not detected. As these factors may have resulted in teachers overestimating levels of school engagement post-intervention, the use of student-rated and direct measures of school engagement (e.g. attendance rate) may have provided more reliable data for this analysis.

Baez et al. (2019) reviewed the Wediko Children's Services' TIS intervention. The study examined changes in social skills and 'problem behaviour' amongst middle school students over the course of two academic years. The ACEs Questionnaire (Felitti et al., 1998) was used to assess levels of trauma exposure amongst the students and to create three groups (low, moderate and high) used in study's quasi-experimental design. The researchers used a standardised measure (Social Skills Improvement System Rating Scales, SSIS-RS) to assess students' self-reported levels of social skills and 'problem behaviours' at four different time points; pre-intervention year one, post-intervention year one, pre-intervention year two, post-intervention year two. The main findings show that students with high ACEs scores had a significantly greater decrease in social skills score compared to other groups and that this decrease remained significant at the end of the second year of intervention. Post-intervention analysis shows that students with high ACEs scores reported a significant increase in levels of 'problem behaviours' at the end of year one and year two, while students with low ACEs scores reported a significant decrease at the end of year two. The researchers summarise their findings by stating that students with lower levels of trauma exposure appear to have benefitted from the intervention to a greater extent and more quickly than those with higher ACEs scores. An extension of this might be to conclude that the intervention was not beneficial to those with high ACEs scores and in fact contributed to an increase in reported difficulties amongst this group. Alternatively, it might be that the self-report measures are in fact reflecting differences amongst the groups in their ability to identify their own resilience and capabilities. The ACEs Questionnaire also relies on knowledge and memories of past events, which are open to a number of reliability issues.

Additional Findings

Further to Baez et al.'s (2019) research, Pataky, Baez and Renshaw (2019) published an additional paper presenting their personal reflections on the implementation of the ACEs Questionnaire as a screening tool as part of Wediko Children's Services' TIS intervention. The paper, described as a case study, focuses on the initial implementation of the trauma screening process and aims to provide a suggested framework for future implementation. Interestingly, Wediko's TIS intervention is described to a differing degree in these papers, suggesting that both Baez et al. and Pataky et al.'s research should be considered together when evaluating this TIS approach. Pataky et al.'s main findings are that the intervention was viewed as successful and led to buy-in from teachers. However, these findings are based on the researchers' reflections alone and the lack of measurable outcomes relating to acceptability or feedback from staff means that the study is open to issues relating to bias and reliability. Pataky et al. used a staff performance assessment to inform the development of their TIS intervention (e.g. the need for further training) but, unfortunately, did not use this to evaluate its effectiveness.

Limitations

A review protocol was not published for this study, which is a deviation from the guidance outlined by the PRISMA-ScR Statement (Tricco et al., 2018). This may mean that attempts to replicate findings or conduct future research in this area may be difficult to achieve and so it is acknowledged that this is a study limitation.

The narrative style of reporting in scoping reviews means that the quality of the research is not formally reported. While attempts were made to consider factors

which might affect both research quality throughout the review, it must be acknowledged that this was reported at the discretion of the researcher. Similarly, the weight of evidence relating to the effectiveness of certain interventions is not addressed. Scoping reviews require large amounts of information to be condensed and presented descriptively, which means that much of what is presented is the result of researcher discretion. Attempts were made to maintain an analytical eye when summarising this information, however, it is possible that some details were given more emphasis than others.

While in the process of conducting this review, it became apparent that many papers discussed trauma-informed school-based interventions at an organisational, systemic level, but failed to use the term TIS to describe this. Papers not using this term were excluded from this review, meaning that further evaluations/information relating to interventions of this nature may be missing. This highlights the need to clearly define and differentiate TIS interventions as a specific approach and for researchers to use this term to further our understanding of systemic trauma-informed school-based interventions.

Conclusions

The findings of this review show there is widespread theoretical support for the development of TIS in creating school-wide systems which provide all students with the skills and supportive environment needed to learn. Specific examples of TIS interventions provide examples of how multi-tier systems of support might be

implemented within a school setting and also identify some of the barriers to implementation.

Methodological limitations mean that the research showing support for the effectiveness of specific interventions is currently lacking in reliability and rigour. This is in line with concerns raised about TIS approaches being applied broadly, despite research still being in its infancy (Chafouleas et al., 2016; Gubi et al., 2019; Loomis, 2018). There is a clear need for further research in the area, with attention being directed to the collection of reliable data and the evaluation of long term outcomes of TIS.

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SECTION 2

Differential Access to Mental Health Support for Young People According to Socioeconomic Status: Evidence in Wales

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Abstract

Background: This study explores whether a young person's age, sex and socioeconomic status (SES) are associ

ated with the likelihood of receiving professional support for their mental health, conditional on need. **Methods:** Using data from the Welsh Health Survey from 2008-2015, the study uses mixed effects model regression to explore whether SES, sex and age are associated with young people's odds of receiving mental health support, after controlling for scores on the Strengths and Difficulties Questionnaire (SDQ).

Results: The findings show that an individual's odds of receiving mental health support increase by 65% for every one point increase in score on the SDQ. After controlling for scores on the SDQ, sex and age, young people with low SES are significantly less likely to receive professional support for their mental health compared to those with high SES. **Conclusions:** The study shows that a young person's SES plays a role in increasing/decreasing their odds of receiving support for their MH. Factors which may contribute to these differences are discussed, along with study limitations.

Keywords: children; adolescents; child psychology; socioeconomic differences; mental health access; service provision.

Abbreviations: mental health (MH); socioeconomic status (SES); Welsh Health Survey (WHS); Strengths and Difficulties Questionnaire (SDQ)

Introduction

An expanding body of research suggests that socioeconomic disadvantage is associated with a greater risk of experiencing mental health difficulties (e.g. French & Vigne, 2019; Hojman, Miranda, Ruiz-Tagle, 2016; Marmot et al., 2010; Pickett, Oliver & Wilkinson, 2006). The two-way relationship between socioeconomic status (SES) and poorer mental health (MH) means that people can often become entrenched in poverty, experiencing a range of complex difficulties (Fell & Hewstone, 2015; Lemstra et al., 2008; Allen, Bell, Balfour & Marmot, 2014). Systematic reviews have repeatedly found that the association between SES and poor MH emerges prior to adulthood, with rates of anxiety and depressed mood being 2.5 times higher amongst young people aged 10-15 years with lower SES compared to those with higher SES (Lemstra et al.; Reiss, 2013). Young people from families with low SES are reportedly two to three times more likely than those from high SES families to experience MH difficulties (Reiss).

Research suggests that the negative income gradient associated with young people's MH has become even more prominent in recent years (Morrison-Gutman, Joshi, Parsonage & Schoon, 2015). In Wales, approximately 200,000 children are living in poverty, with 90,000 of these being classed as living in severe poverty (Save the Children, 2012). Latest figures show that Child and Adolescent Mental Health Services (CAMHS) across Wales received 18,978 referrals between December 2018 and November 2019 (Welsh Government, 2020). Reports highlight how the increasing demand for the provision of MH support for young people in Wales puts pressure on specialist services in relation to capacity, waiting times and the delivery

of effective and timely interventions (Welsh Government, 2019; National Assembly of Wales, 2018). With services being urged to reserve specialist input for those considered most in need, it seems appropriate to explore whether additional factors aside from objective level of need appear to be playing a role in young people receiving/not receiving MH support.

Barriers to Services

Research suggests that individuals with low SES are less likely to receive treatment following a request for MH support compared to individuals with high SES (e.g. Cummings, 2014; Lubian et al., 2016; Parslow & Jorm, 2000). Factors identified as potential barriers to accessing MH support include (but are not restricted to) limited service provision, shift work, transportation, disruption in family functioning, and distrust of services (e.g. Copeland & Snyder, 2011; Kataoka, Zhang & Wells, 2002; Krupnick & Melnikoff, 2012; Santiago et al., 2013; Snell-Johns et al., 2004).

Research suggests that these factors disproportionately affect people with low socioeconomic status, resulting in higher levels of unmet need within this population.

