A Qualitative Analysis of Parent's Reminiscing with Their Child with Autism: Motivations, Enablers and Barriers

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Abstract

Parent-child reminiscing is a critical learning process associated with many cognitive developmental outcomes, including language acquisition, memory development and socio-emotional functioning (see Waters et al., 2019 for review). Many of these developmental outcomes are compromised for autistic children. However, only a few published studies have examined parent-child reminiscing for neurodiverse families (Faust, 2009; McDonnell et al., 2021; Raman, 2022). Moreover, none have qualitatively explored parents' experience of and goals for reminiscing. Thus, we know little about how reminiscing might differ for children with autism or their parents. This study aimed to explore parents' experiences of reminiscing with their child with autism, including their goals, motivations, and barriers and enablers to their participation in a three-session reminiscing intervention.

Using a qualitative approach, we conducted semi-structured interviews with five parent-child dyads before and after a three-session reminiscing intervention. All children had a prior diagnosis of autism spectrum disorder (ASD). We used reflective thematic analysis (RTA) (Braun & Clarke, 2006, 2020) to explore and generate themes from pre- and post-intervention interviews related to motivations, goals, challenges and benefits of reminiscing with a child on the autism spectrum. Findings highlight the significant influence of emotional states on conversation engagement, the challenges autistic children face in understanding conversational structure and narrative retelling, and the unique motivations parents have for reminiscing, including reminiscing as a tool for emotional regulation, preparing for and understanding social situations, and fostering a positive relationship. Participation in the intervention provided insights into the benefits and challenges of reminiscing, with parents emphasising the need for individualised support and flexibility.

Our findings contribute to a small but growing body of research on parent-child reminiscing in autism, offering practical implications for future interventions. Our approach highlights the importance of aligning intervention goals with parents' needs to enhance their

effectiveness. Future research should explore parents' motivations across larger, more diverse samples to inform autism-specific reminiscing interventions further.

Introduction

Parents engage in dozens of conversations about past events with their children every day (e.g., *"What did we see at the zoo yesterday?", "Remember we played this when we visited Auntie last year*?") from as soon as children begin to talk. These conversations, known as reminiscing, have been associated with children's social, emotional and cognitive development (see Waters et al., 2019 for review). Children with autism often show differences in these key areas, including difficulties related to communication, social understanding and executive functioning (Charlop et al., 2010; Happé et al., 2006; Locke et al., 2012). Interventions designed to improve parent-child reminiscing show benefits in these critical areas for typically developing children, specifically developing social and emotional understanding and language and memory capability (Corsano & Guidotti, 2019).

Only a handful of studies have examined reminiscing for children with autism, and over half of these have been intervention studies exploring parent-child reminiscing for children with autism. Implementing interventions before fully understanding any similarities and differences may be premature and mean that interventions are inadequately targeted towards families of children with autism. Notably, only quantitative comparisons have been conducted, comparing reminiscing for autistic children with typically developing children (Faust, 2009; McDonnell et al., 2021; Raman, 2022). Reminiscing interventions are targeted towards parents, and yet we know of no research that has examined parents' perspectives or their goals and motivations when reminiscing with their autistic child.

The current study will begin to address this gap by explicitly exploring the reminiscing experiences of parents with autistic children and identifying the goals, functions and challenges and of reminiscing within these relationships. Through this study, we seek to understand how parents experience reminiscing with their autistic child. In this introduction, we will first outline the reminiscing literature among typically developing populations, describing differences in reminiscing style, functions of reminiscing and how it benefits

critical aspects of child development. We will then discuss autism and areas where differences arise before examining the literature on reminiscing with autistic children.

What is Reminiscing?

The human brain has a remarkable capacity for remembering and reliving past experiences. Autobiographical memory reflects the ability to encode, store and retrieve experiences from our past (Tulving, 2002) and has implications for our identity and how we view ourselves, others and the world. Recalling these personal memories verbally or internally is known as reminiscing. Reminiscing occurs throughout our lifetime, beginning early in childhood and continuing into older adulthood (Webster & Gould, 2007). People reminisce for many reasons, including forming concepts of self and identity, problem-solving and teaching or informing others (Webster, 1993; Robitaille et al., 2010). The nature of reminiscing varies from remembering where we were during a historically significant event to recreating an image of an experience we have had with a loved one.

Thinking and talking about the past is a frequent part of the human experience, which carries important social functions. Reminiscing allows us to build and maintain social bonds as we use memories to create and nurture relationships, promote intimacy, and relate to larger groups (Alea & Bluck, 2003; Bluck et al., 2005). As much as 14% of social interactions involve sharing and discussing information from the past (Pasupathi & Carstensen, 2003). The frequency with which we talk about the past as a form of social bonding is consistent across the adult life span (Bluck & Alea, 2009). In order to make sense of our experiences, reminiscing can take different forms and fulfil different functions at different life stages. Generally, younger individuals ponder past experiences to problem-solve and inform or direct future plans (Bluck & Alea, 2009; Webster & Gould, 2007). Thinking and talking about past experiences allows those in the earlier stages of adulthood to create a more concrete sense of self (Bluck & Alea, 2009). In contrast, older adults with a more developed sense of self are less future-directed in their reminiscing. They tend to reflect on memories of their lives to

consolidate learned lessons and celebrate or commiserate their past (Webster & Gould, 2007).

At its core, reminiscing is a process of adaptive meaning-making. Regardless of why we think and talk about the past, we use our memory to construct coherent narratives representing our unique understanding of the world. Moreover, as we reflect on past experiences, we establish how we see ourselves and what we wish to share with others. Through sharing this meaning we connect and create relationships with the people around us. Furthermore, on a higher level, recalling, organising and honouring specific past experiences leads to a better understanding of our place in the broader societal and cultural context (Nelson & Fıvush, 2004).

Elaborative Reminiscing

Reminiscing is an inherently social experience. As noted by Fivush (2012, p. 230):

> It is only through sharing our stories with others that we come to own our experiences as uniquely ours and different from others. Memories may not be true to the world, but they are true to the self; through language, we share our memories with others, and through sharing our memories with others, we come to understand that our memories are our own subjective perspective on our personal past.

Parents generally begin talking about past events when their children are around age two or soon after they start to talk (Nelson & Ross, 1980; Reese, 1999). Through these conversations, children learn about the complex concept of time. Typically developing children acquire a rudimentary understanding of time and can distinguish between basic past, present and future events between the ages of 4 and 5 (Busby & Suddendorf, 2010; Redshaw & Suddendorf, 2013). Via their parent figures, most children around this age also learn how to use this understanding to discuss their past experiences. This ability is essential in understanding the intricacies of our physical and social world (Busby & Suddendorf, 2010).

Elaborative reminiscing describes an approach to conversation where the parent or parental figure discusses the past with their child in a detailed and collaborative way (Salmon & Reese, 2016); for instance, using open-ended questions, discussing emotion, validating and encouraging their child's contributions and constructing a joint dialogue by adding to their responses with novel information (Corsano & Guidotti, 2019; Farrant & Reese, 2000; Reese et al., 1993). This process involves parents or parental figures scaffolding their children's memories through meaningfully conversing about the past. However, a past event does not need to be a major life event for elaborative and meaningful discussion. While past events may involve significant or emotional events that have meaning to the child or the family unit, for example, moving house or a death in the family, elaborative reminiscing can also centre around ordinary, everyday events (Salmon & Reese, 2016).

Reminiscing Goals and Functions

Parents talk about the past with their children for the same reasons that adults reminisce with one another: to bond and build their relationship and to engage in conversation. However, because childhood is a stage of constant evolution, elaborative reminiscing is also a critical learning opportunity. Only a few studies have investigated parents' implicit and explicit motivations for discussing the past with their children. These findings suggest that, whether conscious or not, parents often engage in conversations about the past with their children to understand and navigate challenging emotions such as anxiety, encourage desired behaviour and manage problematic behaviour (Kulkofsky, 2010; Russell et al., 2024).

Kulkofsky (2010) adapted a reminiscing goals questionnaire from the adult reminiscing literature. A community population of mothers (n = 265) of children aged 3-8 years were asked to rate how important several reminiscing goals were for them. These were then correlated with independent measures of children's psychological functioning. Their findings suggested that maternal reminiscing goals were related to children's individual

emotional and behavioural problems. Specifically, mothers of children who displayed emotional problems like being worried, afraid, unhappy, clingy or having physical symptoms of anxiety were more likely to use reminiscing to try to alleviate these problems (Kulkofsky, 2010). Furthermore, mothers of children who exhibited conduct and behavioural problems used reminiscing with the goal of regulating these behaviours.

Russell et al. (2024) also examined parent reminiscing goals using this quantitative questionnaire; however, this time, the population was a mixed community-clinical sample of parents of 8-12-year-old children. The clinical sample (n = 28) was referred to a community mental health clinical for anxiety difficulties. Russell et al. (2024) also found that parents' reminiscing goals related in meaningful ways to their children's difficulties. Specifically, reminiscing goals of emotional understanding and bonding were significantly higher in the clinical cohort, and reminiscing goals of behaviour control were uniquely related to parent-reported child internalising and externalising difficulties.

Differences in Elaboration Style

Many facets of development are universal; for instance, all typically developing children learn to recall specific events from their past through conversations with their caregivers. However, how parents discuss past events with their children, including the way they approach and explain emotional content and causes of emotion, (Koh & Wang, 2021; McDonnell et al., 2021; Reese et al., 2008) respond to their children's comments and provide additional content to the conversation (Fivush et al., 2006) may influence the quantity and quality of the activity and, in turn, children's social, cognitive and emotional development (Salmon & Reese, 2016).

High elaborative reminiscing style involves the use of open-ended questions (e.g., *"What happened at the beach?"*), elaborative statements that provide new information into the conversation (e.g., *"We saw your friend, Jack"*), and positive confirmations (e.g., *"Yes, that's right").* Mothers with a highly elaborate style often talk about the past,

partaking in substantial and detailed conversations to co-create with their children an engaging narrative of what happened. In contrast, a low elaborative reminiscing style involves more closed questions (e.g., *"Did we go swimming?"*), or repetition of similar questions that follow a particular agenda for the conversation (e.g., *"Did you like swimming?" "Did you have fun*?" (Farrant & Reese, 2000; Fivush et al., 2006). Consequently, this approach provides less opportunity for elaboration from their children. Mothers with a low elaborative style also tend to talk less frequently about the past. When they do, they ask fewer questions, focusing more on details rather than collaboratively building a narrative (Fıvush, 2006). Research suggests that mothers on the higher end of this scale provide more effective opportunities for their children to engage in these conversations and provide their own additional information to build a joint narrative (Salmon & Reese, 2016). However, like any behaviour, various factors influence parents' approach to reminiscing, including culture, gender, age and temperament.

Cultural Differences

Cultural values play a role in the function of reminiscing and in shaping maternal reminiscing style. East Asian mothers are shown to engage in less elaboration when reminiscing with their young children than Western mothers and to place more emphasis on discipline and enforcing proper conduct as its function (Sahin-Acar & Leichtman, 2014; Schröder et al., 2013; Wang & Fivush, 2005). East-Asian mothers also tend to focus on events involving other people and desired behaviour, whereas Western mothers tend to be more child-focused when reminiscing (Wang & Fivush, 2005). The same applies when comparing Western and Indian mothers (Leichtman et al., 2000). Some literature interprets these differences as stemming from the individualistic versus collectivist nature of each culture and the importance of individual emotional expression versus collective unity (Wang & Koh, 2021). However, cultural differences may also lead to differences in the function of reminiscing, influencing how and when mothers discuss the past with their children.

A study comparing how Indigenous and non-Indigenous Australians talk about the past found that Indigenous people were more likely to reminisce to pass on knowledge and teach lessons from the past (Nile & Van Bergen, 2014). Furthermore, in Aotearoa, Māori mothers tend to be more elaborative when reminiscing about events that hold significance for their wider whānau (child's birth) or the broader cultural context rather than purely child-focused events (Reese et al., 2008). Like many Indigenous cultures, te ao Māori emphasises the importance of knowing how one fits into the broader social context (whānau, iwi, hapū) and understanding one's connection to physical space as well as to their ancestors (whakapapa) (King, 2003). Historically, elders passed down stories of origin, tradition and whakapapa through talking. These oral customs help preserve sacred traditions and beliefs, providing resilience and well-being among Māori and other indigenous peoples (Rewi, 2010).

Interestingly, a more recent study concerning the practice and functions of reminiscing among mothers and children in Māori families did not identify differences, suggesting that contemporary Māori families are becoming just as, if not more, elaborative when reminiscing about everyday events compared to cultural rituals or events that hold whānau significance (Reese & Neha, 2014). This finding may indicate the influence of Western knowledge systems on Māori as, unsurprisingly, cultural affiliation appears to impact the function and style of this elaboration. Reese and Neha (2014) found that mothers with higher levels of cultural affiliation were more elaborative and detailed when reminiscing about culturally relevant past events or events that impacted the wider whānau. Notably, research directly exploring the differences in why parents from different cultures reminisce with their children is scarce.

Gender Differences

Individual parental reminiscing style differences may also be related to their child's gender. Reese et al. (1993) found that mothers tended to be more elaborative with their daughters than their sons. A recent study found similar differences, especially related to

negative emotional and positive experiences (Zaman & Fivush, 2013). Moreover, Reese and Neha (2014) found that Māori families tend to reminisce differently with their daughters than their sons. Māori parental figures were found to use open-ended elaborative questions with their daughters than their sons, and, correspondingly, girls recalled more information from conversations than boys. Interestingly, these differences as a function of child gender were consistent across various events, regardless of parent education, children's age, and language ability.

Some research suggests that gender disparities may also be related to differences in the socialisation of emotions between boys and girls (Waters et al., 2019). For instance, parents may talk more about emotions with their daughters than with their sons (Adams et al., 1995; Aznar & Tenenbaum, 2014; Fivush et al., 2000). Consequently, some studies show that, compared to boys, preschool-aged girls provide more elaborate and emotionally rich narratives (Buckner & Fivush, 1998) and that these differences may persist into adulthood (Grysman et al., 2016). However, more recent research shows minimal differences in reminiscing concerning child gender (McDonnell et al., 2021; Waters et al., 2019), which may reflect a generalised lessening of socialised gender differences.

It should be noted that most parent reminiscing literature focuses on maternal reminiscing, and the research directly comparing maternal versus paternal reminiscing styles is limited. However, a few studies have highlighted potential differences between mothers' and fathers' approaches to discussing the past. Zaman and Fivush (2013) asked parents to reminisce with their 4-year-old children about various events, including those that were happy and sad and those that involved peer or parental conflict. Mothers were more elaborative and engaged with children during reminiscing, particularly when discussing negative emotional experiences. Similarly, Fivush et al. (2009) found that when discussing positive and negative family experiences, mothers used more elaborative factual and emotional statements than fathers. Earlier studies did not demonstrate the same differences in

overall elaborations, but they did show that, on average, fathers used more repetitive statements when reminiscing than mothers. (Reese et al., 1993; Reese et al., 1996).

Although inconclusive, these studies suggest that mothers may engage in a more elaborative reminiscing style than fathers, which could benefit children's ability to recall and interpret autobiographical memories. However, given the scarcity of research concerning paternal reminiscing, we do not clearly understand the aspects of reminiscing that fathers may prioritise. For instance, fathers' approach to reminiscing may be beneficial, but in a way that the existing coding schemes developed to record mothers' reminiscing do not adequately capture.

