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Understanding Social-Emotional Reciprocity in Autism: Viewpoints Shared by Teachers

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Abstract: Poor social-emotional reciprocity (SER) has been identified as one of the defining traits of autism. It is a key criterion in recent Diagnostic and Statistical Manual of Mental Disorders editions, DSM-IV and DSM-V (American Psychiatric Association [APA], 1994, 2013). Yet this difficulty related to socially engaging and interacting with others is poorly understood. The study reported here was a small-scale, qualitative inquiry underpinned by a phenomenological approach in which social-emotional reciprocity (SER) was the phenomenon being studied. Semi-structured interviews with three experienced teachers at an Australian autism-specific school were used to capture their understandings and experiences related to the trait. Interestingly, our teachers found it challenging to discuss SER in isolation from other key autistic traits such as repetitive behaviour and restricted interests. When data were formally explored using Interpretive Phenomenological Analysis (IPA), teacher viewpoints clustered around three interconnected themes: perspectives about SER; relationships and friendships; and impact on teachers. Limitations of this inquiry and recommendations for future research in this area are provided.

Keywords: autism, sex differences, social-emotional reciprocity, social interaction, teacher perceptions

Introduction

Autism is a pervasive developmental condition that currently affects an estimated 1 in 59 students in the USA (Centers for Disease Control and Prevention [CDC], 2018) and likewise in Australia (Autism Spectrum Australia, 2018). According to the Australian Bureau of Statistics (ABS, 2019), just over three quarters of the 106,600 students (aged 5-20 years) with this condition experience difficulties with fitting in socially (59.8%), learning (55.3%), and communication (51.5%). These difficulties stem from three core impairments in social interaction, communication, and patterns of behaviour, which are expressed in widely varying ways from person to person. Hence, the condition is commonly known as autism spectrum disorder (ASD) and people with the condition referred to as "on the autism spectrum".

From an early age, impairments in social development influence the quality and frequency of early interactions and engagement between infants on the spectrum and their parents. Moreover, these ongoing difficulties interfere with the mutual sharing of emotional connection, the beginnings of dyadic communication, and the ability to make sense of social

information (Janzen, 2003). Predictably, difficulties in social-emotional reciprocal interactions or poor social-emotional reciprocity (SER) has continued to be one of the defining features of ASD.

Yet the SER trait remains very theory driven, with research restricted to clinical studies. With students on the autism spectrum increasingly learning in Australian mainstream schools (Garrard et al., 2019) and teachers identifying that they require specialist training to include and educate this student group (Roberts & Simpson, 2016; Saggers et al., 2016), there is a need to examine the SER trait within the educational context. In this paper, we report the real-world experiences shared by a small group of specialist teachers in relation to the trait. At the time of this study, no other educational research into SER could be located.

Defining SER

Social-emotional reciprocity (SER) refers to an individual's ability to engage in social interactions between two or more people. Leach and LaRocque (2011) proposed that "individuals who display social reciprocity are aware of the emotional and interpersonal cues of others" (p. 151) and therefore can actively engage and play an equal role in reciprocal social exchanges. This definition aligns well with that put forward by Constantino and Todd (2000) when they defined reciprocal social behaviour as "the extent to which a child engages in emotionally appropriate turn-taking social interaction with others" (p. 2043).

However, individuals on the autism spectrum experience difficulties associated with an "inadequate appreciation of social-emotional cues, as shown by a lack of responses to other people's emotions… poor use of social signals and a weak integration of social, emotional, and communicative behaviours" (World Health Organisation [WHO], 1990, p. 198). It follows that difficulties in SER impact substantially on everyday social exchanges and tend to result in one-sided conversations in which individuals on the spectrum do not respond to exchanges in a conventional manner. For example, they may show little interest in participating in the exchange; they may fail to respond to the emotional content of the exchange; they may provide answers that show misunderstanding and literal interpretation; or they may respond with repetitive questioning.