Identifying Need

Barriers to service access are compounded further for young people, who are likely to be reliant on adults to first identify their needs and to also facilitate their access to appropriate support (Mitchell, McMillan & Hagan, 2017). This is particularly true of younger children. Research suggests that MH difficulties are often not identified in young children, leading to a lack of appropriate support (Koning, Buchner, Vermeiren, Cronea & Numans, 2019). Non-verbal expressions of distress (e.g. changes in behaviour, expression of somatic symptoms) are open to interpretation,

meaning that MH difficulties can go unrecognised. Differences in the way individuals (often referred to as 'gatekeepers') interpret the distress/needs of children and young people clearly influences whether professional support is sought and provided (Buxton, 2010; O'Brien, Harvey, Young, Reardon & Creswell, 2016). Ayra et al. (2015) reported that parents who viewed their child's behaviour as being the result of a lax parenting style or who viewed the difficulties as being a natural part of growing up were less likely to seek professional support on behalf of their child. Similarly, parents who attribute their child's MH difficulties to physical or traumatic causes are reportedly more likely to seek support than those who consider these difficulties as being associated with peer relationships (Yeh et al., 2005). Even within groups of health professionals there is reportedly a need to improve skills associated with the recognition of emotional and behavioural difficulties and the understanding of how distress is expressed by young people (Bohman et al., 2018; Koning et al., 2019; O'Brien et al.).

Beliefs, Knowledge and Stigma

Even when MH needs are identified, research suggests that parental concern over stigma serves as a major barrier when it comes to young people accessing MH support (dos Reis et al., 2010; Dempster, Wildman & Keating, 2013; Gronholm et al. 2015, Reardon, Harvey, Young, O'Brien & Creswell, 2018). Negative perceptions held by parents in relation to MH services further contribute to this (Stiffman, Pescosolido, & Cabassa, 2004; Thurston & Phares, 2008). Increased knowledge of specific MH difficulties has been shown to increase the likelihood of parents seeking support for their child (Bussing et al., 2012; Power, Eiraldi, Clarke, Mazzuca, & Krain, 2005). Some research suggests that parents are more likely to seek support for their

child if they themselves have accessed MH services for their own needs (Oh, Mathers, Hiscock, Wake & Bayer, 2015; Turner & Liew, 2010), although the mechanism for this is unclear.

Gatekeeping: SES

Parents from higher socioeconomic backgrounds are reportedly more likely to seek and receive support for their children's mental health needs compared to those with low SES (Arya et al., 2015; Haines, McMunn, Nazroo & Kelly, 2002; Oh et al., 2015; Sayal et al., 2002). This has shown to result in earlier diagnoses for children from higher socioeconomic backgrounds and has also been cited as the reason behind possibly misleading reports of a higher prevalence of certain disorders (e.g. Autism Spectrum Disorder, ASD) amongst this group (Bickel et al., 2015; Durkin et al., 2010). Practical barriers relating to the cost of accessing healthcare are often cited as contributing to this difference in help seeking behaviour across SES groups (e.g. Koerting et al., 2013; O'Brien et al., 2016). While the existence of these barriers cannot be ignored, research exploring the relationship between SES and seeking/receiving MH support suggests that it may be a more complex picture than this. For example, research has shown that knowledge of MH problems is lowest amongst individuals from low socioeconomic backgrounds and attitudes towards those with MH problems is also less favourable amongst this group (Holman, 2015). In addition, implicit biases associated with an individual's SES have shown to influence the way health professionals view and interpret patients' needs, which have the potential to disadvantage those from low socioeconomic backgrounds in terms of health and social care provision (Durkin; Fell & Hewstone, 2015; FitzGerald & Hurst, 2017).

Gender Differences

Research into the experiences of young people consistently suggests that females report lower levels of subjective well-being and score lower on self-esteem scales compared to their male counterparts (Australian Institute of Health and Welfare, 2011; Hamblin, 2016; Stansfeld et al., 2014; Tomori, Zalar & Plesnicar, 2000).

Gender differences have also been replicated using standardised measures, with adolescent males showing significantly better levels of MH and reporting fewer problems than females (Ravens-Sieberer et al., 2008; Sadler et al., 2018). Rates of young people's service use also appear to reflect these findings, with females being reportedly more likely to access MH services overall (Hamblin, 2016). Whether or not young males truly experience lower levels of distress than young females continues to be debated. It is recognised that young males are less likely than their female counterparts to seek support for their MH (Gibbons, Thorsteinsson & Loi, 2015; Slade et al., 2009). Reasons for not seeking support are likely to be multifaceted and reportedly include (but are not limited to) factors such as stigma, 'male culture', attitudes towards MH services, and lower levels of MH awareness amongst the adolescent male population (Cotton et al., 2006; Holzinger et al., 2012; Yap, Reavley & Jorm, 2013). Young females report more positive attitudes towards MH help seeking, perceive fewer barriers and less stigma than young males (Chandra & Minkovitz, 2006; Raviv, Raviv, Vago-Gefen, & Fink, 2009). It would therefore appear ill-advised to assume that the higher proportion of young females reporting MH difficulties and accessing services is necessarily representative of a higher level of need amongst this group alone.

Within western societies, it is recognised that males tend to express their distress in ways which often differ to females (Hamblin, 2016). Differences in the ways males and females express and manage their distress are evident in data which suggests that the rate of self-harming behaviour is higher amongst adolescent females than males (Stansfeld et al., Brooks et al, 2015), while adolescent males are more likely than females to present with a dependence on substances (Hagell, Coleman & Brooks, 2015). Within health services, females are more likely to present in ways which result in a diagnosis of an eating disorder, while a diagnosis of ASD and conduct disorders are more commonly received by males (Hamblin). These differences are often conceptualised as relating to 'internalising' (i.e. distress expressed as anxiety or depression) or 'externalising' (i.e. outward expressions of distress, such as anger). In general, 'internalising' behaviours are reportedly more common amongst females, whereas externalising behaviours are seen more frequently in males (Morrison, Gutman, Joshi, Parsonage & Schoon, 2015). It is clear that differences in how distress is expressed have the potential to contribute to how others interpret and therefore respond (e.g. Stansfeld et al., 2014). Research suggests that (conditional on morbidity) the parents of young females in Britain are in fact less likely to seek support for their child's MH compared to parents of young males (Haines et al, 2002). This is supported by research which suggests that gatekeepers are more likely to recognise difficulties in young males (Hamblin). It is suggested that gender differences may also relate to age, with support for males most frequently being sought during childhood/early adolescence, while support for females occurs more often during late adolescence (Zwaanswijk et al., 2003). These findings suggest a potentially complex relationship between gender, MH and service use.

Welsh Health Survey

The Welsh Health Survey (WHS) was designed by the Welsh Government to gather information relating to the health and wellbeing of people living in Wales. Between the years 1995-1998 and 2004-2015, individuals were randomly selected to take part in the survey which asked a number of questions pertaining to the lifestyles, health, service use and demographics of individuals and families completing the survey. Data was collected for adults and up to two children/adolescents aged 4-15 years within each household. This data is held by the UK Data Service and is readily available to access (UK Data Service, 2020).

Method

Using data from the WHS from 2008-2015, this study explores the relationship between a set of demographic predictors (SES, sex and age) and whether or not individuals are accessing support for their MH, while controlling for scores on the Strengths and Difficulties Questionnaire (SDQ). For the purpose of this study, the term 'receiving support' refers to individuals who were receiving professional input in relation to their MH at the time of data collection.

Participants: The sample consisted of cross-sectional, randomly selected household data from across Wales. Information pertaining to up to two children/adolescents aged 4-15 years was obtained from each household. A total number of 16,370 participants were included in the sample (12,211 aged 4-12 years and 4,159 aged 13-15 years). Participants aged 13-15 years self-completed the questionnaire, including the SDQ. For those aged 4-12 years, information was provided by a

parent/guardian. Demographic information pertaining to each participant's age group, sex and SES (based on parental occupation) was also collected. The SES variable was dummy coded and treated as categorical data.

Measures: The SDQ is a brief behavioural screening tool comprising 25 items. It is a standardised questionnaire used to examine the mental well-being of children and adolescents (Kersten et al., 2015) with clinical and non-clinical populations (Goodman, Renfrew & Mullick, 2000). Items on the SDQ form five subscales (Hyperactivity, Conduct, Emotional, Peer and Prosocial behaviour). Scores on the first four subscales are combined to form a 'Total Difficulties Score' (range 4-20), which were entered into the model. SES was measured using the NS-SEC3 variable within the WHS data. The NS-SEC3 variable classifies SES according to household occupation and consists of four levels ('Managerial and Professional', 'Intermediate', 'Routine and Manual', 'Never Worked and Long-term Unemployed'). NS-SEC is a standardised measure of occupational classification, used in all official statistics and surveys since 2001 (The Office for National Statistics, 2016). The NS-SEC3 variable related to parental occupation and was used to provide information relating to participants' SES.