Maternal Personality

Parents also bring their unique personalities to the parent-child relationship, which can impact parenting behaviours. Maternal personality may be related to differences in the quality of parent-child interactions, responsiveness to their child, and discipline style (Durbin & Wilson, 2011). Moreover, maternal personality also appears to be related to how mothers talk to their children about the past. For instance, mothers with higher scores of openness measured on the Big Five Inventory (BFI) (Costa & McCrae, 1992) were, on average, more elaborative than those with lower openness scores when reminiscing with their preschool-aged children (Laible et al., 2013). Manczak et al. (2016) explored the role of parenting personality regarding using emotion with pre-schoolers during conversations about the past. They found that mothers who scored higher in social closeness used more emotional language when discussing positive and negative past events. However, they did not find the same association for fathers. Additionally, whilst these results suggest a link between some personality traits and maternal elaborative style, both studies focused mainly on Euro-American mothers. Thus, these findings are not representative of the wider population.

More recently, Swearingen et al. (2023) examined maternal personality and reminiscing with a large sample of 1,404 mother-child dyads. These dyads were part of the

Growing Up in New Zealand cohort, which is broadly representative of the New Zealand population concerning ethnicity and socioeconomic status. The researchers measured maternal elaboration through a reminiscing task, which asked mothers and children aged 8 to discuss an event. They could choose from three options: A time when the child had hurt themselves, when they did not do as well as they wanted to, or a time they had a social disagreement. Maternal personality was assessed using the abridged version of the BFI. Findings showed that mothers who scored higher on the extraversion trait exhibited higher maternal elaboration irrespective of ethnicity, education, and socioeconomic status. Interestingly, older mothers were more elaborative during the reminiscing task than younger mothers.

Elaborative Reminiscing and Attachment

Reminiscing occurs within the broader context of the parent-child attachment relationship. The link between attachment in infancy and parent-child conversation is associated with the parent's role in shaping and guiding the dialogue and encouraging their children to contribute to creating the narrative. Consequently, the co-construction of organised conversation about children's past experiences, particularly emotional experiences, appears to be related to the quality of attachment in the parent-child relationship (Oppenheim & Waters, 1995; Waters & Cummings, 2000).

Various studies indicate that secure mother-child relationships in infancy are associated with later, more elaborative, open conversations where both mother and child contribute to the dialogue (Etzion-Carasso & Oppenheim, 2000; Newcombe & Reese, 2004). Children higher in security (as measured by the Attachment Q-set; Waters & Deane, 1987) engaged in later reminiscing with a parent that was more detailed and collaborative (Fivush & Vasudeva, 2002; Reese & Farrant, 2003). Moreover, mothers of securely attached children appear to adapt their elaboration levels better as their child’s memory development progresses (Reese & Farrant, 2003). Newcombe and Reese (2004) found that when toddlers

were securely attached, their mothers showed greater increases in talk about emotions when reminiscing through their preschool years (Newcombe & Reese, 2004). Conversely, Etzion-Carasso & Oppenheim (2000) found that when children had an insecure or disorganised attachment relationship with their parent during infancy, later parent-child communication was less open, and reminiscing was more repetitive and less elaborative (Etzion-Carasso & Oppenheim, 2000). Although limited, this research suggests a link between parent-child conversation, particularly reminiscing, and the quality of the attachment relationship. Specifically, reminiscing that involves more elaborations and emotional content has qualities that can help foster closeness, possibly contributing across time to child-parent attachments. These early social interactions and conversations contribute to the quality of the dyadic relationship and children's relationships with themselves.

Child Characteristics and Reminiscing

Children also shape the reminiscing process; as Bornstein (2012, p. 218) concluded, "Caregiving is a two-way street." Individual differences in child temperament are thought to contribute uniquely to children's overall social-emotional functioning (Mangelsdorf & Frosch, 1999). Temperament describes individual behavioural traits concerning children's activity, affectivity, and attention and may be associated with the quality and quantity of mother-child conversation. Laible (2004) found a link between a child's temperament and maternal elaboration. More specifically, mothers were found to be more elaborative in a reminiscing task when they perceived their children to be high in negative reactivity (high frequency of negative emotionality) or with children with greater abilities to regulate behaviour and emotion. In their research with the *Growing Up in New Zealand* cohort, Swearingen et al. (2023) also found that infants with higher positive affect scores on The Infant Behaviour Questionnaire-Revised Very Short Form (IBQ-R-VSF; Putnam et al., 2014) — those perceived as more social, active, and happy — had mothers who displayed less elaboration about adverse events in middle childhood (8 years old).

Unsurprisingly, research also indicates that mothers are more elaborative with children considered more socially adept (Bird et al., 2006; Farrant & Reese, 2000; Haden, 2003; Laible, 2004). More specifically, mothers are more elaborative regarding emotional past-event discussions with children with greater abilities to regulate behaviour, emotion, and cognition, a skill called effortful control (Bird et al., 2006; Laible, 2004). Several studies have also found that children's interest and engagement in conversations about the past can significantly affect mother's elaboration (Farrant & Reese, 2000; Haden, 2003). A longitudinal study by Farrant and Reese (2000), which explored young children's interest in reminiscing conversations at various age points (19, 25, 32 and 40 months), indicated that children's engagement level at 19 months influenced later maternal elaboration style. Mothers showed greater encouragement of their child's participation, which positively affected children's memory recall at later age points. These results suggest that children's interest in participating in conversations about the past plays a role in the development of mother-child reminiscing. Moreover, children's early interest in reminiscing may set the foundations of participation and engagement in later social interactions.

Elaborative Reminiscing and the Sociocultural Model

Sociocultural theory describes the link between social interactions and cognitive development. Vygotsky proposed that learning happens in the context of social environments through interactions with individuals who are more knowledgeable or skilful than the learner (Vygotsky, 1978). This perspective is particularly relevant in the context of language acquisition. Sociocultural theory emphasises language development as a sociocognitive skill that is both an outcome and mechanism of social interaction. This perspective sees language development as a shared process in which learners actively engage and play a meaningful role in their own learning. Nelson and Fivush (2004) added to this theoretical idea, suggesting that as children's language develops through collaborative interactions with more

experienced adults, they learn to organise their memories and internalise narrative skills and knowledge about themselves, others and the world around them.

For young children, critical cognitive development, such as language use, first develops during interactions with their caregivers. Through this process, children are introduced to a foundation that enables them to comprehend and consider the emotional context of their personal experiences (Nelson & Fivush, 2004). Therefore, inherently, social interaction, specifically language-based interaction, such as elaborative reminiscing, is a mechanism for children's cognitive development (Reese et al., 2008). Thus, variations in the quantity and quality of these social interactions, for example, maternal elaboration style, can contribute to individual differences in children's cognitive development in critical areas such as autobiographical memory, language acquisition, understanding of self, theory of mind, socio-emotional abilities and behavioural functioning (see Waters et al., 2019 for review).

Elaborative reminiscing is especially critical in developing children's autobiographical memory (Fivush et al., 2006; Waters et al., 2019). The sociocultural model of autobiographical memory suggests that the ability to recall one's personal history, which is related to socioemotional understanding, develops via interactions with others (Nelson & Fivush, 2004). Thus, as children's first social experiences happen with their parents, they actively facilitate children's ability to recall the past through parent-child conversations (Tessler & Nelson, 1994). Haden et al. (2010) found that children's ability to recall events and their level of memory elaborations when discussing past events at 30 months was associated with their mother's reminiscing style (high or low) with children at 18 months old. Specifically, children of mothers with a high elaboration style provided more information in conversations about past events than those of low-elaborative mothers. Additionally, in an intervention study when children were 1-1.5 years old, Reese and Newcombe (2007) found that children of mothers from the intervention group provided more accurate and elaborate

memories than children of mothers from the control group at both post-tests (aged 2.5 and 3.5).

Elaborative reminiscing involves guiding children in recalling and reflecting on their memories, which likely helps children develop active memory retrieval skills, ultimately enhancing their memory ability. Interestingly, effect sizes for children's memory elaborations appear higher when children discuss negative events with their mothers than positive events (Waters et al., 2019). These findings may reflect differences in processing types of information. However, aligning with the theoretical notion that mothers play a critical role in scaffolding children's memory, these effects can at least be partially explained as highly elaborative mothers viewing conversing about adverse events as learning moments for their children (Sales et al., 2003), aiding in their growing ability to recall their past experiences in a coherent and organised way.

The Benefits of Elaborative Reminiscing

Elaborative Reminiscing and Language

Autobiographical memory development enables children to recognise that recalled information comes from previously experienced events and to understand that the memory of that experience represents their earlier experience (Perner et al., 2007). Thus, children learn to remember their past through the linguistic practice of reminiscing (Fivush et al., 2006). Consequently, children must use language to expand on those memories and construct a narrative to share that experience. As the sociocultural model suggests, shared language is both the medium and the mechanism of development (Nelson, 1996). Elaborative reminiscing involves dialogue between parent and child; thus, it is fundamentally a language-based activity (Fivush et al., 2006). Through shared language involving discussion and negotiation, mother and child construct a collaborative representation of a past event that builds on a shared history while providing linguistic development opportunities.

As noted earlier, reminiscing is shaped by both parents and children. Parents may adopt a more elaborative reminiscing style with young children with more advanced language skills. However, the relationship between elaborative reminiscing and language development is likely bidirectional (Farrant & Reese, 2000). Mothers may engage in higher levels of elaboration with young children who have higher verbal abilities or language skills and are, therefore, more able to partake in conversations about the past (Farrant & Reese, 2000; Newcombe & Reese, 2004). Moreover, mothers generally increase their elaboration in these interactions as their children age and their language skills develop (Reese et al., 1993). Interestingly, research by Reese and Brown (2000) with slightly older children did not find this connection, suggesting that once children's language reaches a certain level, other factors, such as a child's interest, may have more impact on mothers reminiscing style. Furthermore, compared to less elaborate mothers, highly elaborate mothers tend to discuss past events more frequently with their children. Thus, they likely provide them with the opportunity to partake in complex linguistic interactions that better facilitate language development (Rowe, 2012; Reese & Neha, 2014).

Children's language develops via their parents or parental figures talking to them; thus, the more parental talk, the faster children's language develops (Hart & Risley, 1995). However, not all talk is the same. Specific conversations, such as those about the past, require a more complex understanding of language and, as such, aid in developing more complex language skills. Indeed, elaborative reminiscing is associated with many aspects of language development, including vocabulary, awareness of language sounds, receptive language abilities and narrative skills (Farrant & Reese, 2000; Rowe, 2012; Salmon & Reese, 2016), all of which are critical components for children's later reading and comprehension ability (Reese et al., 2010). Elaborative reminiscing has even been shown to benefit children's narrative skills more than book reading. Reese et al. (2010) found that children's narrative skills improved more with mothers in the intervention program designed to increase their

elaboration when discussing the past than a program focused on interactive book reading. A similar study found that maternal reminiscing was associated with children's improved awareness of and ability to work with the spoken parts of sentences and words. In contrast, shared book reading was not (Leyva et al., 2012). Notably, both studies included families from diverse socioeconomic, cultural, and ethnic backgrounds.

Elaborative reminiscing is particularly beneficial in language development because it facilitates the development of children's narrative skills in core areas such as retelling events, predicting what will happen in a story and understanding story structure (Reese & Newcombe, 2007). Moreover, talking about and creating a narrative involves using more extended, complex phrases than conversations about the present (Rowe, 2012). Additionally, elaborative reminiscing differs from other mother-child conversations because it focuses on the past and requires a child to comprehend more abstract concepts of time (the past versus the present) and adapt more complex vocabulary and syntax (Salmon & Reese, 2016). Snow (1991) describes these conversations as "decontextualised language" because they involve children participating in more complex, higher-level dialogue with adults, encouraging them to discuss what they can see in front of them, and what they can imagine and remember.

Elaborative Reminiscing, Theory of Mind and Socioemotional Development

There is a wealth of research concerning children's ability to perceive their own experience and other's as subjective through early social interactions such as reminiscing (see Carpendale & Lewis, 2004 for review). As young children's language develops, they naturally interact more with others and their environment and begin to develop a concept of self (Nelson & Fivush, 2004). As this understanding develops, they learn to see themselves as unique from others, developing their theory of mind — the understanding that others have thoughts, feelings, beliefs, intentions, and desires that are different from our own (Wellman, 2001). Through these collaborative conversations detailing how a past event happened, children begin to comprehend that their memories are subjective representations in which

other individuals involved might recall different aspects of what occurred. Thus, elaborative reminiscing contributes to children's theory of mind development because it facilitates children's understanding of memory as a mental representation (Fivush et al., 2006).

Children also learn to differentiate their internal world from others through these interactions. With this discovery comes the awareness of mental states: the idea that our unique internal world, which consists of emotions, feelings, intentions, and desires, is everchanging and influences how we behave. Fivush et al. (2006) proposed that reminiscing is crucial to children's understanding of their mental state because it requires distinguishing between past and present mental states. Through this process, a child learns to navigate the continuity between a past situation and their current internal state. In addition, Rudek and Haden (2005) found that mothers who frequently discuss mental states with their children while reminiscing promote mental state understanding while helping their children to more openly discuss their own and other's past and present mental states. Interestingly, using mental state language with preschool-aged children is associated with more prosocial and less externalising behaviours, such as physical aggression and disobeying rules in 10-year-old children (Carr et al., 2018). Consequently, meaningful elaborative reminiscing may facilitate children's developing understanding of their own and others' mental states and help them learn to manage mental states them in socially appropriate ways.

Emotions are mental states that are particularly important for children to understand as they venture into the social world. Many studies examining maternal talk about mental states or discussions involving the characters in picture books establish an association between parent-child conversations concerning mental states and emotions and individual differences in children's socioemotional understanding (Gray & Garand, 1993; Taumoepeau & Ruffman, 2006, 2008). Moreover, discussing past events, irrespective of emotional content, can aid in helping children navigate expectations related to social situations and interactions (Laible, 2004). However, discussing past events containing emotional content is particularly

beneficial in aiding children to reflect and interpret their experiences (Fivush & Haden, 2002). Fivush et al. (2006) proposes that conversations about past events offer unique learning opportunities for children's socioemotional development because they allow parents to reflect with them on the causes, presentation and resolution of past emotions.

Studies have found that conversations about past events may be critical in socioemotional learning (Fivush et al., 2006; Salmon & Reese, 2016). More specifically, children of parents who actively engage in conversations about the past that are more focused on emotions and emotion resolutions (mainly related to past negative emotional states) have more advanced emotional regulation skills and overall socioemotional understanding (Laible & Song, 2006; Sales & Fivush, 2005; Van Bergen et al., 2009). The same link exists concerning past events that caused stress. Fivush and Sales (2006) found that preadolescent children of mothers who were elaborative and used emotionally centred language when discussing stressful past events exhibited fewer internalising and externalising problem behaviours such as, anxiety, social withdrawal, difficulties maintaining attention, impulsivity and aggression and adopted more effective coping strategies when faced with adversity. Additionally, children from families who discuss emotions openly were more likely to possess better prosocial skills and healthy peer relationships and be more equipped to adapt to changes in their physical and social environment (Halberstadt et al., 2001). Unsurprisingly, children who can appropriately regulate emotions exhibit better social skills, greater peer popularity and overall social competence (Eisenberg et al., 1997; Graziano et al., 2007).

