



Research article

In Sync: Inclusive school communities supporting students with anxiety

Dr Susan Carter^{*}, Cecily Andersen, Lindy-Anne Abawi

University of Southern Queensland, Toowoomba, Australia

ARTICLE INFO

Keywords:

Inclusive school community
Student anxiety
Students with anxiety-related disorders

ABSTRACT

This study aimed to investigate the experiences of educators (working in inclusive schools) supporting students with anxiety and anxiety-related disorders.

Method: A qualitative refractive phenomenological case study was used to collect data from 44 participants (educators in various roles) in six Australian primary and secondary schools, which previous research identified as using inclusive practices to support a diverse range of students.

Results: Educators shared that they supported what they saw as learning needs using intrinsic, intuitive, and inclusive (3I's) ways of working. Interestingly, all educators reported that students felt supported despite a lack of explicit strategies focused on reducing anxiety. The 3I's were a way of working educators used to support all students, even though they experienced difficulties in recognising anxiety as behaviours were often internalised. This was particularly the case where disability and anxiety disorders co-occurred. Furthermore, educators did not identify evidence to support any one type of intervention being effective in mitigating anxiety.

Conclusions: The data suggests that there is a culture of inclusion reducing student anxiety, even though teachers and support staff may not have recognised the student's anxiety. Parents were mostly the first identifier of anxiety in their child. This research highlights the need for educators to engage in professional development around recognising anxiety and, secondly, in the implementation of specific strategies to support students with anxiety or anxiety-related disorders.

1. Introduction

Increased prevalence of student anxiety is becoming more evident in school communities across the globe [1–4]. In addition, education systems across the globe are struggling to be inclusive of all students including those being diagnosed with anxiety disorders [5]. Before the onset of the COVID-19 pandemic, in any typical classroom, it could be expected that approximately 10% of the students in a typical class could experience anxiety-related impairments in behavioural, social or academic functioning [6]. Likewise, trends in youth clinically significant generalised anxiety rates were identified as approximately 11–12% [7,8] before the COVID-19 pandemic. However, since the onset of the COVID-19 pandemic, children and adolescents worldwide have experienced increased disruptions in their everyday lives [9]. In the first year of the COVID-19 pandemic alone, 1 in 4 youth globally experienced clinically elevated depression symptoms, while 1 in 5 youth are experiencing clinically elevated anxiety symptoms, almost double pre-pandemic figures [9].

The literature revealed a plethora of informative studies on ways to help students with anxiety. Examples include assisting teens to

^{*} Corresponding author.

E-mail address: susan.carter@usq.edu.au (D.S. Carter).

overcome anxiety episodes in project work [10], supporting students in the middle years with anxiety and depression [11], helping students to cope with mathematics anxiety [12] and how staff can help youth overcome episodes of anxiety [13]. Research also clearly suggests effective, collaborative practices to support students with anxiety and depression [14]. However, of concern is that much less is known about what educators (in various roles working in inclusive schools) are doing to support students with anxiety and anxiety-related disorders. It is in this space that this study contributes new knowledge through the investigation of what are the experiences of educators (working in inclusive schools), supporting students with anxiety and anxiety-related disorders.

2. Literature review

This literature review explores definitions of generalised anxiety, the prevalence of anxiety-related disorders, anxiety-related disorders in students with disability and educators' identification of anxiety-related disorders.

2.1. Generalised anxiety

Anxiety can manifest in different ways as the body's response to stress. People experience anxiety at differing levels as it can range from mild uneasiness, at a level that improves alertness and performance [15], to a full-blown panic attack [16]. For many children and adolescents, transient fears and anxieties are typical of child and adolescent development [17,18]. However, for some children and adolescents with an anxiety disorder, anxieties manifest where they may trigger behavioural disturbances and interfere with day-to-day functioning [19,20]. The conundrum is that continued elevated anxiety can reduce a person's capacity to engage competently in complex tasks [16] and as anxiety manifests in different ways, it can be defined as differing forms of anxiety. For example, performance anxiety occurs when students are expected to stand up and present in front of classmates or have mathematics anxiety [21]. When anxiety causes considerable distress and impairs a person's ability to function in some parts of daily life then it becomes an anxiety disorder [16] and this study views anxiety from this viewpoint rather than seeking to explore separate types of anxiety.

Anxiety can be described as a precursor to fear and is a pervasive feeling of alarm in response to a sensed danger [22]. When the perception of danger grows to be imminent and unavoidable, the response is fear. Anxiety becomes maladaptive when it is out of proportion to a perceived threat [23] or when it results in intolerable disruptive problems [24]. Ejaz [25] suggests anxiety is a pervasive, disabling condition that steals away opportunities for a fuller, richer life, but they also caution that it is a public health concern of sizable magnitude. Several theories emerge as to what causes anxiety, for example, deficit theory, cognitive inference theory, and control-value theory.

Deficit theory hypothesises that weak performance and memories of this performance result in experiences of higher anxiety in the future [26] whereas cognitive interference theory conjectures that high levels of anxiety negatively impact subsequent performance [26]. The control-value theory of anxiety-based achievement is that negative activating emotions potentially impair attention, motivation, and self-regulation, resulting in poor performance, which moulds future perceptions and emotions about performance [27]. Kessler [23] points out that anxiety disorders are some of the most commonplace mental health disorders. Thus, anxiety can manifest in different thereby adding to the challenge of identifying anxiety in children and adolescents.

2.2. Prevalence of anxiety related disorders

There is increased evidence worldwide indicating a rising prevalence of student anxiety. In 2019, it was estimated that one in seven adolescents experience mental disorders which amount to an estimated 166 million adolescents (89 million boys and 77 million girls) boys and girls globally [3]. Similar figures also emerged in a United States study where it was identified that close to 1 in 3 of all adolescents aged 13 to 18 will experience an anxiety disorder, with anxiety disorders in children and teens reported as high as 20% [4]. Similarly, Australian research findings from 2017 to 18 show approximately 3.2 million Australians (13.1%) demonstrated an anxiety-related condition [1]. Interestingly this research highlights that females were one and a half times more susceptible than males (15.7% compared with 10.6%) to develop an anxiety-related condition [1]. The data depicts that these increases in anxiety-related disorders were primarily in the adolescent to early adult age groups. Concerningly the number of females between 15 and 24 years of age with anxiety-related conditions increased significantly from 18.9% in 2014–15 to 24.6% in 2017–18 [1]. Notably, with males of identical age, the proportion of anxiety-related conditions almost doubled between 2014–15 and 2017–18, from 7.9% to 13.9% [1].

Research also indicates that increased prevalence of anxiety and depression symptoms in children and adolescents has increased as consequence of the onset of the COVID-19 pandemic due to social isolation and parental stress [28] and changes to everyday life circumstances [9,29–31]. In addition, a study by Tang [32] in China noted that during the COVID-19 pandemic, the prevalence of anxiety was much higher for junior high school students than senior high school students, with anxiety symptoms highest among anxiety rural children and adolescents. As such, anxiety in children and adolescents is becoming an increasing concern for many school communities across the globe. It could then be expected that a significant percentage of students in a typical classroom could experience anxiety which could impact behavioural, social or academic functioning.

2.3. Anxiety-related disorders in students with disability

When looking at research regarding students with anxiety, it is worth noting that studies report frequent co-morbidity of other disorders or special educational needs in relation to anxiety. Simonoff [33] noted that anxiety was one of the most common comorbid

disorders among students with neurological divergence. Van Steensel [34] conducted a meta-analysis looking at anxiety in children with autistic spectrum disorder and similarly found that across studies, 40% of children had at least one comorbid anxiety disorder. This pattern continues in the literature, for example, with elevated reports of anxiety disorders being associated with intellectual disability [35], Williams Syndrome [36], physical disability [37], learning disability [38], learning disorders [39] and learning difficulties [21]. Pekrun [27] also highlights the correlation between anxiety and performance. It is clear from the literature that anxiety affects a varying portion of the population and is prevalent among students with additional needs.

2.4. Educators' identification of anxiety-related disorders

Widespread research implies that educators have difficulty identifying students who are at risk of educational failure and requiring additional support when internalising behaviour problems (such as those associated with anxiety) as compared to those at risk for externalising behaviour problems [40,41]. Furthermore, parents and educators often have different evaluations of anxiety-related behaviours, and this interpretation results in differing behaviour ratings, which potentially affects the rates of risk identification for anxiety disorders [41]. However, the real problem is that in school community settings, this evaluation relies on both the recognition and identification of anxiety-related disorders by students, educators, or parents and the reporting of the disorders before support explicitly for anxiety can be enacted on.

