




The Perception of Parental Bonding in Individuals with Autism Spectrum Disorder: Insights through the Separation-Individuation Lens

Author Information

Simona Rogič Ožek 
National Education Institute of Slovenia, National School for Leadership in Education, Ljubljana, Slovenia

Corresponding author

Simona Rogič Ožek
National Education Institute of Slovenia, National School for Leadership in Education, Poljanska cesta 28, 1000 Ljubljana, Slovenia
Email: simona.rogicozek@zrss.si

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Abstract

Introduction: This study examines how individuals with autism spectrum disorder (ASD) perceive early relationships with their parents, framing these perceptions within Mahler's separation-individuation process and Bowlby's attachment theory. Early parent-child interaction is conceptualised as a reciprocal developmental process shaped primarily by ASD-related communication profiles and parental responses to these developmental characteristics and other various factors that contribute to parent-child interaction.

Objectives: The study aims to investigate whether adults with and without ASD differ in their perceptions of parental bonding – specifically care and overprotection – and to explore how adults with ASD describe early relational experiences with both mothers and fathers.

Methods: A mixed-methods design was applied to deepen understanding of both measurable and subjective relational patterns. Quantitatively, 38 adults with ASD and 100 adults without ASD completed the Parental Bonding Instrument (PBI), assessing each parent separately. Reliability was examined using Cronbach's alpha, and group differences were tested with independent sample t- tests. Qualitatively, semi-structured interviews with 18 adults with ASD were analysed using inductive thematic analysis to capture lived experiences of early relational processes and to triangulate quantitative findings.

Results: Adults with ASD reported significantly higher perceived maternal overprotection, whereas no differences emerged in perceived care. Qualitative analysis revealed heterogeneity in relational experiences, including emotional distance, misunderstandings, and limited autonomy, alongside examples of supportive parental behaviour.

Conclusion: The findings indicate that perceptions of overprotection and relational challenges arise within a broader developmental and sociocultural context shaped by neurodivergent communication patterns, parental coping strategies, and prevailing intervention narratives. The results highlight the need for parent support programs that promote relational sensitivity, autonomy support, and a nuanced understanding of ASD-specific developmental characteristics, rather than attributing relational difficulties to parents.

Keywords: autism spectrum disorder, perception of parental bonding, parent-child interaction, separation-individuation process, overprotection, professional support

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1. Introduction

The purpose of this paper is to examine the perception of childhood parental bonds among individuals with autism spectrum disorder (ASD) and to explore how they experienced their early relationships with parents. Our interest is grounded in early developmental processes, as optimal parenting providing safety through appropriate care and protection plays a central role in socioemotional development, behaviour regulation, emotional functioning, and social competence (Nelson et al., 2019; Ong et al., 2018; Pallini et al., 2018). Previous research shows that developmental deviations in ASD are most evident in the social domain (Grzadzinski et al., 2014; Ozonoff and Iosif, 2019; Nadeem et al., 2021). Accordingly, this study focuses on the perception and lived experiences of early parental bonds in individuals with ASD and highlights some influences in the researched domain that may negatively affect social development and future social connectedness. Maternal communication is often not fully attuned to the child's focus of attention (Doussard Roosevelt et al., 2003), and the presence of atypical social cues in children with ASD can further obscure caregivers' ability to recognise their need for closeness (Wan et al., 2012; Kobayashi, 2000). Moreover, because early play in children with ASD frequently involves only minimal parental participation, this can additionally hinder the development of early bonding (Beurkens et al., 2013). The biological predispositions of individuals with ASD should not be disregarded, as they negatively influence their social motivation for forming social connections (Chevallier et al., 2012). Thus, parent-child interactions and relationships are significantly shaped by numerous influences of neurodivergence in individuals with ASD, which strongly affects parental responses. As stated by Burrell and Borrego (2012) and Crowell et al. (2019), the characteristic functioning of a child with autistic disorders is associated with non-constructive parental responses, which mutually reinforce each other and result in dysfunctional family dynamics. All this may also affect the separation-individuation process and developmental outcomes related to social connectedness. Understanding these early developmental risk factors provides deeper insight into the functioning of individuals with ASD and forms a basis for designing more effective support and intervention programs that are connected to the characteristics of early parent-child interaction in individuals with ASD, and are aimed at addressing deficits in social communication and interaction. The theoretical framework guiding this research is Mahler's separation-individuation process (Mahler et al., 1975), examined here through the lens of how this developmental trajectory unfolds in individuals with ASD. The separation-individuation process is significantly complemented by attachment theory (Bowlby, 1969), which places the relationship at the center of the child's development and defines it as a fundamental factor in developing the individual's inner world – the attachment model which remains relatively stable over time.

