The International Journal of Indian Psychology
ISSN 2348-5396 (Online) | ISSN: 2349-3429 (Print)
Volume 12, Issue 2, April- June, 2024
DIP: 18.01.213.20241202, DOI: 10.25215/1202.213
https://www.ijip.in

Research Paper

Parenting Styles and Parent-Child Interactions in Autism Spectrum Disorders in India

Amritha Lakshmi Satheendranath[1], Alphonsa Joseph[2], Bhuvaneswari B[3]*

ABSTRACT

Objective: This study was conducted to analyze the relationship between the parenting styles and parent child interaction among children with Autism Spectrum Disorders in the Indian context. **Design:**18 children with ASD, along with their parents were included in the study. Parenting Style Dimension Questionnaire (PSDQ) was used to understand parenting styles. A free play interaction session was video recorded and coded using the Dyadic Parent-Child Interaction Coding System (DPICS). **Results:** Unlike most studies that reported authoritarian parenting style, this study showed that parents of children with ASD in India, reported the use of a mixed parenting style. Fathers predominantly used the authoritarian and permissive parenting styles while mothers of children with ASD used the authoritative parenting style along with other parenting styles. Mothers used more interactive behaviors, followed by commands and questions. Verbal children with autism demonstrated pro social talk while nonverbal children with autism demonstrated positive touch. A positive correlation was observed between authoritative style of parenting and parental behavior of commands. **Conclusion:** Parenting styles shape the interactions of parents with their children who have Autism.

Keywords: *Parent Child Interaction, Parenting Styles, Autism, Authoritative, Authoritarian, Permissive*

Parenting plays a major role in shaping children's developmental outcomes. Good parenting practices support the overall family well-being. This would involve having connected relationships and interactions to ensure that children are cared for in all aspects, be it physical (providing good food, caring for their health, providing safe environment), cognitive stimulation (providing an environment that is conducive for exploring, learning and using language), social (responding to children appropriately and providing opportunities for socialization and making them independent) and emotional (providing adequate love and care to establish self-worth in children) aspects.

Parenting has been defined as a set of specific behaviors that parents use during interaction with their child, which can vary in intensity, frequency, and duration (Feldman, 2012). It has

[1]Student, Dr S R Chandrasekhar Institute of Speech and Hearing, Karnataka, India.
[2]Faculty, Dr S R Chandrasekhar Institute of Speech and Hearing, Karnataka, India.
[3]Faculty, Dr S R Chandrasekhar Institute of Speech and Hearing, Karnataka, India.
*Corresponding Author

Received: December 27, 2023; Revision Received: May 22, 2024; Accepted: May 26, 2024

been widely understood that there are specific combinations of parenting practices that constitute some patterns that lead to specific styles of parenting. These styles are closely related to the development of the child (Baumrind, 1991). Barber, Stolz and Olsen et al. (2005) identified three global, relatively independent dimensions of parenting namely support or warmth, behavioural control and psychological control. A fourth dimension named autonomy support was added to this list by Soenens, Vansteenkiste, Lens, Luyckx, Goossens, Beyers and Ryan (2007). Distinct parenting styles have been described based on these dimensions.

Baumrind (1966, 1967, 1971), a pioneer on research in parenting styles, introduced a typology with three major parenting styles, namely, authoritative, authoritarian and permissive parenting styles. While authoritarian parents exert excessive control over their child, authoritative parents are reasonable and highly responsive. In total contrast, permissive parents allow their children to do what they want regardless of the consequences (Baumrind, 1991). Authoritative parenting is considered as a positive parenting style, which is both responsive to and demanding from the child. Although, Baumrind's typology has been used by several empirical studies, it does not address the influence of joint parenting styles on child development. Martin, Ryan and Brooks-Gunn (2007) state that children are influenced by the combined practices of both parents and further, mothers and fathers can differ in their parenting styles.

Further to this classification of parenting styles, Baumrind (1971, 1991) discussed dimensions of parenting and represented parenting dimensions as two orthogonal factors namely responsiveness and demandingness. Authoritative parenting style is a combination of responsiveness and demandingness and has been conceptualized as a positive parenting style (Dyches, Smith-Korth, Roper & Mandleco, 2012; Senese, Bornstein, Haynes, Rossi &Venuti, 2012). Permissive and authoritarian parenting styles have been considered as negative parenting styles. Thus, authoritative is a more preferred parenting style, while the other two are considered as non-preferred parenting styles. Among the various available measures, Parenting Styles and Dimensions Questionnaire (PSDQ) (Robinson, Madelco, Olsen & Hart, 2001) is widely used to understand parenting styles (Olivari, Tagliabue & Confalonieri, 2013).

Parenting practices are specific actions that parents employ in their parenting. These practices determine the parenting styles. They have a strong link with the developmental outcomes and also influence the quality of parent child relationship. This in turn influences the child's development (September, Rich & Roman, 2015).

Flykt (2014) conceptualized parent-child relationship as a type of relationship that typically begins in pregnancy, usually characterized by strong bonds between children and their parents. The nature of the parent–child relationship is different from all other kinds of relationships (such as partners, siblings and friends) because of its high degree of closeness (Troll & Fingerman 1996). It has been argued that parent child relationships are multifaceted. Parenting styles and child outcomes have been found to be mediated by parent child relationships (Dexter & Stacks, 2014). Parenting styles and parent-child relationship work together in influencing child development (Berger & McLanahan, 2015).

While parents of typically developing children encounter challenges of adapting their parenting styles to the needs of their own child, parents of children with disabilities face other specific challenges while parenting their children. Thus, families of children with

disabilities are negatively impacted and they experience more instability and dysfunction than 'typical' families (Watson & Hayes, 2011).