Several studies also highlight that school communities are struggling to support students with anxiety. Embse and Hasson [42] reported that anxiety levels have risen with the focus on test-based accountability. A study by Namkung [43] investigating the relationship between anxiety and mathematical performance in school-aged students highlighted that mathematical anxiety and mathematics performance were more prominent when attempting more complex mathematics tasks and tasks connected to overall grades. They highlighted that mathematical anxiety and mathematics performance were more prominent when attempting more complex mathematics tasks and with tasks related to overall grades. Numerous countries (including Australia) rely on high stakes testing to inform final results and university entrance scores, with mathematics generally being considered a core subject.

It seems the investigation into understanding students and their needs and mitigating the impacts to learning should be a focus rather than just the identification or the measurement of anxiety. Enacting educational change to mitigate negative impacts to student learning involves leadership and management but this can be difficult when an impactor, such as anxiety, manifests in different ways, often through internalised behaviours difficult to identify and therefore difficult for teachers and support personnel to report. Students with mental health conditions can have fluctuating motivation, may appear to be disengaged, take steps to isolate themselves from their peers, or just seem a quiet person. It is therefore important to know the experiences of educators (in inclusive schools) supporting students with anxiety and anxiety-related disorders. The definition of anxiety operationalised within this study is deliberately broad and inclusive of students who may be reporting they are anxious or demonstrating what teachers perceive as anxiety as well as students formally diagnosed by professionals, as having an anxiety disorder.

3. Methodology

This study utilised a qualitative refractive phenomenological case study approach with a constructivist paradigm. This methodology and paradigm were selected as there is no objective truth to be discovered, as people construct meaning of various events or phenomena through experiences and situations. A constructivist paradigm "recognises the importance of the subjective human creation of meaning but doesn't reject outright some notion of objectivity" [44] [p. 10]. A refractive phenomenological case study approach was used to "investigate how individuals experience a given phenomenon" [45] [p. 141], as it was best aligned with the research investigation. Refractive phenomenological case study employs "interpretive filters taking individual depictions of lived experience and viewing, reflecting, redirecting and channelling these through a series of filters and reductive lenses until the 'essence' of the phenomenon has been brought into view" [45] [p. 141]. The filters can be emergent or, as in this case, predetermined. The method of refractive phenomenological case study was chosen as through refraction the researcher brings reflective practices forward that may have previously hidden understandings and meaning into consciousness [46] such as those discovered in the earlier study of inclusive school practices involving these same participants and researchers [47].

3.1. School contexts

This article reports on findings from six co-educational school communities of varying sizes, with three primary schools (also known as junior schools, or preparatory to year 6 schools) with five to eleven year old students; one preparatory to year 12 school with five to eighteen year old students; and two secondary schools (also known as senior schools) with twelve to eighteen year old students. The schools were from two regions in Australia, one densely populated metropolitan region and one very large geographic region with provisional, rural and remote schools.

Of the three primary schools, one was a metropolitan with a student population of over 500 students from a relatively high socio-economic suburb. The second school was located within a regional city with approximately 550 students. Here the student population was diverse with a number (50–60%) from relatively low to low socio-economic backgrounds, high rates of special learning needs (70–80%), and approximately 5–10% in foster care. The third school was a culturally diverse regional school community, with close to 600 students, including students with special educational needs.

The secondary schools were also diverse. One secondary school had a varied clientele of over around 1600 students with approximately 15–20% from refugee backgrounds and there was an offshoot campus with a successful alternative, flexible learning

program. The other secondary school with approximately 1000 students was located in a small rural town of low socio-economic background. The final school was a large remote school catering for 900 students from preparatory to year 12. The clientele generally came from low socio-economic backgrounds, and approximately 280 students were of Australian Aboriginal and Torres Strait Islander heritage.

3.2. Context and participant sampling

Purposeful sampling was used to select the schools. The schools in the study were deliberately selected based on responses in previous research (H16REA258) [47], which identified the school communities that demonstrated a definitive inclusive culture. Each school chosen clearly identified ways of working that catered for a diverse range of students. This was evidenced by strategic foundations enabled by student first leadership practices; shared leadership; a well-established whole school vision for inclusion; school wide pedagogical approaches to inclusive practices; a cohesive school community; strategic allocation of resources to support inclusion; and a culture of professional learning that ensured that the majority of school community members were 'on the same page'.

Furthermore, principals in the selected schools were asked to extend an invitation to individual participants. This invitation outlined the research process and provided the definitions of inclusion, anxiety, and anxiety-related disorders. Participants were required to have an educational role in the middle years of schooling (i.e., working with students aged 10–15 years), and participation was voluntary, with participants being able to withdraw from the study at any time (in accordance with ethical guidelines).

3.3. Participants

A total of 44 participants chose to complete consent forms and participate in the study. Participants included school principals, deputy principals, teachers, special education heads of unit, teacher support staff (curriculum coordinator, behaviour coach) and student support staff (learning support teacher, social worker/youth worker, teacher assistants). In this study, [participants are referred to as educators as all had a role in educating middle years students. When the term teacher is used, it applies specifically to the participants who identified as teachers. Participant demographics (see Table 1) indicated that participants were predominantly female and mid-career, with five to fifteen years' experience [48] and late career, greater than fifteen years' experience (48). Male participants excluding principals and deputy principals were all early career, had less than 5 years of experience [48] and were located in rural and remote areas.

3.4. Data collection tools

There are two main data collection stages. Stage 1 data collection involved semi-structured individual interviews. Stage 2 data collection involved the use of focus groups.

3.5. Semi-structured interviews – stage 1 data collection

Stage 1 data gathering comprised of semi-structured individual interviews to obtain the lived experiences of participants about what they do to support students with anxiety and anxiety-related disorders. The use of semi-structured individual interviews provided participants with the opportunity to reveal the meaning of their experiences, personal thoughts understandings, feelings and lived world experiences [49]. A framework consisting of three focus questions, follow-up, and probe questions (see Table 2), was used as the basis for each interview. This allowed for adaptability and flexibility to use new questions during the interview in response to what a participant said.

The voluntary interviews lasted between 30 and 60 min and were recorded for later transcription. Participants were informed of the opportunity to take part in a focus group discussion exploring what are the experiences of educators (working in inclusive schools), supporting students with anxiety and anxiety-related disorders. The focus group discussions were set for the week following the completion of all individual interviews with all individual interviewee participants receiving an invitation.

Table 1
Participant demographics.

	Total	Male	Female	Early Career	Mid-Career	Late Career
Principal	5	2	3		3	2
Deputy Principal	2	1	1	1	1	0
Teachers	21	5	16	5	11	5
Special Education Head of Unit	5	0	5	0	5	0
Teacher Support Staff (curriculum coordinator, behaviour coach)	4	0	4	0	4	0
Student Support Staff (learning support teacher, social worker/youth worker, teacher assistants)	7		7		3	4
Total	44	8	36	6	27	11

Table 2
Concept/themes arising.