Initially, the term SER was used to describe a domain for autism in the Diagnostic and Statistical Manual of Mental Disorders–Fourth Edition (DSM-IV; APA, 1994) and, together with the domains of communication and restricted, repetitive behaviours comprised what has become commonly known as "the triad of impairments" (Wing, 1981). Prior to this DSM edition, this trait had been identified as reciprocal social interactions (see DSM-III-R; APA, 1987). In the current edition (DSM-5; APA, 2013) SER has been retained as a defining trait necessary for diagnosis and is described within the social communication domain.

In the DSM-5, autistic difficulties have been rearranged across only two domains: social communication deficits and repetitive/stereotypic behaviours. The social communication domain contains criteria descriptions for deficits in (a) "social-emotional reciprocity", (b) "non-verbal communicative behaviours used for social interaction", and (c) "developing, maintaining, and understanding relationships" whereas the repetitive/stereotypic behaviours domain contains (a) "stereotyped or repetitive motor movements, use of objects, or speech", (b) "insistence of sameness or inflexible adherence to routines", (c) "highly restricted, fixated interests", and (d) "hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment" (DSM-5; APA, 2013, p. 50). Within this DSM-5 framework, deficits in SER have been described as behaviours ranging from "abnormal social approach and failure of normal back-and-forth conversations; to reduced

sharing of interest, emotions, or affect; to failure to initiate or respond to social interactions" (DSM-5; APA, 2013, p. 50).

In summary, SER has been recognised as a defining autistic trait for the last 15 years. Yet it appears to have been poorly studied. As indicated by Backer van Ommeren et al. (2012, p. 1001), "knowledge of the nature and the development of a core feature of autism—the capacity to show reciprocal behaviour during real life, unstructured interactions—is limited". Research into SER has tended to focus on two interrelated lines of inquiry: measurement of the trait and gender differences in the trait. In most studies, the trait has been referred to as social reciprocity.

Informing Literature

Constantino led the first line of inquiry focused on the measurement of the social reciprocity trait in children, adolescents, and adults. Together with colleagues, he designed a quantitative tool—the Social Reciprocity Scale, later renamed the Social Responsiveness Scale—to measure social reciprocal behaviours that individuals exhibit in a range of social contexts. The scale was used in a series of studies to assess the reciprocity trait in children with and without autism (e.g., Constantino et al., 2000), in twins (e.g., Constantino & Todd, 2003) and in the general population (e.g., Constantino & Todd, 2005). Findings from this quantitative program of research implied that this scale could be considered a viable tool not only for understanding how genetics work in large groups but also for measuring autistic difficulties and gaining a better understanding of how social competence develops. Another important finding pointed to autistic traits, including social reciprocity, being interconnected.

Next, Backer van Ommeren and colleagues set to measuring the reciprocity trait using a new tool known as the Interactive Drawing Test (IDT). These researchers used the IDT to assess the quality of reciprocal interactions in children and adolescents with and without high functioning autism (Backer van Ommeren et al., 2012; Backer van Ommeren et al., 2015). They also broadened their sample to children and adolescents with mild intellectual disabilities (MID), including some with a dual diagnosis of autism and MID (Backer van Ommeren et al., 2017a). Each of these studies provided findings related to the IDT as a tool for measuring the reciprocity trait in autism. The Backer van Ommeren et al. (2012) study pointed to the IDT being a "promising" tool (p. 1001), the Backer van Ommeren et al. (2015) study revealed the IDT to be a "reliable and valid" tool (p. 1976), and the Backer van Ommeren et al. (2017a) study indicated that the IDT was also a tool "well suited" (p. 801) for measuring reciprocal behaviour in individuals with MID.