Children with disabilities are a part of an ecological framework that includes their parents, siblings, extended family members, friends, neighbors and the community as a whole. There is a need to understand the cultural differences in the beliefs about family participation with the child with disability so that parents and caregivers can be meaningfully engaged with the children. Family centeredness involves understanding the child in the context of the family and respecting family concerns, priorities, resources, values, beliefs, and day-to-day life activities. Families can provide natural learning opportunities that can be used to promote appropriate developmental outcomes in children with disabilities. Family involvement produces positive effects for children's physical, cognitive, social and language skills, fostering a parent's sense of personal control and self-efficacy (Applequist and Bailey, 2000).

Parent-child relationships are multifaceted. When the caregiver and child assume reciprocal roles of initiator and responder in a mutually regulated system, it is known as caregiver-child dyad (Walden & Knieps, 1996). The parent-child or caregiver-child dyad sets a powerful context for the management of children with disabilities. The interaction between the parent and child is like a filter through which all the intervention will pass through.

Several assessment procedures have been designed to understand parent child interaction. Some tools include 'Behavior State Coding' (Cohn, Matias, Tronick, Connell, Lyons-Ruth, 1986), 'The Dyadic Mutuality Code' (DMC) (Censullo, Bowler, Lester, & Brazelton, 1987), 'Coding Interactive Behavior' (CIB) (Feldman, 1998), 'Parent–Child Interaction Rating System' (PCIRS) (Belsky, Crnic, & Woodworth, 1995), 'The Dyadic Communication Measure for Autism' (DCMA) (Alfred, Green & Adams, 2004), and 'The Dyadic Parent-Child Interaction Coding System' (DPICS) (Eyberg, Nelson, Duke, Boggs, 2009). Out of these the Dyadic Parent-Child Interaction Coding System (DPICS) has been used for the purpose of this study as it is a structured system.

According to the Diagnostic and Statistical Manual of Mental Disorders-V (American Psychiatric Association, 2013). Autism spectrum disorder (ASD) is defined as a neurodevelopmental disorder characterized by persistent deficits in one or more domains such as social communication, verbal and non-verbal communication, and restricted and repetitive behaviors.

According to a study by Bailey (2016), among the parenting styles used with children with autism spectrum disorder (ASD, authoritarian parenting style was the least reported while authoritative parenting style was the most common and permissive the second most popular parenting style. The study also suggested that there were no differences in parenting styles between verbal and nonverbal children.

Children with Autism Spectrum Disorder (ASD) have limited or unusual play patterns making it difficult to maintain attention while involving in social engagement and parent strategies become more important. Parents of children with autism find it difficult to achieve productive, enjoyable, and interactive play. Parents also find it difficult to engage the child in reciprocal, symbolic, turn taking play episodes without intervention (Kasari et al, 2010).
Due to the characteristics exhibited in Autism Spectrum Disorders (ASD), there exists a challenge in the very nature of parenting (Beer, Ward, & Moar, 2013). Parents exhibit

difficulty in building good relationships with their child due to specific child-related difficulties associated with ASD (Davis & Carter, 2008; Hirschler Guttenberg, Golan, Ostfeld-Etzion & Feldman, 2015). A study done by Hoffman (2009) showed that, parents in USA perceived close relationships with their children with Autism Spectrum Disorder than typically developing children. Similar studies done by Beurkens, Hobson and Hobson (2013) showed no impact on the quality of parent child relationships.

In a study on the parenting styles and parent child relationships among Indonesian parents of typically developing children and children with Autism Spectrum Disorders (ASD), Riany, Cuskelly and Meredith (2017) found significant differences among the two. Parents of children with Autism Spectrum Disorder showed more of an authoritarian parenting style and less authoritative parenting style when compared with parents of typically developing children. Parents also used the reasoning parenting style lesser in comparison to the other group as it relied more on verbal strategies reflecting communication difficulties in children with Autism Spectrum Disorders (ASD). Also, a permissive parenting style was not used by these parents.

Parent child interactions have been extensively used in intervention. A pilot study by Zlomke, Jeter and Murphy (2017) found that coaching parents on how to interact with their children with ASD, reduced their disruptive behaviour to a great extent. Functional communication and prosocial behaviour improved in children with ASD when parent child interactions were worked upon. Early studies (Konstantareas, Mandel & Homatidis 1988) also looked at the differences between interaction patterns of fathers and mothers and whether these patterns influenced the parenting style. Interestingly, fathers issued direct directives, while mothers used prompts to stimulate their children's speech. Overall, the responsiveness of the parents (one of the dimensions of parenting styles) has been found to influence the quality of play in children with ASD (Flippin, 2010).

Aspects like parenting style and level of stress of parents having children with ASD were also studied by some researchers (Tripathi, 2015). In this study carried out in northern part of India, it was found that the mothers of children with ASD scored low on rules and discipline and scored higher on positive parenting, stimulating the development, and adapting the environment. This was indicative of a permissive parenting style. They also reported variations in the parenting styles depending on the severity, with a more authoritarian parenting style among severe ASD in comparison to mild/moderate forms. Increased levels of stress in parents were seen to be a reason for displaying an authoritarian parenting style instead of authoritative parenting style. These results were contrary to the others done in Asia.

The present study aimed to assess the parenting styles among children with ASD. It also aimed to analyze the parent-child dyadic communication interaction patterns and to study the relationship between parenting styles and observational ratings of parent child interaction with ASD in India.