2. Characteristics of Autism Spectrum Disorder (ASD)

Modern definitions describe autism spectrum disorder (ASD) as a neurodevelopmental condition marked by persistent deficits in social communication and social interaction, alongside restricted and repetitive patterns of behaviour, interests, or activities (American Psychiatric Association, 2022; World Health Organisation, 2019). Although extensive research has examined the etiology of autism, its precise causes remain unclear. ASD is understood as a neurologically based developmental condition with strong genetic foundations that are shaped by a complex interplay of genetic and environmental factors. Numerous pathways have been proposed, but the ways in which these factors interact and jointly influence development are still not fully understood (Crowell et al., 2019; Giovedi et al., 2014; Kinney, 2010; Nadeem et al., 2021; Rogers et al., 2013).

This paper focuses on the social aspects of early developmental dynamics. Beyond delays in speech, language, and communication, early relational interactions represent some of the first indicators of autism that clinicians observe in young children (Ozonoff and Iosif, 2019; Parmeggiani et al., 2019). According to the DSM5 (American Psychiatric Association, 2022), deficits in social communication and interaction typically include difficulties in verbal and nonverbal communication, impairments in social-emotional reciprocity, and challenges in establishing, understanding, and maintaining social relationships. Multiple authors (Cugmas, 2018; Grzadzinski et al., 2014; Jurišić, 2016; Nadeem et al., 2021; Ozonoff and Iosif, 2019; Volkmar et al., 2005; Volkmar, 2011) have reported consistent early behavioural characteristics associated with ASD. These include reduced or atypical smiling, self-focused behaviour, diminished interest in people, challenges in forming attachments, and broad differences in social engagement compared to typical developmental responses. Difficulties emerge in reciprocal interaction, expected social responses, and the intensity of eye contact, as well as in behaviours related to shared attention, such as pointing, following another person's gaze or gesture, and sharing objects (Wimpory, 2000, in Volkmar et al., 2005). Because this study examines the early relational context of children with ASD, the next chapter focuses on the importance of parental bonds for psychosocial development, drawing on the developmental analytic paradigm and specifically the separation-individuation process (Mahler et al., 1975), and attachment theory (Bowlby, 1969). It also outlines key characteristics of parental bonding in individuals with ASD.

3. Parental Bonds and their Characteristics in Autism

During the first three years of life, crucial developmental processes unfold as the child forms connections with the environment and primary caregivers. Both attachment theory (Bowlby, 1969) and the separation-individuation process (Mahler et al., 1975) have significantly shaped con-

temporary understanding of the importance of early childhood for social development. Bowlby (1969) emphasised security as expressed through the child's behaviour toward the mother as the key indicator of attachment. He understood security as a balance between seeking closeness to the mother and the need to explore the environment. If the child succeeds in establishing this balance and developing secure attachment, development proceeds optimally; otherwise, more difficulties may emerge. In addition to secure attachment, researchers have identified various types of child responses that form attachment styles: avoidance, resistance or ambivalence, and disorganisation (Ainsworth et al., 1978). Separation-individuation progresses through several stages: autistic, symbiotic, and separation-individuation culminating in psychological birth (Mahler et al., 1975). Early attachment and the separation-individuation process form the basis for psychological structure, autonomy, and later relational patterns (Žvelc, 2011; Mahler et al., 1975). Within the psychoanalytic developmental paradigm, these processes explain how relational experiences are internalised and shape personality, identity, and autonomy (Praper, 1999). Parental sensitivity, especially maternal, supports secure attachment and successful individuation (Beckwith et al., 1999). Parenting styles and bonds particularly those of the mother are therefore crucial for secure attachment and for successfully completing the separation-individuation process. Experiences in symbiosis and throughout this developmental trajectory significantly influence attachment quality, and both depend on numerous factors related to the child and the parents. "The quality of attachment undoubtedly depends on the nature of symbiotic experiences, which are shaped by the child's interpersonal capacity as well as the primary caregiver's capacity for object relations (we could also call this the capacity for love). Later, these experiences, together with attachment quality, largely determine a person's intersubjectivity and capacity for relationships in general." (Praper, 1999, p. 216). Numerous authors have investigated attachment in individuals with ASD and report that children with autistic disorders do develop early attachment, including secure attachment, most often to the mother. However, the quality of attachment may be unusual, different, weaker, or highly variable (Crowell et al., 2019; Cugmas, 2018; Dissanayake and Crossley, 1997; Grzadzinski et al., 2014; Kobayashi, 2000; Schore, 2013; Teague et al., 2017; Volkmar et al., 2005). They also highlight a lack of knowledge about which factors most strongly shape attachment in ASD and emphasise that attachment quality is influenced by a combination of the child's neurological characteristics and the quality of the environment (Teague et al., 2017). Atypical functioning of the "social brain" in individuals with ASD may reflect reduced social motivation, making social interaction a core difficulty in autism which can limit orientation toward the social world and reduce the drive to seek, enjoy, and maintain social relationships (Chevallier et al., 2012). This also significantly shapes early parent child relationships and attachment in individuals with ASD. For this rea-