Data Source	Concept/Theme	Concept/Theme	Concept/Theme	Concept/Theme	Concept/Theme
	Definition of anxiety and anxiety related disorders	Strategies/supports for students with anxiety and anxiety related disorders	A focus on inclusion and supporting all students	Anomalies	Arising - themes
Individual interviews	44 {of 44} Mentioned that anxiety was part of mental health 6 [of 44] Provided a definition of anxiety that was linked to a definition of stress. The common descriptor was “anxiety is internal” and it is a “feeling of stress”, “stress with life”	33 [of 44] Linked to support in place for all students. [44 out of 44] Mentioned: . Helping where perceived need had to be met, for example: “ <i>you see they need help</i> ” . Sensing that support was required . Provided support in ways that were inclusive 1 [44} Gave an explicit strategy linked to anxiety	27 [of 44] Linked to their school inclusion processes and programs. For example: “programs support all students”; “teams respond to needs”; “data is used by our support team to deploy resources across the whole school”	0 [of 44] None noted	29 [of 44] Linked to their school philosophy for inclusion. Mentioning . Specific philosophies articulated and. Alignment of the policies, programs, and practices Note: most participants initiated sharing artefacts to evidence inclusion
Focus Groups 5 groups of 5–10 participants	0 [of 5] No group defined anxiety but all 5 mentioned it. 1 [of 5] group said it was something that was “ <i>hard to spot as it was internal</i> ” 2 [of 5] groups said that it is “ <i>like stress, not feeling good</i> ”. 3 [of 5] groups said that “ <i>girls were more likely to be anxious</i> ” and parents were mostly the first identifier of anxiety.	1 [of 5] group mentioned anxiety was identified when there were on-going symptoms and parents were involved in the reporting of anxiety 5 [of 5] groups Linked to supporting all students based on their sensing of student need	5 [of 5] groups all linked to their school inclusion processes and programs, sharing lots of artefacts and evidence of inclusion. All talked extensively about intuitively knowing that students needed help, as it was how the school included all students and intrinsically - just doing what they do	0 [of 5] None noted Silent data was evidenced here as no mention of anxiety was associated with a student with a disability but a clear focus was evident on supporting the needs of every student	5 [of 5] groups all linked to their school philosophy for inclusion. Overlapping mentions of: intrinsic, intuitive, and inclusive ways of working. . Helping where perceived need had to be met. . Sensing that support is required. Providing support in ways that were inclusive

5

3.6. Focus groups – stage 2 data collection

To complement the interviews, focus groups were employed in five of the six schools to further stimulate discussion and surface group views about how students with anxiety-related disorders were supported. One school elected not to be involved in the focus group session due to a change in leadership. Each session lasted for approximately 60 min. A framework consisting of two focus questions, follow-up, and probe questions (see Table 3), was used as the basis for each focus group discussion. The interviews afforded the opportunity to see one perspective and the focus group discussions added depth and afforded the opportunity to triangulate concepts and anomalies.

3.7. Validity

Validity was pursued through the alignment of methodology, tools, and data analysis techniques. Appropriate ethics processes were followed, and permissions were granted to approach participants (see Fig. 1). Ethical approval was given from the University of Southern Queensland ethics committee (H16REA258) and the Queensland Government Department of Education and Training ethical committee (550/27/1841).

Individual interviews afforded the opportunity to inductively probe individual responses (Stage 1) and then cross-layer these responses with collective responses (Stage 2). Studies by Namey [50] and Seal [51] found that both interviews and focus groups, overall, generated similar concepts and conclusions affording an opportunity to cross-check concepts and anomalies. Our team of researchers, therefore, cross-checked our Stage 1 and Stage 2 data for validity, and surfaced data identified similar themes concepts, issues, and

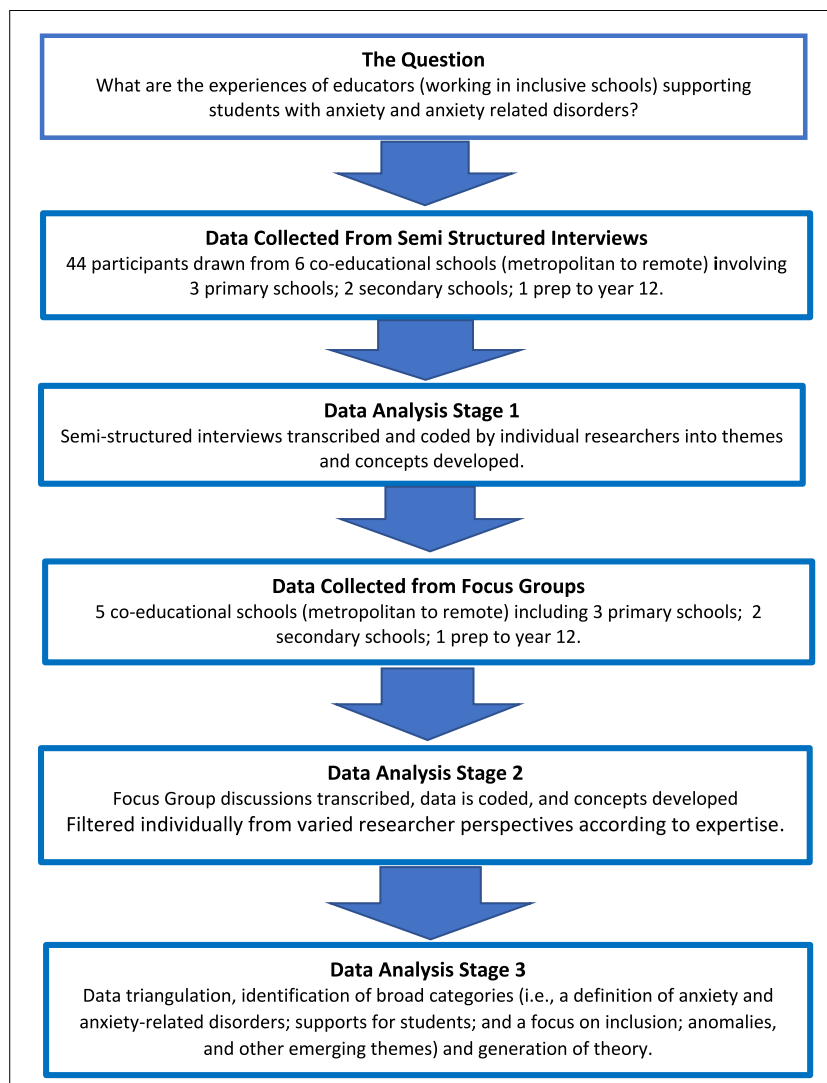


Fig. 1. Methodological process outlining data collection and analysis.

conclusions, which informed Stage 3 analysis. Furthermore, at each cross-checked stage was intense checking with each research coding the same script and placing it in a theme folder. Each of the theme folders was then read by every member of the research team and analyzed for alignment to the theme (circulated in a round Robin system, with orange highlight used for where a discussion was required). Following the reading, the areas in orange were discussed and placed in themes and the emerging story was jointly assembled by the researchers and rechecked against the data. Miles and Huberman [52], suggest rechecking as a process to corroborate the findings.

3.8. The research team

The researchers in this project had worked together and shared a common concern about the need to support students with high levels of anxiety and an interest in investigating what schools were doing to support students. Growing evidence of increased prevalence of anxiety children and adolescents [1,3,4] prompted the research team to begin an investigation of the literature. The research team consisted of experts within the following fields – autism, communication theory, early childhood education, special needs, school community leadership and school community improvement. Collectively the team meet on four occasions to focus on data analysis, preliminary planning of how the data would be analyzed, analysis of Stage 1 data, analysis of Stage 2 data, and analysis of the whole data set in Stage 3 of the analysis.

3.9. Data analysis process

In analysing the data, a five step process was used (see Fig. 2). Analysis of data was undertaken using filters, to help understand the various practices and structures that were at play in each context (see Fig. 1). The interview transcripts were transcribed by an external company in alignment with ethical procedures. Stage 1 involved individual researchers into identifying themes and developing patterns and concepts and looking for any deviations from these patterns. Researchers used a round robin strategy to corroborate findings. All researchers then discussed the emerging story of the data, writing up the Stage 1 findings.

Stage 2 involved exploring very similar questions to Stage 1 but targeted to the whole focus group audience. The data that surfaced was a collective school context voice. The focus group discussions were transcribed by an external transcription company with each researcher coding data and developing concepts. The files were then read by all researchers (a round robin strategy was employed), discussed and validated in terms of consensus on themes and concepts developed supported by excerpts and linkage to the data file. All researchers then discussed the emerging story of the data, writing up the Stage 2 findings.

Researchers were guided by Miles and Huberman [52] data analysis process and used the following exploratory questions as a guide:

1. Are there patterns or common trends emerging in the data? How does this emergence link to the research question?
2. Are there examples of pattern deviation? If so what and why?
3. Are there interesting stories emerging from the data and does additional data need to be collected to inform or corroborate what is emerging? Do research questions require refinement?
4. What are the patterns suggesting? What is the initial finding?
5. What data corroborate the finding?

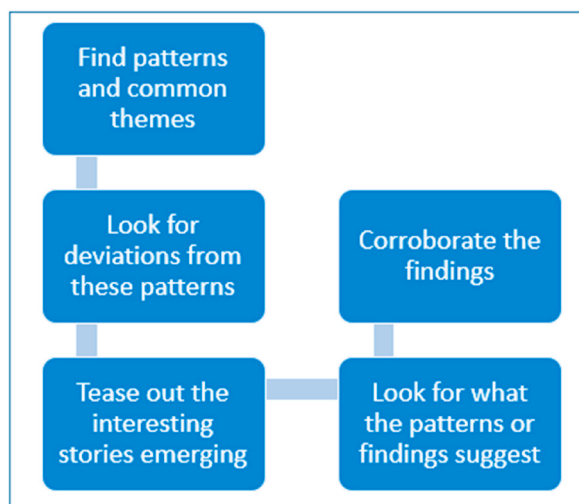


Fig. 2. Data analysis process used in each stage.