METHODOLOGY

Sample

A total of 18 children with a diagnosis of Autism Spectrum Disorder, further classified as verbal and nonverbal along with their primary caregivers were considered for the study. The following were the selection criteria: a) all the children had a diagnosis of Autism Spectrum Disorders; b) the children included were between the age range of 3-6 years; c) the children

attended a minimum of 15 sessions of therapy (Speech and Language therapy, Behavioral therapy, ComDEALL Program); d) no presence of co-morbid conditions such as Hearing Impairment, Visual Impairment. Participants were recruited from the ComDEALL unit of Dr S R Chandrasekhar Institute of Speech and Hearing, Bangalore, India (urban setting).

Instruments

a) Parenting Styles and Dimension Questionnaire (PSQD): This questionnaire developed by Robinson et al. (2001) was given to the parents of children with ASD recruited for this study. It is a 62-item questionnaire that assesses three main types of global parenting dimensions- authoritative, authoritarian and permissive parenting practices. Participants respond to each item using a 5-point Likert-scale, anchored by "1=Never" to "5=Always. The mean for each scale is calculated, with higher scores indicating higher use of a particular style.
b) The Dyadic Parent-Child Interaction Coding System (DPICS, III Edition) developed by Eyberg, Nelson, Duke& Boggs (2009) was used to code the parent child interaction behavior.The Dyadic Parent-Child Interaction Coding System (DPICS) is a behavioral observation system designed to assess the quality of parent-child social interactions. The DPICS categories serve as markers of parent-child relationship quality expressed through overt verbal and physical behaviors during social interactions that vary in the degree of control required by the parent. The child behaviors of interest in the DPICS are those that reflect social reciprocity and cooperation in dyadic interaction.
c) Toys: Toys appropriate for the dyadic interaction were opted based on the guidelines mentioned in The Dyadic Parent-Child Interaction Coding System (DPICS). Gender neutral toys that remained consistent for all the recordings were selected such as building block set, doodle board (Magic slate) and animal set.

Procedure

Ethical clearance was obtained from the Institutional Ethical Committee video clearance number BNGRC/R/IEC/DISS/38/2019-20, for carrying out the proposed study. Informed consent was obtained from the parents prior to their inclusion in the study. The primary caregiver was asked to fill out the Parenting Styles and Dimension Questionnaire.

The participants were engaged in a free play along with their primary caregivers with the designated set of toys selected based on the guidelines given in Manual for Dyadic Parent-Child Interaction Coding System.

The caregivers were verbally instructed by the researcher to interact and play with their child as they would in a daily situation in the child's primary language. They were given a packet containing the designated set of toys and were given the freedom to select any from the given set and play with the same for a 10-minute period while a video recording of the same was done.

All the interactions were video recorded by the researcher in a sound-treated room with adequate illumination and no visual distractors using a mobile phone with high-definition quality to ensure clear audio and clear video recording. The recordings were taken from a 3-5 feet distance. A 10-minute recording was thus obtained which was subjected to further analysis.

The video recordings were transcribed by the researcher for the purpose of coding of the interaction patterns. Each video recording was then coded for noting the communication behaviors of the mother and child based on The Dyadic Parent-Child Interaction Coding System (DPICS). The scores of the Parenting Styles and Dimensions Questionnaire as well as the scores on parent child interaction obtained through DPICS were subjected to appropriate statistical analyses.

DISCUSSION

The results are reported and discussed under the following heads:

1. Parenting styles in children with ASD
2. Parent-child dyadic communication interaction patterns among verbal and nonverbal children with ASD
3. Relationship between parenting styles and observational ratings of parent-child interactions in ASD

1. *Parenting styles in children with ASD*

The scores on Parenting Styles and Dimensions Questionnaire were analyzed to understand the parenting styles used by the parents of these children with ASD. The mean scores obtained for each parenting style was compared to the standard mean scores and thus the type of parenting style was determined. If the calculated scores were above the normative mean, it was indicative of the use of that parenting style, while the scores obtained below the normative mean indicated that the parent was not following that parenting style.
Table 1. shows the parenting styles among parents of children with ASD

Table 1. Analysis of Parenting Styles among parents of children with ASD according to gender

Variables	**Gender**			
	Father		**Mother**	
	Mean	**S.D**	**Mean**	**S.D**
Authoritative	13.50	4.01	15.39	1.74
Authoritarian	8.91	2.76	11.31	2.57
Permissive	7.15	2.41	7.82	1.46

The results revealed that the parenting styles differed significantly among mothers and fathers. While the calculated mean for authoritative parenting style among fathers were 13.50 and mothers were 15.39, the standard mean for authoritative parenting style was 15.026. The mean obtained for authoritarian parenting style was 8.91 among fathers and 11.31 among mothers, while the standard mean for authoritarian mean was 8.62. The average obtained for permissive parenting style was 7.15 among fathers and 7.82 among mothers and the standard mean was 6.17.

From the results described above, it can be concluded that parents use an overall *mixed parenting style* when dealing with their children with autism spectrum disorders. Children with autism exhibit communicative difficulties as well as behavioral issues. Therefore, parents use a combination of parenting styles to cope with the same. It can also be explained that these parents find it confusing to follow a single type of parenting style and hence shift from one to another depending on the situation and the child's needs.

The differences between the parenting styles followed by the mothers as compared to the fathers could be attributed to the parent training program attended by the mothers while their children with ASD availed therapy services at the ComDEALL unit. The training program introduced the mothers of children with ASD to the cognitive and sensory processes behind the behavior exhibited by their children, ways to effectively handle those behaviors using positive parenting. The effects of various parenting styles on children's developmental outcomes were discussed in detail. This could have probably led the mothers to modify their interaction patterns with their children with ASD and use more positive parenting styles.