son, it is especially important to study early parental interaction and to contribute to the understanding and support of developmental processes in the domain of social relationships while fully recognising that numerous factors interact. The characteristics of the separation-individuation process and consequently attachment are expressed through parental bonds formed in early parent-child interaction. Parker et al. (1979) identified two key dimensions of parental bonding: care, which is defined by warmth and responsiveness (Žvelc and Žvelc, 2000; Mayuri et al., 2017), and overprotection, which is defined by intrusive control and restricted autonomy (Žvelc, 2011). Low care combined with high overprotection is linked to distrust (Abel et al., 2014), and punitive maternal behaviour to oppositional tendencies (Domitrovich and Bierman, 2001). Research in ASD consistently demonstrates characteristic relational patterns: attuned communication enhances developmental competencies (Ginn et al., 2017; Zlomke et al., 2019), yet mothers often employ more directives, controlling strategies, and structured play (Freeman and Kasari, 2013; Wan et al., 2012; Harker et al., 2016). Parents also structure environments rigidly to increase predictability (Maljaars et al., 2014; Van Esch et al., 2019). Maternal communication may be less aligned with the child's focus of attention (DoussardRousevelt et al., 2003), and atypical social signals complicate recognition of the child's desire for closeness (Wan et al., 2012; Kobayashi, 2000). Early play in children with ASD, often requiring little parental involvement, can further impede bonding (Beurkens et al., 2013).

Genetic factors may mean some parents show autistic traits themselves, complicating mutual understanding (Crowell et al., 2019). Objectrelations research shows that individuals with ASD exhibit pronounced disturbances in early relational patterns, including difficulties in symbiosis, social isolation, and fear of abandonment, combined with avoidance or distrust (Rogič Ožek, 2024). Based on the reviewed research, which provides insight into parental bonding in individuals with ASD, we can summarise that optimal parenting characterised by physical and eye contact, loving care, responsiveness to interests and needs is jeopardised for various reasons. Characteristics of a child with ASD, such as difficulties establishing eye contact, sensory issues (e.g., touch sensitivity), behavioural outbursts, play that does not involve parental engagement, the need for structure and predictability, withdrawal into their own world as social isolation, tendencies toward distance, a lack of interest in others, and unusual ways of relating, do not naturally promote the elements of optimal parenting. Neurodivergence in individuals with ASD therefore significantly affects parental responses and may be expressed in parental bonding that does not support optimal parenting. As Praper (1999) states, such child behaviour in interaction with the mother and parents does not reinforce the parents' belief that they are good parents, which makes it difficult for them (especially for the mother) to develop positive emotional attachment to the child. Thus, it is quite possible that the mother and father struggle to provide sufficiently loving care and appropriate

responsiveness to the needs of a child who withdraws and expresses attachment in unusual ways. Overall, early interactions – particularly with mothers reflect a complex interplay between developmental characteristics and parental responses, shaping outcomes of the separation-individuation process. Within this framework, our research examines the perception and lived experiences of childhood parental bonds among individuals with ASD and how these patterns relate to separation individuation.

4. Material and Methods

This research was conducted by combining a quantitative descriptive approach with a causal-non-experimental design, while the qualitative part relied on inductive thematic analysis. Such an approach made it possible to examine parental bonding both through measurable indicators and through the in-depth subjective experiences of individuals with autism spectrum disorder.

4.1. Participants

The sample consisted of two groups. The qualitative part included 18 adults with ASD and normal intellectual abilities. In the quantitative part, the experimental group comprised 38 adults with ASD aged 18–58 years, all with typical intellectual functioning, while the control group included 100 adults without ASD aged 18–52 years, also with normal intellectual abilities. Among the 18 qualitative participants, 13 were male and five were female, aged 18–25 years, and all had previously participated in the quantitative phase. In the quantitative section, the experimental and control groups were matched on age, gender, and intellectual ability. This was ensured by recruiting participants from comparable social environments and by verifying demographic data through a general questionnaire.

4.2. Tools

The research instruments included an online survey consisting of demographic questions and the Parental Bonding Instrument (PBI) developed by Parker (1990). The demographic section captured data on gender, age, partnership status, and educational attainment. The PBI required respondents to assess each parent separately, evaluating the nature of their relationship with each parent up to age 16, and it also reveals the characteristics of the separation-individuation process as expressed through parental bonds. The instrument measures two central dimensions of parenting identified in attachment theory care and overprotection – both considered fundamental to mental health and to the successful progression of the separation–individuation process. It consists of 25 items, with 12 assessing care and 13 assessing overprotection. Žvelc and Žvelc (2006) expanded the questionnaire by adding additional scales, including abuse, indulgence, narcissism, excessive demandingness, and parental tendencies to seek emotional support from the child. The qualitative component relied on semistructured interviews designed to explore how individuals with ASD

understand and experience close relationships and how they perceive the process of separation and individuation. Based on theoretical assumptions and the main research question, an initial set of interview prompts was developed and later refined as needed during the conversations. The interviews focused on participants' experiences with both their mothers and fathers, with additional followup questions depending on each participant's narrative. All participants were asked initial questions separately for the relationship with the mother and the relationship with the father, namely: How do you experience your past relationship with your mother and father? Did your mother/father understand your needs and wishes? Did your mother/father encourage independence? This approach provided deeper insight into first-hand childhood experiences and patterns of parental bonding.