Design: A binomial generalised mixed effects model regression was used to explore whether SES, sex and age are associated with participants' odds of receiving MH support, after accounting for scores on the SDQ. A random intercept of household was included in the models to account for nesting of participants within households. Responses to whether or not participants were receiving support for their MH (*"Is this child currently being treated by a doctor, consultant or specialist for: anxiety,*

depression or mental illness?” / “Are you currently being treated by a doctor, consultant or specialist for: anxiety, depression or mental illness?”) were entered into the model as the dependent variable (DV). Predictors included in the model were participants' SES, sex and age, plus their interactions. Coefficients were exponentiated to create odds ratios (ORs) with 95% confidence intervals. Each variable was entered into a single model and statistical significance was evaluated using .05 level 2-sided tests. Variables were also entered into a series of reduced models, in order to explore the data more thoroughly.

Hypotheses

Hypothesis 1: Participants with high scores on the Strengths and Difficulties Questionnaire (SDQ) will be more likely to be receiving support for their MH than those with low scores.

Hypothesis 2: After controlling for scores on the SDQ, individuals in lower SES groups will be less likely to be receiving support for their MH compared to those in higher SES groups.

Hypothesis 3: After controlling for SDQ scores, there will be differences between males and females in terms of the likelihood of receiving MH support.

Results

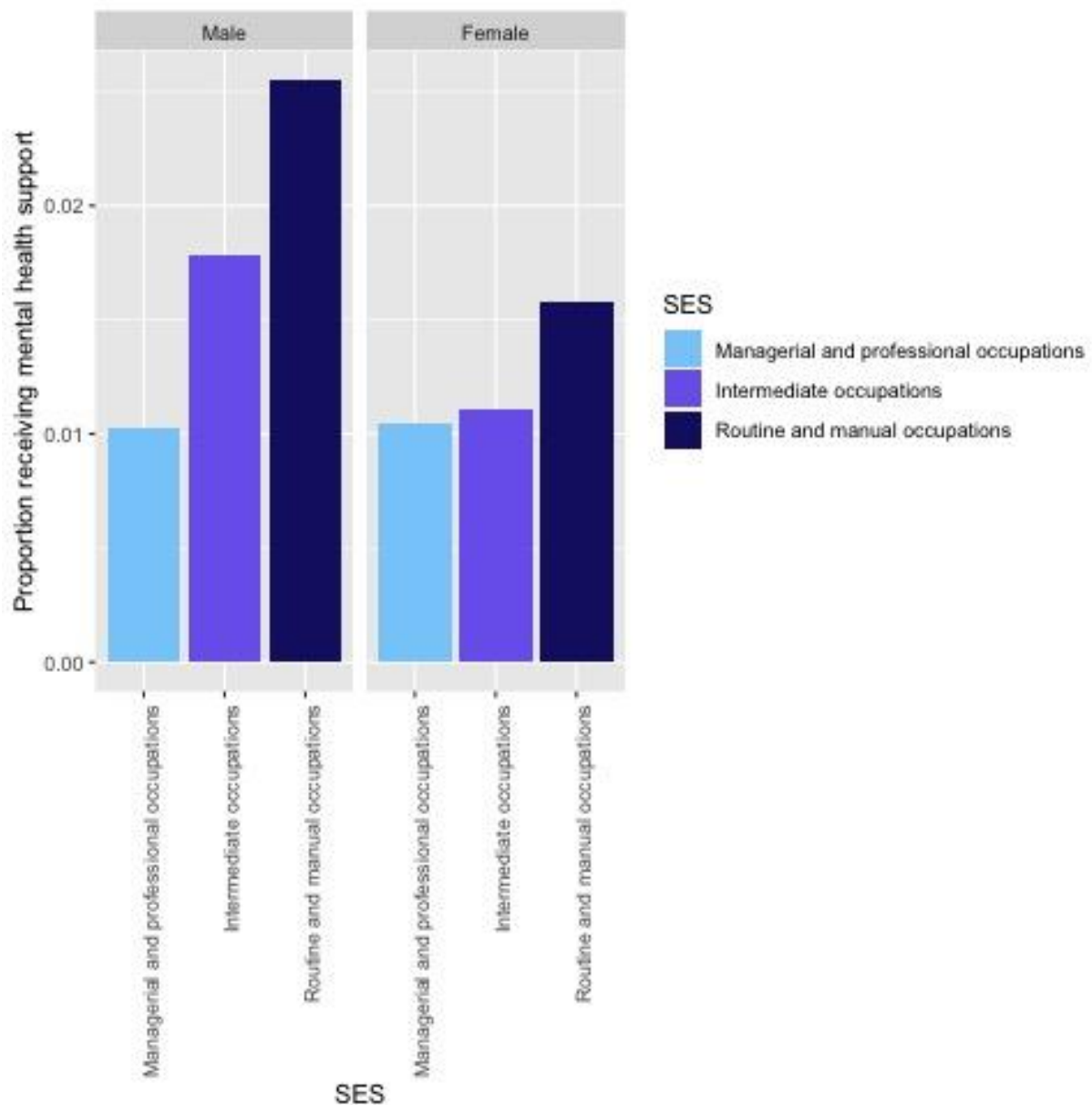
Table 1. Showing the number of male and female participants receiving and not receiving treatment for their mental health within each SES group for both age groups.

	SES Group	Male			Female		
		N not receiving professional support	N receiving professional support	Total N	N not receiving professional support	N receiving professional support	Total N
Age 4-12	Managerial and Professional	2349 (99%)	23 (1%)	2372	2204 (99.5%)	12 (.5%)	2216
	Intermediate Occupations	1194 (98.2%)	22 (1.8%)	1216	1148 (99.4%)	7 (.6%)	1155
	Routine and Manual Occupations	2401 (97.8%)	53 (2.2%)	2454	2303 (98.7%)	31 (1.3%)	2334
	Never Worked and Long-term Unemployed	244 (98.4%)	4 (1.6%)	248	215 (99.5%)	1 (.5%)	216
	Total	6188 (98.4%)	102 (1.6%)	6290	5870 (99.1%)	51 (.9%)	5921
Age 13-15	Managerial and Professional	765 (98.8%)	9 (1.2%)	774	751 (97.4%)	20 (2.6%)	771
	Intermediate Occupations	422 (98.1%)	8 (1.9%)	430	388 (97.5%)	10 (2.5%)	398
	Routine and Manual Occupations	822 (96.4%)	31 (3.6%)	853	800 (97.8%)	18 (2.2%)	818
	Never Worked and Long-term Unemployed	59 (93.7%)	4 (6.3%)	63	51 (98.1%)	1 (1.9%)	52

	Total	2068 (97.5%)	52 (2.5%)	2120	1990 (97.6%)	49 (2.4%)	2039
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Due to the small number of cases included in the 'Never Worked and Long-term Unemployed' SES group, data for this group were removed from analyses. The 'Routine and Manual' group were therefore treated as the lowest SES group for this study.

