Parenting Styles and Parents' Perspectives on How Their Own Emotions Affect the Functioning of Children with Autism Spectrum Disorders

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The grounded theory method was used to analyze the parenting styles used by caregivers to rear children with autism spectrum disorders (ASD) and to investigate parents' experiences regarding how to help their child overcome the symptoms. Thirty-two parents from 28 families of children with ASD in mainland China were interviewed. Analysis of interview transcripts revealed four patterns of parenting styles which varied in affiliation to the roles of caretaker and coach. Based on their experience, a sizable group of parents perceived that their own emotions influence the child's emotions and his/her symptoms. The results suggest the value of developing intervention programs on emotion regulation and positive parenting for the parents of children with ASD.

Keywords: Autism Spectrum Disorder; Parenting Style; Emotion Transmission; Emotion–Symptom Link

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Autism spectrum disorder (ASD) is a pervasive developmental disorder which is characterized by impairment in social interaction and communication, severely restricted interests, and highly repetitive behavior (American Psychiatric Association, 2000). Because of its relatively high incidence, unclear etiology, and the uncertainty of effective intervention and prognosis, it has received much attention in recent years.

Rearing a child with ASD is a great challenge for parents. As Casey et al. (2012) argued, the diagnosis of ASD is a traumatic event for affected families. Such parents might suffer from posttraumatic stress and are at particular risk for other psychosocial difficulties such as hostility, self-consciousness, and depression. A number of studies have demonstrated that these parents face unique difficulties and report greater stress and poorer mental health than the parents of children without disabilities and those with other disabilities (Ingersoll & Hambrick, 2011; Rao & Beidel, 2009; Weiss, 2002). Beliefs regarding parenting are also impacted by the diagnosis. Such parents are more likely to believe they are not competent in their caretaking role compared with other parents (Hassall, Rose, & McDonald, 2005; Kuhn & Carter, 2006; Meirsschaut, Roeyers, & Warreyn, 2010).

Children's physical/developmental disabilities and parental mental health and parenting processes interrelate in a bidirectional manner. There has been some evidence that parental stress and parenting self-efficacy influence the functional improvement of

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children. For example, Brinker, Seifer, and Sameroff (1994) found that parental stress can predict the developmental level of children with intellectual disabilities. In another study using a sample that included children with physical disabilities, intellectual disabilities, and ASD, a strong relationship between mother-reported stress and children's progress in learning was reported (Robbins, Dunlap, & Plienis, 1991). In literature specifically about children with ASD, it has been found that parental stress impacts the effectiveness of early intervention (Osborne, McHugh, Saunders, & Reed, 2008a). Low self-efficacy among parents is also associated with less engagement in children's treatment (Osborne & Reed, 2010).

Although researchers have given much attention to parental stress and self-efficacy when parenting a child with ASD, parenting practices themselves seem to have been less explored. Existing research suggests that parents of children with ASD make more effort to stimulate the development of their special children and use more specialized parenting behaviors compared with parents of other children (Lambrechts, Van Leeuwen, Boonen, Maes, & Noens, 2011). In line with this, Tsai, Tsai, and Lotus Shyu (2008) found that such parents integrate the role of coach with their role as caretaker. The parents often act like coaches to help their children on speech, motor, and social skills. Such a dual role is considered to be an important feature of parenting in families of children with ASD (Hoogsteen & Woodgate, 2012; Tsai et al., 2008). Although these studies described features of parenting practice in families of children with ASD, they did not explore how parenting practices influence the child.

To summarize, although research to date has revealed that some parental factors, such as parental stress and parenting self-efficacy, might be associated with the functional improvement of children with ASD, few studies have systemically described approaches to parenting and parental perceptions of what in their parenting practice helps their children. To fill this gap in the literature, this study aimed to (1) obtain an in-depth understanding of parenting approaches in families with children with ASD and (2) learn about parents' experiences regarding how to help their children overcome their symptoms.