4.3. Procedure

Data collection took place between May and December 2021. Quantitative data were gathered through an online survey, and qualitative data were obtained through face-to-face interviews, with two participants completing their interviews online. The survey required approximately 10 minutes to complete, whereas the interviews lasted about 30 minutes. All interviews were audiorecorded with participants' informed consent and deleted following transcription. Recruitment of the control group followed a snowball sampling approach, supported by school staff, counselors, university faculty, and administrative personnel, who helped distribute the survey to adults without ASD. Eligible participants were adults with typical development and normal intellectual functioning. Recruitment of the experimental group was conducted in collaboration with institutions for children with special needs, healthcare organisations, and ASD associations, which assisted in reaching adults with ASD who agreed to participate. Diagnoses and relevant background information were verified using official documentation, including expert assessments, guidance statements, and medical reports. The survey for the experimental group was administered electronically, with researchers available to provide clarification as needed.

4.3.1. Participant Consent Procedures

Prior to the commencement of the study, ethical approval was obtained from the Ethics Committee of the Faculty of Education, University of Ljubljana, ensuring that all procedures adhered to established ethical guidelines and high standards of research practice. All participants were provided with a clear and comprehensive explanation of the purpose of the study, which was presented to them as an exploration of their subjective perceptions and recollections of early relational experiences with their parents, the sequence of activities, and any expected tasks or potential burdens associated with their involvement. Particular emphasis was placed on informing participants that their involvement was entirely voluntary and that they could withdraw at any point without any negative consequences. After receiving all rel-

evant information, participants were given an informed consent form. All individuals who took part in the study agreed to participate and signed the appropriate consent documents, ensuring that the research was conducted in an ethical and transparent manner.

4.3.2. Statistical Analysis

The quantitative data collected from the survey was analysed using the SPSS statistical software. The internal consistency of the PBI was assessed using Cronbach's alpha, and differences between the groups were examined using independent-samples t-tests. The qualitative data obtained from the semi-structured interviews were analysed through qualitative content analysis. The material was segmented into meaningful units and coded, after which second-order codes were formed into broader conceptual categories. These categories were compared and refined according to their relevance to the research question, allowing for the identification of recurring themes in participants' descriptions of early parental relationships.

5. Results

In the first part of the results, we present the findings obtained with the Parental Bonding Instrument (PBI). In the quantitative analysis, we also examined the paternal relationship; however, no statistically significant differences were identified. For this reason, the quantitative results focus on maternal relationships, where significant effects were observed, while paternal influences are addressed in the qualitative section, where participants provided more nuanced accounts. Because statistically significant differences emerge only in maternal relationships, the analysis focuses on the mother child bond. All questionnaire items relevant to this dimension were included in the analysis. The internal consistency of the maternal subscales proved to be high, as all Cronbach's alpha coefficients exceeded 0.8. To examine potential differences between adults with ASD and adults without ASD, we conducted an independent-samples t-test. Table 1 presents descriptive statistics and test results for the maternal dimensions of parental bonding.

Table 1.

Maternal parenting dimension	ASD	N	Mean (M)	SD	t	p
Maternal care	Yes	35	2.36	1.117	0.748	.45
	No	91	2.21	0.837		
Maternal overprotection	Yes	35	2.65	0.713	1.918	.05
	No	91	2.37	0.736		
Violence and abuse	Yes	35	1.69	0.934	1.497	.14
	No	91	1.43	0.61		
Maternal bond – total	Yes	35	2.26	0.769	1.728	.08
	No	91	2.03	0.63		

Note. : ASD = autism spectrum disorder. N = sample size; M = mean; SD = standard deviation; t = test statistic; p = twotailed significance.

As shown in Table 1, the only dimension in which the groups differed significantly was maternal overprotection. Participants with ASD reported significantly higher levels of overprotectiveness from their mothers than participants without ASD. No statistically significant differences emerged in the dimensions of maternal care or maternal vi-

olence/abuse, nor in the overall composite maternal-bond score. The second part of the results presents the findings of the qualitative content analysis. Interview responses were grouped into two overarching thematic domains. Table 2 provides an overview of these categories, combining experiences with both mother and father.

Table 2.