The final stage of analysis, Stage 3, involved the combination of the data sets (Stage 1 and Stage 2), and the comparison between the data sets in terms of key ideas, themes, conclusions and a review of any anomalies. The emerging essence of the finding was then corroborated against the data to ensure that the story emerging was clearly what was evidenced in the data. This data was then storied into the essence of what was discovered from the investigation, the rich description of practice.

4. Results

The purpose of this study was to identify the experiences of educators working in inclusive school communities and how they supported students with anxiety and anxiety related disorders. Participants were asked to outline their definition of anxiety, provide evidence of how they identified students with anxiety and share challenges of supporting young people with anxiety.

From the data key themes emerged and patterns emerged and these were synthesised into: 1) a definition of anxiety and anxiety related disorders; 2) supports for students; 3) a focus on inclusion and supporting all students working in a way that was intrinsic, intuitive, and inclusive; 4) anomalies, with none noted; and 5) a commitment to a shared philosophy of inclusion for all (see [Table 2](#) below).

Participants struggled to define anxiety in any detail but clearly associated anxiety with mental health. Participants described anxiety in terms of “*it is part of mental health*” and it is “*hard to see*”, it is “*internal*”, and some participants made mention of how it is “*a new focus amid the complexity of the current focus on supporting students with special educational needs*”. Noteworthy is that these descriptions provide little detail about the specific definition of anxiety.

Data surfaced that teachers struggled to identify students with anxiety. Most participants said that the focus was “*on the need not the label*”. Six participants talked about it being internalised and another six about it being stressful as they were unsure of what their student was experiencing and did not know how to broach the conversation regarding anxiety. There were repeated overlapping mentions in the data of teachers helping where they perceived a need had to be met but not being sure of the exact need. For example, “*it’s just what you do to help*”, sensing that support was required with comments such as “*a sense they are not travelling well*”, and providing support in ways that were inclusive “*we support students but don’t single them out in ways they stand out*”.

All participants made mention of the challenges of supporting young people with anxiety. All participants highlighted that anxiety was difficult to label and it was often partnerships with parents that surfaced the specifics of anxiety “*the parent alerted me to the issue of anxiety but we were already supporting the student for other identified needs*”. Particular mention was made of the difficulties of identifying anxiety and the complexity of teaching when there were so many competing priorities. One participant mentioned, “*how do you focus on identifying what is internal amid trying to help kids doing all different thing in the classroom*”.

5. Findings supported with data

Four key findings emerged from the data. Firstly, the key finding is that within an inclusive school culture, educators used intrinsic, intuitive, and inclusive ways of working that supported all students regardless of whether the school community made mention of students with anxiety or not. Researchers termed this way of working as the 3I’s (i.e., intrinsic, intuitive, and inclusive). Secondly, educators struggled to identify and support instances of anxiety and anxiety disorders in children and adolescents. Educators in the focus group shared that “*girls were more likely to be anxious*” and they knew this “*from media exposure*”. Interestingly focus group data surfaced that parents were mostly the first identifier of anxiety in their child and then they came to talk to teachers about it. Thirdly, educators struggled to identify and support instances of anxiety and anxiety disorders in female students and students with disability and relied heavily on feedback from parents to identify issues. Fourthly, there was a noted absence of evidence of any one type of intervention being effective in mitigating anxiety in children and adolescents.

5.1. The 3 I’s (intrinsic, intuitive, inclusive) ways of working that support students

Findings illustrated that despite a lack of explicit strategies focused on reducing anxiety or anxiety related disorders, educators in schools in this study reported engaging in intrinsic, intuitive, inclusive ways of working that were effectual in supporting student need, surfacing the term the 3I’s (i.e., intrinsic, intuitive, inclusive). Educators were intrinsically supporting students, helping where they perceived a need had to be met but without being told the need was there. It was a proactive sensing of need. The educators did this in an intuitive way, sensing that support was required and gave the support in ways that were inclusive. While this way of working that surfaced from the data was not explicitly targeted at students with anxiety. Participant responses evidenced examples of 3 I’s ways of working that proactively supported learners with special educational needs (see [Table 3](#)). Furthermore, participant responses in Schools 2, 3, 4,5, and 6, evidenced examples of an explicit student first focus where educators were using reflection to set current direction. For example: “*Well, in planning for an activity I always say to myself ‘How would Joshua feel if I did that?’ This form of thinking has helped me to try and think from the student perspective. Put the student first*” (Teacher, female, mid-career).

Establishing safe and supportive spaces and environments for all students within the school communities was a common 3 I’s way of working that supported student learning needs. The focus in each of these school communities was placed on ensuring a safe and inclusive environment for all students no matter what their learning needs were for example:

Schools needs to be safe supportive environments where success is celebrated. (Teacher, female, mid-career).

Teachers need to create environments that create success using a structured routine and structured planning and delivery (Principal, female, late career).

Table 3
Participant examples of the emergence of the 3I's.

Helping where perceived need had to be met	Sensing that support was required	Provided support in ways that were inclusive
<i>I find something good about them [the student], something I can highlight to make them feel important in the classroom, to the others so they are validated and recognised (Teacher, female, mid-career).</i>	<i>Teachers need to create environments that create success using a structured routine and structured planning and delivery. You get a sense of what they need. (Principal, female, late career).</i>	<i>Our school still put in supports irrespective of whether someone has a specific verified diagnosis that is linked to funding (Teacher, female, mid-career).</i>
<i>All students must get the opportunity to feel good about themselves (Student support staff, female, late-career).</i>	<i>You get a sense of the overall family, the background, the student, the needs ... these kids need support with this or that ... data shows this ... the student comes first (Principal, male late career).</i>	<i>Each student is different. It is about the student (Teacher, male early career).</i> <i>You find a way to meet the needs (Principal, male late career).</i>

A collaborative team approach of ensuring that educators were key stakeholders in supporting student learning and mental health and wellbeing was another key 3 I's way of working that supported student learning needs in Schools 2, 3, 4, and 6. One example of this was *teachers and staff in this school feel that they are stakeholders in how students are supported* (Teacher, female, mid-career). In School 6, it was clear that the specialist staff understood that educators required assistance to identify students needing diagnosis and support. However, this emphasis on support and diagnosis in collaborative teams was common across all school communities in the study. Teams often meet weekly to discuss *hotspots* and develop student learning and mental health and wellbeing support intervention. For example:

We have processes either through data, as a team we might flag certain behaviours and certain kids most of the staff, they'll come and say to me: "Hi, can you just have a look at this child? Can we put our heads together in?". Very much a collegial joint, certainly not me as the expert, because I've never claimed. I've always said to them: "If I don't know something, I'll find someone who does, and together we'll get to the end of it (Teacher support staff, female, mid-career).

Lastly, a clearly articulated common repertoire of personal practice in teaching and managing students was also a 3 I's way of working that supported student learning needs. Schools 2, 3 and 4 expected all educators to be flexible and attuned to student needs, with a strong emphasis placed on daily record keeping and communication happening throughout the day so that 'cases' could be discussed in detail by groups of teachers and support staff. This manifested in terms of a clearly articulated common repertoire of personal practice in teaching and managing students which included building positive relationships and trust, knowing each student, their likes, dislikes, triggers, and obsessions and staying calm when engaging with students. One example of this was: *Pick your battles. Stay calm. Don't engage your own fight and flight* (Teacher female, mid-career).

The 3 I's was a way of working educators used to support all students, inclusive of those with anxiety and anxiety related disorders. The inclusive school culture was guided by clear and evidence-based policies that were responsive to the needs and concerns of stakeholders [47]. Findings illustrated that for each of the school communities in the study where 'inclusion' was a way of working, inclusive practices were guided by clear strategic foundations.