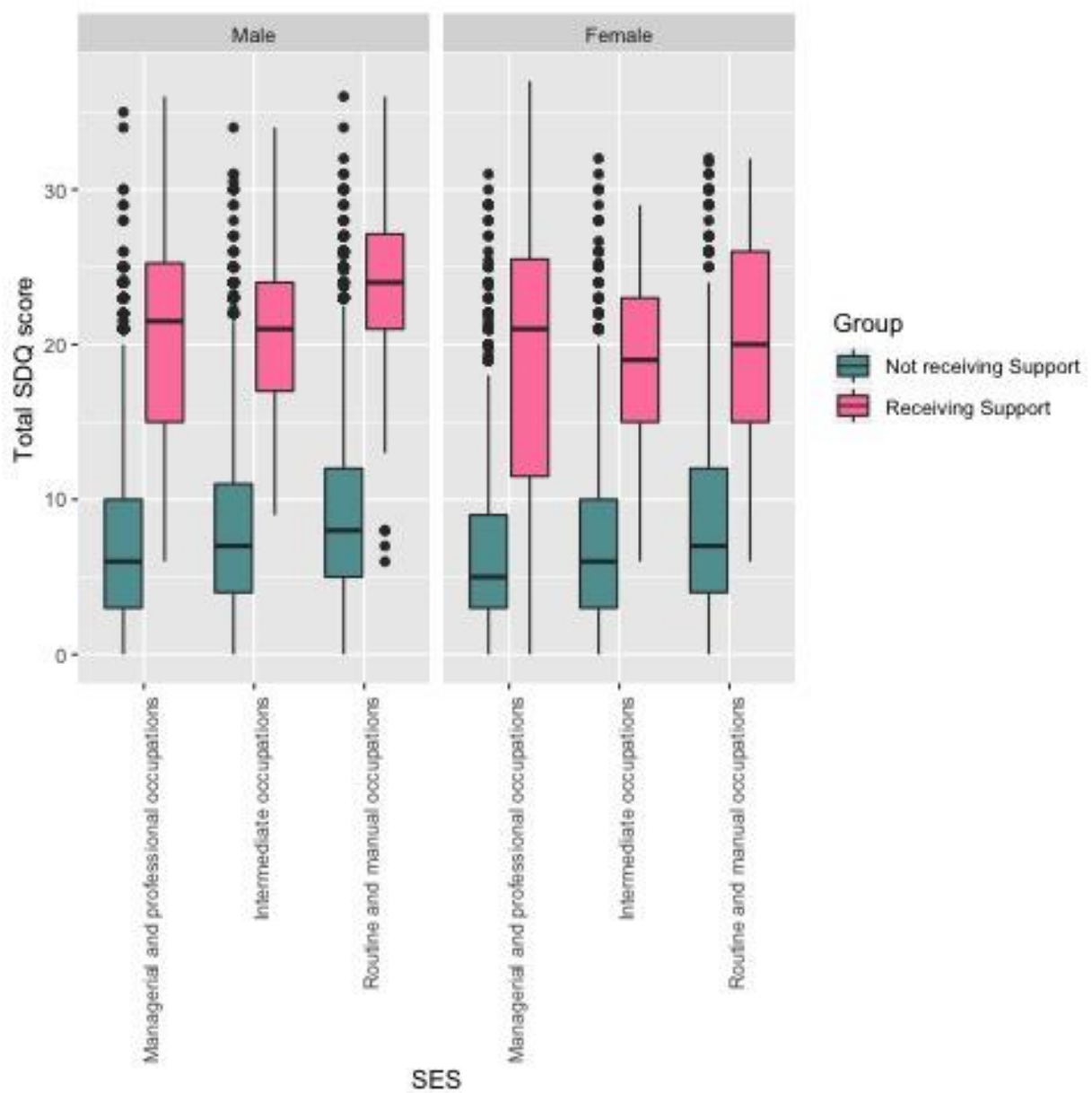
Figure 1. Graph showing the percentage of males and females aged 4-15 years receiving professional support for their MH across different SES groups.



The graph shows a social gradient for males and females, in terms of the percentage of individuals receiving support for their MH within each SES group. The findings show that a higher percentage of individuals from lower SES groups were receiving MH support compared to other groups. The percentage of males from the 'Routine and Manual' SES group receiving support for their MH was 2.5% compared to 1.8% of males in the 'Intermediate Occupations' group and 1% of males in the 'Managerial and Professional' group. For females, there is less distinction between the SES

groups, however the graph shows a higher percentage of individuals from the 'Routine and Manual' group were receiving support for their MH compared to the other SES groups (1.6% of 'Routine and Manual', 1.1% of 'Intermediate Occupations', 1.1% of 'Managerial and Professional').

Figure 2. Boxplots showing SDQ total scores for males and females aged 4-15 years across different SES groups.



The boxplots show the range of total SDQ scores for males and females within each SES group. There is a negative skew of scores for males and females receiving support for their MH in the 'Managerial and Professional' and 'Intermediate Professions' groups, indicating a higher proportion of low scores compared to high scores within these groups. There is a positive skew of scores for females receiving support in the 'Routine and Manual' SES group, indicating a higher proportion of high scores compared to low scores within this group. Of those receiving professional support for their MH, females in the 'Managerial and Professional' SES group presented with the lowest quartile of scores overall. Males in the 'Routine and Manual' SES group presented with the highest lower quartile scores, compared to all other groups.

Prior to running the full regression model, reduced models were used in order to explore the relationship between individual key variables and whether or not individuals were receiving support for their MH. While the study is not specifically concerned with exploring age as a key variable, some items on the SDQ may be considered developmentally sensitive (e.g. Hyperactivity scale) and so age was also entered into the models.

Sex

Table 2. Regression table with sex and age entered into the model as predictors of whether or not individuals were receiving support for their MH. 'Male' (sex) and 'Age 4-12' (age) were treated as reference groups. Model code: `glmmTMB(mental ~ sex + childage + (1|Household_number) , data = WHSsdq1, family = 'binomial') ->`

ModelAll2

Variable Name	Odds Ratio	Confidence Interval		P value
		2.5%	95%	
Female	4.069	2.496	6.633	<.001
Age 13-15	2.976	1.806	4.905	<.001

There was a significant effect for sex in predicting whether or not participants were receiving professional support for their MH. The findings suggest females were four times more likely to be receiving support compared to males (ORs = 4.07, $p = <.001$).

SES

Table 3. Regression table with SES and age entered into the model as predictors of whether or not individuals were receiving support for their MH. 'Managerial and Professional' (SES) and 'Age 4-12' (age) were treated as reference groups. Model code: `glmmTMB(mental ~ nssec3 + childage + (1|Household_number) , data = WHSsdq1, family = 'binomial') -> ModelAll3`

Variable Name	Odds Ratio	Confidence Interval		P value
		2.5%	95%	
Intermediate Occupations	1.315	6.240	2.772	.471
Routine and Manual	1.851	1.010	3.393	.046
Age 13-15	2.850	1.740	4.668	<.001

There was a significant effect for SES in predicting whether or not participants were receiving professional support for their MH. Participants in the 'Routine and Manual'

group were 85% more likely to be receiving support compared to the 'Managerial and Professional' SES group (ORs = 1.85, $p = .046$).

Testing Hypothesis 1

Scores on SDQ

Table 4. Regression table with SDQ scores and age entered into the model as predictors of whether or not individuals were receiving support for their MH. 'Age 4-12' (age) was treated as the reference group. Model code: `glmmTMB(mental ~ sdq_tot + chldage + (1|Household_number) , data = WHSsdq1, family = 'binomial') - > ModelAll4`

Variable Name	Odds Ratio	Confidence Interval		P value
		2.5%	95%	
SDQ Total	1.654	1.538	1.778	<.001
Age 13-15	2.201	1.053	4.604	.036

The findings suggest a significant positive relationship between individuals' scores on the SDQ and whether or not they were receiving MH support (ORs = 1.65, $p = <.001$). Those who scored highly on the SDQ are significantly more likely to be receiving support compared to those with lower SDQ scores. For every increase in SDQ score, an individual's odds of receiving support increased by 65%. Hypothesis 1 is therefore supported by these findings.

Testing Hypothesis 2

SES while Controlling for SDQ Scores

Table 5. Regression table with SES and age entered into the model as predictors of whether or not individuals were receiving support for their MH, while controlling for SDQ scores. 'Managerial and Professional' (SES) and 'Age 4-12' (age) were treated as reference groups. Model code: `glmmTMB(mental ~ sdq_tot + nssec3 + chldage + (1|Household_number) , data = WHSsdq1, family = 'binomial') -> ModelAll5`

Variable Name	Odds Ratio	Confidence Interval		P value
		2.5%	95%	
Sdq_tot	1.674	1.552	1.805	<.001
Intermediate Occupations	.463	.151	1.418	.178
Routine and Manual	.412	.156	1.085	.073
Age 13-15	2.164	1.026	4.564	.043

While controlling for scores on the SDQ, there was not a significant effect for SES in predicting whether or not participants were receiving professional support for their MH. Hypothesis 2 was therefore not supported by these findings.