2. Parent-child dyadic communication interaction patterns among verbal and nonverbal children with ASD

Parent-child dyadic communications were carefully transcribed and coded according to the DPICS manual. The parenting behaviors were grouped under four categories which include commands (direct and indirect commands), questions (informative and descriptive questions), interaction (behavior description, reflection, neutral talk, play talk and negative talk) and reinforcement (labeled praise, unlabeled praise, positive and negative touch). Through an analysis of the video sample, it was observed that interaction (M= 90.89) was the most frequent parent behavior, followed by commands (M= 62.33) and questions (M= 30.78). The parental behaviors grouped under reinforcement (M= 15.11) were the least observed behaviors during dyadic interactions. Neutral Talk (TA, M= 70.77) was frequently observed, while indirect commands (IC/CO, M= 1; IC/NC, M= 3; IC/NOC, M= 1) were least observed.

It was observed that parents of children with ASD used a higher rate of direct commands while interacting with their children. Interestingly, these parents did not provide adequate time to the children to comply with or respond to the questions stated (DC/NOC, M= 27.05). In a way, this meant that the parents tend to bombard their children with commands without appropriate time gap for response/ interaction. It was also noted that the children were not compliant to the commands (DC/NC, M= 16.66) given by the parents, which could be due to various reasons such as a lack of understanding of the command, reduced response time or auditory integration delay. Indirect commands were not popularly observed during the dyadic interaction. This could be due to the awareness on the part of parents about their children's difficulty in following non-specific commands. Thus, it is inferred that parents of children with ASD commanded and suggested probably more than parents who interact with typically developing children. This aspect has been suggested in some studies that concluded that children with ASD possibly are unable to understand or are not at a developmental level to follow commands (Zlomke et al., 2019). Another reason for higher average scores on parental behaviors of commands could be due to a bias while coding the behavior. Research states that compliance to commands might be a difficult behavior to code as it is more subjective and depends not only on the child's response but also their understanding and ability as judged by the coder (Zlomke et al., 2019).

The analysis of the video samples also suggested that parents of children with ASD used information questions while interacting with the children which obtained responses such as answer (IQ/AN, M= 3.5), no answer (IQ/NA, M= 5.77) and no opportunity for answer (IQ/NOA, M= 12.52). Descriptive questions (DQ, M= 12.53) were also used by parents while interacting with their children. Again, it was noticed that the parents did not provide adequate chance for the children to answer the questions posed by them. This observation is in line with Studies (Dawson, Hill, Spencer, Galpert & Watson, 1990; Doussard–Roosevelt, Joe, Bazhenova`& Porges, 2003) which observed that children with ASD are less contingent

towards the parents' responses and therefore, parents use these behaviors to an increased extent.

In the interaction domain, reflective statement (RF, M= 2.5) was the least observed behavior. The children who participated in the study produced limited verbalizations which could be the possible reason behind a reduction in the elaboration or paraphrasing of child responses. Behavior description (BD, M= 3.90) was also observed less during the dyadic interactions. The other three behaviors neutral talk (TA, M= 70.77), negative talk (NTA, M= 10.61) and play talk (PT, M= 8.5) were also noted at different frequencies during the dyadic interaction. It was observed that parents predominantly use statements while interacting with the child, although it does not evaluate the child's behaviors or actions. They also use verbal or vocal behavior (TA) while interacting with the child, which is not a direct form of verbal communication; these are mostly used to keep the child attentive and interested in the play activity. Through interactions with the mothers, it was understood that they experienced a lot of stress while interacting with their children with ASD. Therefore, it can be reasoned that they used verbal expressions of disapproval (NTA). Thus, it has been found that parents of children with autism spectrum disorder (ASD) use the same number of verbalizations while interacting as done by parents who have children without ASD (Doussard-Rousevelt et al, 2003), the only difference being that for parents of children with ASD, the focus of interaction is mostly to redirect the child's attention to more appropriate play.

The findings of the present study suggest an overall reduction in the use of reinforcement during the dyadic interaction, with unlabelled praise (UP, M= 9.25) being used mostly, followed by negative touch (NTO, M= 6.85) and labeled praise (LP, M= 3.33). Positive touch (PTO, M= 2.22) was the least observed behavior. This could be again attributed to the challenges faced by the parents during the interaction as a result of which they ended up using negative attitudes towards the child over positive ones and praised the child at limited intervals during the ten minutes free play session.

Another important observation was, parents, and not the children, predominantly initiated the dyadic interaction. Therefore, it was an adult-directed interaction. But the play, especially the choice of toys and the kind of play selected was mostly according to the interests of the child. This observation about the parents is in line with the study by Freeman and Kasari (2013), who reported that parents of children with ASD initiated most of the schemes than parents of typically developing children. They also explained that parents of children with autism had longer lasting parent-initiated schemes. Almost all the parents who participated in the present study used all the designated toys to keep the child focused and engaged during the entire session. More than half of the parents were constantly involved in verbal monologue while interacting with their children. It was also observed that a few parents were very passive during the dyadic interaction. This led to the children being very less responsive to the activities that were carried out. This is in consonance with the study by Freeman and Kasari (2013) who explained that child engagement was noted to be affected by specific parent interaction strategies. A possible explanation for such parent behavior could be the presence of the researcher during the interactions and the and the fact that the interactions were being recorded.

A Spearman rank order correlation showed that the parental behaviors of commands and interaction were negatively correlated and statistically significant ($r_s(18)=0.633$, $p= 0.005$). The use of more verbal interactions during the free play could be indicative of parental

attempts to bridge the gap between the restricted interests and other behaviors typical in children with ASD. This is in consonance with literature which states that the frequency of verbal behaviors of parents play an important role in determining the quality of the play of children with ASD (Flippin 2010). Further, since the participants of this study were attending intervention sessions, it is possible that the parents were aware of the various behaviors to be used while interacting with their children and hence used the same when involved in a play session with their children. The use of commands clearly reflects circumstances where parents are compelled to talk more in order to direct the interaction. This compulsion could be fueled by restricted interests, stereotypic behaviors and decreased appropriate play seen in children with ASD (American Psychiatric Association, 2013). The use of questions by parents could be attributed to improving the child response elicitation and involvement during the dyadic interaction. It has been explained that mothers of children with autism spectrum disorder use a compensatory interaction style wherein there was an increase in the use of social initiatives, more imperative and less declarative statements and more denying responses (Meirsschaut et al, 2010). Thus, mothers mostly stimulated higher level play with their children with autism than typically developing children.