Backer van Ommeren et al. (2012) found that their sample of individuals with high functioning autism had basic social skills (e.g., they could engage in turn-taking, contribute to a drawing, and share materials). In comparison to their typically developing peers, these individuals "were remarkably less accepting of the experimenter's new additions to their drawing… [had] a tendency to refrain from collaborating in experimenter's initiatives… [experienced difficulties] in understanding other's intentions" (p. 1007). Backer van Ommeren et al. (2017a) extended these findings by revealing that individuals on the autism spectrum, independent of MID diagnosis, experience difficulty in being able to "adjust their behaviour to that of their interaction partner" (p. 816) during the IDT test.

Backer van Ommeren et al. (2017b) have also used the IDT to investigate gender differences in reciprocal behaviour because they believed that previous literature on boys and girls on the spectrum may have underestimated the role gender differences play in diagnosing this condition. These researchers argued that the differences between boys and girls on the spectrum become more apparent when they are required to adjust their behaviour in order to

engage in social interactions, and that these adjustments vary according to gender. Moreover, they have found that girls on the spectrum express more agreement with their peers and tend to maintain their social reciprocal interactions in contrast to boys. Yet their findings also indicated that girls on the spectrum did not substantially differ from boys when it came to turn-taking and reciprocal interactions. Furthermore, they confirmed previous research implying that SER difficulties are less prevalent in girls on the spectrum, but they suggested that these findings may be based on girls presenting with a milder form of autism.

Inquiries by Dean and colleagues has added to this gender-related research. Dean et al. (2013) provided a case study of a 7-year old autistic girl who engaged in story telling with her peers. Despite being aware of negative social cues from peers, she continued to share her story even though her rigid behaviour and inflexibility led to peer-rejection. In a more comprehensive study by Dean et al. (2014), a sample of high-functioning boys and girls on the spectrum in elementary school was matched by gender and age to typically developing peers. A comparison of patterns of social behaviour revealed that girls and boys on the spectrum appeared more similar to each other than to their same gender peers. Subtle differences in terms of rejection were identified. Whereas girls on the spectrum were more likely to be overlooked by their female peers, boys on the spectrum tended to be socially rejected by their same gender peers. Dean et al. (2017) expanded their study into gender differences in social behaviour of similarly aged boys and girls on the spectrum. They pointed out that while the girls faced social challenges, they used their ability to camouflage or "mask" their autistic difficulties, which made it possible for them to intermittently engage in activities with their female peers. On the other hand, they reported that the social challenges faced by the boys were more obvious and, unlike their male peers, they tended to play alone and not engage in organised games.

Sedgewick et al. (2016) extended this gender-related research to include social motivation and friendships of adolescent girls and boys with and without autism in special schools. They found that girls on the spectrum were more motivated to engage in social interactions and seek friends compared to the boys. These findings have similarities with that of work conducted by Dean and colleagues with pre-adolescent female cohorts. In addition, Sedgewick et al. (2016) reported boys on the spectrum were less motivated to engage in social interactions compared to their same gender peers and to girls with and without autism. The gender differences in motivation align with the findings of Thierney et al. (2016), who reported in their sample of students on the spectrum, that girls are more interactive, flexible, and have a better understanding of social behaviour compared to boys. Further, a systematic review of 16 studies (Wood-Downie et al., 2020) confirmed these gender differences in social interaction and communication for children and adolescents on the spectrum and concluded that these differences reflect the gender differences found in non-autistic individuals.

Current Study

This brief literature review provides some evidence that SER has been studied predominantly from a clinical and diagnostic perspective, with little attention being paid to its influence in the educational context. The study reported here was an initial and exploratory inquiry into teachers' experiences with, and interpretations of, the trait. One broad research question framed this research: *In what ways do teachers of students on the autism spectrum perceive social-emotional reciprocity*?