By consciously aligning organisational practices, the school communities reduced the *siloining* [isolation and non-sharing] of good practice and created a culture of inclusion that could reduce student anxiety and result in improved learning outcomes. This type of alignment can be heard in the language of the school, evidenced in the school communities' 3 I's ways of working, and the ways in which staff individually and collectively worked in a meaningful way to support special educational needs. As such, while educators within a school community may not clearly recognise anxiety, the school community may operate in such a way that it supports the individual needs of the students, so the label of anxiety is not always needed for the student to receive support. So, being inclusive and being in sync with supporting students supports students with anxiety or anxiety related disorders.

In summary, by implementing inclusive ways of working that support students with special educational needs, school communities may intrinsically and intuitively support students with anxiety regardless of whether the school community has made mention of students with anxiety or not.

5.2. Educators Struggled to identify and support students with anxiety

Educators struggled to identify and support students with anxiety with only six of the 44 participants making mention of 'noticing' students with anxiety for example:

Anxiety can present anything from head down, putting jumper or shirt over your head, not wanting to face anybody, passive non-compliance, sitting there but not doing the activity but not making a big fuss about it, the continual asking of questions. (Teacher, female, mid-career).

Of those six participants only two educators noted that student anxiety was a very important issue for example: At the worst students with anxiety will refuse to attend class or even attend school (Teacher).

Of note, was the total absence of any explicit mention of 'noticing' students with anxiety in Secondary School communities and this was further explored in focus group discussions. Within these communities, participants in the focus group discussions were asked why

in individual interviews there no explicit mention was made of 'noticing' students with anxiety and discussion of students was more global in terms of support practices, for example:

Teachers need to create environments that create success using a structured routine and structured planning and delivery (Principal, male, late career).

The focus group responses all clustered around the theme of needs as opposed to labels.

If we know their needs and cater for the needs it done not matter what the label is – anxiety, autism, behaviour defiance (Head of Special Education, female, mid-career).

Educators in the study who worked in a Primary School also struggled to identify supports targeted at student anxiety, as student behaviours were described as being internalised by students. Of the six educators who articulated 'noticing' students with anxiety (Schools 2 and 3), all indicated that they struggled to identify and support instances of student anxiety as student behaviours appeared to be often internalised.

It is like you must be a mind reader as to what has triggered the anxiety they magnify things in their mind. When they tell you a story it is usually bigger than what it is (Teacher, female, mid-career).

This data demonstrates a lack of understanding by the teacher of internalised anxiety behaviours.

The focus group discussions explored how can you tell if a student has anxiety. Interestingly the data revealed that participants felt that the students with anxiety were being supported in many ways but that the identification and support were not attached to the descriptor of anxiety.

It's hard to distinguish between meltdowns and anxiety but you do not really need to sometimes; you can't see what is in their heads, you just support, making decisions on what seems to work for that student and use feedback, like their demeanour based on their sense of wellbeing to check that things are working (Primary Head of Special Education, female, mid-career).

The difficulty in identifying and supporting instances of anxiety and anxiety disorders in students was also compounded by different teacher perceptions of gender differences in the way that students internalised or externalised anxiety. In the school communities that made mention of students with anxiety (Schools 2 and 3), students who identified as female were described as 'flying under that radar' as they tended to internalise anxiety for example:

Girls exhibit more internalising issues such as anxiety and depression (Principal, female, late-career); girls have a real inner battle when things start to change – generating difficulty and anxiety producing reactions (Teacher, male, early-career);

girls when anxious are often quiet and not talking even to teacher (Teacher, female, mid-career); I think maybe they [girls] internalise a little bit more, I think. Sometimes girls can fly under that radar a little bit (Head of Special Education, female, mid-career).

Whereas students who identified as a male were described as more extroverted and 'out there' and therefore more likely to be identified as having issues. For example:

anxiety may be evidenced as emotional immaturity and a lack of emotion control in boys (Teacher, female, mid-career); the boys are very robust and out, you know, they're quite extroverted in their behaviour (Teacher Support Staff, female, mid-career).

The perception of educators indicated that the internalisation of anxiety, particularly with students who identify as female, also appeared to further problematise the identification and provision of support for instances of anxiety and anxiety disorders in students.

5.3. Educators Struggled to identify and support female students and students with disability with anxiety

In the schools involved in the study, participants who had teaching roles all reported that they supported students with disabilities. These educators were asked how do you support students with disabilities who also have anxiety and anxiety related disorders? When participants only mentioned females with anxiety, researchers probed with questions like: did the support differ for students who were male or female, and if so why and how? Interview data indicated that participants thought other educators struggled to identify and distinguish instances of anxiety and anxiety disorders in students. For example:

I think there is a slight difference ... but it's hard to distinguish between meltdowns, bad behaviour, and an anxiety attack (Teacher, female, mid-career).

I don't know, if her teacher would have picked up what was going on with the anxiety, because she [the student] does the work; follows the routine ... But has all this inner battle going on and, in these situations, she didn't know how to unpack those feelings (Teacher support staff, female, mid-career).

Well, I can see a few other students they've got like anxiety, and they sort of sit there and do the typical student behaviour who have anxiety, they sort of sit there with their eyes taking everything in ... then they don't sort of walk, fidget as much. Then I think other students will basically have a hard time distinguishing or realising that they are at risk of an anxiety attack and probably would not really know what to do (Teacher, female, mid-career).

Where mention was made of knowing if a student had anxiety the initial identification was made by the parent. Once a student was

identified as having special needs such as anxiety or an anxiety related disorder, inclusive supports were enacted to support and include the student.

5.4. Absence of Effective Strategies to mitigating anxiety in students

From the data set of interviews and focus groups it was noted that of the six educators who noticed anxiety, only one participant made any mention of an actual strategy and then there was no detail on the strategy. The other five participants did not mention a strategy specific to anxiety, for example “*well I am not sure I recognise it and label it, I just focus on the needs of the kids*” (Teacher, middle career, female). The data suggests there could be deeper issues with teachers’ understanding of approaches towards inclusive education. It may be that relying on intuition through the 3 I’s approach (sensing the need as opposed to understanding the need) could be driving how educators approach supporting young people who present with anxiety. It appears from this research that teachers are not specifically understanding needs explicitly associated to anxiety. The only strategy identified was the reframing of thinking with a focus on open mindedness but not with any clear detail about how it is enacted.

I realise just how open minded you need to be – I would have thought I was open minded and yet every day in every way I am reminded to be more open-minded. You don’t know what you don’t know so until you get that experience of a different way of working, they actually can’t move forward – they have to have someone to lead and prompt and guide and open minds and eyes (Teacher, female, mid-career).

This participant appeared to be using tacit knowledge (i.e., that gained from experiential learning) to work with students and had difficulty in surfacing exactly how this was done, and verbalising it despite prompts given in the interview by the researcher like, what did this look like, what did it sound like? The finding is significant as it surfaces silent data. The silence in the data illuminates a story in itself and researchers should choose to not dismiss silence [53]. In this case where educators have not described strategies to support anxiety it is suggested that this is a place for further research.

6. Discussion of findings

This section of the paper discusses how educators struggled to identify and support students with anxiety and support students with disability who had anxiety. The absence of effective strategies to mitigate anxiety in students is explored and then points are raised regarding the contribution of the study.

6.1. Educators Struggled to identify and support students with anxiety

To support students with anxiety, educators initially need to recognise that students do require support prior to providing tailored support. The results of this study indicate that even in school communities which have been identified as having clear inclusive practices, educators struggled to identify and support students with anxiety. While these findings mirror research [40,41,54,55], it indicates that educators have difficulty being aware of some anxiety symptoms in their students. It also indicates that educators in inclusive school communities also experience difficulty in recognising anxiety in students, and in particular in students in secondary settings.

Findings from the study also surface some significant questions about the statistical under representation of students (both children and adolescents) with anxiety identified by educators in the study. The combined student population of these school communities (Schools 1, 2, 3, 4, 5, and 6) was 5119 students at the time of the study. Based on the UNICEF’s State of the World’s Children 2021 Report [3] which estimates that one in seven children and adolescents experience mental disorders, it could then be statistically expected that approximately 731 students may have experienced anxiety at the time of the study. As such, the identification or ‘noticing’ of students with anxiety by the educators in the study is exceptionally low compared to what research suggests should be evidenced in an Australian population where it is estimated that between 13.1% [1] (which would equate to 665 students [approximately] in the study population), and 15.7% [1] (which would equate to 767 students [approximately] in the study population) could be expected to experience anxiety. Therefore, it is possible to assume that there is a statistical under representation of students with anxieties identified by educators in the study. Also, informing this problem is that research highlights students with anxiety commonly avoid reporting experiencing anxiety related difficulties [25].