Autism Spectrum Disorder/ /Tākiwātanga

Autobiographical memory, language acquisition, theory of mind and socio-emotional understanding are critical factors in a child’s development that dictate their ability to navigate the social landscape. Importantly, these are vital aspects of development affected in neurodevelopmental disorders such as autism spectrum disorder (ASD). Consequently, these

links have led to the emergence of research concerning reminiscing with autistic populations. It is important to be clear that this area of research is not in any way suggesting that reminiscing or parent-child interactions have any causal role in autism, but rather that these interactions may be a medium to support and strengthen social, emotional or cognitive outcomes for children with autism (Brien & Hutchins, 2022).

ASD is marked by difficulties in critical areas related to communication and social understanding and includes restrictive, repetitive patterns of behaviour, interests or activities (American Psychological Association, 2013). These communication difficulties can present differently for everyone. However, individuals with autism may include trouble with attention, initiating and engaging in conversation, recognising and understanding non-verbal language such as body language, tone of voice and facial expressions, emotional understanding and theory of mind (Jones et al., 2018; Mody & Belliveau, 2013; Paul et al., 2008; Sato et al., 2012). Individuals with autism also often have heightened sensory sensitivities to visual and auditory information, making everyday life challenging and adding to difficulties with communication and social interaction (Tomchek & Dunn, 2007).

The most recent New Zealand Health Survey identified the prevalence of ASD among children aged 2 to 14 years old around 1.6% (Bowden et al., 2020). These results are in line with global prevalence estimates, indicating that approximately one in every 100 children is diagnosed with ASD (Zeidan et al., 2022). In Aotearoa, ASD prevalence estimates have increased over time, reflecting increased awareness, research interest, improved diagnostic processes, changes in the definition of autism, and differences in the methodology and contexts of prevalence studies (Bowden et al., 2020).

Despite these changes, data related to ASD prevalence, incidence, age of diagnosis and management in Aotearoa is still limited (Eggleston et al., 2019; Thabrew & Eggleston, 2017). Moreover, empirical research concerning autistic Māori and other minorities is scarce. Whilst some data suggests that autism prevalence rates may be higher in Māori children than

in the general child population (Ministry of Health, 2022), other research found lower relative rates of ASD for Māori and Pasifika children (Eggleston et al., 2019). Furthermore, due to ongoing inequitable access to culturally competent health services, such as diagnostic assessment, ASD may be overlooked or misdiagnosed among Māori and other minorities (Bevan-Brown, 2004). Thus, accurate prevalence estimates are difficult to gauge. In addition, while parents often observe behaviours that may be reflective of autism in children as young as 3 years of age, on average, children in Aotearoa do not receive a diagnosis until they are around age 6 ½ years and are often waiting close to 6 months for diagnostic assessment (Eggleston et al., 2019). These delays mean that many parents await adequate support and guidance in those early years when much cognitive development occurs.

Notably, the current conceptualisation of autism also relies heavily on Western clinical understandings, with diagnoses sought from criteria based on predominately Western populations (Masi et al., 2017). Acknowledging that this is not the only way of knowing is crucial. Before 2019, there was no word in te reo Māori to describe autism. Instead, early Māori viewed children who displayed symptoms of autism as gifts. Autism was a different way of being and considered a normal part of te ao Māori (Tupou et al., 2021). In 2019, Keri Opai offered the term 'takiwātanga' to define the Māori view of autism. Whilst it is crucial to note that there is not one universal Māori view of autism, compared to Western understandings, takiwātanga is a much less deficit-focused conceptualisation derived from 'tōku/tōna anō takiwā,' meaning my/his/her own time and space (Te Pou o te Whakaaro Nui, 2019).

In 2019 the Te Tau Tītoki Autism framework was also introduced in Aoteroa. Tau Tītoki represents the voices of people across the disability sector and the autism community. This framework focuses on developing autism-specific supports and fostering a movement of people with lived experience, including those with autism and their whānau (Te Pou o te Whakaaro Nui, 2019). Reflecting these voices, Te Tau Tītoki recognises the importance of a

person-centred approach to autism resources and ensuring all people who work with those with autism have a sound understanding of how to support their needs best. We will honour this framework through our research. We hope our study adds important insights that can contribute to more informed person-centred reminiscing interventions that support the development and wellbeing of autistic children and their caregivers.

In recent years, due to work by the autistic community, views have shifted away from the tradition of deficit-based understandings of autism towards a more person-centred one. As such, we now emphasise autism as a part of a neurodiverse spectrum in which individuals exist with unique strengths and differences (Jaarsma & Welin, 2011). Various terms continue to be used in the literature and throughout mainstream media. However, recent research conducted with adults with a diagnosis of autism found that the terms ‘autistic' and 'autistic person' were most preferred (Bury et al., 2020). These identity-first terms reflected themes that autism is core to or part of one's identity. Many people also emphasised the use of 'person on the autism spectrum', as this better acknowledged the diversity and individuality that exist within an autism diagnosis. Likewise, some individuals disliked medicalised or disorder-focused terminology, as they did not view their autism as a disorder. Similar findings were reflected by Kenny et al. (2015), although healthcare professionals preferred a "person with autism."

As preferences vary within the autistic community and the author is not on the autism spectrum, preferred terms such as autistic child and child on the autism spectrum will be used interchangeably herein. As reflected by the current literature, ASD will only be used when referring to diagnosis. Moreover, in rejecting deficit-based understandings of autism, we will address features of autism as ‘differences’ or ‘difficulties’ rather than ‘impairments.’

Autism and Autobiographical Memory

Inherently, reminiscing is an exercise of memory. Thus, to engage in joint reminiscing, a child needs to be able to consciously recall past experiences. Autistic children

show differences in autobiographical memory from preschool age (McDonnell et al., 2021). These differences include difficulty recalling personal experiences (McDonnell et al., 2017), reduced specificity or less detailed memory for these events (Goddard et al., 2013), less use of internal state or emotional language (Brown et al., 2011) and more reliance on external prompting or guiding during memory tasks (Goddard et al., 2013; Goldman & DeNigris, 2014). Interestingly, this difficulty appears specific to autobiographical memories whilst autistic individuals' general memory remains intact (Bruck et al., 2007; Crane & Goddard, 2007; Millward et al., 2000).

Findings from Millward et al. (2000) provide evidence for this difference related explicitly to personal memories. In their study, Millward et al. examined the memories of autistic children aged 12-16 years with moderately delayed language compared with language-matched typically developing children aged 5-6 years. They had children take part in two walks. After the walks, children were asked varying questions about their experience, including their own experience and what happened to others they witnessed on their walk. Children with autism reported fewer events that happened to them personally than typically developing children. However, no group differences were found when reporting what happened to other people during the walk. Similarly, Crane and Goddard (2007) found that compared to a control group, autistic adults (aged 21-61 years) showed difficulties in remembering personally experienced details from a past event, but not factual or semantic details.

These differences also related to individuals use of point of view. Lind and Bowler (2010) found that compared to a neurotypical group, autistic adults were less likely to report memories using a first-person perspective and were more inclined to use the third person when discussing past events. These differences were found irrespective of language ability. Differences in retrieving specific subjective experiences are consistently found in children on the autism spectrum when compared to their typically developing peers (Boucher & Bowler,

2008). These, findings suggest that individuals with autism may have difficulty discussing past events from their point of view, highlighting limitations in directly applying reminiscing research with typically developing children to children on the autism spectrum.

Autism and Language

Children with autism can also present with differences in language use and communication. These differences can range from being non-verbal or selectively verbal to echolalia (non-voluntarily repeating others' speech) or difficulty modulating or regulating their tone of voice (Mody & Belliveau, 2013). Whilst some differences are simply idiosyncratic, language acquisition in autism can be significantly delayed, with first words produced at age 38 months, on average, compared to 8–14 months for typically developing children (Howlin, 2003). Moreover, by age four, about 30 % of autistic children will be nonverbal or will not have the required or developmentally relevant language skills (Anderson et al., 2007). Because the mechanism of reminiscing is shared language, these delays likely impact participation and engagement in these conversations. Furthermore, whilst many children with autism will learn to articulate and competently use language to converse, they may have more difficulty understanding the nuanced use of language in social interactions. Thus, even with competent language skills, many autistic individuals have difficulty understanding figurative and idiomatic language, limiting their ability to interact and bond socially (Vulchanova et al., 2015).

Some have proposed that language difficulties result from a lack of social motivation (Landa et al., 2007). However, autistic adolescents report feeling highly motivated to interact socially and to form relationships and frequently report feeling lonelier than their neurotypical peers (Mazurek & Kanne, 2010). Thus, the relationship between autism, social engagement and language is likely not entirely due to social motivation. Instead, in line with social constructionist theory, language is affected because the impact symptoms have on communication makes social interactions more complicated and, thus, children have fewer

opportunities to develop their language (Vygotsky, 1978). Related to this perspective, autistic children who exhibit more severe social difficulties are shown to have much lower language abilities compared to those who engage in more severe restrictive and repetitive behaviours (Park et al., 2020).

Autism, Socioemotional Ability and Theory of Mind

Alongside language and memory, appropriate social skills such as gestures, social referencing, and facial expressions are also learned through social interactions (Charlop et al., 2010). However, due to social communication difficulties, children with autism often experience barriers within interpersonal interactions or may avoid social situations, limiting opportunities to develop and practice these social skills (White et al., 2010). Consequently, autistic children often demonstrate significant challenges in developing and utilising social skills (Charlop et al., 2010) and significantly lower social skills than typically developing children (Locke et al., 2012).

Interpreting verbal and physical gestures allows neurotypical individuals to understand others' emotions (Kuusikko et al., 2009). However, difficulties processing social information via cues such as facial expressions and body language is a core feature of autism (Sato et al., 2012). Behavioural studies indicate this processing difficulty results from several social-related differences conducive to autism, including reduced arousal levels when processing other people's emotions, diminished emotional behaviours and attenuated or inappropriate facial responses (Gaigg, 2012). Moreover, compared to their typically developing peers, children with autism often have difficulties with peer relationships and prosocial behaviours, tending to display more internalising and externalising problems (Salayev et al., 2017).

Efficiently identifying others' emotions underlies many social processes, including developing the ability to empathise (Clark et al., 2008). Sharing others' emotions and perceiving situations from their perspective is essential in genuine social interactions (Decety

& Meyer, 2008). Moreover, understanding emotions involves the awareness that emotions are complex and everchanging and can be internalised or hidden from others (Pons et al., 2004). Consequently, emotional understanding is related to self-concept and the ability to interpret other's mental states, intentions, and beliefs as different from one's own. This understanding is known as theory of mind and it is essential in socio-emotional development as it allows us to consider others' emotional and mental states, facilitating how one navigates social interactions (Clark et al., 2008; Decety & Meyer, 2008).

Typically developing children begin to understand emotions and develop theory of mind in early childhood (Wellman, 2001). However, perhaps due to social differences, individuals with autism often display varying difficulties with theory of mind through middle childhood and adolescence and sometimes into adulthood (Peterson, 2014). Recognising and describing mental states in oneself and others is crucial in recalling and expressing autobiographical memories (Conway & Pleydell-Pearce, 2000). As such, theoretical literature suggests that difficulties in processes linked to autobiographical memory, often apparent in individuals with autism, are also associated with difficulties related to theory of mind (Perner et al., 2007).

Individuals on the autism spectrum may be unaware of their differences in understanding the theory of mind. Thus, it may be more challenging to adapt context-specific social behaviours and ways of communication (Elmose, 2016). Behaving in socially 'inappropriate' ways can make it harder for autistic children to form and maintain relationships (Downs & Smith, 2004; Kasari & Patterson, 2012; Locke et al., 2012). Additionally, differences in social skills contribute to mental health and behavioural problems, academic underachievement, and decreased job opportunities later in life (Rao et al., 2007; White & Roberson-Nay, 2009). These areas are crucial to consider, especially as children move into adolescence, because social support is a protective factor for mental

health difficulties like depression and anxiety, which are commonly comorbid in autism (Mazurek & Kanne, 2010).

Autism and the Parent-Child Relationship

Language delays and social communication struggles may also make it more challenging for parents of autistic children to facilitate interactions that act as language learning opportunities (Edmunds et al., 2019; Heidlage et al., 2020). Thus, it is likely that children with autism participate in fewer reciprocal, elaborative and emotionally rich conversations with their parents, including those about the past (Jones & Schwartz, 2008). In addition, parental emotional support and greater cohesiveness within the parent-child relationship positively influence children's social skills (Haven et al., 2013). Interestingly, Haven et al. (2013) found that cohesiveness within parent-child interactions may be more influential on social skills for children with autism than typically developing children. However, parental stress from attempting to support their child's complex needs can exacerbate the struggle for an autistic child to communicate, which, rather than fostering connection, may negatively impact the parent-child relationship and other relationships within the family unit (McDonnell et al., 2021). Furthermore, stress levels experienced by parents of children with autism are significantly higher than those experienced by parents of typically developing children (Padden & James, 2017).

Reminiscing Interventions

Notably, research has shown that specific parent-child interactions, such as conversations about the past or, more specifically, elaborative reminiscing, can help foster connection and positively impact the parent-child relationship for both typically developing children (Reese & Newcombe, 2007; Taumoepeau & Reese, 2013) and children with autism (Bhana et al., 2023a; Brien & Hutchins, 2022). Moreover, regardless of potential differences across cultures and children's gender, age and temperament, studies have shown that specific reminiscing coaching can improve the quality of elaborative reminiscing, which, in turn, has

a positive impact on children's emotional, cognitive, and language abilities (Corsano & Guidotti, 2019; Van Bergen et al., 2009).

In research with neurotypical dyads, Van Bergen et al. (2009) separated 80 mothers into one of two conditions: reminiscing and control. Mothers coached in reminiscing skills increased their emotional and detailed language use and maintained these changes at a six-month follow-up. Moreover, compared to the control group, their children developed a more detailed and emotional reminiscing style and, over time, appeared to have a better understanding of emotions and their causes. This study also showed that reminiscing training was more effective than other mother-child interaction training. Similarly, Taumoepeau and Reese (2013) found that after reminiscing training, mothers used more open-ended elaborative questions and confirmations and consequently, their preschool-aged children produced more memory elaborations. Interestingly, findings also suggested that due to maternal training in elaborative reminiscing, children with low language abilities began to improve their theory of mind so that their understanding was closer to the theory of mind abilities of children with higher language skills by the end of the intervention study.

A longitudinal study also indicates that mothers' reminiscing style improvements are maintained. Reese and Newcombe (2007) conducted a brief reminiscing intervention with mothers of 2.5-year-old toddlers and repeatedly followed up with families. Their results showed that regardless of initial elaboration levels, mothers in the reminiscing training group adjusted their reminiscing styles in response to training, talking more openly, using more elaborative questions, and confirming their children's responses. Moreover, even 15 months after the final training sessions, mothers from the training group discussed various past events elaboratively. They also used more confirming language with their children than the control group.