Method

The study was small-scale, exploratory, and qualitative in nature. Semi-structured interviews provided the opportunity to examine "unchartered territory with unknown but potential momentous issues" (Adams, 2015, p. 494). A phenomenological approach provides the opportunity for researchers to access the participants' direct experiences and perceptions of a phenomenon. Moreover, attention to the embodiment of the experiences, the connections with others, and the contexts within which people experience the phenomenon is possible (Sohn et al., 2017). Research of this kind typically focuses on the phenomenon that occurs within genuine real-world contexts (Creswell & Poth, 2018; Leedy & Ormrod, 2016) and attempts "to make sense or interpret the phenomena in terms of the meanings people bring to them" (Denzin & Lincoln, 2011, p. 3). The phenomenon being studied in this research was the SER trait of students on the spectrum as experienced by their teachers.

Ethical clearance for the research was obtained through the Human Research Ethics Committee (GU 2017/242) at an Australian university. Informed consent was provided by participating teachers who were reminded that (a) their involvement was voluntary, (b) all data gathered would de-identified before reporting, and (c) they were not required to answer any question they did not want to. Pseudonyms were chosen by teacher participants to ensure confidentiality in this study.

Participants

Participating teachers were recruited from an autism-specific school in an eastern state of Australia. This school was purposefully selected as its teachers were widely recognised as being knowledgeable and experienced specialists in the area. Three female teachers showed immediate interest on receiving a flyer detailing the study and were subsequently emailed an information and consent package. One was a classroom teacher and the others were advisory teachers who provided outreach support to mainstream schools. As anticipated, they were all experienced teachers in the 40-49 years age group who had been teaching for more than 18 years and working with students on the spectrum for an average of 12 years. The participants worked with students on the spectrum between the ages of 6 and 12 years.

Data Gathering

The lead researcher (first author of this paper) conducted a face-to-face, semi-structured interview with each participating teacher as recommended for phenomenological studies (Creswell & Poth, 2018). In this study, interviews were viewed as not only giving teachers the opportunity to share their personal and professional experiences with regards to the SER trait displayed by students on the spectrum, but also providing the researcher with the opportunity to elicit the breadth and depth of their experiences.

An interview guide containing questions and follow-up probes was generated and emailed to participating teachers prior to each interview. Table 1 presents the key questions in this guide. Interviews with teachers were conducted at their school or at a location of their preference, with the duration of each interview being between 45 and 60 minutes. An informal discussion prior to the interview provided the opportunity to clarify the purpose of the study and its focus on the SER trait as the phenomenon being explored. During this discussion, the researcher shared an adjusted version of the DSM-5 definition (APA, 2013).

Teachers were provided with the following definition: SER includes a range of behaviours such as abnormal back-and-forth conversations; reduced sharing of interests, emotions, or affect; failure to initiate or respond to social interactions. Each interview was recorded and transcribed per verbatim following the completion of the interviews. Member checking of transcripts was used to enhance the trustworthiness of the data. Following transcription, each teacher was invited to examine her transcript to check for accuracy, and no discrepancies were identified.

Which social-emotional reciprocity difficulties do students on the spectrum display on a daily basis in the class?
From a teacher's perspective, how would you describe your experience in dealing with the social-emotional reciprocity difficulties displayed by your students?
Is there any difference in the way in which boys and girls display their social-emotional reciprocity difficulties? If yes, what are the differences?
Is there anything you would like to share about the students' social-emotional difficulties that I have not asked you about?

Table 1: Key questions in the Interview Guide

Data Analysis

Interpretative Phenomenological Analysis (IPA) method (Pietkiewicz & Smith, 2012) was used to guide the analysis and interpretation of how the participants made sense of their unique experience of the phenomenon. A strategy of double interpretation (Smith et al., 2009; Smith, 2017) was also employed. When analysing the interview data, the researchers integrated (a) how the teachers made sense of their experiences with the SER difficulties of students on the spectrum and (b) how the teacher made sense of their own personal, professional, and social worlds.