Parent	Supportive factors	Aggravating factors
Mother	Support and promotion of autonomy (e.g., meeting needs, continuous support, adequate protection, encouragement, understanding in childhood, mother's wish for child's independence, allowance of autonomy and freedom) (5 persons, 7 statements)	Alienation (e.g., detachment, coldness, a lack of understanding of the child's thinking and behaviour) – 6 persons (13 statements); Violence and inadequate care (e.g., hitting, yelling, insulting, monitoring, punishment, lack of protection, performance pressure, neglect such as leaving autistic children alone at home) – 6 persons (9 statements); Hindering independence (overprotection, equality demands, prohibition of going out, fear of the world, lack of parental wish for child's autonomy, taking over tasks) – 6 persons (7 statements)
Father	Encouragement of autonomy (e.g., the father's wishes for independent living, the child's own decisions, freedom, and autonomy) (4 persons, 4 statements)	Alienation (e.g., detachment, little contact with father or lack of father's initiative to maintain contact, less supportive and protective) – 7 persons (12 statements); Inadequate care (1 person, 2 statements) and overprotection (2 persons, 2 statements) (e.g., the father's wish to protect due to fear of world's dangers, neglect such as leaving autistic children alone at home)
Mother – number of statements	7	29
Mother – number of persons	5	11
Father – number of statements	4	16
Father – number of persons	4	9

Note.

The qualitative analysis demonstrates that participants with ASD more often described hindering relational factors than supportive ones. Maternal relationships were characterised by emotional distance, a lack of understanding, inadequate care, neglect, and overprotectiveness. As illustrated by the following examples of statements from interviewed participants (e.g., IP2) in response to questions about their relationship, needs, and wishes:

IP2: "My mother and father did not understand me at the beginning. They didn't know what to do, because they didn't know what I wanted. For a long time, I also didn't say anything."

IP16: "No attachment. From both sides. Absolutely none. Not to one or the other."

IP18: "Oh no, my mom did not spoil me; she was very cold. Even now – maybe a little less now."

Paternal relationships were described as distant and lacking contact. These relational obstacles may have long-term im-

plications for autonomy, identity development, and reciprocal social functioning. As illustrated by the following examples of statements from interviewed participants (e.g., IP3) in response to questions about their relationship, needs, and wishes:

IO3: "He could not always be as supportive and protective as my mother."

IO7: "He was not home very much, because he was working."

IO13: "Very often they didn't quite grasp how I think. All of this was also connected to the fact that my father is autistic, based on how he behaves."

6. Discussion

The findings in the quantitative part of the study show that individuals with autism spectrum disorder perceive their mothers as significantly more overprotective than individuals without ASD. This indicates a maternal relationship

marked by behaviors that restrict autonomy, encourage dependence, and involve close monitoring of emotional and behavioural expression. These results align with previous studies showing more directive and controlling maternal styles in ASD (Freeman and Kasari, 2013; Harker et al., 2016; Van Esch et al., 2019; Wan et al., 2012). No significant group differences emerged in maternal care or maternal violence/abuse; thus, the initial hypothesis was only partly confirmed. Integrating quantitative and qualitative findings provides deeper insight into early relational dynamics. Many participants with ASD in the qualitative part of the study described relational difficulties with both parents, often characterised by emotional distance, limited warmth, and experiences of alienation. Challenges were especially evident in father-child relationships, frequently marked by disengagement and minimal efforts to establish closeness. Reports of inadequate care, inconsistent protection, and inhibited independence particularly in maternal relationships suggest that parental overprotection often cooccurred with restrictive or controlling practices. Despite these patterns, some participants noted parental encouragement of independence, though less consistently. Overall, relational experiences were heterogeneous but often shaped by combined protection and control, limited emotional attunement, and misunderstandings of the child's developmental profile. The overprotective maternal style identified in quantitative analyses corresponds with qualitative accounts of constrained autonomy and dependency pressures, potentially complicating the separation-individuation process already affected by social communication impairments. Object relations research shows that individuals with ASD exhibit pronounced disturbances in early relational patterns, including difficulties in symbiosis (Rogič Ožek, 2024), which means an impaired development of independence and autonomy, which is characteristic of overprotection. So, overprotection, defined by intrusive control and restricted autonomy (Žvelc, 2011), is an important dimension of parental bonding and represents a risk factor for the separation-individuation process and for establishing appropriate reciprocal relationships. Other authors also report findings related to overprotection and other characteristics observed in our study (such as inadequate responses to needs and alienation). For example, Freeman and Kasari (2013), Wan et al. (2012), and Harker et al. (2016) emphasise that mothers often employ more directives, controlling strategies, and structured play. Biological predispositions, such as reduced social motivation (Chevallier et al., 2012), may further hinder relational development and early attachment processes. Early interaction in individuals with autism spectrum disorders may also be shaped by the influence of the so-called double empathy problem, as highlighted by Milton (2012), who stresses that difficulties in social interactions are not onesided, but arise from mutual misunderstanding between autistic and nonautistic individuals, resulting from different perspectives, forms of understanding, and expressions not from an inability of autistic individuals to form social connections. The so-called dysfunctional family dynamics are