A follow-up of this experiment displayed similar lasting effects. The longitudinal study by Reese et al. (2020) involved 100 mother-child dyads of children aged 3.5, with a

further follow-up eight years later. Mothers in the intervention group were coached to use open-ended questions, encourage their child's responses, and follow their child's interests during reminiscing conversations. Crucially, the results showed not only that these mothers were able to learn to engage in more elaborative reminiscing with their young children but that they continued to be more elaborative in their reminiscing when assessed eight years later when their children were 11 years old (Reese et al., 2020). Furthermore, an additional follow-up from this experiment found that children of mothers in the reminiscing intervention group had reduced rates of emotional symptoms such as anxiety and depression in adolescence (Mitchell & Reese, 2022).

Autism and Reminiscing

There is less reminiscing research involving parents and children with autism and even less focus on specific reminiscing interventions for these families. However, existing intervention-based studies indicate that reminiscing may support autobiographical memory development in autistic children. McDonell et al. (2021) demonstrated that an elaborative approach to reminiscing was positively associated with autobiographical memory specificity for both typically developing and autistic children. Additionally, through an analysis of a single case data set from three mother-child dyads with children aged 3-5 years old, Bhana et al. (2023b) found that training parents in specific developmental behavioural interventions such as modelling, prompting, and expanding on what children say, combined with the use of photos in aiding communication had a positive impact on the way mother's reminisced with their autistic child. Moreover, these tools enabled children to offer more memory responses and answer more questions. Parents reported finding the photo prompts particularly beneficial for engaging with their autistic child. Similar improvements were seen in caregivers' elaborateness and older autistic children's autobiographical memory (aged 6-15 years old) in three intervention sessions by Brien and Hutchins (2022), albeit in an uncontrolled pre-post study. Parents also reported benefits from this relatively short

intervention, indicating that the sessions helped them to understand more about their child's experiences.

Research has also highlighted the difficulties that may arise for the autistic child or the barriers that parents of autistic children may face in engaging in these conversations. For instance, McDonell et al. (2021) compared 17 preschool-aged children (ages 4–6 years) with autism and 21 typically developing children and found that during conversations about the past, children with autism recalled fewer specific memories even when they received prompting from their parents. Moreover, mothers of children with autism used more off-topic comments and closed-ended questions, which negatively corresponded to autobiographical memory specificity for the child. Raman (2022) used a much larger sample with 164 mother-child dyads (78 children with autism and 86 typically developing aged 8-9 years) and observed similar results. They found that children with autism were more inclined to discuss off-topic content for extended periods, especially if they were less interested in the specific conversation task. They noted that parents often responded to these tangents by being less elaborative and asking more close-ended questions. Similarly, Faust (2009) analysed parent elaboration style in 24 parent-child dyads across a sample of 12 autistic children and 12 matched typically developing children. Their analysis revealed no differences in parent or child elaboration style; however, they did find that parents of children with autism increased their elaborations when children were more interested in the conversation, suggesting a bidirectional relationship between the child's engagement and the parent's level of elaboration.

Raman (2022) also investigated the potential benefits of elaborative reminiscing by examining associations with child outcomes for both typically developing and autistic children. They found no associations between reminiscing and self-esteem, behavioural or socioemotional functioning for children with autism. However, their results did show that emotional resolutions for typically developing children were of a higher quality than those for

children with autism, which may be related to children with autism displaying difficulty identifying, understanding or regulating their emotions, thus making it harder to resolve emotional turmoil. Moreover, Faust (2009) found that for both the autistic and typically developing groups, when parents used emotion more when discussing the past, they encouraged their children to do the same, demonstrating that children with autism also learn and mirror reminiscing through parental interactions.

Reminiscing Goals and Functions

Thus far, we have discussed the benefits of elaborative reminiscing related to key child developmental outcomes and explored how many of the benefits of reminiscing coincide with challenges experienced by children with autism. Additionally, we have reviewed intervention studies designed to increase parent use of elaborative reminiscing with both neurotypical and autistic children. However, despite the evidence for these benefits and potential improvements, we know very little about parents' motivations and intentions for reminiscing. Parents are the targets for reminiscing intervention. Therefore, a lack of understanding of their intentions could lead to interventions perceived as unnecessary, unhelpful or inadequate and, thus, less effective.

Literature regarding the theory of planned behaviour posits that intention, which is shaped by attitudes, subjective norms, and perceived behavioural control, is the central determinant of behaviour (Ajzen, 1991). Specifically, behaviour is predicted by our attitude towards its impact, the social pressure or expectation from our social environment to engage in it, and our belief in our ability to perform it successfully. Recently, these social cognition constructs have been shown to predict parent-for-child behaviour in the same way they predict individual behaviour. More specifically, parents' attitudes and beliefs about actions related to their child's health, including treatment, diet and exercise, are shown to predict their participation and engagement in those behaviours (see Hagger & Hamilton, 2019 for review). Namely, if a parent believes that behaviour will positively impact their child's health

or the people around them emphasise its value, they are likelier to engage in it. Conversely, their perceived belief about their capability to perform that behaviour may be a barrier to engagement.

This knowledge provides formative evidence of possible targets of parent-for-child health behaviour that guide more focused and intentional interventions, leading to more efficient increases in desired parenting behaviours that positively impact a child's health (Hamilton et al., 2020). More generally, understanding the influence that behavioural determinants such as attitudes and beliefs have on parenting behaviours may be beneficial in endorsing other behaviours that impact children's development. However, often this step is missed in behavioural intervention research, particularly when adapting interventions for diverse populations. For instance, only a small body of research has investigated parents' implicit and explicit motivations for discussing the past with their children. We know that specific parent characteristics can influence reminiscing behaviour. Additionally, limited research concerning the function of parental reminiscing suggests that parents talk about the past with their children for the same broad reasons that adults reminisce with one another: to bond and build their relationship, solve problems and create self-concept (Bluck et al., 2005; Fivush et al., 2003; Kulkofsky & Koh, 2009). However, we know little about how parents' approaches and motivations may differ when their child is on the autism spectrum.

Unsurprisingly, parent beliefs about the function of reminiscing impact their reminiscing behaviour in terms of content and level of elaboration. For example, Kulkofsky et al. (2009) found that parents who regard reminiscing as a function of social interaction or as a tool for conversing provide more novel information, use more open-ended questions and more frequently confirm or negate statements made by their children when reminiscing compared to those who endorse reminiscing as a means of solving problems, directing behaviour or regulating their child's emotions. Related to this, when specifically addressing past painful experiences with their child, Pavlova et al. (2022) found that parents who viewed

reminiscing as a tool to process past pain used more emotion-based language. In contrast, those more likely to avoid reminiscing about past painful events were less elaborative. Notably, Pavlova et al. (2022) found that not all parent reminiscing goals were connected to reminiscing, suggesting that parents may hold implicit reminiscing motivations that drive their approach to reminiscing in more nuanced ways that are not easily captured by quantitative measurement tools.

Only a handful of studies have explicitly asked parents why they talk about the past with their children. Firstly, Kulkofsky (2010) used an adapted reminiscing goals questionnaire from the adult reminiscing literature to ask parents questions relating to their reminiscing goals. Kulkofsky (2010) asked a community population of mothers (n = 265) of children aged 3-8 years to rate how important several different reminiscing goals were for them, and these were correlated with independent measures of children's psychological functioning. Findings suggested that maternal reminiscing goals were related to children's individual emotional and behavioural problems. Specifically, mothers of children who displayed emotional problems or physical symptoms of anxiety were more likely to use reminiscing to try to alleviate these problems (Kulkofsky, 2010). Furthermore, mothers of children who exhibited conduct problems, including not doing what they were asked, having tantrums, fighting or lying, used reminiscing with the goal of regulating these problem behaviours. Thus, more than just a bonding exercise or reason to converse, some parents view parent-child reminiscing as a mechanism for understanding and managing challenging emotions or behaviour from their child.

Using the same adapted questionnaire, Russell et al. (2024) explored reminiscing motivations of a mixed community-clinical sample of parents of 8-12-year-olds. The children from the clinical sample (n = 28) were referred to a community mental health clinical for anxiety difficulties. Like Kulkofsky (2010), they found that parents' reminiscing goals related meaningfully to their children's behavioural difficulties. Specifically, reminiscing goals of

emotional understanding and bonding were significantly higher in the clinical cohort and reminiscing goals of behaviour control were uniquely related to parent-reported child internalising and externalising difficulties. Notably, this study found that reminiscing to navigate emotions and behaviour is a relevant function for parents during the complex developmental period of middle childhood, a finding that may be particularly relevant when reminiscing with pre-adolescent children with emotional or behavioural differences, which autistic children are at increased risk of developing (Dovgan & Mazurek, 2019; Salayev et al., 2017)

Kulkofsky (2010) and Russell et al. (2024) provide a useful starting point in this otherwise under-researched area. However, their quantitative approach does not address the nuance of parent's reminiscing motivations or allow us to understand why these reminiscing goals are important to parents. Both studies used a questionnaire developed from empirical research on adult reminiscing, which impacts the specificity and individuality of the goals and motivations that parents can provide, potentially missing unrelated or unique drivers of reminiscing behaviour. Moreover, these questionnaires only provide the first level of information, the '*what'* without the '*why.* 'To date, there is only one qualitative study in this area. Newton-Jones et al. (under review) asked 20 primary caregivers of neurotypical children aged 11-12 about their goals and intentions when discussing the past and the future with their children. The interview included open-ended questions like '*When you talk with your child about past events in their life, what do you hope they will take from the conversation*?' Using reflexive thematic analysis (RTA (Braun & Clarke, 2020), they identified four key motivations related to past and future parent-child conversations during pre-adolescence: preparing their child for adolescence, helping them to embrace emotions, connecting to whānau and providing a safe space for their children to talk. They also identified the importance of finding the right time and space to have these kinds of

conversations with their child, an insight of particular importance for potential intervention studies to increase elaboration.

The qualitative approach adopted by Newton-Jones et al. (under review) addressed key issues associated with the exclusive use of questionnaires to examine parent reminiscing goals. Their open-ended approach uncovered additional goals and motivations uncaptured in the existing literature. Moreover, the reminiscing goals and motivations generated by the participants, without suggestion from researchers or prompting through prescribed choices on a scale, are likely to be a more realistic representation of parents' actual beliefs about why they reminisce with their children. This study to use open-ended questions to ask parents about their goals for reminiscing conversations. We aim to explore this topic further using a similar approach but with parent-child dyads where the child has an autism diagnosis.

Given the associations between beliefs about reminiscing and more elaborative behaviour (i.e., open-ended questions, emotional content) (Kulkofsky et al., 2009; Pavlova et al., 2022), understanding parental reminiscing goals and beliefs may help to refine further and target reminiscing interventions. Considering the unique challenges and strengths children with autism may have when talking about the past, understanding parents' beliefs about the function of reminiscing is particularly important. This focus is an area of research that, thus far, has not been explored. Consequently, reminiscing interventions involving parents of children with autism have relied on data from studies with neurotypical children to inform their methods.

The Importance of a Qualitative Approach

Existing intervention studies have also often addressed whether reminiscing works on specific priori hypothesised outcomes, such as whether reminiscing interventions increase the elaboration of mothers reminiscing with their autistic child. However, aside from the qualitative data collected by Brien and Hutchins (2022) in their post-treatment parental interviews, we know little about parent-child experiences with these interventions. Excluding

qualitative data in intervention research results in a lack of documentation of participants' experiences. This information, including challenges and barriers encountered in implementation, is crucial when using an intervention not designed explicitly for the user, such as, using an existing reminiscing intervention with parents of autistic children. This approach also overlooks the specific change mechanisms involved in the desired outcomes, which may negatively impact the effectiveness and longevity of changes or improvements (Nastasi & Schensul, 2005).

Documenting participant perceptions and experiences of interventions alongside their quantifiable effectiveness is crucial in identifying key aspects associated with desired outcomes and understanding necessary adaptions (Nastasi & Schensul, 2005). The importance of this approach is highlighted in a qualitative study by Ridderinkhof et al. (2019) utilising post-intervention interviews to explore a mindfulness program with children with autism and their parents. Their analysis identified specific change processes within the program related to connecting with others and awareness. The qualitative analysis allowed them to deepen their understanding of how this behaviour specifically helped children with autism and their parents to manage difficulties related to autism and reduce comorbid mental health problems, which is crucial for the development of related programs.

Adopting qualitative methods in intervention research is also critical in understanding and describing any behaviour and relationship changes that may not be captured using quantitative measures and identifying unintended positive or negative outcomes. For instance, Brien and Hutchins (2022) found in their post-intervention interviews that the parents had observed communication changes in their autistic child outside of their relationship. They verbally expressed more and initiated more discussions with others. Moreover, some parents discussed how reminiscing had created a closer relationship between them and their autistic child. Consequently, qualitative approaches to intervention research

are invaluable as they allow us to explore perceived or experienced behaviour changes that may take much longer to be observable through quantitative data.

Current Project

Our research approach will provide a depth of information missing from the current literature, enabling parents to explain how they reminisce with their autistic and why specific reminiscing goals are important to them and their parent-child relationship. This level of information is a key addition to the current reminiscing and autism literature, providing valuable insight for future interventions involving parent-child conversations with neurotypical and autistic samples.

Focus and Project Aims

Our focus is on understanding parents' experiences of reminiscing with their autistic child and how the reminiscing intervention impacts this experience. We will take a qualitative approach using semi-structured pre- and post-intervention interviews to investigate parents' experiences of talking about past events with their 5-12-year-old child with autism and of the reminiscing intervention sessions. Furthermore, when viewing the maternal reminiscing literature as a whole, except for a few more recent studies (Bhana et al., 2023b; Brien & Hutchins, 2022; Newtown, 2025; Raman, 2022), most reminiscing research with both neurotypical and autistic focuses on preschool-aged children. Thus, we know less about maternal reminiscing with children during the extended developmental period of middle childhood (5-12 years). Our research aims to add to this gap in the autism and reminiscing literature.

Based on the success of other parent-child reminiscing interventions using 1-3 sessions (Corsano & Guidotti, 2019), the current study will pilot a three-session reminiscing intervention designed to increase parent and child elaboration (Corsano & Guidotti, 2019; Brien & Hutchins, 2022). Moreover, we will expand on the success of Bhana et al. (2023b) by incorporating photo prompts during the reminiscing activity. Furthermore, we will delve

into parents' experience of reminiscing with their autistic child pre- and post-intervention and, in line with Brien and Hutchins 2022, explore the perceived benefits and challenges of this specific approach to increasing elaborative reminiscing.

Given that qualitative research in this area is limited, our specific aims and hypotheses are preliminary.

We have two primary aims:

1) To understand how and why parents reminisce with their child with autism and how this differs from conversations with typically developing children. To understand the unique motivations, goals barriers or challenges during these conversations and what might make them more accessible.

2) To explore parents' experience of a three-session reminiscing intervention with photo prompts and real-time parent coaching by a trained therapist through an earpiece. We wish to understand the motivations, challenges, benefits and suggestions for future interventions.

A secondary aim is:

1) To explore why parents, talk about the future with their child with autism and how this differs from conversations with typically developing children.

Method

Participants

Participants were parents (four mothers, one father) of five children aged 5-12 years (M = 8) with an existing diagnosis of ASD. Inclusion criteria were related to the child's age and an existing ASD diagnosis (based on parent self-report). Initially, we recruited children with sufficient verbal communication or understanding to engage in a reminiscing interaction with their parent. Participants were recruited via social media (e.g., autism parenting-specific pages across New Zealand on Facebook), snowballing and from three special education schools within New Zealand.