This study focuses particularly on families of children with ASD in mainland China. Although it has been more than 20 years since autism was first diagnosed in China, there is still a lack of information about and awareness of this disorder in the society and among family members. Shock and confusion are common reactions to first receiving the diagnosis (McCabe, 2008b). Because of the lack of formalized education programs and a comprehensive referral system, parents have to look for experts and select intervention programs by themselves (Clark & Zhou, 2005; McCabe, 2008a). Furthermore, as educational service resources are far from sufficient, many families who are unable to get access to such services teach their child at home (Huang, Jia, & Wheeler, 2012; Sun et al., 2013). Because of this situation, parents' attitudes, beliefs, and behaviors toward their child with ASD likely play a decisive role for the child's prognosis. Unfortunately, research on the parenting practices of parents of children with ASD in China is scarce. To our knowledge, this study is the first to investigate parenting styles in families of children with ASD in mainland China.

METHOD

Design

A grounded theory approach was selected for this study. This method involves generating new hypotheses and concepts about a particular phenomenon using an inductive and phenomenological strategy (Corbin & Strauss, 2008). Because there has been limited theoretical and empirical research on parenting children with ASD in mainland China, the grounded theory method was considered to be the most appropriate methodology for this study.

Participants

Participants were recruited via an advertisement posted on the corresponding author's blog, which mainly introduces popular science on child psychology. Inclusion was restricted to caregivers who took primary responsibility for the care of children diagnosed with ASD by a child psychiatrist. Families who expressed interest in the study were contacted to further verify the diagnosis of the child and to explain the study. Those who met the inclusion criteria were invited to participate in semi-structure interviews.

Twenty-eight families from four cities in mainland China participated in the interviews. In total, 32 parents participated in 28 interviews. Most of the participants were mothers (only two fathers were interviewed as primary caregivers), both parents from four families participated, and one aunt (father's younger sister) was interviewed as the primary caregiver of the child with ASD.

The mean age of participants was 36.69 (SD = 4.54) years. Their educational level varied among high school (4), college degree (16), master's degree (10), and doctoral degree (1). As listed in Table 1, the mean age of the children was 6.75 years (SD = 4.36). Twenty-seven out of 28 children were boys and only one was a girl. Twenty-three were the only child in their family and five had siblings. Most children had received more than one type of intervention, with applied behavioral analysis and sensory integration training being the most commonly used.

Data Collection

Eight groups of graduate students who were taking the course "Family Therapy" were trained to conduct the interviews. Each group was composed of two to three investigators. For each interview, one investigator was principally in charge of asking questions while the others took observational notes and asked additional questions to obtain details or to clarify participants' points. For the eight local families in Beijing data were collected by face-to-face interviews, and interviews by telephone were used for the 20 families located in other cities. Each of the interviews lasted 1–2 hours. Participants were asked the following questions: (1) What were your child's initial symptoms and which family member noticed them first? (2) When and where did your child receive the diagnosis and what were your reactions at the time? (3) Introduce all the intervention programs your child has ever participated in. What you think of them? (4) What are your views on autism, and how do you view your child? (5) According to your observations, what helps overcome your child's symptoms?

All the interviews were tape-recorded with permission. For the face-to-face interviews, expression, posture, and other nonverbal signs were collected to validate and expand upon the verbal information. For interviews by phone, tone and other qualities of the voice were also noted.

Procedures

Before the interview session, a consent form and questionnaires on demographic information and treatment experience were sent to the parents by e-mail. After the interviews, participants were thanked and given 50RMB (around $8). Verbatim transcripts of the tape-recorded interviews as well as comments from the corresponding author were sent to the participating parents a few days after the interviews. Participants were encouraged to check the verbatim transcript and to contact investigators if they thought there were any misunderstandings. After the process of data analysis, a concise version of the results was also sent to the participants for feedback.