In response to the documented concern within IPA regarding the imbalance between the convergence (similarities) and divergence (differences) of participants' experiences (Smith & Eatough, 2016), the researchers were guided by the work of Smith (2017). He recommends making a deliberate attempt to balance convergence and divergence of the shared experiences within each theme, while at the same time attempting to capture the essence of what was unique within each participants' experience. An adapted model of the four-step process of analysis designed by Smith and Eatough (2016) was employed during data analysis (see Figure 1). The first author undertook Steps 1 to 4. In Step 1, each transcript was read and significant quotations were selected and extracted into a Word document. In Step 2, the extracted quotations were clustered into micro-themes which were colour coded. At this stage, each theme was viewed as "a description of the *lived experiences*" (Creswell & Poth, 2018, p. 202). In Step 3, the micro-themes were examined to generate larger emerging themes as the researcher connected similar and different quotations for each emerging theme. In many instances, micro-themes became sub-themes. In Step 4, critical discussions occurred among the three team members to check on interpretations, identified themes, and sub-themes.

Findings

In response to the research question, *In what ways do teachers of students on the autism spectrum perceive social-emotional reciprocity*? our data points to teachers finding it challenging to discuss SER in isolation to other key autistic traits. This finding suggests that participating teachers viewed autistic difficulties in an interconnected manner. At this point in time, there is no clear evidence to establish this interconnectivity but the mapping of processes involved in the social interactions of individuals on the spectrum is receiving substantial attention (Bolis & Schilbach, 2018).

Nonetheless, three major themes were identified during the analysis process. These themes were: perspectives about SER; relationships and friendships; and impact on teachers. The introductory theme, perspectives of SER, capture glimpses of how teachers viewed the complex phenomenon through direct observations of their students interacting with others at school. Next, the theme relationships and friendships focuses on relationships that occur between students, and includes perspectives on gender-based difference in friendships. The final theme portrays the ways teachers identified the impact that SER has on them as they cope with the physical and emotional demands of working with this particular student group.

Perspectives about SER

Our teachers' perspectives about SER were informed by them recalling observations of students on the spectrum they currently taught or had previously taught during their career. Observations were typically related to students' difficulties with sharing and turn-taking, and their lack of ability to instigate and maintain social interactions in the classroom and in the playground.

All teachers provided descriptive examples related to in-class activities in which SER difficulties with sharing and turn taking disrupted the learning process. Sarah, who currently taught students aged between 5 and 6 years, noted how the reciprocity challenges of her young students meant that a key element of the curriculum "tends to be more about sharing". For older students, she explained that "it was more to do with perfectionism not wanting to make mistakes or working as teams". Grace added that her young students, together with some typically developing peers, have "significant difficulties in sharing, in taking turns, in asking to play or starting play". She also contributed that the turn taking and sharing amongst older students was more complex as the focus shifted towards developing and maintaining positive social interactions with others, which requires teachers to be proactive and flexible in their approach.

Backer van Ommeren and colleagues (2015, 2017a) confirm our teachers' experiences and reported that this student group had lower rates of involvement in reciprocal turn taking activities compared to typically developing peers and that they have difficulty in being able to adjust their responses to their interacting partners. Despite these findings, Hartley and Fisher (2018) contend that "the rationale underpinning the sharing behaviours of children with ASD is currently unknown" (p. 2716).

By comparison, Alex shared how she used visual and concrete supports to foster students' understanding of turn taking and sharing, and to encourage interaction among her students while addressing their emotion regulation difficulties. She explained that "it is very structured with lots of visuals to start and you can taper down until they know the language of my turn, your turn … that they will get a turn". Alex also stressed the value of structuring "lots of guided and modelled play and turn-taking situations". She noted, however, the

limitations of structured play when she said that these strategies "are not going to work when they are older" or when students are interacting in less structured contexts.

In addition, our teachers commented that the lack of ability to instigate and maintain interactions contributed to a variety of social difficulties in the classroom and playground. For example, Grace remarked that "as the children get older … we look at difficulties in having conversations with others … so initiating play and … coping with following social rules" becomes the focus. Sarah elaborated how comments made by older students such as "I want to win [and] it's my turn" contributed to the breakdown of many relationships and engagement in group work. This breakdown of relationships during play or shared activities is not surprising, especially in older students (Sedgewick et al., 2016).