Ethics and Design

The Human Research Ethics Committee of the University of Waikato provided ethical approval for this study (2024#32). Parents provided written informed consent (via the share mouse function on Zoom) for themselves and their child to participate, including recording of parent interviews and parent-child conversations. Children gave verbal assent at the start of the parent-child sessions. Interviews and intervention sessions were conducted over Zoom, with all parents opting to use their Zoom device from home. Interviews were conducted and recorded by either project lead Dr Amy Bird (a registered clinical psychologist) or Master's student Bryony Wilson. All interviews were transcribed verbatim by Bryony Wilson.

The study consisted of five sessions: a pre-intervention interview, a parent-only psychoeducation session, two parent-child reminiscing sessions and a post-intervention interview. If desired, participants were given the opportunity to view their transcript within two weeks of the interview's completion and make corrections; however, none of the participants opted to do so. We intended to include only participants in the final dataset who completed the pre-intervention interview, at least two intervention sessions, and the post-intervention interview. However, we included all participants who completed the pre-intervention interview, which still allowed us to explore our first primary aim. We did not provide incentives; instead, the intervention served as a form of reciprocity for whānau involvement.

Pre-Intervention Interview

The pre-intervention interview focused on parental experiences conversing about the past or the future with their autistic child. Pre-intervention interviews ranged from 32 to 72 minutes ($M = 47$). Because this was the first point of face-to-face contact between participants and research, this session began with consent and whanaungatanga. Parents were offered a karakia or whakatauki to begin and end the session, and they could also ask

questions at the end of this session to gain extra clarification about the upcoming intervention.

The interview included questions about their general communication with their child, when and how they would discuss past and future events and the aim of those conversations. The main questions were: (1) Describe your current verbal communication/conversation with your child. (2) In what situations would you tend to talk about past or future events with [child's name]? (3) What kinds of past or future events or situations would you discuss with [child's name]? (4) When you talk about the past with your child, what do you hope they will take from the conversation? (5) When you talk about the future with your child, what do you hope they will take from the conversation? (6) What do you find challenging about having these conversations with [child's name]? (7) What strategies do you currently use to overcome these challenges/barriers? The order and phrasing of these questions were adapted as appropriate during the interview, with various follow-up prompts and questions used as needed to help parents expand on these areas.

Intervention

The intervention involved three online sessions via Zoom. Dr Amy Bird, a registered clinical psychologist, facilitated all sessions. Based on existing research (Bird & Reese, 2006), including children with autism (McDonnell et al., 2021), each parent-child dyad was asked to discuss three recent past events that the child has experienced. Parents could also discuss future events if they and their child preferred. The content and structure of each intervention session are explained below.

Session One: The first session was parent-only with the objective of psychoeducation. Before the session, parent(s) were emailed materials to familiarise themselves with the content, which Dr Amy Bird referred to via share screen throughout the session. Parent(s) were also asked to start recording events in their autistic child's life by taking photos of daily activities.

Over approximately 50 minutes, parent(s) were educated about the specific reminiscing skills using the ONCE acronym (O = asking open-ended questions; N = providing novel or new information; C = confirming your child's response; E = describing emotional and internal states for you and your child during the event; Risi et al., 2024). Parents were encouraged to ask questions, troubleshoot, and role-play the ONCE skills to practice and become more familiar with the reminiscing process. Existing photos provided by parents were also reviewed to determine their appropriateness for upcoming intervention sessions. Photo prompts could include the child or be about activities or events that the child had participated in, for example, a picture of the beach. Parent(s) were asked to select three events from the last six months, including photo prompts to discuss in the upcoming session.

Session Two: The second session was one of two parent-child coaching sessions. Before the parent-child discussion began, the child was given a chance to verbally agree to their involvement in the intervention, to get to know Dr Amy Bird, and to start building whanaungatanga.

Each parent-child session lasted approximately 30 minutes and was set up as an opportunity for the parent and child to converse about the recent events the parent had selected in the first session. The parent and child were asked to discuss the three chosen events using photo prompts but were told that it was okay if they went off-topic, did not manage to address all three, or did not have a photo prompt available.

Parent(s) used headphones or a headset to connect to their device so that Amy could coach them through the conversations with their child. This coaching was informed by coaching in Parent-Child Interaction Therapy, an evidence-based parenting intervention (Woodfield & Cartwright, 2020). While this reminiscing intervention's focus is quite different from PCIT (increasing parent play skills and child compliance), the coaching in both emphasised reinforcing positive elements of parenting behaviour (Risi et al., 2024). For example, "*great open-ended question*", "*I love how you asked about [name's] feelings; that*

really lets him know you are interested." When the session ended, parents were asked to determine three more past events to discuss in the third session.

Session Three: The third session followed the same format as the parent-child discussion from the previous session, with a 10-minute window at the end for parents to ask questions. Again, parents were coached through their headpieces as they discussed the three newly chosen past events along with their photo prompts. At the end of this, the parent and child were thanked for their time and effort and reminded about the final session, where they would be asked about their involvement in the intervention.

Post – Intervention Interview

The post-intervention interview happened approximately a week after the last intervention session and took approximately 40 minutes. Interview questions focused on parents' experience of the intervention. Again, this semi-structured interview was conducted via Zoom. The main questions were: (1) How was your experience participating in this intervention? (2) How could your experience have been improved? (3) What would you change about this intervention? (4) What changes have you observed in how [child's name] reminisces/communicates with you? (5) What changes have you observed in how you reminisce/communicate with [child's name]? (6) How have these changes impacted your relationship with [child's name]? (7) How have the changes affected [child's name]? (8) How have they affected those around them? At the end of this session, parents were thanked for their involvement and reminded that they could contact the project lead with any questions.

Data Analysis

Approach

We used reflective thematic analysis (RTA) (Braun & Clarke, 2006, 2020) to explore and generate themes from pre-intervention interviews related to perceived challenges, opportunities, benefits, and enablers of reminiscing with a child on the autism spectrum. Analysis from the post-intervention interviews centred on the parent's experience of the

reminiscing intervention, including the perceived changes they have observed in their child's communication and the dynamic of their relationship. Similarly, we conducted reflective thematic analysis to delve into specific challenges, benefits, and enablers related to the reminiscing intervention for both the parent and child with autism.

RTA is a theoretically flexible method of data analysis used in qualitative research, particularly research with a social constructionist epistemology (Braun & Clarke, 2020). This analysis method endorses themes within research that emerge through the researcher's engagement with interview transcripts. The process of RTA presumes that rather than themes pre-existing within research transcripts, the researcher applies their own framework and theory of knowledge to generate codes and themes. Braun and Clarke (2006) describe six steps in the RTA methodology, which were followed in this study*:* (1) familiarising oneself with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) writing the report.

In the familiarisation phase, the primary author transcribed data from each interview. Each transcript was then read through multiple times. During this phase, we identified aspects of interest such as common motivations, beliefs and challenges among parents. Based on these factors, initial codes were developed and shared with the supervisor of this study. Consequently, these codes were reviewed, refined and grouped into overarching themes. These themes were further refined and organised in collaboration with Dr Amy Bird to identify the final key themes and subsequent codes. Themes consisted of both semantic and latent views; that is, some themes were specifically evident, while others reflected intrinsic motivations, goals and beliefs held by parents.

Positionality Statement

Before presenting the findings from this research, it is important to reiterate my standpoint as the author of this research. I am a white New Zealand (Pākehā) woman in her early 30s, training to be a clinical psychologist. Whilst I am neurodiverse with a diagnosis of

ADHD (attention-deficit hyperactivity disorder), I am not on the autism spectrum and, thus, do not have a first-hand understanding of the lived experience of autism. Furthermore, I am not a parent of a child with autism. I have worked with autistic children of the ages involved in our study (5-12) in both educational and carer roles. I, therefore, have some experience with the unique challenges and enablers involved in their communication, which has likely contributed to my understanding and interpretation of this research. Before participation in the interviews, parents were informed of my experience of autism in the context of work and study. However, the parents participating in the interviews had no previous experience working with me. To assist reflexivity, before beginning the interviews, Dr Amy Bird and I discussed personal knowledge and attitudes of autism and reminiscing interventions. Moreover, Dr Amy Bird oversaw and contributed to the thematic analysis.

Results

Eight primary themes were identified and are shown (along with related codes) in Figure 1. Each theme is explained in this section, supported by relevant examples from the interviews. The names of people or any other identifying information have been replaced with generic descriptions, for example “parent” or “teacher”.

Theme 1: My Emotions Have a big Impact on our Conversations

This theme was reflected across all the parent interviews. Parents consistently reflected that to have a constructive conversation, their child must be in the ‘right headspace.’ What defined the ‘right headspace’ was slightly differently for each parent, but most described how conversations are reliant on their child’s willingness in the moment to engage. One parent mentioned the importance of their child being in a neutral emotional state in order to communicate effectively:

> It doesn't need to be necessarily an extraordinarily good day, it just needs to be normal day that you can have a, you know, ‘How was your day? What did you do in school?

> …Did you meet someone? Did you play with someone? Did you build something?' So, it just needs to be a normal day to have the conversation.

Many of the parents explained that if their child is not in the right frame of mind they will often just refuse to engage in conversation. Sometimes this may be because they are not interested in conversing, for example: "Sometimes he doesn't want to have conversations about things. Like you want to have a conversation about something, and he just will refuse to answer, or you just really can't crack the nut and kind of get in there."

Some parents mentioned that their child's emotional state can be a barrier to communication. The majority of parents said that their autistic child's emotions were triggered easily, and it could be difficult to predict whether they would be in the right frame of mind at any given time. When they were emotionally triggered many parents described their child shutting down or entering a state of overwhelm that would make conversation pointless: "If she's feeling emotionally overwrought, she shuts down everything and just, just really wants to go on her own.... if you speak to her, she just gets more and more and more upset." Another parent described how when their child is upset, they get stuck in their negative feelings and that if they try to ask them questions or have a conversation with them when they are feeling like this, their negative feelings will become the focus of the conversation:

> When he's upset, he's not going to help with anything, you know…So I wouldn't be able to, you know, ask him questions, being like, 'So what did you do at the barn? What was going on there with the bridge?' He'd be like, 'I'm so upset because you didn't give me that.' So, we would just keep looping back to being upset rather than actually progressing.

They explained that when this happens there is no emotional space to have a conversation:

> It's like a chain of things. Oh, 'I don't like pants, I don't like banana, I don't want blue pajama,' and then you do not know, you get lost in it, which one was wrong! It was the playground or the pajama or the banana, you know. So, you get lost. So, in that situation, you cannot really have a conversation.

One parent mentioned that this was one of the biggest struggles for them when trying to talk about the past with their child and that they would love to have strategies to be able to break them out of this cycle:

> So, not wanting to let him just spiral into this unhealthy dialogue he is having with himself… I struggle with that, how to break him out of a, sort of, circular patterned conversation…the intervention maybe could be tailored around, well these are some strategies that might help you with that issue.

Some parents reported that their autistic child experienced social anxiety or pressure related to interacting with others and that engaging in conversation is easier when they feel less obligated to perform in a specific way: "Since, he was little, he was better at talking to cats and dogs and the robots and Siri and everyone that there is no social pressure to speak correctly or speak certain way or not to do mistakes." They mentioned that they think their child feels more comfortable talking to adults because they will take the lead in conversation, which alleviates some of their anxiety about how to have a conversation.

> He is more comfortable talking to adults because he was not scared to do conversation outside with guys that were digging the holes here. But was it… because he's interested in construction, or was it the social pressure that he didn't have from adults because they were like, okay, okay…this is what you want to do.

Figure 1

Thematic map of themes and codes related to parents reminiscing experiences

Theme 2: Finding and Making the Most of the 'Window of Opporuntity'

Leading on from the first theme, many parents conveyed how they felt that there was a lot of weight on their shoulders within the relationship to facilitate effective and meaningful conversations. As previously mentioned, they explained how there were frequently times when their autistic child was not in the right headspace or was not open to conversing. On the other hand, many of the parents we spoke to explained how their child displayed certain behavioural cues that indicated when they were in a frame of mind to engage in potentially effective conversation. They explained how they felt it was their responsibility to notice their autistic child's cues for readiness to converse and take the opportunity when it arose.

> I can hold my hand up to her, and she'll either just ignore it or she'll give me out a finger touch, which is like, 'okay, nice hand. Nice hand, good hand, good on you dad. Yeah, what are you doing dad. I'm not telling you what to do dad.' Sorry, like, sort of a 'bing'… I think it's like… it's a cue that there's a space of opportunity there.

Parents talked about the importance of making the most of these moments to try and converse with their child: "So you have that window, if you're going to miss the window, or if you're going to miss his willingness of conversation, you're going to lose it."

Interestingly, one parent discussed that through practicing reminiscing as part of the intervention they discovered that they had been misreading their child's 'readiness' cues or interpreting them through their neurotypical lens and in fact their child didn't need to sit down or be still to engage in purposeful conversation.

> I always thought when we were having a conversation with him, I need to have him still, because I thought he's not going to listen when he is turned back to me or doing something else. But it turned out that's not right. Okay, so that was good, because he was just running around the room. But as I kept asking questions, and I still do it, I found that actually it works. It's more I think it's disturbing for me, because that's not

> a conversation that we are used to...Like you expect people to sit and listen, or at least be kind of present, where he is present, but he is not, because he keeps running around the room or doing something else, but he still keeps replying to the questions, even if sometimes you need to ask twice.

Related to this, parents consistently mentioned that they must adjust their conversation style to meet their autistic child's communication needs. This looked different for each parent, but most discussed how they often had to redirect conversations. For example: "You know that they get caught on something else, and then you just need to return them to the topic, because that happens to us 500 times a day." Adjusting their conversation style also took the form of parents having to repeat themselves or try multiple approaches to asking questions to get answers back from their children or keep the conversation progressing.

> He still finds that, like, it's only been a relatively new thing in the last couple of years, answering questions. So, that's quite hard if your conversation starts with a question, you often have to ask it several times or rephrase it, or insist that you know I'm asking you something, you need to answer me because he just won't or can't kind of answer.

One parent discussed how through the intervention they learned the importance of using follow-up questions or asking questions in different ways if their first approach to conversations was unsuccessful:

> Previously I was, I asked, and if I didn't get the response, I just it's like, "oh, well, you know?" But now I try harder, because the first question doesn't pick up, the second question doesn't pick up, and then the third does. Um, because it's possibly just the way that the question is put out there.

Related to this, some parents mentioned the importance of asking the 'right' questions to get the information they were seeking: "You need to really know the question you're going to ask him to understand what actually happened."

Finally, one parent discussed the importance of the adult's role in remaining patient and objective when conversing with their child with autism, particularly when their child is not in an appropriate emotional state to talk.

> We, you know, she, she has a meltdown, you know, she believes her boundaries have been violated, she blows off steam, then she storms off and she comes back. But it means that the adults around her have to not have their egos in the game.

Theme 3: We Have Different Understandings of the Purpose of Conversation

Parents described being challenged by different goals or understandings of conversation with their autistic child. This was related to what their child wanted to talk about, how they engaged in conversation and their percieved motivations to those conversations. They discussed the sometimes one-sided nature of engagement.