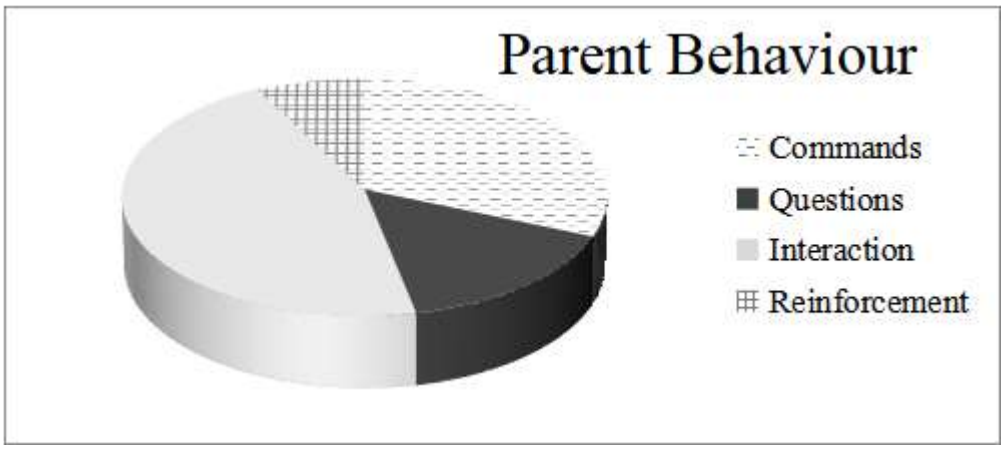

Figure 1. Frequency of occurrence of various parent behaviors during the dyadic interaction

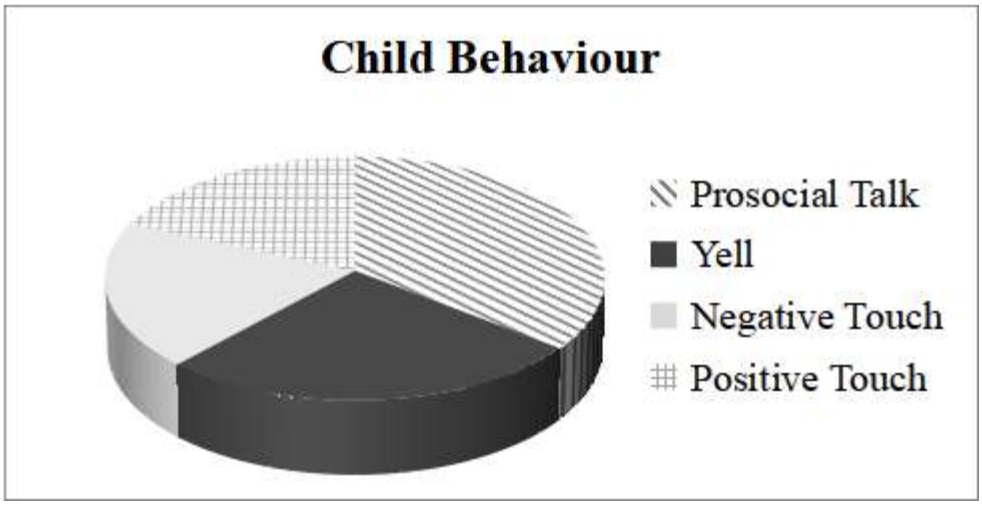

Figure 2. Frequency of occurrence of various child behaviors during the dyadic interaction.

Among the child behaviors mentioned in the dyadic parent child interaction coding system, only the following child behaviors were observed: Prosocial Talk (PRO, M= 6.63), Yell (YE, M= 4.75), Negative talk (NTA, M= 3.5) and positive touch (PTO, M= 3.33). The mean scores indicated that prosocial talk was the most common behavior in the children, followed by yell, negative touch and then positive touch.

The child's prosocial talk observed during the 10-minute dyadic interaction was indicative of verbalization behaviors that contributed positively to the parent child interaction. These verbalization behaviors elicited parental responses in terms of behavior description, neutral talk, reflective statements, labeled and unlabeled praise. It has to be noted that the children who participated in this study, though verbal, showed limited verbal expressions. Therefore, other child behaviors such as questions, commands, whine and negative talk were not observed. Also, since children with autism spectrum disorders have difficulty with communication interactions, turn taking, questioning and so on there was limited or no observation of the above-mentioned behaviors.

While the above are general observations of parent behaviors and child behaviors during the dyadic interaction, it was important to compare the same between verbal and nonverbal children with ASD. On comparing the mean parent behavioral scores among verbal and non-verbal children with autism spectrum disorder (ASD) the frequency of occurrence of behaviors was similar for questions, interaction and reinforcement. Commands were observed with more frequency among parents of non-verbal (M= 72.27) than verbal (M= 54.3) children with autism. While comparing the mean child behavioral scores during the dyadic interaction, variations were noted between the verbal and non-verbal children with autism spectrum disorder (ASD). While prosocial talk was observed with higher frequency among verbal (M= 2) than non-verbal (M= 6.7) children with autism spectrum disorder (ASD), positive touch was noted more among non-verbal children (M= 6.5) than verbal children (M= 1.75). Yell was observed more among verbal children than non-verbal children with autism spectrum disorder (ASD).