From the perspective of our teachers, notions of winning, losing, turn taking and following the rules of specific games are often not fully understood by students on the spectrum. Participating teachers felt that attempting to understand what is fair and what is unfair in these situations becomes more difficult for this student group because making judgements about fairness occurs alongside the regulation of emotions. Our teachers' observations are supported by Hartley and Fisher (2018) who found that students on the spectrum have difficulties evaluating the fairness of how others interact with them in games and confirmed the overall difficulty that these students have in reciprocating during turn-taking activities.

Sarah was the only one who linked SER difficulties with group work to students' preferences for solitary engagement in activities. She stated that her students "really preferred not to work in groups, not to work with other students". Moreover, she identified the ongoing difficulties that her students experienced in "taking on the ideas of others", which in turn interfered with positive integration within the group. Furthermore, she explained how students on the spectrum "would just tell everybody what to do because their idea is the best or they would be non-participants in group activities and not listening and doing their own thing". According to Dean et al. (2017), this motivation for solitary choices may be linked to social-emotional difficulties associated with turn taking rather than to a preference for being alone.

Relationships and Friendships

It is well established in the research that students on the spectrum experience difficulties in initiating and maintaining social relationships and friendships although they are keen to have friends and be included in social activities (e.g., Cage et al., 2016; Calder et al., 2013; Daniel & Billingsley, 2010; Dillon et al., 2014). All teachers in this study echoed these findings and provided insight into how SER influenced their students' capacity to build relationships and friendships. Sarah and Alex talked substantially about the influence of emotional regulation on peer relationships and friendships while Grace and Alex commented on the different ways that boys and girls on the spectrum experience friendships.

For Sarah, difficulties in understanding emotions were connected to the SER difficulties experienced by of her students and consequently interfered with her students' abilities to initiate and maintain relationships with peers. She noted how her students experienced "frustration which often built up towards anger" which was triggered by their limited understanding of social dynamics and interactional patterns required in group activities. These difficulties may explain why longstanding relationships and friendships are rarely experienced by this student group (Dean et al., 2017; DePape & Lindsay, 2016).

Alex elaborated on the influence that emotional regulation has on friendships and indicated how complications arise around friendships due to a lack of understanding of what makes a friend. She said,

> *Certainly, they are keen to have friends. I suppose sometimes understanding friendships is often lacking "What a friend is?" how to maintain and keep a friendship and probably the emotion regulation is a really big challenge that the kids have had in the classes I have taught. That probably impacts their friendships and their social skills and maybe lack of ability to read others and awareness of other people's emotions and other people's interest in what they are doing.*

Alex continued her focus on friendships when she explained that for students on the spectrum "their understanding of friendship is often poor", and that for many students "a friend is only "you and me" and nobody else". She elaborated how some of her students thought that once "the [friend] plays with somebody else [he/she] is not [their] friend" anymore. Whereas the other students have the perceptions that every student in their class is their friend. From her experience, problems arise once the student starts to "fixate on somebody and their obsession is that "you are my friend" and I won't let anybody near you". Her explanations are supported by DePape and Lindsay (2016) whose meta-study showed individuals on the spectrum were interested in friendships but forming and sustaining friendships were most challenging.

Finally, Alex framed her students' lack of relationships and friendships within a broader context and linked the social difficulties these students experience to their repetitive patterns of behaviour. She claimed:

> *I think part of their social problem is that they tend to get obsessed with friends ... you know they have some social problems but it's not the social back and forth conversation it's the intensity of the relationship.*

Alex's comment is somewhat similar to that offered by Attwood (2002) who described certain school-age students with Asperger's Syndrome as having "a tendency to be possessive in friendships with an intensity that can eventually be intolerable to their chosen friend" (p. 3). Other researchers such as Majoko (2016) mention that the social isolation of some students on the spectrum may in part be due to their "overly possessiveness" (p. 1436).