also discussed by Burrell and Borrego (2012) and Crowell et al. (2019). In this context, the characteristic functioning of a child with ASD becomes intertwined with non-constructive parental responses, which mutually reinforce each other and are reflected in dysfunctional family dynamics, potentially endangering the separation-individuation process. Raising a child with ASD is undoubtedly demanding, as demonstrated by evidence that parental stress is higher among parents of children with ASD compared to parents of children without ASD (Hayes and Watson, 2013). In light of this, the question arises of how parents experience early interaction with a child with ASD and how they perceive it within the framework of the double empathy problem, misunderstanding, and the burdens associated with raising a child with ASD. It is also important to emphasise that parents of children with ASD respond in interactions with their child in line with how they are guided within various parenttraining programs and therapeutic interventions. The influence of interventions that focus more on structuring the environment than on relationships can certainly affect their responses (Maljaars et al., 2014; Van Esch et al., 2019). Given all this, it is necessary to highlight that the results of the quantitative part of the study did not confirm statistically significant differences in other dimensions, except in overprotection. The apparent discrepancy between the quantitative and qualitative findings likely reflects heterogeneity within the ASD group. While maternal care scores did not differ significantly at the group level, qualitative narratives revealed meaningful variation, with some participants describing emotional distance or a lack of warmth. These divergent accounts suggest that standardised measures may not fully capture individual relational experiences, and that qualitative data provide important nuance for understanding subgroup differences. These integrated results highlight the need for targeted parental support that strengthens sensitivity, deepens understanding of ASD specific developmental characteristics, and promotes autonomy supportive parenting while maintaining appropriate emotional responsiveness.

6.1. Limitations of this Study

This study was conducted within the Slovenian cultural context, but broader cultural norms around parenting were not examined. This limits the crosscultural applicability of the findings, as parenting practices and relational expectations may vary across different sociocultural environments. The ASD sample was relatively small and recruited from specific institutional contexts, which may introduce selection bias and limit the representativeness and generalisability of the findings. The quantitative part relied on a single measurement instrument to assess perception of parental bonding. Although the Parental Bonding Instrument is well validated, the use of additional instruments could provide a more comprehensive understanding of parenting styles and their developmental implications. Future research would therefore benefit from expanding the methodological framework by using multiple measurement tools and by conducting studies

with larger and more diverse samples, allowing for broader generalisation and deeper insights into the complexity of early relational experiences among individuals with ASD.

6.2. Future Research Directions

Future research should adopt more specific methodological approaches, such as longitudinal designs that track relational dynamics over time, as well as crosscultural comparisons that examine how parenting norms differ across contexts. Future studies should further explore the processes of separation and individuation from the perspective of parents, using both qualitative and quantitative approaches. A mixedmethods design would allow for a deeper understanding of parents' emotional experiences, developmental challenges, and the contextual factors that shape these processes. Future research should combine the PBI with additional instruments such as observational or attachment-based measures to better capture the complexity of parenting in ASD and enable triangulation of findings. In addition, it would be valuable to apply the current findings to the field of parental support programs. Further research should investigate the content, structure, and availability of such programs, as well as examine their effectiveness in addressing parents' needs during critical developmental transitions. Understanding which types of support parents perceive as the most beneficial could contribute to the development of more responsive and evidencebased interventions.

7. Conclusions

The findings of this study, which examine perception of early relational dynamics in individuals with autism spectrum disorder (ASD), offer an important basis for designing targeted support that strengthens the separation-individuation process and promotes autonomy capacities essential for later social connectedness. Because the study relied on adults' retrospective recollections of childhood parental relationships, the findings may be influenced by memory bias and later-life reinterpretation. Such retrospective accounts may differ from contemporaneous parental perspectives and should therefore be interpreted as they reflect perceptions of early interaction rather than the interaction itself. The results underscore the relevance of integrating early developmental insights into therapeutic, educational, and counselling practices, particularly in contexts where professionals support individuals with ASD in addressing challenges in social communication and interaction. The implications are especially pertinent for healthcare and educational environments, where practitioners help create conditions that foster autonomy, emotional regulation, and social functioning. The study also highlights the need for developmentally informed and structured support for parents, especially mothers, who often face substantial emotional and relational demands when raising a child with ASD. Enhancing parental sensitivity and deepening understanding of ASDspecific developmental characteristics may contribute to more attuned and autonomy-promot-

ing parent child relationships. The findings can inform existing and newly developed early parent-child interaction programs aimed at increasing parental awareness of children's needs, reducing controlling or overprotective patterns, and encouraging independence and identity formation. There is a direct influence on early interaction through the correction of relational patterns within the family environment, as well as in the field of education particularly in relationships with professionals, such as preschool teachers and in partnership relationships through couples counselling, and within psychotherapy. Parentsupport programs should therefore include education and parental guidance that incorporate child directed interactions, appropriate responsiveness to the child's needs and interests, encouragement of joint attention to areas important to the child, the promotion of practicing and approaching, understanding diversity, recognising needs, and adapting to each parent, family, and child individually when learning-appropriate interaction with the child, as well as taking into account the parent's experience of having a child with ASD. To successfully support the separation-individuation process in the relationship with a child with ASD, professionals should incorporate as many contributing factors as possible. For example, how to become a significant other for the child and to establish a meaningful relationship that provides appropriate support and encouragement for successfully progressing through the phases of separation and individuation; how to develop a nurturing and warm relationship regardless of the child's responses, which may be avoidant or less social; how to encourage child-directed interaction; responsiveness and sensitivity to the child's needs; sharing mutual interests and encouraging joint attention to areas important to the child; fostering autonomy; and preventing dependency in relationships.