TABLE 1
Children's Demographic and Treatment Data

Case	Age (years/months)	Gender	Age at Diagnosis (years/months)	Birth Order (rank/total)	Intervention
1	17/10	Male	8/0	1/1	Sensory integration training
2	5/11	Male	3/0	1/1	Applied behavioral analysis
3	7/7	Male	4/0	1/1	Applied behavioral analysis Psychological counseling
4	6/2	Male	4/0	1/1	Applied behavioral analysis Sensory integration training Alternative therapy
5	9/6	Male	2/1	1/1	Sensory integration training
6	4/8	Male	2/0	1/1	Alternative therapy Physical therapy
7	22/6	Male	6/0	1/1	Applied behavioral analysis
8	9/6	Female	2/5	1/1	Applied behavioral analysis Speech therapy
9	2/6	Male	1/8	1/1	Alternative therapy Physical therapy
10	7/1	Male	2/6	1/1	Applied behavioral analysis Sensory integration training
11	4/11	Male	2/0	1/1	Applied behavioral analysis Sensory integration training
12	8/0	Male	3/6	1/1	Sensory integration training
13	5/3	Male	4/0	1/1	Sensory integration training
14	5/8	Male	2/9	1/1	Sensory integration training Applied behavioral analysis
15	5/1	Male	2/9	1/2	Applied behavioral analysis
16	4/6	Male		1/1	Family therapy
17	3/11	Male	3/0	1/1	Applied behavioral analysis
18	7/2	Male	3/0	2/2	Applied behavioral analysis Alternative therapy
19	4/4	Male	2/4	1/1	Applied behavioral analysis Speech therapy Special day-care program Alternative therapy
20	5/3	Male	2/11	1/1	Applied behavioral analysis Speech therapy
21	2/0	Male	1/5	2/2	Sensory integration training
22	6/0	Male	2/0	4/4	Sensory integration training
23	2/6	Male	1/6	1/1	Applied behavioral analysis
24	3/0	Male	2/7	2/2(twins)	Sensory integration training Speech therapy
25	7/7	Male	2/6	1/1	Applied behavioral analysis Physical therapy
26	8/3	Male	3/0	1/1	Applied behavioral analysis Speech therapy Sensory speech therapy
27	3/10	Male	2/2	1/1	Sensory integration training Physical therapy
28	8/5	Male	2/4	1/1	Sensory integration training Family therapy

Rights of Human Subjects

This study was approved by the Institutional Review Board of the Psychology Department of Peking University. Before the interviews, participants were shown the consent

form which stated the main goals and methods of the study, their potential risks, and their right to withdraw from the study at any time. All the participants agreed to participate and none withdrew during the interviews. For confidentiality, identification information was eliminated and a number was assigned to each child before data analysis. Confidentiality was strictly kept by all investigators.

Data Analyses

Data were analyzed from the verbatim transcripts of tape-recorded interviews. Generally, we used analytic induction in data analysis, and a constant comparative method in the coding process. Three types of coding were involved: open coding, axial coding, and theoretical coding. The initial codes were generated from open coding in which units of meanings were derived from line-by-line analysis followed by integration and reduction in units (e.g., "assuming this is a life-time problem" was an initial code). When the formal codes were created, axial coding was performed to differentiate subcategories (e.g., "assuming this is a life-time problem" was put under the code "expectation adjustment"). Theoretical coding was finally used to identify relationships among categories (e.g., connection was made between "expectation adjustment" and "positive perception of the child"; Charmaz, 2006).

Three investigators (Chunli Yi, an experienced clinical psychologist and family therapist, Ting Zhou and Wenying Zhou, both graduate students) systemically reviewed the verbatim transcripts and did the coding. Data analysis was conducted simultaneously with the data collection. The coders each did open coding of five interviews individually and generated a comprehensive list of codes based on the data from the first 15 participants. Then meetings were held to discuss code clustering and consolidation. After several discussions, a codebook was developed to reflect themes common to most of the participants' data. The first 15 interviews were re-coded and remaining interviews were coded collectively based on this code book. Discussions were held when coders had different opinions. Memos were written to record possible links among themes implied by participants' descriptions. Theoretical coding was conducted collaboratively by the three coders, during which connections among themes were made.