Testing Hypothesis 3

Sex While Controlling for SDQ Scores

Table 6. Regression table with sex and age entered into the model as predictors of whether or not individuals were receiving support for their MH, while controlling for

SDQ scores. 'Male' (sex) and 'Age 4-12' (age) were treated as reference groups.

Model code: `glmmTMB(mental ~ sdq_tot + sex + chldage + (1|Household_number) , data = WHSsdq1, family = 'binomial') -> ModelAll6`

Variable Name	Odds Ratio	Confidence Interval		P value
		2.5%	95%	
Sdq_tot	1.651	1.535	1.776	<.001
Female	.845	.404	1.766	.655
Age 13-15	2.256	1.072	4.749	.032

After controlling for scores on the SDQ, there was not a significant effect for sex in predicting whether or not participants were receiving professional support for their MH (ORs = .845, $p = .655$). Hypothesis 3 is therefore not supported by these findings.

Full Regression Model

In order to explore the relationship between the variables further, all factors were entered into the regression model. Each hypothesis was therefore tested further using the full regression model.

Table 7. Regression table with SES, sex and age entered into the model as predictors of whether or not individuals were receiving support for their MH, while controlling for SDQ scores. 'Managerial and Professional' (SES), 'Male' (sex) and 'Age 4-12' (age) were treated as reference groups. Model code: `glmmTMB(mental ~`

*sdq_tot + nssec3 * sex * childage + (1|Household_number) , data = WHSsdq1,
family = 'binomial') -> ModelAll*

Variable Name	Odds Ratio	Confidence Interval		P value
		2.5%	95%	
SDQ Total	1.680	1.556	1.814	<.001
Intermediate Occupations	.332	.066	1.671	.181
Routine and Manual	.161	.038	.675	.013
Female	.433	.084	2.236	.318
Age 13-15	.589	.087	3.979	.587
Intermediate Occupations*Female	.411	.029	5.745	.509
Routine and Manual*Female	5.612	.678	46.472	.110
Intermediate Occupations*Age 13-15	3.524	.190	65.412	.398
Routine and Manual*Age 13-15	8.608	.727	101.958	.088
Female*Age 13-15	4.631	.289	74.302	.279
Intermediate Occupations*Female*Age 13-15	2.048	.027	155.296	.746
Routine and Manual*Female*Age 13-15	.038	.001	1.350	.073

When all factors were entered into the regression model, there was a significant effect for SES in predicting whether or not participants were receiving professional support for their MH. While controlling for SDQ scores, sex and age, participants in the 'Routine and Manual' group were 84% less likely to be receiving support compared to the 'Managerial and Professional' SES group (ORs = .161, $p = .013$).

Discussion

This study explores whether factors other than need (i.e. age, sex and SES) affect a young person's odds of receiving professional support for their MH. It provides insight into the demographic characteristics of young people both receiving and not receiving professional support for their MH in Wales. The study shows that, overall, young people who score highly on the SDQ are more likely to receive professional support for their MH than those with low SDQ scores. The study also shows that SES plays a role in increasing/decreasing the likelihood of young people receiving MH support, with those from low socioeconomic backgrounds being significantly less likely to receive support compared to those with high SES who present with the same SDQ score. Further interactions between participants' age, sex and SES did not reach levels of significance and were therefore not considered as contributing further to the model. These findings will be discussed within the context of existing research.

The results show that, overall, a higher proportion of young people from low socioeconomic backgrounds receive support for their MH compared to the proportion of those from other SES groups. This offers support for previous research suggesting that socioeconomic disadvantage is associated with greater levels of psychological distress and MH needs (Lemstra, 2008; Reiss, 2013; Allen et al., 2014). The percentage of males with low SES accessing support for their MH was 1.5 times that of participants in the high SES group. This social gradient is suggestive to some extent for both sexes, but did not reach statistical significance. Interestingly, once levels of need are controlled for, the study shows that young people (male and female) from low socioeconomic backgrounds are significantly less

likely than those with high SES to be receiving professional support for their MH.

These findings are in line with previous research which emphasises the complex role that SES plays in accessing and receiving MH support (Arya et al., 2015; Cummings, 2014; Haines et al., 2002; Lubian et al., 2016; Oh, Mathers, Hiscock, Wake & Bayer, 2015; Parslow & Jorm, 2000; Sayal et al., 2002).

Barriers to Services: SES

It is well documented that individuals in need of MH support can face a number of barriers (e.g. Copeland & Snyder, 2011; Kataoka et al., 2002; Krupnick & Melnikoff, 2012; Santiago et al., 2013; Snell-Johns et al., 2004). Research suggests that individuals from low socioeconomic backgrounds may be disproportionately affected by many of these. Research exploring differences in the rates of health service use across SES groups often emphasises the practical and financial barriers associated with this (O'Brien et al., 2016; Koerting et al., 2013). It's worth mentioning that, even in Wales where many health services are provided free of charge via the National Health Service (NHS), additional factors such as the cost of transport, childcare and work commitments are very real barriers facing families who seek MH support for their child. It would therefore be reasonable to assume that barriers which have financial implications have the potential to affect low income families to a greater extent than those who are more affluent.

Barriers to Services: Thresholds and Biases

The results of this study show that individuals with low SES who are receiving MH support, appear to be experiencing greater levels of distress, compared to those with high SES. These findings may be reflecting the role that SES plays when it comes to

families and professionals responding to the MH needs of young people. The potentially differing levels of gatekeeping found within different SES groups, along with the possible explanations for this, are beyond the scope of this study. However, it's possible to consider this study's findings within the context of existing research. For example, it may be that the needs of young people from different socioeconomic backgrounds are interpreted differently by both professionals and families. It may be that the financial/practical barriers facing families with low SES result in them having a higher threshold for distress prior to seeking professional support for their child, compared to families with high SES who do not face these same barriers. It may be that families with low SES are less likely to seek support for their child's MH due to higher rates of distrust towards services and negative views held about individuals with MH difficulties (Holman, 2015; Snell-Johns et al., 2004). Similarly, it is possible that families with low SES are more likely than those with high SES to view their child's difficulties as relating to problems which will resolve themselves without the need for professional input (Ayra et al., 2015; Yeh et al., 2005). Biases and beliefs around MH difficulties and the perceived causes of these have clear potential to impact parents' decisions to seek initial support for their child.

The same may be said of professionals who find themselves in the position of assessing the MH needs of young people either formally (e.g. General Practitioners) or informally (e.g. educators). Research frequently suggests there is a need to increase the knowledge base of educators and General Practitioners in relation to how MH issues may be expressed by young people (O'Brien et al., 2016). The findings of this study may be reflecting the differing ways professionals understand

and contextualise the MH needs of young people with low SES compared to those with high SES (Durkin, 2010; Fell & Hewstone, 2015; FitzGerald & Hurst, 2017).

Barriers to Services: Expressions of Distress

The way distress is expressed clearly has the potential to impact the way it may be interpreted by others. Within the context of ‘internalising’ and ‘externalising’ behaviours previously discussed, research suggests that young people from low socioeconomic backgrounds tend to display more ‘externalising’ symptoms (e.g. hyperactivity, opposition and aggressiveness) compared to their high SES peers (Reiss 2013; Starfield et al., 2002). These findings introduce an interesting perspective from which to consider the results of this current study. They raise questions around whether the decreased likelihood of receiving MH support associated with having low SES may be due to differing levels of ‘externalising’ expressed by young people. It may be that ‘externalising’ behaviours are interpreted in ways which make it less likely for distress to be interpreted by others as relating to MH difficulties and therefore make it less likely that MH support will be sought. This is supported by research suggesting that a diagnosis of ‘conduct disorder’ is strongly associated with school exclusion and that high rates of MH difficulties are reported amongst those involved with youth offending services and drug and alcohol teams (Cole, 2015). The findings of this study may be reflecting how young people who express high levels of ‘externalising’ are diverted away from traditional MH services and into different streams of support which may be offering varying amounts of MH support. Not only does this offer some explanation for the reduced likelihood of receiving MH support found amongst young people with low SES, but it also

highlights the complexity associated with assessing the MH needs and service use of young people.