Overall, the research emphasises the importance of early, professionally-guided support that fosters autonomy, strengthens reciprocal relationships, and promotes healthy identity development in children with ASD.

Conflict of interests

The author declares that there are no conflicts of interest regarding the publication of this case study.

References

- Abel, L., Lyons, M., & Brewer, G. (2014). *The relationship between parental bonding, machiavellianism and adult friendship quality*.
- Ainsworth, M. D. S., Blehar, M. C., & Waters, S., E. in Wall. (1978). *Patterns of attachment: A psychological study of the strange situation*.
- American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed). doi: 10.1176/appi.books.9780890425787
- Beckwith, L., Cohen, S. E., & Hamilton, C. E. (1999). *Maternal sensitivity during infancy and subsequent*

- life events relate to attachment representation at early adulthood.
- Beurkens, N., Hobson, J., & Hobson, R. (2013). Autism severity and qualities of parent-child relations. *Journal of Autism and Developmental Disorders*, 43.
- Bowlby, J. (1969). *Attachment and loss: Vol.*
- Burrell, J., T. L. in Borrego, & Jr. (2012). Parents' involvement in asd treatment: What is their role? cognitive and behavioral practice, 19(3), 423–432.
doi: 10.1016/j.cbpra.2011.04.003
- Chevallier, C., Kohls, G., Troiani, V., Brodtkin, E. S., & Schultz, R. T. (2012). *The social motivation theory of autism.*
- Crowell, J. A., Keluskar, J., & Gorecki, A. (2019). *Parenting behavior and the development of children with autism spectrum disorder.*
- Cugmas, Z. (2018). *Navezanost na starše pri otrocih z motnjami avtističnega spektra [attachment to parents in children with autism spectrum disorders].*
- Dissanayake, D., & Crossley, S. A. (1997). Autistic children's responses to separation and reunion with their mothers. *Journal of Autism and Development Disorders*, 27(3).
- Domitrovich, K. L., C. E. in Bierman. (2011). *Parenting practices and child social adjustment: Multiple pathways of influence.*
- Doussard-Rousevelt, J. A., Joe, C. M., Bazhenova, O. V., & Porges, S. W. (2003). *Mother-child interaction in autistic and nonautistic children.*
- Freeman, S., & Kasari, C. (2013). *Parent-child interactions in autism: Characteristics of play.*
- Ginn, N. C., Clionsky, L. N., Eyberg, S. M., Warner-Metzger, C., & Abner, J. P. (2017). Child-directed interaction training for young children with autism spectrum disorders: Parent and child outcomes. *Journal of Clinical Child and Adolescent Psychology*, 46(1). doi: 10.1080/15374416.2015.1015135
- Giovedi, S., Corradi, A., Fassio, A., & Benfenati, F. (2014). Involvement of synaptic genes in the pathogenesis of autism spectrum disorders: The case of synapsins. *Frontiers in Pediatrics*, 2. doi: 10.3389/fped.2014.00094
- Grzadzinski, R., Luyster, R., Spencer, A. G., & Lord, C. (2014). Attachment in young children with autism spectrum disorders: An examination of separation and reunion behaviours with both mothers and fathers. *Autism*, 18(2). doi: 10.1177/1362361312467235
- Harker, C. M., Ibanez, L. V., Nguyen, T. P., Messinger, D. S., & Stone, W. L. (2016). The effect of parenting style on social smiling in infants at high and low risk for asd. *Journal of Autism and Developmental Disorders*. doi: 10.1007/s10803-016-2772-y
- Hayes, S. A., & in Watson, S. L. (2013). The impact of parenting stress: A meta-analysis of studies comparing the experience of parenting stress in parents of children with and without autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 43(3).
<https://doi.org/10.1007/s10803-012-1604-y>. (n.d.)
- Jurišić, B. D. (2016). *Otroci z avtizmom [children with autism].*
- Kinney, D. K., Barch, D. H., Chayka, B., Napoleon, S., & Munir, K. M. (2010). Environmental risk factors for autism: Do they help cause de novo genetic mutations that contribute to the disorder? medical hypotheses, 74(1), 102–106.
doi: 10.1016/j.mehy.2009.07.052
- Kobayashi, R. (2000). Affective communication of infants with autistic spectrum disorder and internal representation of their mothers. *Psychiatry and Clinical Neurosciences*, 54(2). doi: 10.1046/j.1440-1819.2000.00664.x
- Mahler, M. S., Pine, F., & Bergman, A. (1975). *The psychological birth of the human infant: Symbiosis and individuation.*
- Maljaars, J., Boonen, H., Lambrechts, G., Van Leeuwen, K., & Noens, I. (2014). Maternal parenting behavior and child behavior problems in families of children and adolescents with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 44(3). doi: 10.1007/s10803-013-1894-8
- Mayuri, K., Divya, V., & Kiran, K. (2017). Parenting styles as perceived by parents and children. *International Journal of Science and Research*, 6(8). doi: 10.21275/ART20176089
- Milton, D. E. M. (2012). On the ontological status of autism: The 'double empathy problem.' *Disability & Society*, 27(6). doi: 10.1080/09687599.2012.710008
- Nadeem, M. S., Murtaza, B. N., Al-Ghamdi, M. A., Ali, A., Zamzami, M. A., Khan, J. A., ... Kazmi, I. (2021). Autism – a comprehensive array of prominent signs and symptoms. *Current Pharmaceutical Design*, 27(11). doi: 10.2174/1381612827666210120095829
- Nelson, C. A., Zeanah, C. H., & Fox, N. A. (2019). How early experience shapes human development: The case of psychosocial deprivation. *Neural Plasticity*, 2019. doi: 10.1155/2019/1676285
- Ong, M. Y., Eilander, J., Saw, S. M., Xie, Y., Meaney, M. J., & Broekman, B. F. P. (2018). The influence of perceived parenting styles in socio-emotional development. *European Child and Adolescent Psychiatry*, 27(1). doi: 10.1007/s00787-017-1016-9
- Ozonoff, S., & Iosif, A.-M. (2019). Changing conceptualizations of regression. *Neuroscience and Biobehavioral Reviews*, 100. doi: 10.1016/j.neubiorev.2019.03.012
- Pallini, S., Chirumbolo, A., Morelli, M., Baiocco, R., Laghi, F., & Eisenberg, N. (2018). *The relation of attachment security status to effortful self-regulation: A meta-analysis.*