Thus, if educators in inclusive schools often have different evaluations of anxiety related behaviours, and this interpretation results in differing behaviour ratings, this may potentially affect the rates of risk identification for anxiety disorders [41] in children and adolescents, even in schools with distinct inclusive cultures. The real problem then, is that in school community settings this evaluation is reliant on both the recognition and identification of anxiety related disorders by students, teachers and other educators, or parents, and the reporting of the disorders, before support explicitly for anxiety can be enacted.

As the degree to which students with high levels of anxiety are able to participate, achieve and connect with others in the school community environments, may fluctuate [56], 2019, it is important that educators are able to recognise anxiety in students, and put in place appropriate supports to ensure that the mental health and wellbeing of students is supported. If educators understand what anxiety is, the prevalence of its occurrence, how to identify it, then it stands to reason they can enact effective ways of working that support students with anxiety to meaningfully engage in their learning.

6.2. Educators Struggled to identify and support students with disability who experienced anxiety

Additionally, the internalisation of anxiety related behaviour exhibited by students with anxiety [57], and particularly students who identify as female [58], exacerbates the issue of educators identifying students with anxiety [59] and students with a disability or special educational needs. This is a concerning issue, given that anxiety disorders in both children and adolescents are some of the most common mental health problems experienced by children and adolescents [60,61] having significant impact and consequences on students' everyday life and learning [59]. Silent data was evidenced in this study as no mention of anxiety was associated with a student with a disability during focus group discussion, but a clear focus was evident on supporting the needs of every child. It may be that educators just saw the need and intuitively responded, and the label of anxiety was not featured. Further study is warranted in this area.

As researchers, we suggest that if there is an issue identifying anxiety there seems to be a lesser issue identifying disability and special needs. As school communities focus on the inclusion of students with special needs, it seems logical that they would also focus on supporting students with anxiety related disorders within this process, even if they do not specifically identify anxiety. Further research is required to pinpoint if these school communities do not have students with anxiety, or if educators do not know how to detect anxiety, or perhaps if they just cater for it intrinsically and intuitively.

The mental health and wellbeing of all students, especially those with high levels of anxiety, often associated with neurodiversity, depends on the degree to which they participate, achieve and connect with others in the school community environment [56]. Therefore, if educators, especially classroom teachers can recognise anxiety in students, they can put in place supports for learners, but the significant issue is that educators are struggling to identify anxiety because of the internalising behaviours [41]. If educators are supportive of learning needs perhaps, they do not necessarily need to recognise anxiety but recognise the needs. It is possible that supporting individual students (without targeting anxiety) occurs also through an inclusive school community culture.

6.3. Absence of Effective Strategies to mitigating anxiety in students

The lack of evidence relating to strategies that explicitly supports students with anxiety, may be linked to problems associated with educators' identifying student with anxiety. This study surfaced a lack of understanding of anxiety despite the perception that a student was needing support. If educators are unable to identify students with anxiety, then it is unlikely that strategies will be evidenced to support instances of anxiety and anxiety disorders in students [59].

A strength of this study is the constructivist phenomenology approach adopted by the researchers which provides deep and authentic insights into the understanding, experience and practice of principals, teachers and support staff supporting students who are identified as having an anxiety disorder.

7. Limitations

It is pertinent to note that the small sample size of participants may limit the generalisation of findings. The sample size consisted of 44 participants from across six Australian educational contexts within in a 500-km radius. The participants reported their lived experiences in their particular setting which were reflective of their personal interpretations. Alternate educational jurisdictions may make use of approaches within their systems that respond to children with anxiety in ways not reported in this data. Furthermore, a limitation of the study is that there are no control groups or random sampling of teachers. Some of the researchers had previously worked with the schools on inclusion frameworks. This has the potential to create a confirmation bias of results. To endeavour to counter this the researchers who had no involvement previously with the schools in the inclusion study were involved in peer review (round robin) of all themes and coding, to ensure consensus in the analysis.

Issues associated with collecting qualitative data through interviews and focus groups has been noted in the literature [62]. The interviews and focus groups involved two-way, face to face exchanges with professional peers. Whilst it is considered positive for the interviewer to understand the research topic, interviewing professional peers can be problematic. Coar and Sim [63] [p. 225] note that data may be compromised by interviewees aiming to "project a positive professional identity" by responding with what they think the interviewer wants to hear. For this reason, this study had incorporated additional focus groups as a way to check the emerging data and that too has a limitation. Certain types of socially acceptable or expected opinions may emerge and at times individual people dominate group responses [62]. Competency in conducting focuses groups can help mitigate this with the use of protocols (e.g., turn taking, inviting in quiet participants, using a timer) but it remains a limitation. Additional data collection techniques may improve the robustness of similar studies and ideally take into account the lived experience of students and capture the student voice.

8. Recommendations

As a research team we make two key recommendations. The current research [40,41] and the data from this study highlights educators struggle to identify anxiety and anxiety disorders in students.

1. It is recommended that professional development be undertaken by school educators, firstly to recognise anxiety in students and secondly enact specific targeted proactive interventions and supports for students with anxiety.
2. It is necessary for school communities to focus on creating an inclusive school culture where the diversity and individualised needs of all students are supported, and the focus is on mitigating the barriers to learning rather than on labelling.

Together these two recommendations may contribute to a reduction in the number of students with anxiety or the severity of the anxiety and its impact on student learning and mental well-being. Further research in this area is warranted.

9. Conclusion

School communities in this study had evidenced an inclusive culture in relation to the Research Based Framework for Organisational Alignment (RBF-OA) [64]. Educators in these schools used intrinsic, intuitive, and inclusive (3I's) ways of working that supported students with instances of anxiety and anxiety disorders regardless of whether the school community made mention of students with anxiety or not. Therefore, if we acknowledge that it is hard for educators to identify students with anxiety, then at the very least schools can be called to action to promote inclusion in ways that support students with special educational needs. School communities need to create an inclusive culture that provides the supports needed and also engages in professional development around anxiety identification and enactment of explicit support. It is the hope that schools explore what anxiety is, how best to recognise it in students, and ways to implement targeted intervention strategies to support optimal opportunities for learning success and overall life outcomes.

Author contribution statement

Susan Carter; Cecily Andersen: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Lindy-Anne Abawi: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data.

Data availability statement

The data that has been used is confidential.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

The authors received no financial support for the research, authorship, and/or publication of this article. Declarations of interest: none.