Limitations

The study carries some limitations in terms of the variables included in the current model. Importantly, the study assumes that the SDQ is a direct measure of need for MH support and that service provision is based on the domains captured by the SDQ. As services receive referrals from a number of sources (e.g. teachers), it is likely that need is being defined in a number of ways and is based on many factors (e.g. school performance). By using SDQ score as a proxy for need, the study may therefore be assuming a stronger connection between SDQ scores and the receipt of MH support than is observed in practice. While this is an important factor to consider in terms of the study's methodological limitations, it also raises an interesting point in itself; how is need being defined by services, if not by standardised measures of well-being and distress? It suggests that additional factors (e.g. societal attitudes) may play a role in the definition of need and therefore the provision of support. The findings of this study therefore add value by highlighting the differing levels of distress observed amongst individuals both receiving and not receiving MH support across differing SES groups.

Other variables included in the model also carry some limitations worth considering. Participants lack the ability to identify in non-normative ways within the 'sex' variable (e.g. transgender, non-binary, gender-fluid). This is problematic, due to the known impact that issues relating to gender identity can have on the MH of young people. Furthermore, as the study only includes participants up to the age of 15 years, the

odds of receiving MH support during later adolescence for individuals in Wales remains unexplored.

The study relies on self-rated/guardian-rated data rather than clinical admin data, meaning that some elements are open to interpretation and therefore reliability issues. The wording of the question relating to whether or not participants were receiving MH support (*“Is this child currently being treated by a doctor, consultant or specialist for: anxiety, depression or mental illness?”* / *“Are you currently being treated by a doctor, consultant or specialist for: anxiety, depression or mental illness?”*) is potentially problematic. This question is open to interpretation, as some participants may consider certain specialist support services (e.g. ASD services) as relating to a MH difficulty, while others may see this support as being unrelated to MH (e.g. managing behaviours). The inclusion of this question as a way of capturing service use for this study was based on the assumption that an individual’s SES is not likely to affect their interpretation of this question. It is therefore assumed that differences in how this question is interpreted will occur equally across all groups and would therefore be unlikely to create biases within the data. It is recognised, however, that the use of clinical data (e.g. NHS referral data) and the integration of data associated with wider youth services (e.g. youth justice services, substance misuse support services, ASD services, school counselling, third sector MH services, school exclusion data) would help provide a more thorough understanding of the MH needs and provision of support for young people in Wales.

Conclusions

The findings of this study contribute to our understanding of the complexities associated with young people receiving support for their MH. The study shows that a young person's SES plays a role in increasing/decreasing their odds of receiving support for their MH and offers some explanations for this, within the context of existing research. While it is not possible for this study to conclude any causal effects for the differences reported, or to comment on the accuracy of the rates of individuals receiving/not receiving support within each group, the study demonstrates that individuals with low SES have decreased odds of accessing support for their MH, which is separate from their level of need. The findings suggest a need for the robust identification of young people requiring MH support to be developed and for the continued development of a system which is less reliant on the subjective evaluations of adults who surround young people. Young people continue to be highly dependent on adults to identify their MH needs and provide access to support. While this undoubtedly introduces some additional barriers, there is also potential to use this to an advantage by increasing awareness of MH difficulties amongst parents, providing additional training for professionals and working to further reduce barriers in order to bolster young people's access to appropriate MH support. This study also highlights the need for MH support to be integrated within wider youth services in order to address some of the disparities in the provision of MH support and to plug these gaps.

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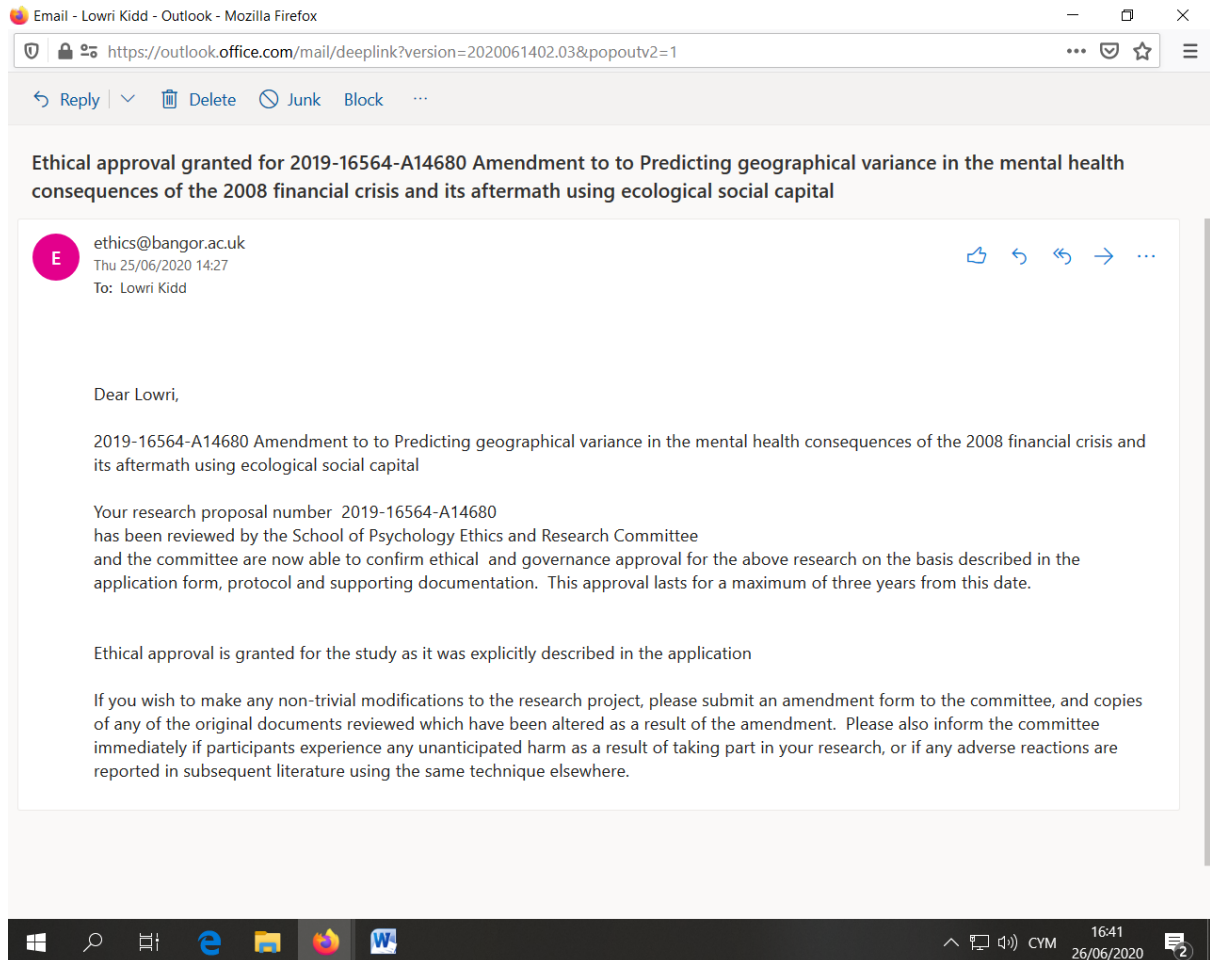
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Appendices

Appendix A

Confirmation of ethical approval



SECTION 3

Contributions to Theory and Clinical Practice

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Theory Development

Trauma as a Disability

Acknowledgement of the far reaching impact that trauma has on the development of children and young people has led to discussions in research about whether trauma should be classified as a disability. In 2015, students and teachers brought class action against a school district in Compton, California (Compton Unified School District) claiming that their lack of trauma-informed practices classed as failure to accommodate the needs of students and led to further harm (Peter P. v. Compton Unified School District, 2015). The lawsuit marks the first time litigation has been used in an attempt to implement trauma-informed approaches in schools and aims to have trauma classified as a disability and protected under the Rehabilitation Act and the Americans with Disabilities Act (ADA; United States Department of Justice Civil Rights Division, 2020).

Calls for trauma to be classified as a disability acknowledge the physiological changes which occur in the body and mind as a result of exposure to traumatic events (e.g. violence, abuse, neglect) and the impact this has on an individual's ability to engage with and learn within the classroom environment. It also recognises that many of the current systems designed to serve children and young people have the potential to exacerbate trauma symptoms, which not only makes it harder for individuals to benefit from these services, but may also cause more harm (Smithgall, Cusick & Griffin, 2013). Having trauma classified as a disability would require changes to these systems and services be made by law, to ensure that individuals

have access to an education which is comparable to that which is provided to those without disabilities.