The credibility of the data was enhanced by triangulation, that is, collecting data by different methods (interviews and observations). Confirmation of meaning with participants was done after verbatim transcripts were recorded and after the results were written up. A conformability audit was conducted by going back to the original transcripts and observation notes after the whole coding process was completed. Peer debriefing, in which impartial peers examined general methodology, was also utilized to improve overall trustworthiness (Lincoln & Guba, 1985).

RESULTS

Parenting Styles

Parenting styles were categorized into four types: training priority, relationship precedence, alternating, and letting alone (Table 2).

Training priority

The training-priority pattern refers to the style in which parents placed priority on skills training for their child. Parents whose data fit this pattern spent a lot of time training their child and had great expectations for progress. They spared no effort to find

TABLE 2
Demographic Data of Parents Categorized in Four Parenting Styles

Parenting Style	Mean Age	Education Level				Occupation	Case Involved
		High School	Bachelor	Master	Doctor		
Training priority	38.89	1	4	3	1	Civil servant (3), Housewife (2), Engineer (1), Office worker (1), Teacher (1), Company owner (1)	#1, 3, 4, 8, 14, 19, 25, 28
Relationship-precedence	38.15	2	4	6	1	Office worker (3), Civil servant (2), Teacher (2), Engineer(2), Housewife (2), Company owner (1)	#1, 2, 3, 9, 10, 12, 14, 18, 19, 23, 27, 28
Alternating	33.89	2	5	2	0	Housewife (3), Office worker (2), Civil servant (1), Teacher (1), Researcher (1), Engineer (1)	#6, 11, 13, 15, 16, 17, 21, 22, 24
Letting alone	41.00	0	2	1	0	Manager (1), Costume designer (1), Office worker (1)	#5, 7, 26

treatment resources and tried many methods. During the training process, they were usually highly demanding and strict. If the child did not concentrate or showed little improvement, the parent might punish the child: "If he performed awfully, I would beat him" (#3)[1] ; "Sometimes he made me so upset that I beat him." (#4) This kind of parent emphasized the coach role more than the caretaker role. One mother said, "I have to supervise him strictly 24 hours a day and do my utmost to train him." (#19)

The most salient emotion of these parents was anxiety, and they clearly described the relationship between anxiety and high demands in training. For example, one parent said, "I became very anxious and irritable after obtaining the diagnosis. I had to do something to make me feel better." (#19) Intensive training seemed to be a way to reduce parental anxiety. In the parents' descriptions, two kinds of cognition were associated with anxiety and intensive training. First, some parents acknowledged that they were still not able to completely accept the diagnosis, and they wanted to find evidence to confirm that their child was normal: "When she performed well, I thought the diagnosis was wrong." (#8) Second, although some parents said they had accepted the diagnosis, they were eager to see the child recover quickly, saying, for example, "We must get him to recover at a relatively young age. Otherwise, the prognosis is less promising." (#3) Because of the expectation of getting rid of the ASD label as soon as possible,

[1]Beating children was once common in traditional Chinese families. Although this behavior has been decreasing, it still exists. Because a formal legal reporting system has not been established, from our position we can only stop such violence through psychological education. We sent a letter with comments from the corresponding author to each participating parent, which contained strong appeals to not beat their child.

parents felt a sense of urgency and had high demands in training. In the training process, they seemed to have low tolerance for slow progress and were easily frustrated. Beating the children was a common reaction.