References

- [1] Australian Bureau of Statistics. Australian National health survey: First results 2017-18 financial year. Key findings for health statistics including long-term health conditions; mental wellbeing; and health risk factors [Internet]. Australia: Australian Bureau of Statistics. 2023 - [cited 2023 Feb 8]. Available from: <https://www.abs.gov.au/statistics/health/health-conditions-and-risks/national-health-survey-first-results/latest-release>.
- [2] D.M. Caldwell, S.R. Davies, S.E. Hetrick, J.C. Palmer, P. Caro, J.A. López-López, et al., School-based interventions to prevent anxiety and depression in children and young people: a systematic review and network meta-analysis, *Lancet Psychiatr.* 6 (12) (2019) 1011–1020, [https://doi.org/10.1016/S2215-0366\(19\)30403-1](https://doi.org/10.1016/S2215-0366(19)30403-1).
- [3] United Nations International Children's Emergency Fund, The state of the world's children 2021: on my Mind. Promoting, protecting and caring for children's mental health, Geneva. United Nations 2021 - [cited 2023 Feb 8]. Available from: <https://www.unicef.org/media/108161/file/SOWC-2021-full-report-English.pdf>.
- [4] United States Census Bureau. 2020 National survey of children's health [Internet]. Washington 2021 - [cited 2023 Feb 8]. Available from: <https://mchb.hrsa.gov/sites/default/files/mchb/Data/national-survey-childrens-health-2021-overview-fact-sheet.pdf>.
- [5] T. Varga-Adams, S. Bennet, R. Sharpe, S. Alexander, A. Littlejohn, The choices that connect uncertainty and sustainability: student-centred agile decision-making approaches used by universities in Australia and the UK during the COVID-19 pandemic, *JMIE* 1 (2021) 16.
- [6] A.J. Swan, P.C. Kendall, Fear and missing out: youth anxiety and functional outcomes, *Clin. Psychol. Sci. Pract.* 23 (2016) 417–435, <https://doi.org/10.1111/cpsp.12169>.
- [7] K. Tiirikainen, H. Haravuori, K. Ranta, R. Kaltiala-Hein, M. Marttunen, Psychometric properties of the 7-item Generalized Anxiety Disorder Scale (GAD-7) in a large representative sample of Finnish adolescents, *Psychiatr. Res.* 272 (2019) 30–35, <https://doi.org/10.1016/j.psychres.2018.12.004>.
- [8] W. Lu, Adolescent depression: national trends, risk factors, and healthcare disparities, *Am. J. Health Behav.* 43 (1) (2019) 181–194, <https://doi.org/10.5993/AJHB.43.1.15>.
- [9] N. Racine, B.A. McArthur, J.E. Cooke, R. Eirich, J. Zhu, S. Madigan, Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19: a meta-analysis, *JAMA Pediatr.* 75 (11) (2021) 1142–1150, <https://doi.org/10.1001/jamapediatrics.2021.2482>.
- [10] C.N. Orson, R.W. Larson, Helping teens overcome anxiety episodes in project work: the power of reframing, *J. Adolesc. Res.* 36 (2) (2021) 127–153, <https://doi.org/10.1177/0743558420913480>.
- [11] A. Wilson, In the Front Line: Supporting Students with Anxiety and Depression [master's thesis], Dominican University of California, San Rafael (CA), 2020, p. 115, <https://doi.org/10.33015/dominican.edu/2020.EDU.03>.
- [12] A. Shishigu, Mathematics anxiety and prevention strategy: an attempt to support students and strengthen mathematics education, *Math. Educ. Trends Res.* 1 (1) (2018) 1–11, <https://doi.org/10.5899/2018/metr-00096>.
- [13] C. Orson, Reframing: How Staff Help Youth Overcome Episodes of Anxiety in Youth Programs [master's thesis], Available from: University of Illinois, [Urbana (IL)], 2018, p. 31 <https://www.ideals.illinois.edu/bitstream/handle/2142/101145/ORSON-THESIS-2018.pdf?sequence=1&isAllowed=1>.
- [14] J.M. Furner, C. Higgins, Empowering teacher leadership to address math anxiety in today's schools, *Transformations* 5 (1) (2019) 4–23. <https://nsuworks.nova.edu/transformations/vol5/iss1/2>.

- [15] P. Lehrer, K. Kaur, A. Sharma, K. Shah, R. Huseby, J. Bhavsar, et al., Heart rate variability biofeedback improves emotional and physical health and performance: a systematic review and meta-analysis, *Appl. Psychophysiol. Biofeedback* 45 (3) (2020) 109–129, <https://doi.org/10.1007/s10484-020-09466-z>.
- [16] G. Andrews, C. Bell, P. Boyce, C. Gale, L. Lampe, O. Marwat, et al., Royal Australian and New Zealand college of psychiatrists clinical practice guidelines for the treatment of panic disorder, social anxiety disorder and generalised anxiety disorder, *Aust. N. Z. J. Psychiatr.* 52 (12) (2018) 1109–1172, <https://doi.org/10.1177/0004867418799453>.
- [17] K. Beesdo, S. Knappe, D.S. Pine, Anxiety and anxiety disorders in children and adolescents: developmental issues and implications for DSM-V, *Psychiatr. Clin.* 32 (3) (2009) 483–524, <https://doi.org/10.1016/j.psc.2009.06.002>.
- [18] A. Chiu, A. Falk, J.T. Walkup, Anxiety disorders among children and adolescents, *Focus* 14 (1) (2016) 26–33, <https://doi.org/10.1176/appi.focus.20150029>.
- [19] *American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders, fifth ed., American Psychiatric Association, Washington, 2013, p. 991.*
- [20] K. Beesdo-Baum, S. Knappe, Developmental epidemiology of anxiety disorders, *Child Adolesc. Psychiatr. Clin. North Am.* 21 (3) (2012) 457–478, <https://doi.org/10.1016/j.chc.2012.05.001>.
- [21] Y. Mutlu, Math anxiety in students with and without math learning difficulties, *Int. J. Elem. Educ.* 11 (5) (2019) 471–475, <https://doi.org/10.26822/iejee.2019553343>.
- [22] A. Aly, L. Green, Fear, anxiety and the state of terror, *Stud. Conflict Terrorism* 33 (3) (2010) 268–281, <https://doi.org/10.1080/10576100903555796>.
- [23] R.C. Kessler, P. Beglund, O. Demler, R. Jin, K.R. Merikangas, E.E. Walters, Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication, *Arch. Gen. Psychiatr.* 62 (6) (2005) 593–602, <https://doi.org/10.1001/archpsyc.62.6.593>.
- [24] B. Arroll, T. Kendrick, Definition of anxiety, in: L. Gask, T. Kendrick, R. Peveler, C.A. Chew-Graham (Eds.), *Primary Care Mental Health, second ed., Cambridge University Press, Cambridge, 2018, pp. 125–137, https://doi.org/10.1017/9781911623038.010*.
- [25] B. Ejaz, A. Muazzam, A. Anjum, G. Pollock, R. Nawaz, Measuring the scale and scope of social anxiety among students in Pakistani higher education institutions: an alternative social anxiety scale, *Sustainability* 12 (6) (2020) 2164, <https://doi.org/10.3390/su12062164>.
- [26] E. Carey, H. All, A. Devine, D. Szücs, The chicken or the egg? The direction of the relationship between mathematics anxiety and mathematics performance, *Front. Psychol.* 6 (2016), <https://doi.org/10.3389/fpsyg.2015.01987>, 1987–1987.
- [27] R. Pekrun, Achievement emotions: a control-value theory perspective, 2019, in: R. Patulny, A. Bellocchi, R.E. Olson, S. Khorana, J. McKenzie, M. Peterie (Eds.), *Emotions in Late Modernity, Routledge/Taylor & Francis Group, Oxfordshire[England], 2019, pp. 142–157, https://doi.org/10.4324/9781351133319*.
- [28] M. Deolmi, F. Pisani, Psychological and psychiatric impact of COVID-19 pandemic among children and adolescents, *Acta Biomed.* 91 (4) (2020), e2020149, <https://doi.org/10.23750/abm.v91i4.10870>.
- [29] M.A.G. de Avila, P.T.H. Filho, F.L. da Silva Jacob, L.R.S. Alcantara, M. Berghammer, M.J. Nolbris, et al., *Int. J. Environ. Res. Publ. Health* 17 (16) (2020) 5757, <https://doi.org/10.3390/ijerph17165757>.
- [30] H. Qi, R. Liu, X. Chen, X.F. Yuan, Y.Q. Li, H.H. Huan, Y. Zheng, G. Wang, Prevalence of anxiety and associated factors for Chinese adolescents during the COVID-19 outbreak, *Psychiatr. Clin. Neurosci.* 74 (10) (2020) 555–557, <https://doi.org/10.1111/pcn.13102>.
- [31] Q. Xu, Z. Mao, D. Wei, P. Liu, K. Fan, J. Wang, X. Wang, et al., Prevalence and risk factors for anxiety symptoms during the outbreak of COVID-19: a large survey among 373216 junior and senior high school students in China, *Affect. Disord.* 288 (2021) 17–22, <https://doi.org/10.1016/j.jad.2021.03.080>.
- [32] S. Tang, M. Xiang, T. Cheung, Y. Xiang, Mental health and its correlates among children and adolescents during COVID-19 school closure: the importance of parent-child discussion, *J. Affect. Disord.* 279 (2021) 353–360, <https://doi.org/10.1016/j.jad.2020.10.016>.
- [33] E. Simonoff, A. Pickles, T. Charman, S. Chandler, T. Loucas, G. Baird, Psychiatric disorders in children with autism spectrum disorders: prevalence, comorbidity, and associated factors in a population-derived sample, *J. Am. Acad. Child Adolesc. Psychiatry* 47 (8) (2008) 921–929, <https://doi.org/10.1097/CHI.0b013e318179964f>.
- [34] F.J.A. Van Steensel, S.M. Bogels, S. Perrin, Anxiety disorders in children and adolescents with autistic spectrum disorders: a meta-analysis, *Clin. Child Fam. Psychol. Rev.* 14 (2011) 302–317, <https://doi.org/10.1007/s10567-011-0097-0>.
- [35] M.C. Dekker, H.M. Koot, J. van der Ende, F.C. Verhulst, Emotional and behavioural problems in children and adolescents with and without intellectual disability, *J. Child Psychol. Psych. All Discip.* 43 (8) (2002) 1087–1098, <https://doi.org/10.1111/1469-7610.00235>.
- [36] A.J. Baxter, K.M. Scott, T. Vos, H.A. Whiteford, Global prevalence of anxiety disorders: a systematic review and meta-regression, *Psychol. Med.* 43 (5) (2013) 897–910, <https://doi.org/10.1017/S003329171200147X>.
- [37] K.A. McKay, H. Tremlett, J.D. Fisk, T. Zhang, S.B. Patten, L. Kastrukoff, R.A. Marrie, Psychiatric comorbidity is associated with disability progression in multiple sclerosis, *Neurology* 90 (15) (2018) e1316–e1323, <https://doi.org/10.1212/WNL.0000000000005302>.
- [38] C. Hord, S. Marita, S. Ayaz, T.M. Tomaro, K. Gordon, J. Tunningley, S. Haskins, Diverse needs of students with learning disabilities: a case study of tutoring two students in algebra, *J. Res. Spec. Educ. Needs* 18 (1) (2018) 25–35, <https://doi.org/10.1111/1471-3802.12415>.
- [39] S.L. Hafit, P.H. Duong, T.C. Ho, R.L. Hendren, F. Hoeft, Anxiety and attentional bias in children with specific learning disorders, *Abnorm. Child Psychol.* 47 (3) (2019) 487–497, <https://doi.org/10.1017/S003329171200147X>.
- [40] A. De Los Reyes, T.M. Augenstein, M. Wang, S.A. Thomas, D.A. Drabick, D.E. Burgers, J. Rabinowitz, The validity of the multi-informant approach to assessing child and adolescent mental health, *Psychol. Bull.* 41 (4) (2015) 858–900, <https://doi.org/10.1037/a0038498>.
- [41] E. Llanes, J. Blacher, K. Stavropoulos, A. Eisenhower, Parent and teacher reports of comorbid anxiety and ADHD Symptoms in children with ASD, *J. Autism Dev. Disord.* 50 (2020) 1520–1531, <https://doi.org/10.1007/s10803-018-3701-z>.
- [42] N.V.D. Embse, R. Hasson, Test anxiety and high-stakes test performance between school settings: implications for educators, *Prev. Sch. Fail.* 56 (3) (2012) 180–187, <https://doi.org/10.1080/1045988X.2011.633285>.
- [43] J.M. Namkung, P. Peng, X. Lin, The relation between mathematics anxiety and mathematics performance among school-aged students: a meta-analysis, *Rev. Educ. Res.* 89 (3) (2019) 459–496, <https://doi.org/10.3102/0034654319843494>.
- [44] B.F. Crabtree, W.L. Miller, Clinical research: a multimethod typology and qualitative roadmap, in: B.F. Crabtree, W.L. Miller (Eds.), *Doing Qualitative Research, second ed., Sage, California, 1999, pp. 3–32*.
- [45] L. Abawi, Introducing refractive phenomenology, *Int. J. Mult. Res. Approaches* 6 (2) (2012) 141–149, <https://doi.org/10.5172/mra.2012.6.2.141>.
- [46] W. Dilthey, *Dilthey's Philosophy of Existence. Kluback W, Weinbaum M, Translator, Bookman Associates, New York, 1957, p. 74.*
- [47] S. Carter, L. Abawi, Leadership, inclusion, and quality education for all, *Aust. J. Spec. Incl. Ed.* 42 (1) (2018) 49–64, <https://doi.org/10.1017/jsi.2018.5>.
- [48] J. Booth, M. Coldwell, L.M. Müller, E. Perry, J. Zucollo, Mid-career teachers: a mixed methods scoping study of professional development, career progression and retention, *Educ. Sci.* 11 (2021) 299, <https://doi.org/10.3390/educsci11060299>.
- [49] H. Kallio, A.M. Pietilä, M. Johnson, M.K. Docent, Systematic methodological review: developing a framework for a qualitative semi-structured interview guide, *J. Adv. Nurs.* 72 (12) (2016) 2954–2965, <https://doi.org/10.1111/jan.13031>.
- [50] E. Namey, G. Guest, K. McKenna, M. Chen, Evaluating bang for the buck: a cost-effectiveness comparison between individual interviews and focus groups based on thematic saturation levels, *Am. J. Eval.* 37 (2016) 425–440.
- [51] D. Seal, I. Bogart, A. Ehrhardt, Small group dynamics: the utility of focus group discussions as a research method, *Group Dyn. Theory Res. Pract.* 2 (1998) 253–266.
- [52] M.B. Miles, A.M. Huberman, *Qualitative Data Analysis: an Expanded Sourcebook, second ed., Sage Publications, California, 1994, p. 352.*
- [53] L.A. Inhabited, *Silence in Qualitative Research: Putting Post Structural Theory to Work, Peter Lang Inc., New York, 2007, p. 141.*
- [54] J.M. Cunningham, S.M. Suldo, Accuracy of teachers in identifying elementary school students who report at-risk levels of anxiety and depression, *School Ment. Health* 6 (2014) 237–250, <https://doi.org/10.1007/s12310-014-9125-9>.
- [55] A.E. Layne, G.A. Bernstein, J.S. March, Teacher awareness of anxiety symptoms in children, *Child Psychiatr. Hum. Dev.* 36 (4) (2006) 383–392, <https://doi.org/10.1007/s10578-006-0009-6>.
- [56] C. Brownlow, L. O'Dell, Different childhoods: transgressing boundaries through thinking differently, Available from: in: S. Carter (Ed.), *Opening Eyes onto Inclusion and Diversity, University of Southern Queensland Press Books, Toowoomba [Australia], 2019, pp. 18–40 https://usq.pressbooks.pub/openingeyes/chapter/chapter-2-different-childhoods-transgressing-boundaries-through-thinking-differently/*.