Within the context of trauma-informed schools (TIS), proponents of classifying trauma as a disability refer to the potential benefits of increasing access to funding and, therefore, the potential to boost the implementation of TIS initiatives (Brown-Naggin, 2018). Critics, however, question the social implications of a concept which disproportionately affects those who are already disadvantaged. This concern speaks to societal views of disability and questions how this label aims to serve those who have experienced trauma. For some, disability is considered a social construct, seen through the lens of 'abledness' (Berger, 2004). The danger is that this construct leads to 'othering' individuals who do not fit within the mould of the majority, which seems far removed from the whole-school approach outlined in the literature on delivering TIS interventions. Alternatively, individuals who have experienced trauma may benefit from a mentality which has long been held in disability services that (given the right support and appropriate adjustments) individuals are able to access material which enables them to live fulfilling, meaningful lives. It could be argued that this is in fact in line with TIS interventions, which apply a multi-tiered approach in order to serve all students.

Clinical Implications

The Impact of COVID-19

The first confirmed case of COVID-19 ('Coronavirus') was recorded in the United Kingdom (UK) on January 31st, 2020. Attempts to reduce the rate of infection and

halt the spread of the virus led to 'social distancing' measures being introduced across the UK which meant reduced social contact, limited travel, enforced business closures and meant the widespread cancellation of large gatherings such as music festivals and sporting events. As part of the UK's response to the COVID-19 pandemic, it was announced that schools and nurseries in Wales, Scotland, England and Northern Ireland would largely close, except for pupils whose parents were classed as 'key workers' and those identified by social services as 'vulnerable children and young people' (UK Government, 2020a).

The true extent to which the COVID-19 pandemic has impacted (and will likely continue to impact) the lives of individuals in the UK, is not yet fully realised. What is clear is that evidence of health, social, economic and psychological impacts are already emerging. There are clear implications for the mental health and wellbeing of children and young people both as a direct result of the pandemic and of likely consequences associated with it. Disparities in the extent to which the pandemic will impact individuals with low socioeconomic status (SES) compared to those with high SES, are closely related to my empirical research. Discussions about the possible reopening of schools raise a number of concerns associated with what is discussed in my literature review. Both pieces of research offer perspectives and insights worth considering at this time.

SES

Throughout the COVID-19 pandemic, there has been much talk of being "in it together", with many referring to the pandemic as a 'great leveller'. Whether this is a

well-intended attempt to create a sense of solidarity or simply recognising the restrictions, difficulties and loss of privileges felt by many, the implication is that it has been a shared experience with equal consequences. However, it is clear that the effects of the pandemic will be felt to a differing degree amongst members of society, with some lives being affected to a far greater extent than others.

The disparities in mental health care access experienced by young people with low SES compared to those with high SES were discussed in my empirical paper. This research is particularly relevant when considering how the COVID-19 pandemic is likely to disproportionately impact families with low SES. Young people with low SES are likely to experience a greater number of additional Adverse Childhood Events (ACEs) as a result of the COVID-19 pandemic. My research findings suggest that, while this is likely to create an increased need for mental health support, these young people may continue to experience a number of barriers to accessing this. Pre-existing barriers may be exacerbated, while additional barriers may also be created as a result of the COVID-19 pandemic.

There are a number of ways in which the COVID-19 pandemic has potential to increase the number of ACEs experienced by young people. A brief overview of how these might disproportionately impact young people with low SES is outlined below.

Death of/Separation from Family Members (Health Impacts of COVID-19)

Figures released by the Office for National Statistics show disparities in the number of COVID-19 related deaths recorded across different areas in the UK. In Wales, the

mortality rate for COVID-19 (between March 1st and May 31st) was almost twice as high in the most deprived areas, compared to the least deprived (Office for National Statistics, 2020). We are yet to gain a full understanding of the factors which may be contributing to these disparities. However, it is possible to theorise about the role of possible contributing factors based on what is already known (e.g. Khalatbari-Soltani, Cumming, Delpierre & Kelly-Irving, 2020). Firstly, it seems reasonable to assume that the well-established link between SES and physical health means that those with low SES would be more likely to have comorbid health conditions, making these individuals more susceptible to becoming seriously ill if they were to contract COVID-19. If measuring SES by occupation type, then it is also clear to see how those who continued to work in routine and manual roles during the pandemic would have an increased risk of exposure to COVID-19, compared to individuals with office jobs who began working from home. Additional factors such as use of public transport and living conditions (i.e. high population density, large households, shared accommodation, and buildings with shared access points) may also mean that individuals with low SES are at a greater risk of exposure due to social factors.

Families with low SES may therefore be at greater risk of being impacted by the severe health impacts of COVID-19. Young people in these families may be more likely to experience the death of a family member or be separated from a parent due to hospitalisation. For young people with low SES, the pandemic may therefore be contributing to an already greater need for mental health support, as well as increasing the barriers in accessing this.

Poverty (Economic Impact of COVID-19)

The economic impact of the COVID-19 pandemic at both an individual and national level, is becoming ever apparent. Figures from May, 2020 show that 6.2% of 16-64 year olds in Wales were claiming benefits due to being out of work, which is double the number of claimants registered in May, 2019 (BBC News, 2020a). In June, 2020 figures published by the Institute for Employment Studies listed Rhondda Cynon Taf as one the areas worst affected by job losses in the UK as a result of the COVID-19 pandemic (BBC News, 2020b). Across Wales, many people who have remained in employment have experienced reduced working hours or significant reduction in wages due to receiving financial support via the 'Coronavirus Job Retention Scheme' ('furlough') or 'Self-Employment Income Support Scheme' (UK Government, 2020b). Figures from June, 2020 show that 316,000 people in Wales were furloughed, with a further 102,000 self-employed people having their income supported in this way (Welsh Government, 2020a). Ken Skates (Economy Minister for Wales) has claimed that unemployment is expected to continue to rise in Wales and has called for more support for the labour market (Welsh Government). This concern is echoed by economic experts at the Office for National Statistics, who claim that the full extent of the impact on employment will only be revealed once funding schemes cease (BBC News, 2020c).

It seems reasonable to assume that families with less financial stability would be more severely affected by sudden reductions in household income. Young people from families with low SES may therefore be more likely to experience poverty and hardship as a result of parental job losses and/or the loss of additional support

systems following strain placed on services due to increased demand and reduced funding (e.g. food banks, charities).

Family Conflict, Household Mental Health, Substance Misuse, Abuse (Psychological Impact of COVID-19)

The two-way relationship between SES and poorer mental health means that the COVID-19 pandemic is likely to exacerbate a range of complex difficulties for families with low SES (Fell & Hewstone, 2015; Lemstra et al., 2008; Allen, Bell, Balfour & Marmot, 2014). Along with additional stressors caused by the pandemic, social distancing measures have led to long periods of time when family members have largely been contained within the home. As a result, it is likely that many young people will have been exposed to higher rates of family conflict, household mental health problems and/or substance misuse, and abuse. Given that families with low SES are more likely to be impacted by these additional stressors (as outlined above), it can be assumed that young people with low SES will also be at greater risk of being exposed to these harmful experiences.

The Reopening of Schools

At the time of writing, the UK has started lifting some of the restrictions which came into effect in response to the COVID-19 pandemic. All four nations have begun implementing changes according to their own governmental ruling. While it is not my intention to pass judgement on the differing approaches taken by individual political parties or governments across Wales, England, Scotland or Northern Ireland, my

research into trauma-informed schools (TIS) raises points of interest which I believe are worth considering at this time.

In Wales, schools are due to reopen for all students, on a phased basis, from July 29th (Welsh Government, 2020b). The Welsh Government has outlined a framework which aims to support the reopening of schools, while considering the health and safety of both students and staff (Welsh Government, 2020c). The National Education Union Cymru (NEU Cymru) did not offer support for the reopening of schools as early as June 29th, due concerns over the potential implications of doing so (NEU Cymru, 2020a; NEU Cymru, 2020b). NEU Cymru has called upon the Welsh Government as well as the UK Prime Minister to support their plan for education recovery, with requests being made for additional funding and provision (NEU, 2020c). There are concerns over the academic needs of students, particularly those whose circumstances mean that they may not have had access to educational material and resources for many months. NEU Cymru also asks that the wellbeing of children and young people be placed at the centre of all plans, with particular focus given to those living with deprivation and disadvantage. Sally Holland (Children's Commissioner for Wales) has acknowledged the importance of ensuring education staff feel safe in the workplace, so that a sense of safety can also be fostered for students (Holland, 2020).