Relationship precedence

The relationship–precedence pattern is defined as the pattern in which parents emphasized the importance of the parent–child relationship and put the role of caretaker over the role of coach. Typical statements included: "I think the relationship with the child is the basis of everything," (#12) and "You have to establish a good relationship with him and then teach him something you think is important." (#20) Parents categorized into this type were willing to spend time playing with theith22593.34009.46073(#ct

Letting Alone

The last type was labeled "letting alone," denoting a style in which parents had little hope for the child's improvement and had little motivation to participate in any treatment. Three parents (#5, #7, and #26) in the interviews showed this pattern relatively clearly. One parent said "We have no good ideas about how to help him, so we choose to let him be." (#7) Powerlessness and hopelessness seemed to be their typical emotions. Negative perceptions of the child seemed common among this type of parent: one father said, "He has no special abilities. Mechanical memory is meaningless and worthless." (#5) Obviously, these parents gave up the role of coach: as one mother said, "I used to teach him at home, but he frustrated me so much that I do not teach him anymore. (#26)" However, the role of caretaker was also weakened. One father who was not the primary caretaker even distanced himself from the child; the mother recounted, "My husband did not like to talk to the child and avoided opportunities to take the child out." (#26)

It is important to note that the four types of parenting styles could change over time. The alternating pattern usually occurred in the early stage after diagnosis, when parents had little knowledge about ASD and also limited parenting experience. The relationship–precedence pattern sometimes occurred after a period of intensive training when parents sought to repair the parent–child relationship (#1, #3, #14, #19, and #28). The letting alone type is usually not primary but secondary, following frustration by the child's problems.

Parents' Perceptions on How to Help the Child Overcome His or Her Symptoms

When asked about which factors, in their experience, helped the child to overcome his or her symptoms, 23 participants presented their opinions while nine participants (mainly of the alternating type and the letting alone type) could not think of any effective factors. Two important factors were found based on the 23 responses we obtained: (1) the stress level and emotions of the child and (2) the parents' emotions. Interestingly, most parents felt that emotions powerfully influenced their child's symptoms, and spoke of emotions when asked about factors affecting their child's symptoms.

Thirteen parents from 12 families, who were mainly from the training-priority group and the relationship–precedence group (#s 1, 2, 3,4, 6, 8, 10, 12, 19, 25, 26, 28), mentioned that, according to their observations, the symptoms of the child decreased when the child was in a positive mood; saying, for example, "He looks just like a normal kid when he is happy." (#1) Stress level also seemed to have impact on the child's symptoms. One mother said, "He faced a lot of difficulties when first entering the kindergarten. And he screamed, cried and exhibited stereotyped behaviors a lot at that time." (#12)

Parental emotions seemed to be a factor influencing the emotions of children with ASD. Eleven out of 32 parents perceived emotional transmission from themselves to their child (#s 2, 3, 8, 9, 10, 12, 13, 18, 26, 27, 28), most of them from the relationship–precedence group. One parent said that "Parents' emotions have a determining influence on the emotions of the child." (#2) Based on the interviews, both positive and negative emotions of parents seemed to have an impact on the child. For example, "If I was in a good mood, my son would be happy," (#3) and "Adults in the family were sad, and the child often cried." (#13) One parent mentioned a fight between the grandparents: "They fought and my son became uneasy and irritable." (#9)

On the basis of their parenting experience, 13 parents from 11 families (#s 6, 8, 13, 17, 18, 19, 20, 22, 23, 25, 26) perceived that there seemed to be a link between parental emotions and the symptoms of their child with ASD; these families varied in parenting styles with four from the relationship–precedence group, four from the alternating group, two from the training-priority group, and one from the letting alone group. Observations included the following: "The link between my emotion and his problem is obvious. When I

was in a low mood his symptoms became severe, while when I was relaxed he performed relatively well" (#19); "When adults, especially the mother, looked anxious, the child would be very anxious and exhibit many behavioral problems." (#23) The perceived influence of parental emotions on progress in training was also mentioned: "If I was in a good mood, she could finish the work. However, if I was anxious, she could not finish no matter how much time she spent" (#8); "My mindset had a great influence on the child. If I did not adjust my emotions, he would not make any progress in the training." (#18)