> She will be talking ahead of you before you answer the question. So, she'll ask a question, and then just kind of keep talking, semi-answer it herself, and then carry on to the next thing, and you're like, okay, hold the phone on, that's not actually, where we're going.

Another key aspect of this less reciprocal pattern of conversations was their child getting stuck in a repetitive pattern. The repetitive and cyclical nature of their child's conversation style was mentioned in most of the interviews and was described as a challenge for parents. "I would say the majority of his conversations are that kind of cyclical, obsessive conversation. So, from my end, it's often frustrating, and I wish that I could have more natural conversations with him." Although we did not ask children why they did this, parents

believed that repetitive conversations or conversations that followed familar patterns might be enagaged in by their child as a form of comfort or a way to alleviate anxiety.

> There is kind of a fine line between reminiscing and ruminating and I find a lot of his reminiscing conversations he has with me are kind of based off or come out of his anxieties and he just has these circular-like ruminating conversations that I am trying to shut down because he just wants to talk about something again, and again and again and again. And I struggle sometimes with like wanting to be supportive and validate his feelings.

This also related to what children wanted to talk about. Most of the parents we spoke to mentioned that their child had special interests or topics that they would talk about consistently. “So, if we were to talk about a [special interest example], she would talk about that all day, and she'd be delighted about that. Um, talking about real life situations seem to not come so naturally to her.” However, if the topic of conversation was of less interest to the child, they would find it harder to engage in conversation or would out right refuse. Some parents mentioned that this had an impact on the information or detail they could get from their child about past events they were not interested in.

> Um, I'm very keen to learn about her day and what she's doing and how she's feeling and what she's up to, and I feel like, um that's not really of interest for her to communicate back to me. Um, she usually gives me very short answers, very closed um answers, unless very occasionally it will something that's very interesting to her, in which case, then she might elaborate. But that's the exception, rather than the norm.

Some parents also mentioned that their child struggled with the concept of 'why,' or if they were not interested in the topic of conversation, with answering questions, which made it difficult to have conversations beyond a certain level of depth.

> He really struggles with why… Like, you know, why do you think the boy did that in the story and that sort of stuff? Yeah, so struggles with that concept, or I don't know if he, well, who knows what goes on his head, but he certainly doesn't come out with answers for that easily.

Notably, one parent mentioned that they had noticed positive changes to their child's conversation after the intervention. Specifically, she noted hearing him have more back and forth conversations with other children across different contexts.

> I guess I hear him having more back and forth. It's not necessary always to the point, but I actually do not know how much should the point of conversation seven years old kids should have…I was like, oh, my child is broke, but maybe actually, there is no to the point of conversation, you know? But you hear that back and forward, so he kind of got used to it's a question, answer, and if you ask, if someone asks you something, they expect you to actually say something back.

Theme 4: Telling a Story is Hard for me

Another key theme that came from our conversations with parents was the idea that engaging in conversations about their past experiences or telling a clear and coherent story about something that had happened to them was challenging for autistic children. There were several different factors related to this theme. One key factor was that often their child's versions of past events lack context and so it is difficult to comprehend what happened from their stories or account of events.

> The part that we struggle with is if people talk to him and they have no idea what is going on in his life. So, if there is, I don't know his teacher, he comes and he starts to talk about [specific example], but they have no idea…. So, it's hard for them to pick up what he's actually talking about. Like, what is this [specific example]? Okay, what is it doing there? And it's hard to connect the story.

Following the intervention, one parent mentioned that because of this it was more difficult to have a conversation about past events that they were not involved in:

> It's easy to ask questions when you know part of the story, and you can lead into to tell you something, because you know part of the story, so you know where this is going. The challenge where I struggled, was about the story that I know nothing.

Another common factor that was mentioned by parents was that often their child's stories or account of the past were incoherent and difficult to follow: "It just traces into pieces, and you don't get anything out of them. Yeah, so the stories and the paths and what happened and what happened at school is kind of always the challenge." Parents also mentioned how their child's versions of the past could be inaccurate: "It's pretty spotty. There'll be like little bits of, like, hard truths. Not like in a negative way, but in like, that's definitely totally what happened, but then the context will be messed up, or the details, or the placement." One parent explained that this means they must rely on information from other people to find out about the details or context of past events.

> There was some incident, and they bumped into each other or something, and his head got hurt, and he cannot say, so they usually go after other kids to hear the story of what actually happened. So, he just says his head hurts, or his tummy hurts, or [name] hit my tummy. But no one knows that this was an accident that they just bumped into

> each other, you know? So, they usually go after other kids, to find out the rest of the story, and then it's just glued together.

Interestingly, they also explained how their child will direct them to ask other people when they are unable to explain a past situation themselves:

> He also can say that he got into trouble, that something happened, but then it's like, Mum, go and talk to [teacher] So, she tells me more. She's like, yes, and this is the reason, but he did apologise… but he does say, but go talk to [teacher], because maybe he knows that he cannot just explain the whole thing.

Another parent explained how it was difficult to point out to their child that their version of events was different or to discuss what actually happened.

> She'll be adamant about it, to the point that there's no, no reason, like, unless it's a major reason, do you need to clarify it? She'll just get upset if you try to clarify it… It's almost like you're violating her sense of herself.

Notably one parent said their child's teacher had noticed improvements in how their child tells a story and converses since partaking in the intervention. They explained how their child seems more confident, and that helping them to construct their memory through reminiscing has helped them to share more contextual and detailed stories with others.

> She likes how he is being more social and goes and interacts with kids and initiates the conversation…Because the more you make him confident to speak, the more he knows what to say. Was it matter of, I don't really know what else to say, except I got trampoline, or once you keep digging about what else he wants to say about the trampoline, then he has the full story that he can say all of sudden say. So, there's more that he can say, rather than I just got the trampoline.

Related to the challenges of talking about the past, some parents also talked about how their child had differences in what they remembered or what their memory focus was for certain situations.

> It can be, it can be good, but it does seem to be spotty, especially around people. Like she can tell you about a doll or something that she had a couple years back but try to get her to remember a teacher at her kindy or something and gone.

Or they struggled with recalling specifics from their past experiences:

> I feel like I rarely ever get an answer of an example of something fun or happy or silly or funny that happened in her day. It just, she just can't seem to draw that up, I guess, yeah, or come up with it.

One parent also described that trying to talk about what happened in their child's day, or help if their memories are mixed up, can be disheartening or counterproductive.

> I almost feel like she feels like she's failing at it because she's not able to come up with the information that I'm seeking…So…it's not the interaction that I intend to happen. You know, I ask with good intentions, but it doesn't seem to be a positive interaction, if that makes sense.

For this reason, some parents explained that future conversations were often easier to have with their child because they did not rely on organising or recalling their memories

> I mean the future, I think that's probably easier because there is something we can look forward to, and it's something it's almost like that's more of an imaginative because it hasn't happened, I suppose. The future, she can imagine it like a story, whereas the past, she's having to use her brain to think of what actually happened.

Another factor that related to constructing a coherent narrative, was that these children may have different conceptualisations of time or understand the passing of time in unique ways.

> She actually really likes to be nostalgic about things, and we'll, we'll frequently bring up things that happened. She often gets the timing of them really messed up. She'll be like, oh, you know, that was back before I started school, and I was like, no, [name], that was a month ago.

Many parents discussed how their children seem to understand time as a numerical value.

> She also is obsessed with math. So… I'll be trying to park the car, and she'll be wanting me to work out some sort of math thing. You know, exactly how many weeks ago was it that we went to [place.]

One parent discussed how talking about past and future events seemed like a way for their child to grasp the concept of time passing more easily:

> Sometimes I think it's almost like she's trying to orient herself in time and space, if that makes any sense. Like she's trying to figure it out…It's almost like sticking a pin in the map in her head, is my read of it. You know, this is where we're at. This is where we've been. This is where we're going.

Theme 5: Talking Helps me to Know you Better

We also asked parents when and why they talk about the past and the future with their children. One of the key motivations discussed by parents was that they want to connect with and understand more about their child's experiences and perspective.

> I actually find parenting really interesting, that you have this baby that you know everything about their day and everything, and then they grow up and you learn you

> know less and less and less and so, for me, I like talking so that I still have that connection, I suppose. Connection of what, what this little human I created is up to.

Another discussed using these types of conversations to understand who they are as a person:

> Oh, it's his point of view. I guess… I mean, in general, kids have generally a different point of view…You know, we quite enjoy, you know, and we are happy when he keeps talking and tells us stories. Because, you know, now he's starting to be really funny, actually, and he does funny stories and funny comments, so the more he is talking, and the more he's getting verbal… It's just more fun.. and you see also part of their personality.

For their child they wanted to talk about the past and future to build and maintain a safe, open relationship.

> I hope or I want for her to get out of it is just that relationship, I suppose. That, you know, I'm a person she trusts. I'm a person she can talk to she feels safe. Um, yeah, that's what I'm hoping she gets out of it, um yeah, a safe person to talk to.

Parents also talked about reminiscing as a way for their child to share their difficult experiences, although this was a challenge.

> You know, because that's where the advice becomes very helpful. You know, because it can be…okay, I don't want to talk about the shoes, it's fine, but you really want to know if something happens, you know, if something bad happens. So, you really want to know, but their brain isn't necessary like that. It's, I was hurt. I don't want to talk about it.

This was considered particularly important for these parents as their children ventured closer to adolescence.

> Well, I mean, the reason I'm doing it, well, I just, you know, people say that as your children get older, particularly when they become teenagers, they're less inclined to engage with you, and it occurred to me that actually [child's name] is already less inclined to engage with me, and I'd hate to think what that looks like as a teenager. So, I really, it really is important to me to have conversations with her and make it a normal thing for her to want to talk to me.

Notably, one parent talked about how they felt that their relationship was better with their child since the intervention because their child was sharing more and so, they were understanding more about them.

> So, I guess he, it helped my relationship to him, being more, expressing, and being forward, like… why he is excited, right? Because that's another part, you're excited, but why you are excited, you are sad, but why you are sad.

Theme 6: Talking to Help you to Learn

Another key motivation or goal for past and future conversations for parents was to help their child learn and grow. This theme was present in all the conversations we had with parents, however the specific learnings looked different. One of the key things we heard was that talking about past situations was crucial for children to be able to better handle similar future events. This was mentioned as being particularly beneficial for understanding social interactions.

> He comes, like, oh, she tricked me… But because he doesn't really understand the tricking bit… he was unhappy about that. So, the more he tells me, the more I can give him the context around when [child's name] wanted to play with you. I think she just wanted to be funny, and I don't think she actually wanted anything bad to happen to you, and I don't think she was being mean…So, if you didn't like it, you could say

> [child's name] I don't like this. Please don't do this, you know? So just give him the, I guess, the context around so he understands again next time, when it happens, she's not being mean. She doesn't want to trick him. She just wants to interact with him…So kind of helping him to understand what perspectives and what happened, and then that helps prepare him for any sort of future situations like that.

Reminiscing and discussing the future were also talked about as a tool to teach their child how to cope with emotions and to help them better understand their emotions.

> He had this meltdown, and we might talk about, oh, that's okay, you know, we have meltdowns, and that happens. You know, and he might talk about a friend who had one or something and I would be hoping that he would feel better. That he's learnt something from the conversation to, you know, that he'd come away going, oh, that's okay, or it's okay to feel that way, or whatever it happens to be, or that next time you could try this.

Related to this, parents explained that they talk about the future with their child to set expectations or ease anticipatory anxiety about certain situations, particularly when the situation is new, different or when something changes unexpectedly.

> Um, he talks about all his worries a lot. He talks about school, um more in a sort of anxious way than anything, like he'll want to know what's happening at school, etc, so…it's kind of a calming thing for him to have a conversation where he might ask about that, and then we go systematically through all the things that will happen in the day… and then he feels a lot calmer.

One parent described an example of this kind of future conversation related to an upcoming birthday party that their child had been invited to:

> And then he says, well, okay, but can you train me? So, what he means by train? It's like, because he doesn't know what's going to happen… and the plan is not under control. So…we were showing him. So, you're going to come, you're going to have a gift for [friend], and you're going to come to him, you're going to give him a hug, and you're going to be like, happy birthday, and you're going to give him the gift, and then we're going to play with other kids, and you can stay as long as you want, and… we can go home when you do not like it…I don't know how much of that it's going to help him, but if it's going to make him comfortable going there and opening the door.

Past and future conversations were also discussed to set expectations or boundaries and to minimise emotional outbursts related to overwhelm or frustration from unexpected changes to plans:

> Yeah, if I don't, kind of inform her, then she kind of makes her own plans and her own expectations, and I wind up violating them every time…Knowing there's a question mark over the day makes her not feel like it's as concrete, and she doesn't feel as violated by change, I guess.

Parents also mentioned using reminiscing and future conversations to help their child to reflect on actions or behaviour and to discuss what appropriate behaviour looks like:

> We rather go, well, this is not right. what you have done, it’s like explaining [a] concept…If you do this, it means you are a bad boy, because bad boys do this, this is the good boy, what would a good boy do? I guess, with this concept, we are forced to go black and white, where there is so many exceptions, but something sinks in, because then when we ask him the next day, okay, so in school, what do you need to do? And then he's like, oh, yeah, no, doing this.

Similarly, parents discussed that they would engage in conversations with their child to help them learn things they may need to know in the future.

> Sometimes our conversations about the future would be because I'm wanting him to learn something. So, it's sort of preparing him for his future, like you might be saying, oh, you know when you're a teenager, like you'll need to know this, that or the other. So, it's kind of wanting him to learn something and understand something so that he can grow and improve.

Some parents also discussed how they would like to use conversations about the past or future to help their child to understand more complex or abstract ideas, but that this was difficult.

> It's too long as soon as you start to unpack more complicated, more complex topic… You know, so it's like a whole another concept. I think that's something we need to work on more to make the complex, I don't want to say problems, but like complex topics that actually involve more understanding and how the world works, into the short explanations, because it's too long for him when you explain stuff.

Theme 7: Focus on the Positives

A theme related to motivations for reminiscing, but also to general parenting was the idea of focusing on the positive. This attitude was related to the kinds of things they might talk about with their children, but also to their overall approach to parenting.

> [Child's name] has had a difficult childhood… and I really, I really hope that when she looks back or thinks about her childhood, that that's not all she remembers. So, I'm really hoping that, you know, if we can have conversations and talk about the good things as well that she can, I hope, that she can look fondly back on her

> childhood, really is my takeaway of what I would hope from those types of conversations.

This was also related to conversations about the future:

> I hope that she can be optimistic about her future and think, have things to look forward to and things to be excited about. Um, yeah, that's what I hope for her to carry that optimism into her future thoughts as well as the present.

There was also an underlying notion that, despite conversations sometimes being difficult between them and their child, parents were grateful that they were able to communicate at all. “Well, the fact that I can have them [conversations]. Because I'm mindful that a lot of people with autistic kids don't, or can't. So, that's really lovely.”

Connected to the concept of remaining positive, many parents discussed the importance of having compassion for their child and their experiences.

> I try really hard to keep that lens of I am dealing with a good person who is stressed out and overwhelmed on. I think that's really the main strategy, is looking at blow ups, not as her being [difficult], but as an overwhelm.