While all teachers viewed the building and maintenance of friendships as difficult for their student group due to their SER difficulties, both Grace and Alex commented on the different ways that boys and girls on the spectrum seek and approach interactions with peers. Grace noted "I don't think the boys have as much social awareness to fit in or trying to fit in [when compared to girls]". These views are supported by Calder et al. (2013) in their literature review on friendships experienced by this student group. Grace further elaborated that "girls often present with more desire to interact … [and that] girls have a little bit more awareness of what is socially appropriate". Alex agreed that "girls tend to be more social… [as] girls often blend in and do not stand out as much, but maybe they pickup social cues better". She also added that "girls want to interact more with other girls" regardless of their SER difficulties. Once again, these views from our teachers on girls being more socially aware are supported by the ongoing work of Dean and colleagues (2014, 2017).

Impact on Teachers

While teachers were not specifically asked about the impact that SER had on them, personally and professionally, they commented in varying ways about the physical and emotional demands of teaching this student group. Our teachers shared that they were

constantly on high alert monitoring students and the environment in an effort to pre-empt situations that had the potential to disrupt engagement in classroom interactions and activities. However, despite these ongoing difficulties, they spoke positively about the measures they adopted and the supports they used to counter the daily stressors. The resilience of the teachers was enhanced by their awareness of personal resources (e.g., social and emotional competence and initiative) and contextual resources (e.g., school culture and trust), and the application of strategies (e.g., help-seeking practices) to support themselves and their peers (Mansfield et al., 2016). Collegial support, activated through shared, open conversations, is an important strategy that helps teachers to navigate the challenges they encounter on a daily basis (McKay & Barton, 2018).

Supporting students who present with challenging behaviours is complex and frequently requires the teacher not only to manage the immediate situation, and their own emotional responses, but to pre-empt and manage any subsequent situations that may arise (Boujut et al., 2017). Sarah described the frustration she experienced "because you are trying to pre-empt things all the time and set up the environment so that for the most part those things don't happen". Grace, instead, noted the importance of teachers being proactive so that the flow-on effect could be minimised when one student is upset.

> *You have children triggering off other children, triggering of other children. So, it is like a domino. … You have to be on your toes and you have to be thinking often before scenarios present or difficulties arise. You really need to be prepared to make modifications and adjustments before a likely problem exists.*

Both Grace and Sarah spoke about the emotional impact that attending to ongoing student behaviour had on teachers. Grace shared,

> *You can easily lose perspective on how difficult it is and the impact it has emotionally … when you are teaching children with autism … you cannot get emotionally involved … and you cannot take behaviour personally. If you are going to follow those two rules you are going to survive, if you do not follow those two rules you will not survive.*

Sarah added, "it takes up a lot of time and a lot of the time it is about communicating with other staff members and making sure that everybody is on the same page". Managing their own emotions while also managing the unpredictable nature of their classrooms was a daily event for our teachers. Symonds (2003) identifies the performative role teachers adopt when dealing with the ongoing demands of students with challenging behaviours who disrupt the flow of the classroom. She recommends that teachers consciously put aside negative attitudes towards a child whose behaviour is difficult and depersonalise situations. However, she contends that these strategies are not easily adopted in a profession where positive relationships with students are valued. In addition, teachers need support networks to be developed which involves debriefing and rehearsal and making conscious choices how language is used when responding to problem behaviour. Teacher networks of support such as those described by our teachers may assist in reducing teacher stress associated with responding to challenging behaviours.