Perceived Feedback Loops between Parental Emotions and the Child's Emotions and Symptoms

It seems that the four patterns of parenting were related to differences in the nature of the emotion–symptom link. On the basis of participants' descriptions, a vicious cycle seemed to emerge in the training-priority pattern: parents' anxiety, anger, and frustration made the child stressed and therefore exhibit more symptoms. In turn, the child's problems made parents more anxious: as one mother said, "My emotions enter into a vicious cycle: his retrogressing makes me stressed and my bad mood makes him even worse." (#22) On the contrary, emotions in the relationship–precedence pattern seemed to exhibit a virtuous cycle: under the influence of parental relaxation and positive parenting, the child was more relaxed, showed fewer symptoms, and made greater progress. Parents were encouraged by the improvement of the child and became highly efficacious and relaxed. As one mother said, "I found my positivity did have an influence on my child's behavior. His progress made me feel hopeful and really relaxed." (#10) Some parents who fit the alternating pattern did not report any factors that help overcome the child's symptoms, with one mother saying that "his problems come out at random." (#13) Some of them did mention the emotion–symptom link, but claims such as "[I] can not control my emotions" (#17) were typical. One parent who fit the letting alone pattern observed emotional transmission between parent and child (#26), but the other two had no ideas about factors that helped their children (#5 and #7).

DISCUSSION

Taking care of a child with ASD means great stress and difficulty for the parents. Consistent with previous research on parental stress, parents in this study reported intense negative emotions such as anxiety, hopelessness, anger, and powerlessness after the diagnosis and in daily interactions with the child. The results revealed parental emotions were associated with parenting cognition and behaviors. For example, the great anxiety of parents in the training-priority group was usually related with failure to adjust expectations regarding prognosis, and it motivated them to push their child into intensive training. In contrast, parents exhibiting the relationship–precedence style relieved such anxiety by adjusting their expectations, and they were more tolerant of the child's problems. Furthermore, parents perceived that their own emotions seemed to influence the emotional reactions of the children as well as their symptoms. This observation is in line with the results of research in samples of children without disabilities and those with physical disabilities (Hastings, 2002; Hastings & Beck, 2008). Due to the association between parental emotions and parenting processes as well as its possible influence on the child's symptoms, negative parental emotions deserve attention.

Although previous research has found that children's functional improvement reduces parental stress (Hewitson, Potts, & Barnhill, 2012; Ingersoll & Hambrick, 2011; Osborne, McHugh, Saunders, & Reed, 2008b), it is not realistic to expect the child to act as a cure for the parents. From the perspective of systematic family therapy, parents with high

self-differentiation should be able to adjust their own psychological status rather than tying their experience to their children's behavior (Nichols & Schwartz, 2004). If parents adjust their own mindset, they may have more positive perceptions of the child and more tolerance for his/her symptoms. And if parents can maintain a positive attitude then the child can experience their unconditional love, which might be helpful in lessening the impact of the autism on the child.

In line with this reasoning, we believe that helping parents with their emotional regulation is a good initial intervention for the families of children with ASD. Decreasing anxiety should be a central goal. It would be helpful to work on anxiety-related cognition to make parents adjust their expectations, take a positive view of the child, and find meaning in their caretaking practice. Social support is also an important resource for relieving stress (Ingersoll & Hambrick, 2011). For these parents in mainland China, because social services and community support are still very weak (Sun et al., 2013), support from other parents of children with ASD is currently a vital way of exchanging information, releasing stress, and obtaining encouragement (McCabe, 2008a). Family therapy would also be helpful for these parents. Although family therapy usually does not treat the symptoms of the child directly, it helps parents in their day-to-day life and in dealing with their emotions (Solomon & Chung, 2012).