The importance of having compassion for themselves was also mentioned:

> If I've had a bad day, you know, a frustrating day, I'll be like, hey, I love you. I need some time, and you know, if something happens, come get me, but if you don't absolutely need me. You know, and that way I'm not just in this state of constant exhaustion.

Theme 8: What Works and What Would Make it Better

The final theme from our conversations with parents is about what makes these conversations easier or more enjoyable. This theme encompasses existing strategies that parents were using and those that parents learned from the intervention. One that was

mentioned by most parents was the effectiveness of using visual aids, things like photographs, to prompt their child's memory to talk about the past:

> So, he just looked at the picture, and he was like, oh, that's when [specific example] But it was the picture of the prompt that he just remembered. So, it's more like… a prompt. That he brings up something from past and you know what is going on, or you do not know what is going on, but it's a picture. It's a thing. It's something he sees.

This was also mentioned as a way to talk about what is happening the future with their child to help them understand the passing of time:

> For example, one of us goes away for work. We draw a picture when mum is leaving and mum is coming, right? So, we are like, okay, Mum is leaving, here you're going to be with dad only, and here is when mummy comes back, and then he calls us, and then he's like, oh, two more nights, and you're going to come back. So, he can now figure out the future, what is going to happen.

Notably one parent mentioned that visual aids, such as print outs or videos modelling effective reminiscing behaviour would be helpful for them to refer to as a reminder of how to engage in these conversations with their child: "Maybe having all the actual strategies written down, um little acronyms. Just a reminder of what the, because I can't even remember now." Another parent mentioned that the in-vivo coaching we used in the intervention was helpful because it meant they could adjust their reminiscing behaviour in the moment:

> But this was good, because she was there so she could tell you right away that, you know, something can be adjusted, or something can be different, or, yeah, so from that point… I think the biggest difference that she was there so she could give you the real time feedback.

One parent also talked about the intervention being more spaced out so that they had more time to practice what they learned and consolidate the learnings before moving on to the next session.

> Stepping it out a bit more rather than it all being kind of one and done, in one session. Maybe having, kind of, like have one conversation get some feedback on it, like go away and practice at home for a week or something, come back and do another one and then get some feedback and then go away and implement that feedback. So, it's more of a, you have time to process the advice and feedback you'd be getting.

The intervention also highlighted to another parent that her child was more capable of having conversations then she initially thought and that this experienced had helped her to challenge him more.

> I guess this just kind of showed me that he can do more, so it was kind of also me pushing. It wasn't just him, but also me. Seeing like, oh my god, he actually did answer. That was quite nice.

Related to this, parents mentioned that they would like to take part in a reminiscing intervention that was more tailored to their individual child's needs and thus, challenged them more.

> It would be actually nice to have it leveled…because…it can go from nothing to everything, you know? So, it's a huge space and range that's tried to be covered. So, I guess after the initial interview, maybe, you know, when you see that, okay, well, the child has the ability, then level it up. And it doesn't mean necessarily, level it up for the child, but level it up for maybe the parents…So, oh, well, okay, obviously the topics he likes are going to be easy, the topic he doesn't like, or, you know, like, as I said, like, choose one popular and one unpopular and see how it goes.

Or that focused on an area of conversation that was particularly challenging for them and their child:

> But I don't know like is the intervention just kind of a one-sized fits all. Like all the families did it the same, or whether there is an opportunity to say, this is what I enjoy about conversations with my child or find positive and these are the things I'm struggling with. Like, I would have said I struggle with that, how to break him out of a sort of, circular patterned conversation and then the intervention maybe could be tailored around, well these are some strategies that might help you with that issue you are having.

Discussion

Ours is the first study to qualitatively examine how and why parents talk about the past and future with their child with autism. Through interviews with parents before and after a reminiscing intervention, we explored their motivations, intentions, barriers and enablers related to conversations about the past and the future. Using reflexive thematic analysis, we identified key themes related to these factors. These themes include the significant impact of emotion on conversation for autistic children and, as such, the impetus on parents to notice and utilise moments where their child is in the right 'head space' to converse; challenges related to their child's understanding of the structure of conversation and the narrative retelling of past events; and motivations related to managing emotions, preparing for and learning about past and future situations, and building and maintaining a positive relationship.

Primary Aim One

Parents reported that their child's emotional state and regulation were key drivers in parent-child conversations. This finding is not surprising, given that children with autism are shown to display more internalising and externalising problems than typically developing children (Salayev et al., 2017). Specifically, parents of autistic children who displayed

anxiety tended to use reminiscing or future-focused conversations to try to alleviate or minimise uncertainty related to stressful or new situations. These findings align with Kulkofsky (2010), who found paternal reminiscing goals related to typically developing children's individual emotional needs. This finding also aligns with literature suggesting that children of parents who engage in conversations about the past focused on emotions and emotional resolution develop more advanced emotional regulation skills and overall socioemotional understanding (Laible & Song, 2006; Sales & Fivush, 2005; Van Bergen et al., 2009).

Autistic children's anxiety and emotional dysregulation also played a significant role in their participation in these conversations, often making it challenging for parents to engage. Consequently, even if parents recognised the benefits of reminiscing for emotional regulation, the intensity and unpredictability of their child's emotions could sometimes be a barrier to effective engagement, impacting the outcome of conversations. This finding relates to Raman (2022), who found that the emotional resolution of reminiscing conversations was of a higher quality for typically developing children than for children with autism. These findings highlight the challenges for autistic children in using conversation to regulate or resolve emotional distress. If emotions are a barrier in these types of conversations, then it may be harder for parents of autistic children to utilise reminiscing skills. Moreover, even if skills are gained through reminiscing interventions, children's emotional dysregulation may make it difficult to purposefully apply them, likely impacting the interventions' effectiveness. It may be helpful for future reminiscing interventions to include additional skills to help parents explicitly monitor and regulate their child's emotional state before reminiscing. Existing emotional socialisation parenting interventions such as Tuning in to Kids (Havighurst et al., 2013) may have helpful insights into how to support parents in this way (England-Mason & Gonzalez, 2020).

Similarly, parental behaviour and emotion can influence the effectiveness of parenting interventions (Maliken & Katz, 2013). Much of this evidence comes from studies exploring how parental psychopathology, such as depression, impacts parent management training. However, some studies have found that parenting interventions are also less effective when parents report high feelings of parenting stress (see Bonis, 2016 for review). Moreover, symptoms such as increased negative affect or more rapid or intense adverse emotional reactions may be present in subclinical populations, particularly during the intense period of their child's adolescence (Steinberg, 2005). Parents of adolescents with autism may be more susceptible to these reactions as the unique challenges their children face because of the combined effects of adolescent development and autism features, add increased stress on parental relationships (Shattuck et al., 2007). The culmination of these factors may make it particularly difficult for emotionally strained parents to learn and consolidate new skills from interventions, particularly those related to managing their child's emotions and reinforcing appropriate behaviour. In these highly emotional situations, parents experiencing high levels of stress may forgo learned skills and instead revert to pre-existing, potentially ineffective parenting strategies (Bonis, 2016).

Some parent management training programs have begun to include parenting strategies to address parental self-management before applying new parenting strategies, working on the idea that parents must be able to regulate their distress before addressing their children's behaviour (Risi et al., 2024). Programs that include aspects of parenting cognitive self-regulation skills alongside parenting management training have been shown to have significantly greater improvements in parenting practices than standard parenting management training alone (Gavita & Joyce, 2008). Furthermore, stress management for parents is critically important for successfully managing children with challenging behaviours (Karst & Van Hecke, 2012; Ribas et al., 2024). Given the unique challenges of parenting a

child with autism, future reminiscing interventions, which help parents to recognise and manage their emotional reactions first, particularly during highly arousing conversations, may facilitate their learning and ability to apply new skills effectively with their children. Furthermore, because parenting stress has an impact on child outcomes and behaviour (Ribas et al., 2024), it may be beneficial to include a measure of parenting stress levels before enacting reminiscing interventions to determine whether the approach is appropriate or whether parental stress management is needed before commencing the intervention.

Effective parent-child communication hinges on engagement from both parties. As discussed earlier, 'caregiving is a two-way street.' Thus, we cannot just teach these parents communication skills based on what works with typically developing children and assume it will be effective because, as our research suggests, autistic children are likely to respond in different ways. That is why utilising these findings is so important for future autism-specific reminiscing interventions. Related to this, in the parent-child relationship, we found that it was often a parent's responsibility to notice and utilise moments where their child was in the right' head space' to engage in conversation. Children being in the right headspace was crucial when engaging in more complex conversations, such as those about the past. This finding reiterates the importance of autistic children being emotionally regulated before taking part in any intervention. More specifically, understanding that children with autism may require preparation to engage in these types of conversations is an important factor to consider when designing reminiscing interventions. Similarly, for parents to effectively recognise their child's readiness to converse, they must be emotionally regulated themselves.

Similar ideas were presented by Newton-Jones (under review), where parents also reported needing to find the right time and place to have important conversations about the past or the future with their child. However, these were parents of typically developing children, and the challenges they described were related to identifying a conducive

environment (e.g., driving in the car before bed). Our conversations with parents of autistic children highlighted that creating a calm and neutral psychological and emotional state for both child and parent is the first step to effective conversation. The reminiscing interventions mentioned thus far (Bhana et al., 2023b; Brien & Hutchins, 2022) were developed for neurotypical populations and applied to parent-child dyads where the child has autism, as such, none have addressed the idea of emotional preparation or readiness to converse. This step, which is currently missing from reminiscing interventions, is likely a key factor in determining the effectiveness of any subsequent strategies taught in interventions involving children with autism.

Alongside creating or identifying a conversation-ready headspace, parents highlighted other skills they were already applying or that would be beneficial to make reminiscing easier. These skills were related to how their autistic child approached and structured conversation and included redirecting or refocusing when their child got distracted or began ruminating and knowing what questions to ask to get the necessary information to continue the conversation. These findings align with existing research showing that repetition and rumination are common behaviour patterns displayed by autistic children (American Psychiatric Association, 2013). More specifically, children with autism are more inclined to discuss off-topic content for extended periods, especially when they are less interested in the given conversation task, which often leads to less elaboration and fewer open-ended questions from parents (Raman, 2022). This pattern was identified as a frequent occurrence for the children in our study, especially when discussing emotional events. Future reminiscing interventions designed for this population should contain elements aimed at decreasing repetition and rumination while teaching parents how to remain elaborative and open when their child is off-topic or distracted.

Repetition was also related to children's special interests or topics. In line with a neurodiversity approach where this knowledge is viewed as a strength and potentially a 'way in' (Koegel et al., 2013; Sivaraman & Fahmie, 2018), it may be beneficial for parents to begin with topics that are related to special interests to practice elaboration and redirection before moving on to topics that may be less engaging for children but are more related to parents needs. There may also be opportunities to link special interests to other event discussions. While this type of linking language in reminiscing has not been associated with any developmental benefits for typically developing children (Bird & Reese, 2006), there is evidence that linking or decontextualised talk during book reading is beneficial (Duursma, 2016).

We also heard from parents how difficult it was to know the right questions to ask when they wanted or needed to hear their child's account of a past event. Parents mentioned that if they did not approach the question in the 'right' way, their child would lose interest or become frustrated. This notion was primarily related to events where the parent was not present, and so was trying to understand what had occurred, whether to help resolve their child's emotion or understand their perspective of an experience. Children with autism show differences in recalling personal experiences, including retrieving specific subjective experiences (Boucher & Bowler, 2008; McDonnell et al., 2017; Millward et al., 2000), which likely makes it more difficult for parents to gather details from past events that they were not a part of, such as their child's school day. This difficulty was an increasing concern as their child got older and had more experiences without them. As with Newton-Jones (2025, under review), our parents wanted to use reminiscing to connect and understand their child's perspective and emotions. However, it was often difficult as their autistic child was not forthcoming or had difficulty retelling their experience of past events.

For reminiscing interventions to be valuable and worthwhile for parents of children with autism, they need to be more motivation-driven and help parents hear more of their child's perspective. Thus, interventions should help parents to ask the right questions in the right way to increase their chance of engagement. This may mean structuring conversations so that general reminiscing skills are built first during the discussion of shared events and topics that the child is motivated to discuss before moving on to unshared events and topics that the parent may specifically want to know about, such as their child's day at school or what has upset them. Being more thoughtful and deliberate about the order of reminiscing events may lead to better engagement and buy-in from children and help parents to hear more of their child's experiences.

One of the overarching challenges for parents was their autistic child's difficulties in the 'telling' of past events. This theme was associated with difficulties remembering and recalling relevant details. This finding is not novel and reiterates the substantial evidence regarding autobiographical memory differences in children with autism that include less memory specificity (Goddard et al., 2013), and a focus on external or objective details rather than personally experienced or subject detail (McDonnell et al., 2021). Moreover, recent research has shown that when reminiscing, mothers of children with autism are also shown to use more off-topic comments, perhaps in response to their child's distractibility, and closed-ended questions, which negatively corresponds to autobiographical memory specificity for the child (McDonnell et al., 2021). When viewed alongside our research, these findings highlight the impact of these autobiographical memory differences on parents and the challenge they pose to successful reminiscing within these dyads.

Successful reminiscing relies on one's ability to structure one's experience clearly. Parents reported that their autistic children struggled with this process, which meant they often confused elements of the past or relied on others to interpret and provide context to

their storytelling. Theoretical literature suggests that as children's language develops through conversations about the past, they also learn to organise their personal memories and narrative skills to share their experiences (Nelson & Fivush, 2004). Therefore, language differences may affect autistic children's ability to verbalise their past. However, even parents of children with well-developed language abilities mentioned their difficulties with recalling and retelling their personal experiences of past events. Whether the people, place or timing were confused, or the context was missing, most children struggled with this storytelling process.

This finding aligns with previous research demonstrating that individuals with autism show similar narrative abilities with control groups on measures such as story length and variety of words (Diehl et al., 2006; Sah & Torng, 2015). However, there are qualitative differences related to narrative structure. Namely, individuals with autism show difficulty arranging narrative information (Jolliffe & Baron-Cohen, 2000), and their stories consistently lack a narrative climax (Goldman, 2008; Sah & Torng, 2015). This theme is important as it points to clear differences in narrative skills experienced by children with autism that maternal reminiscing with neurotypical children has been shown to improve (Reese et al., 2010). More specifically, neurotypical children's awareness of and ability to work with the spoken parts of sentences and words (Leyva et al., 2012). The implications of these findings for autistic children remain to be examined.

Existing reminiscing interventions focus solely on the content of reminiscing (e.g., increasing open-ended questions and novel information) (Reese et al., 2020; Reese & Newcombe, 2007; Taumoepeau & Reese, 2013; Van Bergen et al., 2009). However, based on our findings, explicitly focusing parent coaching on the overall structure of the event's story may be a helpful framework for parents to scaffold for their children. This approach might include highlighting that stories have a beginning, a middle and an end or exploring ideas

around the arc of a coherent narrative. Interventions using story mapping have been effective in helping students with autism identify and label story elements and improve comprehension of narrative texts (Browder et al., 2017) Thus, it may also be helpful for interventions to highlight the key elements that make up a story such as the plot, characters, point of view and setting (Boyd et al., 2020).