Further, Mann-Whitney U test indicated that the parental behavior of 'reinforcement' was significantly different for verbal children as compared to non-verbal children with autism (U= 12, p= 0.012). While Mann-Whitney U tests on parental behaviors of commands, questions and interaction as well as child behaviors of yell, prosocial talk, positive and negative touch did not show significant statistical differences between verbal and non-verbal children.

The non-verbal children with autism present an insufficient predisposition to engage in communication with their parents, which in turn affects the parent child relationship (Mundy, Sigman, Ungerer& Sherman, 1986). Children who are unable to verbalize their thoughts and actions may show a number of behavioral issues making it difficult for the parents to maintain the dyadic interaction, which could be attributed to the use of commands with non-verbal children. The occurrence of communication breakdowns during the dyadic parent child interaction would have led to an increase in the number of parental commands observed during interaction with non-verbal children.

3. *Relationship between parenting styles and observational ratings of parent-child interactions in ASD.*

A Spearman rank-order correlation was performed to determine the correlation between parenting styles and parent behaviors during parent-child interaction. A positive correlation

was observed between authoritative style of parenting and parental behavior of commands. No other significant correlation has been found between the other parenting styles and parental behaviors observed during the parent child interaction.

According to the reports by the mothers who participated in the study, fathers of children with autism spectrum disorder (ASD) were more demanding and directive while interacting with their children hence give more direct and indirect commands during play. Commands are usually attributed to a more controlling behavior while authoritative parenting style is considered as one that enforces firm control on the child but takes into consideration the child's individual interests and ways. These observations are in line with the studies in literature which mention that difference exists in the way fathers and mothers interact with their children with autism (Konstantareas, Mandel, and Homatidis, 1988). It was reported that fathers used a lower number of prompts and a higher number of directive statements while interacting with their children with autism. There is a possibility that children spend more quality time with their mothers in comparison to fathers and therefore, to maintain the interaction with their children fathers tend to use more commands. The same has been explained in several studies which state that children provide more leads while interacting with a more familiar play and communication partner, usually the mother (Flippin & Watson, 2015). Studies have also shown that fathers use more directive behaviors while interacting with their children with autism spectrum disorder (ASD) than with typically developing children (Goldberg, Clarke-Stewart, Rice, & Dellis, 2002).

Scatterplots were used to analyze the relationships between the parenting styles and parent behaviors noted during the dyadic interaction. There was a positive correlation between authoritative parenting style and the parental behavior of commands which was found to be statistically significant ($r_s(18) = 0.633$, $p = 0.005$).

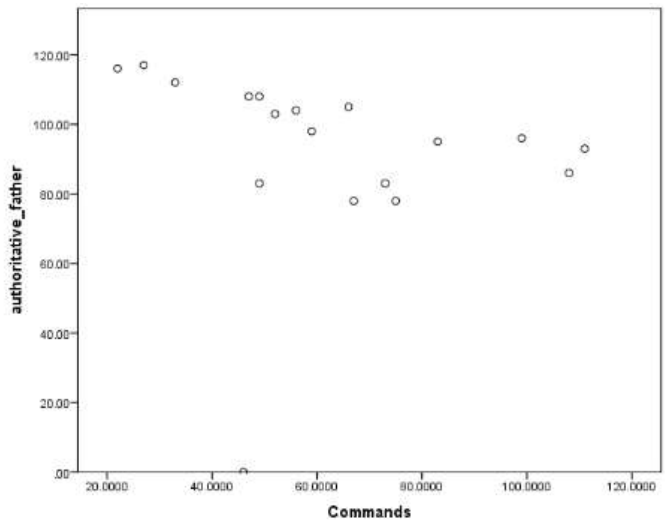

Figure 3. Scatterplot showing the positive correlation between authoritative parenting style in fathers and parental commands.

SUMMARY AND CONCLUSION

Parenting is a complex process that has the potential to influence the various developmental outcomes in children. A variety of factors influence the parenting process and the styles of parenting. The interactions between parents and their children stem from the predominant style of parenting that they adopt. With these ideas as a foundation, this study was carried

out primarily to explore the parenting styles and dyadic interactions among children with ASD, and whether any relationship exists between them.

While most studies on parenting children with ASD report authoritarian parenting styles, the present study highlighted a mixed parenting style in mothers and fathers of children with ASD. The difference in parenting styles between the mothers and fathers in this study could be attributed to the effect of training the mothers on various skills while their children with ASD availed therapy services at the ComDEALL unit.

Although the sample size was 18 with unequal distribution of verbal (n=10) and non-verbal children (n= 8) with ASD, making it difficult to generalize, the recording of dyadic interactions showed that parents of children with ASD use more of interactive behaviors, followed by commands and questions. Among the child behaviors, prosocial talk was the most common, followed by yell, negative touch and then positive touch. Further, a positive relationship between authoritative style of parenting and parental behavior of commands was obtained.

An issue with the dyadic interaction in this study could be that the interaction was obtained from a structured clinical setting, deeming the sample to be less naturalistic. Another possible issue is that the parenting styles and dimension questionnaire (PSDQ) is a self-report questionnaire, and the scores rely completely on what the parents have reported. The responses to self-report questionnaires have a bias towards social desirability. Although this introduces method bias, literature states that such self-reports can be employed as a useful means of data collection as long as the tools are well validated (Gonyea, 2005).