As another main finding of this study, results suggested the importance of the balance between the roles of caretaker and coach. Too much stress on the role of coach may make parents too strict and less warm, potentially damaging the parent–child relationship. Because the core presenting problem of ASD is a deficit in social skills, a poor parent–child relationship may make the child feel even less motivated to initiate social interactions, which would constitute a huge obstacle to progress. Moreover, overtraining may stress the child and he/she may exhibit more symptoms and behavioral problems as a means of releasing anxiety. Thus, intensive training and disproportionate stress on the role of coach may lead to a degree of improvement on several specific skills, but it may do harm to the parent–child relationship and potentially harm the development of social interaction abilities.

Therefore, we believe that the role of caretaker is more basic than that of the coach, and that a good parent–child relationship is a prerequisite for effective training. Previous researchers have found that positive parenting and the quality of parent–child interaction predicts the social competence of children with ASD (Baker, Fenning, Crnic, Baker, & Blacher, 2007; Dyches, Smith, Korth, Roper, & Mandleco, 2012; Mahoney & Perales, 2003; Meek, Robinson, & Jahromi, 2012; Siller & Sigman, 2002). In clinical practice, parenting programs focused on teaching positive parenting skills and enhancing the quality of the parent–child relationship have shown effectiveness in leading to functional improvement in children. For example, The Stepping Stones Triple P program, which teaches parents positive child-management skills as an alternative to coercive parenting practices (Sanders, 1999), has shown effectiveness in decreasing parental stress (Whittingham, Sofronoff, Sheffield, & Sanders, 2009b) and leading to functional improvement in the child (Matson, Mahan, & Matson, 2009; Whittingham, Sofronoff, Sheffield, & Sanders, 2009a). Parent-Child Interaction Therapy which focuses on enhancing the parent–child relationship and creating a positive environment for children has been confirmed as effective in children with high-functioning ASD (Hatamzadeh, Pouretemad, & Hassanabadi, 2010) as well as in children with mental retardation comorbid oppositional defiant disorder (Bagner & Eyberg, 2007).

The results of this study provide evidence for the value of interventions targeting parents in the treatment of children with ASD, and also have implications for the content of such interventions. Although in the field of ASD interventions targeting parents are not new, the most commonly used parenting programs treat parents as coaches and teach

them how to train their children (Matson & Smith, 2008). Despite some evidence for the effectiveness of such parent-training programs (Lafasakis & Sturmey, 2007; Sheinkopf & Siegel, 1998), most indicators showed improvement on specific behavioral skills, leaving social competence unexamined. We believe that parental intervention at the skill level is not adequate. Parents should be taught to be more aware of their emotional experiences and to pay attention to the possibility of emotional transmission from themselves to the child. Parental emotion regulation and balance between the roles of caretaker and coach should also receive much more attention.

It is also important to acknowledge the limitations of this study. First, qualitative methods cannot precisely disentangle causal relationships. Although emotional transmission and an emotion–symptom link were reported in this study, these phenomena are based on the perceptions of parents and lack objective measures confirming them. Second, the progress of children was not objectively measured but was only based on the perceptions of parents. The results of this study should be further confirmed and validated using a different methodology and a larger sample. Third, participants in this study were relatively highly educated. This might be related to the recruitment method, which relied on accessing a blog. These parents might have more knowledge about autism and greater opportunities to access educational services than parents with a lower education level. Hence, the results of this study might have limited generalization to families with different social backgrounds. Finally, it is still unknown how the characteristics of parents and children are related to the adoption of different parenting styles, a question which deserves further investigation in the future. Nevertheless, our findings expand the literature on the parenting of children with ASD through an in-depth description of parenting styles and an exploration of the influence of parental emotions on symptoms in children with ASD. The results of this study may motivate health service providers to develop intervention programs for the parents of children with ASD.

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