This study is the first to explicitly ask parents of children with autism about their motivations and intentions of reminiscing with their child. Notably, we found that many of these goals aligned with the goals of parents of neurotypical children, as documented by Newton-Jones et al. (under review). For instance, reminiscing was understood as a mechanism for connection and relationship building, which was considered especially important as their child approached adolescence. In line with Newton-Jones et al. (under review), our parents expressed a desire to strengthen and solidify the relationship with their child in preparation for the changes of adolescence. This function aligns with research documenting the parent-child relationship as a protective factor for adolescent children (Dam et al., 2023; Tan et al., 2023). However, one of the key differences we found was that autistic children's high emotionality, memory differences and lack of narrative skills often made it more difficult for parents to understand what was going on for their child and, thus, acted as a barrier to connection. These barriers significantly concerned parents, especially moving into the complex and challenging period of adolescence.

Another goal that mirrored those of neurotypical parents was reminiscing to help their child learn. Newton-Jones et al. (under review) discussed parents being conscious of this transitional stage and helping children to prepare and build the skills they need to be successful in this upcoming phase of life. Parents of autistic children also expressed this desire; however, other specific learnings were more apparent. Firstly, they mentioned discussing the past to help their child understand social situations so they could better

navigate them in the future. This motivation reflects the social communication differences often seen in children with autism, including less prosocial behaviours that may contribute to difficulties within peer relationships (Salayev & Sanne, 2017) and create continued anxiety and avoidance of social interactions (Conner et al., 2020; Swain et al., 2015; Zaboski & Storch, 2018). The conversations that autistic children have with their parents are not only key to reducing this anxiety but also to providing the opportunity to practice social skills in a safe, non-judgmental environment. Our findings suggests that conversations about the past and future are particularly helpful in this process. Research focusing on the social motivation explanation of autism has led to the development of evidence-based social skills interventions, which show promising results for building social skills in children with autism (Ke et al., 2020; Park et al., 2022; Vaughn et al., 2003). Considering this success and parents' motivation to discuss the past and future to help their child better understand and navigate social situations, it may be helpful to include conversations directly related to social interactions in future reminiscing interventions.

The final parent motivation that our research generated was the desire to focus on the positive. Parents discussed this related to conversations about the past and future with their autistic child and as a general parenting goal. These findings coincide with the conversational motivations of parents of neurotypical children (Newton-Jones, under review). They found that within the key theme of 'being there to help', parents of neurotypical children talked about the past and the future to improve their child's unhappy mood or make them laugh. Parents of autistic children discussed focusing on the positives to counteract the negative experiences their child had faced or will face in the future, either because of their autism or due to compounding health issues. This approach aligns with general literature attributing positive aspects of parenting children with intellectual disabilities to factors related to coping, adaptation, and growth associated with adversity and the idea that positivity does not mean

the absence of distress (Beighton & Wills, 2019). Moreover, it coincides with literature regarding the stressors and challenges of parenting autistic children and the benefits for children and parents of adopting a strengths-focused approach (Kuenzel et al., 2021; Shochet et al., 2019).

Recently, there has been a shift in autism research from a development deficit basis towards a strengths focus (Curley et al., 2025). This shift has also seen research focusing on the positives associated with parenting a child with autism, which seems to better reflect parents' lived experiences. A recent review of the literature reporting positive aspects of parenting a child with autism found three common themes that related to protecting the well-being of caregivers of children with autism: focusing on joyful moments, building resilience, and finding support and connection with others in similar situations (Curley et al., 2025). Moreover, within the theme of resilience, some parents of autistic children appear to develop a natural propensity towards optimism, which acts as a coping strategy against stressors so often reported in autism research (Curley et al., 2025).Our parents had a natural propensity towards the positive, particularly their resilience and ability to find joy. Moreover, they spoke of the importance of compassion for their child and self-compassion, which has been linked to emotional resilience in parents of autistic children (Bohadana et al., 2020; Neff & Fasso, 2014).

Our small sample may reflect more dispositionally optimistic people. However, these findings align with recent qualitative research indicating that while the experience of parenting a child with autism carries unique stressors that, at times, decrease parenting confidence (Bohadana et al., 2020), they do not negate the positive aspects. Thus, the lived experience of parents with autistic children may have been minimised or misinterpreted through deficit-focused research. A shift away from deficit-based and toward what works for parents of autistic children, rather than what does not, may provide important insights for

future autism-specific parenting interventions. Additionally, educating parents about finding joy and incorporating resilience building into current parenting programs may help to reduce parenting stress and, thus, increase the effectiveness and adherence to interventions.

Primary Aim Two

We also explored parents experience of a pre-designed reminiscing intervention. Our post-intervention interviews provided insights regarding the strengths and weaknesses of this intervention design when applied to parent-child dyads where the child had a diagnosis of autism. Previous research using parent child interaction therapy (PCIT) has found that parents initially experience in-vivo coaching as "awkward" or "artificial" (Woodfield & Cartwright, 2020). However, after adjusting to the coaching format, parents spoke positively about the approach and explained how the moment-to-moment coaching was beneficial in promoting behaviour change. While Woodfield and Cartwright (2020) focused on play therapy skills with children with disruptive behaviour disorders and/or Attention Deficit/Hyperactivity Disorder (ADHD), parents reported in-vivo coaching to be influential in improving their emotion regulation abilities. Given the high levels of stress experienced by parents of children with autism, continuing to incorporate these skills delivered in a similar format into future interventions for this population may be beneficial.

Parents also discussed the effectiveness of visual aids in prompting their child's memory and ability to engage in conversations about the past and the future. These visual aids appear to act as a prompt of the past or a reminder of what is coming. Most parents described how they were already utilising visual materials in some way with their child, whether through picture calendars, instructions or photos. This is not a novel finding and aligns with the wider literature supporting visual aids as an evidence-based practice to support individuals with autism across various skills (Kidder & McDonnell, 2015; Wong et al., 2015). Visual aids have also been shown to be an effective strategy to communication

challenges experienced by children with autism (Rutherford et al., 2019). More specifically, utilising family photos alongside behavioural intervention approaches is shown to improve communication about past events between parents and children autism (Bhana et al., 2023a). Building on our findings and existing research, using visuals, alongside reminiscing techniques could be a useful approach to help explain the narrative structure of storytelling, social interactions and aid emotion management and resolution.

Reminiscing is a parenting behaviour; therefore, the effectiveness of targeted reminiscing interventions lies in how inherently user-friendly and approachable they are for parents. Consequently, we also asked parents what would make the intervention experience more accessible. Our parents discussed the extension of visual aids for themselves such as videos modelling what effective reminiscing looks like in dyads where the child has autism and display print outs to remind them to practice reminiscing techniques. Incorporating video examples into future interventions would be a helpful way to provide parents with an ongoing resource. The ability to engage with a tool outside of the intervention session may also reduce uncertainty and anxiety related to reminiscing performance. This may be particularly beneficial in minimising additional stress related to learning new skills and participation in parenting interventions. Furthermore, it may increase parents' confidence in their ability to apply new skills, positively impacting their engagement.

Parents also fed back the usefulness of visual materials to display in environments where reminiscing occurs. Simple visual aids are useful and cost-effective antecedents that have been shown to influence and maintain changes across various behaviours (Bellicha et al., 2014; Sussman & Gifford, 2011). Clear and concise visual materials describing reminiscing techniques would be useful to include in future interventions. These tools could act as helpful reminders for busy parents during and after the intervention process. Finally, parents discussed the desire for the intervention to be spaced out to enable the consolidation

of key learnings between each session. It may be appropriate to have an option where parents participate in one training session and then are given techniques to work on over an extended period, before beginning the next session. This may not work for all parents and may be less time efficient. However, it is an approach that is worth exploring further.

The intervention used in this study was informed by previous studies with parents of neurotypical children. As previously discussed autistic children present with unique differences that impact their ability to reminisce. Moreover, parents of autistic children have unique motivations and goals for reminiscing. Autism manifests in different ways across all subgroups of people and is influenced by a multitude of other aspects of identity (Ataben et al., 2024; Cooper et al., 2018; Kim, 2012). Thus, a 'one-size-fits-all' approach to autism-specific intervention design is misguided. We found a desire for a more individualised approach to reminiscing interventions that catered to the unique needs of children with autism. One way of approaching this could be to include a pre-intervention assessment to understand areas of focus and to facilitate understanding of the specific goals parents had for themselves, their child and their relationship together. This would ensure the intervention was targeted at the right level and on the individual difficulties impacting their ability to communicate and discuss the past with their child.

The nature of individualised interventions is providing choice and flexible structure. Notably, the ability to troubleshoot and adapt throughout the intervention process was a key desire for parents, and thus, should be considered for future interventions. This approach was particularly pertinent for parents in applying reminiscing skills to recent complex social interactions their children had experienced. For instance, how to discuss the concept of bullying. This relates to parents' motivations to use conversations about the past and future as learning opportunities, especially for social learning and may be particularly relevant for parents of autistic children who have comorbid mental health problems that increase their risk

of social difficulties (Dovgan & Mazurek, 2019; Swain et al., 2015; Zaboski & Storch, 2018). While this approach may lend itself to longer interventions or require more sessions, it gives parents agency and ensures that the time spent in sessions is valuable.

Secondary Aim

We also explored parents' intentions and goals related to talking about the future with their autistic child. We found similarities in the motivation of these conversations with those about the past. Parents discussed future-focused conversations as a tool to help their child learn about and prepare for new experiences, minimise anxiety related to the unknown and to share in the joy and excitement of looking forward to future events. Some of these findings overlap with the motivations of parents of neurotypical children. Newton-Jones et al. (under review) also identified intentions such as providing children the tools to navigate hardships and focusing on positive aspects of the future. However, a key difference with our sample of parents of autistic children was a desire to provide information about what to expect from future situations, particularly those that require social interaction. Specifically, parents engaged in future conversation to teach their autistic child how to appropriately behave so they could better navigate new social situations. This finding reinforces the effective use of social skills interventions to build social skills in children with autism (Park et al., 2022; Vaughn et al., 2003). Furthermore, it highlights the need to create autism-specific parenting interventions with content that aligns with the specific desires and motivations of parents of autistic children.

There is little research focused on how and why parents talk about the future with their children, and none that we know of exploring what this looks like for parents of autistic children. Russell et al. (2024) engaged parents and 8- to 12-year-old children in conversations about past and future events, including future events that were worrying. They found that dyads from the clinical sample, which included children who were referred for anxiety,

displayed less emotion exploration during future conversations compared to dyads from the community sample. The specific motivations for this approach were not explored but may reflect a desire from parents to remain neutral to avoid increased anxiety related to worrying future events. High anxiety levels are associated with decreased episodic specificity during memory recall in neurotypical adults (Montijn et al., 2021). Although performed with neurotypical adults, these studies highlight an important factor to consider, especially given the high level of comorbidity between autism and anxiety (Zaboski & Storch, 2018) and the apparent memory differences in this population (Goddard et al., 2013; McDonnell et al., 2017; McDonnell et al., 2021). Teaching parents to approach future conversations about worrying events more effectively may decrease anxiety levels and increase memory capability.

We did not explore parents' use of emotional content during future conversations with their autistic child; however, our parents supported approaching novel, future events with curiosity to address and minimise anxiety. There is compelling evidence to suggest that positively imagining future events leads to those events being remembered more positively (Devitt & Schacter, 2018). Furthermore, Chun et al. (2017) found that revelling in a future experience increased participants' enjoyment ratings during and following the experience. These studies use neurotypical samples and involve imagining rather than discussing the future. Nevertheless, considering this knowledge alongside parents' inherent motivations for discussing the future with their autistic child and the comorbid mental health difficulties like anxiety and depression in these children opens an interesting path for future research. Including positively framed future conversations in narrative-based interventions could help reduce anxiety related to novel future events, which may positively affect memory specificity. Additionally, constructing positive future narratives may promote shared joy and excitement

between parent and child, a protective factor for parenting stress (Curley et al., 2025) that appears particularly crucial for parents of children with autism.

Strengths and Limitations

Our research follows Newton-Jones et al. (under review) and is the first study to explore the reminiscing and future conversation goals of parents of children with autism. Our qualitative method led to novel insights about parents' motivations, intentions, challenges and enablers related to conversations about the past and future with their autistic child, information that will be invaluable in informing future autism-specific reminiscing interventions. Building an in-depth understanding of these aspects was only possible through a qualitative research lens. Our research highlights the necessity of asking "why" alongside "what" when seeking to understand social phenomena. This approach is crucial when developing interventions designed to alter these phenomena, particularly interventions for diverse populations such as those with autism.

The current reminiscing intervention literature draws information about autistic children and their interactions with parents from interventions designed for neurotypical families. In addition, this research has primarily addressed cognitive outcomes or reminiscing content. Conversely, our research focused on the direct reminiscing experiences of parents, providing agency for them to share meaning from those experiences. This approach has identified fundamental insights that will shape the development of future autism-specific reminiscing interventions. Moreover, it highlights qualitative research's essential role in appropriate and effective intervention design.

Providing in-vivo coaching was a strength in terms of our ability to build on and develop parenting skills in the moment. While we did not quantifiably measure changes in parenting behaviour, parents' attitudes and perceptions toward this coaching approach were positive. This feedback builds on previous research supporting the effectiveness of in-vivo

coaching in parenting interventions (Woodfield & Cartwright, 2020). Finally, we conducted pre-intervention interviews with dyads including one father, and our sample of children was diverse in terms of gender (two boys and three girls), verbal ability and autism presentation. Thus, while small, our sample represented some of the spectrum presentation and heterogeneity of autism. Consequently, we were able to draw insights from varying parenting experiences and identify unique reminiscing motivations, barriers and enablers for further exploration.

The sample size used is a key limitation of the current study. We were only able to recruit five parent-child dyads in total. Thus, while our initial findings are valuable, we cannot assume they apply to the broader population of parents and children with autism. Future studies with larger sample sizes are needed to build on this work and determine which findings are consistent across this parenting experience. Furthermore, our sample lacked cultural diversity. Future studies should actively focus on recruiting samples that accurately represent the broader population of Aotearoa. We had one father in our sample however, given the differences in maternal and paternal reminiscing (Fivush et al., 2009; Reese et al., 1993; Reese et al., 1996; Zaman & Fivush, 2013), future research should include more fathers. Additionally, it would be beneficial to include dyads from less traditional, Westernised familial structures—for instance, single parents, same-sex parents, legal guardians, whāngai and grandparents.

Only two families completed the entire process, including the post-intervention interview; thus, the feedback we gained concerning the intervention experience is limited, and other families may have had differing views. An important focus of future studies will be taking more families through the entire intervention process. Finally, our interviews and intervention sessions took place over Zoom. We know that this approach carries both strengths in terms of access and time efficiency and limitations related to building

whakawhanaungatanga (rapport) and creating distractions for children and parents. Conducting in-person sessions would benefit future studies. Removing the barriers associated with online sessions may foster increased connection and trust between the researcher, parent and child, leading to more in-depth responses and deeper understanding.

Conclusion

The conclusions from our research add to the small body of literature highlighting difficulties in parent-child reminiscing conversations for children on the autism spectrum. In addition, our research has extended the literature by exploring parents of autistic children's goals, barriers and enablers related to reminiscing. Future research is needed to deepen our understanding of these factors and how they impact reminiscing across larger, more diverse samples. This understanding will be crucial in shaping future interventions that provide more support to parents of children with autism.

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