Further studies in this area could analyze the parent-child interaction in various settings such as home, school, etc. and involve various dimensions such as child-led play and parent–led play to assess if any variations exist between the two. Studies could also involve an additional control group to assess whether variations exist in the parenting styles and parent-child interaction with that of the experimental group. It would also be interesting to study if variations can be noticed in parenting behaviors and parent-child interaction before and after enrolment into parent-mediated intervention programs. Studies could also focus on developing coding manuals pertaining to parent and child behaviors in the Indian context.

REFERENCES

Adamson, L. B., Deckner, D. F., & Bakeman, R. (2010). Early interests and joint engagement in typical development, autism, and Down syndrome. *Journal of Autism and Developmental Disorders*, 40(6), 665-676.

Aldred, C., Green, J., & Adams, C. (2004). A new social communication intervention for children with autism: pilot randomized controlled treatment study suggesting effectiveness. *Journal of Child Psychology and Psychiatry*, 45(8), 1420-1430.

American Psychiatric Association. (2013). Diagnostic and Statistical manual of mental disorders (5th edition) Arlington, VA: American Psychiatric Publishing.

Applequist, K. L., & Bailey Jr, D. B. (2000). Navajo caregivers' perceptions of early intervention services. *Journal of Early Intervention*, 23(1), 47-61.

Bailey, N.C. (2016). Attachment Styles, Parenting Styles and Theory of Mind: An Exploration of their relationships with Social Deficits in Autism Spectrum Disorders. Unpublished Master's Thesis. University of Cape Town, Faculty of Humanities, Department of Psychology.

Barber, B. K., Stolz, H. E., Olsen, J. A., Collins, W. A., & Burchinal, M. (2005). Parental support, psychological control, and behavioral control: Assessing relevance across time, culture, and method. *Monographs of the society for research in child development*, i-147.

Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child development*, 887-907.

Baumrind, D., & Black, A. E. (1967). Socialization practices associated with dimensions of competence in preschool boys and girls. *Child development*, 291-327.

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monographs*, 4, 101–103.

Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *The journal of early adolescence*, 11(1), 56-95.

Beer, M., Ward, L., & Moar, K. (2013). The relationship between mindful parenting and distress in parents of children with an autism spectrum disorder. *Mindfulness*, 4, 102–112.

Belsky, J., Crnic, K., & Woodworth, S. (1995). Personality and parenting: Exploring the mediating role of transient mood and daily hassles. *Journal of personality*, 63(4), 905-929.

Berger, L.M., McLanahan, S.S. (2015). Income, Relationship Quality and Parenting: Association with Child Development in Two-Parent Families. *Journal of Marriage and Family*, 77(4), 996-1015

Beurkens, N. M., Hobson, J. A., & Hobson, R. P. (2013). Autism severity and qualities of parent–child relations. *Journal of Autism and Developmental Disorders*, 43, 168–178.

Boonen, H., van Esch, L., Lambrechts, G., Maljaars, J., Zink, I., Van Leeuwen, K., &Noens, I. (2015). Mothers' parenting behaviors in families of school-aged children with autism spectrum disorder: An observational and questionnaire study. *Journal of Autism and Developmental Disorders*, 45, 3580–3593.

Censullo, M., Bowler, R., Lester, B., & Brazelton, T. B. (1987). An instrument for the measurement of infant-adult synchrony. *Nursing Research*, 36(4), 244-248.

Cohn, J. F., Matias, R., Tronick, E. Z., Lyons-Ruth, K., & Connell, D. (1986). Face-to-face interactions, spontaneous and structured, of mothers with depressive symptoms. *Maternal depression and child development*, 34, 31-46.

Davis, N. O., & Carter, A. S. (2008). Parenting stress in mothers and fathers of toddlers with autism spectrum disorders: Associations with child characteristics. *Journal of Autism Developmental Disorders*,38, 1278–1291.

Dawson, G., Hill, D., Spencer, A., Galpert, L., & Watson, L. (1990). Affective exchanges between young autistic children and their mothers. *Journal of abnormal child psychology*, 18(3), 335-345.

Dexter, C., & Stacks, A. (2014). A preliminary investigation of the relationship between parenting, parent-child shared reading practices, and child development in low-income families. *Journal of Research in Childhood Education*, 28(3), 394-410.

Doussard–Roosevelt, J. A., Joe, C. M., Bazhenova, O. V., & Porges, S. W. (2003). Mother–child interaction in autistic and nonautistic children: Characteristics of maternal approach behaviors and child social responses. *Development and Psychopathology*, 15(2), 277-295.

Dyches, T. T., Smith, T. B., Korth, B. B., Roper, S. O., & Mandleco, B. (2012). Positive parenting of children with developmental disabilities: A meta-analysis. *Research in Developmental Disabilities*, 33, 2213–2220.

Eason, L., White, M., & Newsom, C. (1982). Generalized reduction of self-stimulatory behavior: An effect of teaching appropriate play to autistic children.*Analysis and Intervention in Developmental Disabilities*., 2 (2), 157–169.

Eyberg, S. M., Nelson, M. M., & Boggs, S. R. (2008).Evidence-based psychosocial treatment for children and adolescents with disruptive behavior.*Journal of Clinical Child and Adolescent Psychology*, 37(215), 237.

Feldman R.(2003) Infant-mother and infant-fathers synchrony: The coregulation of positive arousal. *Infant Mental Health Journal*, 24, 1–23.

Feldman, R.(2012) Parent-Infant Synchrony: A biobehavioral model of Mutual Influences in the Formation of Affiliative bonds. *Monographs of the Society for Research in Child Development*, 77(2), 42-51.

Flippin, M. (2010). Correlates of parent responsiveness in the interactions of fathers and mothers with their children with autism spectrum disorders (Doctoral dissertation, The University of North Carolina at Chapel Hill).