- [57] N. Durbeej, K. Sörman, E. Norén-Selinus, S. Lundström, P. Lichtenstein, C. Hellner, L. Halldner, Trends in childhood and adolescent internalizing symptoms: results from Swedish population-based twin cohorts, *BMC Psychol.* (1) (2019), <https://doi.org/10.1186/s40359-019-0326-8>, 50–50.
- [58] L.M. Gutman, N. Codioli-McMaster, Gendered pathways of internalizing problems from early childhood to adolescence and associated adolescent outcomes, *J. Abnorm. Child Psychol.* 48 (5) (2020) 703–718, <https://doi.org/10.1007/s10802-020-00623-w>.
- [59] C. Headley, M.A. Campbell, Teachers' knowledge of anxiety and identification of excessive anxiety in children, *Aust. J. Teach. Ed.* 38 (5) (2013) 48–66, <https://doi.org/10.14221/ajte.2013v38n5.2>.
- [60] S. Danneel, S. Nelemans, A. Spithoven, M. Bastin, P. Bijttebier, H. Colpin, et al., Internalizing problems in adolescence: linking loneliness, social anxiety symptoms, and depressive symptoms over time, *J. Abnorm. Child Psychol.* 47 (10) (2019) 1691–1705, <https://doi.org/10.1007/s10802-019-00539-0>.
- [61] S.E. Teagle, Parental problem recognition and child mental health service use, *Ment. Health Serv. Res.* 4 (2002) 257–266, <https://doi.org/10.1023/A:1020981019342>.
- [62] S. Bahn, L. Barratt-Pugh, Getting reticent young male participants to talk: using artefact-mediated interviews to promote discursive interaction, *Qual. Soc. Work* 12 (2) (2011) 186–199, <https://doi.org/10.1177/1473325011420501>.
- [63] L. Coar, J. Sim, Interviewing one's peers: methodological issues in a study of health professionals, *Scand. J. Prim. Health Care* 24 (4) (2006) 251–256, <https://doi.org/10.1080/02813430601008479>.
- [64] L. Abawi, S. Carter, D. Andrews, J. Conway, Inclusive schoolwide pedagogical principles: cultural indicators in action, in: O. Bernad-Cavero, N. Llevot-Calvet (Eds.), *New Pedagogical Challenges in the 21st Century: Contributions of Research in Education*, IntechOpen, 2018, pp. 33–55, <https://doi.org/10.5772/intechopen.70358>.