The difference in views held by NEU Cymru and the Welsh Government at this time is a concern. The learning from the TIS research is that shared goals are vital to the effective implementation of a system which aims to support young people to feel

safe. Perhaps now, more than ever, TIS interventions need to be considered as a way of delivering a whole-school approach to supporting staff, students and families.

ACEs and Children At Risk

Reports from the NSPCC's Childline service have highlighted the impact that the COVID-19 pandemic is having on the mental health and wellbeing of young people in the UK (NSPCC, 2020). Issues highlighted as being of concern to many young people during this time include: family issues (e.g. parental disputes, job losses, financial concerns, shared custody issues); inability to seek refuge/emotional support outside of the family home; difficulties accessing mental health services; inability to engage in activities to support wellbeing (e.g. sport); and difficulties associated with doing school work at home. Many reported that social distancing was negatively impacting their mental health, with isolation, nightmares and feelings of panic being frequently discussed during calls to the charity.

The decision to implement provisions to enable vulnerable children and young people to continue to physically attend school throughout the pandemic recognises the important role that schools play in maintaining both the physical and emotional safety of these students. It is important to acknowledge the real possibility that many more children and young people will have been subjected to traumatising experiences while being at home during this time and are currently not known to social services. The National Society for the Prevention of Cruelty to Children (NSPCC) has highlighted how the isolation caused by social distancing measures will have contributed to children and young people being at greater risk of abuse.

These concerns are also echoed by Women's Aid in its campaign for consideration to be given to those living in households where abuse is prevalent and for action to be taken to prevent further harm (Women's Aid, 2020a; Women's Aid, 2020b).

For some students, returning to school may be a sanctuary from the difficulties experienced at home. Others may experience school as an unsafe place to be and may not want to return (i.e. safety concerns, bullying). It is possible that young carers are facing additional pressures during this time and may want to stay home to care for family members. Students who require additional support to access their education may find that this is unavailable due to reduced service provisions (e.g. local authorities). Young people who are looking forward to reconnecting with friends may struggle with the implementation of social distancing measures which will mean reduced class sizes and the removal of certain activities in order to manage the risk of exposure to COVID-19. Overall, students will likely be returning to a school environment which feels very different to how things were prior to the pandemic. Increases in mental health needs will likely also place increased demands on Child and Adolescent Mental Health Services (CAMHS). In the current climate, the need for school-wide trauma-informed support for all students, staff and parents may be greater than ever. The provision of TIS interventions would allow for the impact of COVID-19 on the lives of children and young people to be considered alongside the role that the school system plays in maintaining/mitigating this.

Future Research

The devastating impact that global events such as the COVID-19 pandemic have on both an individual and societal level is unquestionable. The long term impact that the pandemic has on the mental health of children and young people would be a key piece of future research, which would help inform the development and delivery of future services. It will be interesting to see what comes as a result of this pandemic in terms of the level and design of interventions for young people and families, especially given the economic impact felt by many support services. Future evaluations of these initiatives and their impact on the mental health of children and young people would therefore be extremely valuable.

Personal Reflections

School

On many occasions during the research process, I found myself reflecting on my own experiences of childhood and of being at school. I was struck by how markedly different TIS approaches seemed, compared to my own experiences of school. At first, this was no more than an off-the-cuff remark, muttered rather sarcastically to myself. After all, the memories I have of my early years at school seem rather removed from the safe and welcoming environment being described in the literature. As my research progressed, this evolved to become a more considered reflection of my early experiences and how different these could have been, had TIS interventions been implemented.

I was the child who cried every morning during my first year in reception class. I recall times when I was comforted and times when school staff struggled to respond compassionately or manage this effectively. From a very young age, I perceived my school environment to be focused exclusively on academic achievement. With a handful of exceptions, teachers and other adults within the school setting were mostly thought of as unapproachable authority figures, many of whom were to be feared. Throughout my schooling, there was a heavy reliance on raised voices, threats of reprimand and referrals to the head teacher/discipline office to manage behaviours deemed undesirable or disruptive. In secondary school, I have memories of being in classrooms which were unsettled and chaotic at times. I recall incidents where teachers became visibly overwhelmed trying to manage behaviours which challenged and rare occasions when students expressed violence towards staff and each other.

I notice sadness, looking back at these experiences now. I notice children who were disciplined with shame and fear. I notice teachers who also felt threatened and overwhelmed in this same environment. Psychoeducation was not a feature of my school curriculum and there were no provisions for in-house mental health support available. I question whether my teachers would have been in a position to identify and support students who presented with trauma symptoms. Within my research, trauma-training for all school staff is identified as a key element to the development of a TIS. Even with this increased knowledge, it may be the case that students who present as withdrawn or quiet in the classroom may be less likely to be identified as exhibiting trauma symptoms. This is in line with my own observations of the school environment where internalised distress was rarely acknowledged unless academic work was seen to be suffering. There were limited resources available to support

students who found it difficult to settle or feel safe in the classroom environment, which therefore limited the ways in which teachers were able to respond to this. A TIS approach would have helped create a culture where students' behaviours were considered within the context of the environment rather than being attributed to characteristics held within the individual.

Remembering my experiences of school helped bring my TIS research to life. It left me appreciating the strong friendships I formed during both primary and secondary school, many of which still remain to this day. I also feel privileged that I have a family who did what they could to support me emotionally and academically throughout my schooling. However, I am also faced with some realisations about what was missing for me and possibly others on a wider systemic level during this time. I see missed opportunities to support students emotionally and developmentally and a reliance on approaches which were at best unhelpful and, at worst, potentially re-traumatising for students with trauma histories. Together, this has inspired me to explore opportunities to contribute more to the development of TIS in Wales both in terms of research and clinical application.

Barriers to Accessing Healthcare

My research into disparities in access to mental health support amongst young people also led to some periods of reflection for me. During this process I realised that, at one point in my life, I would have appeared in the figures showing the number of young people receiving mental health support in Wales. At the age of five, I stopped eating regularly. What started as a possible grief response, developed into

a high anxiety provoking relationship with food and meal times for both me and my family for a number of months. With both of my parents expressing high levels of concern, a referral was quickly made for us as a family to receive professional support. Thinking back to this time, I am confident that I would have scored extremely low on the Strengths and Difficulties Questionnaire (SDQ), used as a measure of need in my empirical research. In light of my research, I am faced with acknowledging some of the factors which may have increased my odds of receiving this support. This also serves as a real life example of the different ways in which need is measured in clinical settings. While I am in no doubt that our family required support during this period, it draws attention to the often subjective measures used to determine whether or not certain actions are taken (i.e. support offered/not offered). My initial response to this is a desire to promote the use of objective measures of need, in order to increase access to support for those who require it most. Having possibly benefited from this lack of objectivity, I am forced to question my initial judgement of this as being a flawed process. In some ways, objective measures of need imply that there is a point at which an individual is suitably distressed and therefore requires support. It is possible that subjective measures of need in fact increase the odds of accessing support. The difficulty, of course, is that this subjectivity allows for biases to impact clinical judgement and for disparities in service provision to emerge.

As an adult, I spent a number of years trying to access support for a physical health condition which impacts my life in a variety of ways. Many of the factors identified in my research as barriers to accessing healthcare have been brought to life through my own experiences of navigating different departments within the National Health Service (NHS). Researching disparities in healthcare access has drawn my attention

to many additional barriers which I am fortunate enough not to have faced during this process and has highlighted some of my privileges. I remain a passionate supporter of the NHS, but I am reminded that this system is not perfect. Far from being discouraged, I find there is energy in this. By assuming we are working with a perfectly crafted machine, we might be in danger of overlooking those whose needs are currently not being met. With an increased awareness of the areas in which the machine is currently underperforming, we can investigate further and work to polish and upgrade the cogs.

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	Excluding references, tables, appendices etc	Inclusive
Thesis summary	294	294
Scoping review	6,883	11,214
Empirical study	5,634	8189
Reflective commentary	3,874	4,385
Title pages, acknowledgements, abbreviations, contents	-	579
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