- Parker, G. (1990). *The parental bonding instrument: A decade of research*.
- Parker, G., Tupling, H., & Brown, L. B. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, 52(1).
- Parmeggiani, A., Corinaldesi, A., & Posar, A. (2019). Early features of autism spectrum disorder: A cross-sectional study. *Italian Journal of Pediatrics*, 45(1). doi: 10.1186/s13052-019-0733-8
- Praper, P. (1999). *Razvojna analitična psihoterapija*.
- Rogers, T. D., McKimm, E., Dickson, P. E., Goldowitz, D., Blaha, C. D., & Mittleman, G. (2013). Is autism a disease of the cerebellum? an integration of clinical and pre-clinical research. *Frontiers in Systems Neuroscience*, 7. doi: 10.3389/fnsys.2013.00015
- Rogič Ožek, S. (2024). Dimensions of object relations in people with autism spectrum disorder. *CEPS Journal*, 14(2). doi: 10.26529/cepsj.1556
- Schore, A. N. (2013). Regulation theory and the early assessment of attachment and autistic spectrum disorders: A response to voran's clinical case. *Journal of Infant, Child, Adolescent, Psychotherapy*, 12. doi: 10.1080/15289168.2013.822741
- Teague, S. J., Gray, K. M., Tonge, B. J., & Newman, L. K. (2017). *Attachment in children with autism spectrum disorder: A systematic review*.
- Van Esch, L., Ceulemans, E., Van Leeuwen, K., & Noens, I. (2019). The association between parenting behaviours and adolescent characteristics. *Research in Autism Spectrum Disorders*, 65. doi: 10.1016/j.rasd.2019.05.003
- Volkmar, F., Chawarska, K., & Klin, A. (2005). Autism in infancy and early childhood. *Annual Review of Psychology*, 56. doi: 10.1146/annurev.psych.56.091103.070159
- Volkmar, F. R. (2011). Asperger's disorder: Implications for psychoanalysis. *Psychoanalytic Inquiry*, 31(3). doi: 10.1080/07351690.2010.513664
- Wan, M. W., Green, J., Elsabbagh, M., Johnson, M., Charman, T., & Plummer, F. (2012). Parent-infant interaction. *Research in Developmental Disabilities*, 33(3). doi: 10.1016/j.ridd.2011.12.011
- World Health Organization. (2019). *International classification of diseases (11th revision)*.
- Zlomke, K. R., Bauman, S., & Edwards, G. S. (2019). An exploratory study of the utility of the dyadic parent-child interaction coding system. *Journal of Developmental and Physical Disabilities*, 31(4). doi: 10.1007/s10882-018-9648-3
- Žvelc, G. (2011). *Razvojne teorije v psihoterapiji: Integrativni model medosebnih odnosov [developmental theories in psychotherapy: Integrative model of interpersonal relationships]*.
- Žvelc, G., & Žvelc, M. (2000). Slikovni test separacije in individualizacije. *Preliminarna raziskava [The Separation-Individuation Pictorial Test: A Preliminary Study]*. *Psihološka obzorja*, 9(2). doi: 10.20419/2000.9.10
- Žvelc, M., & Žvelc, G. (2006). Stili navezanosti v odraslosti [attachment styles in adulthood]. *Psihološka obzorja*, 15(3). doi: 10.20419/2006.15.208