Flippin, M., Watson, L.R. (2015) Father's and Mother's Verbal Responsiveness and the Language Skills of Young Children with Autism Spectrum Disorder (ASD). *American Journal of Speech-Language Pathology*, 24(3), 400-410.

Flykt, M. (2014). Prenatal representations predicting parent-child relationship in transition to parenthood: Risk and family dynamic considerations. Tampere: Tampere University Press.

Freeman, S., & Kasari, C. (2013). Parent–child interactions in autism: Characteristics of play. *Autism*, 17(2), 147-161.

Ganz, J. B., Earles-Vollrath, T. L., Heath, A. K., Parker, R. I., Rispoli, M. J., & Duran, J. B. (2012). A meta-analysis of single case research studies on aided augmentative and alternative communication systems with individuals with autism spectrum disorders. *Journal of autism and developmental disorders*, 42(1), 60-74.

Goldberg W. A., Clarke-Stewart K. A., Rice J. A., & Dellis E. (2002). Emotional energy as an explanatory construct for fathers' engagement with their infants. *Parenting*, 2, 379–408.

Gonyea, R. M. (2005). Self-reported data in institutional research: Review and recommendations. New directions for institutional research, 2005(127), 73-89.

Hirschler-Guttenberg, Y., Golan, O., Ostfeld-Etzion, S., & Feldman, R. (2015). Mothering, fathering, and the regulation of negative and positive emotions in high-functioning preschoolers with autism spectrum disorder, *Journal of Child Psychology and Psychiatry*, 56, 530–539.

Hoffman, D.M. (2009) Reflecting on Social Emotional Learning: A Critical Perspective on Trends in the United States. *Review of Educational Research*, 79 (2), 533-556.

Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child*, 2, 217–250.

Kasari, C., Gulsrud, A., Wong, C., Kwon, S., & Locke, J. (2010). Randomized controlled caregiver mediated joint engagement intervention for toddlers with autism. *Journal of Autism and Developmental Disorders*, 40, 1045–1056.

Konstantareas, M. M., Mandel, L., & Homatidis, S. (1988). The language patterns mothers and fathers employ with their autistic boys and girls. *Applied Psycholinguistics*, 9(4), 403-414.

Martin, A., Ryan, R. M., & Brooks-Gunn, J. (2007). The joint influence of mother and father parenting on child cognitive outcomes at age 5. *Early Childhood Research Quarterly*, 22(4), 423-439.

Meirsschaut, M., Roeyers, H., & Warreyn, P. (2011). The social interactive behaviour of young children with autism spectrum disorder and their mothers: Is there an effect of familiarity of the interaction partner? *Autism*, 15 (1), 43–64.

Riany, Y., Cuskelly, M., & Meredith, P. (2017). Parenting Style and Parent–Child Relationship: A Comparative Study of Indonesian Parents of Children with and without Autism Spectrum Disorder (ASD). *Journal of Child and Family Studies*, 26 (12), 3559-3571.

Robinson, C. C., Mandleco, B., Olsen, S. F., & Hart, C. H. (2001).The Parenting Styles and Dimensions Questionnaire (PSQD). In B. F. Perlmutter, J. Touliatos, & G. W. Holden (Eds.), Handbook of family measurement techniques: Vol. 3. Instruments & index (pp. 319-321). Thousand Oaks: Sage.

Senese, V. P., Bornstein, M. H., Haynes, O. M., Rossi, G., & Venuti, P. (2012). A cross-cultural comparison of mothers' beliefs about their parenting very young children. Infant Behavior and Development, 35(3), 479-488.

September, S. J., Rich, E. G., & Roman, N. V. (2015). The role of parenting styles and socio-economic status in parents' knowledge of child development. *Early Child Development and Care*, 186, 1–19.

Siller, M., & Sigman, M. (2002). The behaviors of parents of children with autism predict the subsequent development of their children's communication. *Journal of autism and developmental disorders*, 32(2), 77-89.

Soenens, B., Vansteenkiste, M., Lens, W., Luyckx, K., Goossens, L., Beyers, W., & Ryan, R. M. (2007). Conceptualizing parental autonomy support: Adolescent perceptions of promotion of independence versus promotion of volitional functioning. *Developmental psychology*, 43(3), 633.

Tripathi, N. (2015). Parenting style and parents level of stress having children with autistic spectrum disorder (CWASD): a study based on Northern India. *Neuropsychiatry*, 5(1), 42-49.

Troll, L. E., & Fingerman, K. L. (1996). 'HANDBOOK OF EMOTION, ADULT DEVELOPMENT AND AGING: CONNECTIONS BETWEEN PARENTS AND THEIR ADULT CHILDREN' development, and aging: Connections between parents and their adult children. New York: Academic Press.

Walden, T., & Knieps, L. (1996). Social Interaction and Emotional Development. Emotional Development in Atypical Children, 29.

Watson, S. L., & Hayes, S. (2011). Does having hope help? Resiliencies and challenges of families raising a child with autism. *NADD Bulletin*, 14, 3–6.

Weitlauf, A. S., Vehorn, A. C., Taylor, J. L., & Warren, Z. E. (2014). Relationship satisfaction, parenting stress, and depression in mothers of children with autism. *Autism*, 18, 194–198.

Zlomke, K. R., Bauman, S., & Edwards, G. S. (2019). An exploratory study of the utility of the dyadic parent-child interaction coding system for children with Autism Spectrum Disorder. *Journal of Developmental and Physical Disabilities*, 31(4), 501-518.

Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Satheendranath, A.L., Joseph, A. & Bhuvaneswari, B. (2024). Parenting Styles and Parent-Child Interactions in Autism Spectrum Disorders in India. *International Journal of Indian Psychology*, *12*(2), 2461-2475. DIP:18.01.213.20241202, DOI:10.25215/1202.213