Alex shared how a team approach was adopted by the staff as a coping mechanism when dealing with autistic difficulties. She said,

> *I think the other challenge is the nature of the children, and the type of behaviour and how distracting they are and how sensitive they are to noise … Here we do not send anyone home… they have a history of missing out and losing things… It depends on their social understanding … You can't anticipate what's going to happen. We have systems in place, we have a 'walky talky' and can call for support. We can also schedule in an extra person … It is so different and everyday anything can happen.*

For our teachers, professional sharing helped them manage the ongoing challenges and the sharing of knowledge an important source of teacher capacity building. Sarah described her learning journey over her career and her "very steep learning curve". She identified that "one of the most important things we worked out as a school was that we need to have a support network for teachers". Alex added that the emotional demands of working with this student group can be reduced through collaboration and professional sharing.

> *We are lucky here with the strong team… We do PD on lots of different things… I think it is making a big difference even to debrief things…and talk back and forth about something that happened… I think that is really important…having time to get together and actually share stuff… There is usually someone to ask questions.*

Grace commented on the role that communication played in developing and maintaining respectful, collegial relationships and emotional support across the transdisciplinary team.

> *I think it is essential for teachers to work openly with the other professionals because we all see things through different eyes…. I am a very clear communicator and I think that it is very important to be because…of my support staff … I always think that it is very important to establish a respectful relationship.*

Collectively, these comments echo the value our teachers placed on their support network as a mechanism for coping with the demands of their daily work. Autism and its influence on social interactions, communication and cognitive functioning has the potential to be a source of high stress for teachers that can be somewhat countered through professional knowledge and training, and enhanced perceptions of self-efficacy (Boujut et al., 2017). The contextual factors and personal resources that were described by the participating teachers appear to act as a buffer against the ongoing emotional and physical demands experienced by teachers working with this student group.

Limitations and Directions for Future Research

The teacher perspectives shared here should be considered with some limitations in mind. First, we acknowledge that these perspectives about SER have been provided by only three teachers from one autism-specific school in an eastern Australian state. These viewpoints, therefore, may not be representative of teachers working with students at another autism-specific school, special, or mainstream school in Australia or elsewhere. Second, our teachers found it difficult to discuss SER as an isolated trait, which could be considered a limitation of this study. In order to obtain richer examples and descriptions of SER, stimulus material provided prior to the interview may help teachers to focus more specifically on the array of behaviours pertaining to social interaction and relating to others. Third, a single interview may not be adequate to capture the breadth and depth of teachers' experiences with this complex phenomenon. Augmenting an interview with a 2-week reflective e-journal during a school term may facilitate teacher recall and sharing of more authentic anecdotes. Finally, focus groups (Bazeley, 2013) may provide an alternative method for gathering deeper perspectives as SER appears to be a complex phenomenon to discuss in relation to individual experiences. This method would provide ample opportunities for teachers to develop a shared understanding of the phenomenon by building on each other's reflections and making connections to their own experiences.

Conclusion

This exploratory study provides some preliminary insights into SER from a teacher's perspective which is missing from the current literature. Comments from our teachers confirmed what the research tells us about SER and its influence on sharing, turn taking, and relationships. However, the examples teachers gave seemed to be based more on general views about autistic traits, rather than explicit illustrations of how SER as an isolated trait influenced interactions and relationships in the classroom. While a holistic view of how a student on the spectrum responds is important, SER is integral to the effective development of social-emotional competence and the successful engagement in conversations with others. With the majority of students on the spectrum being educated in mainstream classrooms (ABS, 2019), teachers in today's classrooms need to be aware of the SER trait as much of their work is reliant on fostering classroom interactions and providing social training for this student group. Further research needs to capture the "lived experience" of teachers, to extend their voice about SER, and to identify more clearly how SER impacts on the learning of students on the spectrum and on their capacity as teachers.

While the data for this study were collected from teachers at an autism-specific school, the increasing prevalence of students on the spectrum in Australian mainstream classrooms is already evident (Garrard et al., 2019; Martin et al., 2019). Capacity building opportunities that develop a sound knowledge of educating students on the spectrum, interpersonal skills that support collaboration and collegiality, and the emotional competency for teaching diverse learners should form the basis of professional learning for all teachers, including those undertaking preservice teacher education.

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