



The Effect of Parenting Alliances and Demographic Characteristics on Nutritional Status in Children with Avoidant Restrictive Food Intake Disorder in Malang Regency, Indonesia

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ARTICLE INFORMATION

Received: February 21, 2025

Revised: July 15, 2025

Available online: August 2025

KEYWORDS

Avoidant Restrictive Food Intake Disorder (ARFID); Children; Nutritional Status; Demographic Characteristics; Parenting Alliance

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A B S T R A C T

Avoidant restrictive food intake disorder (ARFID) is an eating problem in children, causing nutritional deficiency, obstructing growth, and development. This study investigates the correlation between demographic characteristics and parenting alliance to nutritional status in children with ARFID in Malang Regency. This analytic observational study used a cross-sectional approach from December 2018 to March 2019. There were 245 respondents with multistage sampling. Parenting alliance was quantified using questionnaires, and the children's nutritional status was quantified using anthropometry, categorized based on Z-score weight-for-age. Data analysis used Pearson correlation coefficients and Multiple linear regression with $\alpha=0.05$. The result showed no correlation between parenting alliance and children's nutritional status ($p>0.05$). The multiple linear regression analysis demonstrated that children's nutritional status was influenced by a child's age ($\beta = -0.156$, $p=0.020$) and the number of children in a family ($\beta = -0.263$, $p=0.029$). In conclusion, parenting alliance is not directly related to children's nutritional status in children with ARFID. Nevertheless, the child's age and the number of children in a family affect their nutritional status.

INTRODUCTION

Avoidant restrictive food intake disorder (ARFID) is a feeding disorder in a child aged 1 to 3 years old, with symptoms including a poor ability to eat food related to their age, irregular eating schedule, and refusal to eat. Children's eating problems are generally associated with sensorial factors like taste, smell, and appearance (Nicely *et al.*, 2014). Typical symptoms of ARFID in children include psychological disorders, such as anxiety and responses to a lack of parenting (Strandjord *et al.*, 2015). Advanced symptoms of children suffering from ARFID can involve significant weight loss, nutritional deficiency, high reliance on enteral nutrition and oral supplementation, and psychosocial function disorder. Further, long-term problems with physical, social, emotional, and cognitive development may result in identity and self-esteem disorders in adolescence. Children suffering from ARFID experience growth and development disorders, such as stunting and wasting (Campbell and Peebles, 2014).

The prevalence of stunting and wasting in Indonesia in 2007, 2010, and 2013 was 36.8%, 35.6%, and 37.2%, respectively (Health Research and Development Agency, Republic of Indonesia, 2013). Stunting and wasting occur due to failure to meet nutritional or energy requirements. Therefore, fulfilling a child's dietary needs requires a good parenting alliance. Moreover, the prevalence of ARFID in several countries,

including Japan, with approximately 11%, 12.4% in Canada in 2013, 22.5% in the United States in 2012, and 5–23 % in the UK in 2014 (Nicely *et al.*, 2014). Several factors are predicted to cause ARFID, such as caregiver disruption, interaction between mother and children, and environmental and psychological stress (Sacrato, Pellicciari and Franzoni, 2010; Campbell and Peebles, 2014). In addition, parental child neglect and abuse are other contributing factors. A previous study by Væver, Smith-Nielsen & Lange provided data on the conflict of affection in the parent-child relationship, which ranged between 13–82% (Væver, Smith-Nielsen and Lange, 2016).

Parenting alliance is defined as the equal involvement and role of each parent in a child's health, including respecting each other's decisions and maintaining good communication. Good parenting lessens tension when nurturing children with ARFID (Frank *et al.*, 2017). The higher the parents' stress level, the higher the probability of an eating disorder (Verkleij *et al.*, 2015). Previous studies have revealed that children's feeding style is influenced by their parental feeding style (Helland, Bere and Øverby, 2016). Parents with low stress levels are more sensitive to reading the signals given by their children and providing an appropriate response (Lavallée *et al.*, 2017). Thus, the parental response can influence a child's feeding style. Further, A poor feeding style will lead to insufficiency in a child's nutritional status.

A lack of parenting alliance may lead to conflict in a family. Habib *et al.* found that 33% of conflicts in a family potentially led to health problems in children (Habib *et al.*, 2014). Fathers and mothers reported that they started to encounter issues in parenting, especially eating problems, when their children were 2 years old (24%) to 4 years old (18%) (Damayanti, 2015). The biggest obstacle in a parenting alliance is accepting each other's point of view. Parents tend to refuse to change their minds, particularly during conflict. Parents nurturing a child with ARFID tend to have a conflictual family (Cullinane and Novak, 2013).

Malang Regency is the second biggest city in East Java. This city exhibited a fluctuating percentage of malnutrition, and undernutrition was reported to have escalated during 2005–2007, declined during 2007–2009, and fluctuated during 2010–2014. The prevalence of undernutrition in 2010 was 7.10%, which then decreased to 5.52% in 2014. A similar decline was also found in malnutrition cases—3.40% in 2010 and 0.87% in 2014. Therefore, this study investigates the correlation between demographic characteristics and parenting alliance to nutritional status in children with ARFID in Malang Regency. This study's results will raise awareness and expand knowledge on how to avoid nutritional problems in children.

METHOD

This research was an analytic observational study using a cross-sectional approach. It was conducted from December 2018 to March 2019 at three Public Health Centers (PHC) in the Malang District Health Office:

Karangploso PHC, Singosari PHC, and Ardimulyo PHC. The sample size was determined using the rule of thumb in Structural Equation Modelling (SEM), where the estimated parameters were multiplied by 5 or 10. The sample size in this study was 245, and a multistage sampling was applied, where sampling was conducted gradually. The first stage determined the Public Health Center; the second stage determined the Integrated Health Service Post (IHSP) ($n = 229$). This study used simple random sampling to select as many as 20% of IHSP ($n = 46$). The third stage determined families with children with ARFID ($n = 245$ families). The inclusion criteria were parents with children with ARFID (less than 5 years old), and the children did not have chronic diseases or congenital disabilities of their digestive system. The exclusion criteria were parents with children suffering from ARFID with complications, other chronic diseases, and congenital disabilities of their digestive system.

Data was collected using questionnaires for parental alliance that included eight items with three indicators: (1) providing care for children (three questions); (2) fulfilling children's elimination needs (two questions); (3) communicating with children (three questions). The assessment used a Likert scale to quantify the level of participants' answers: 1 – never; 2 – rarely; 3 – occasionally; 4 – frequently; 5 – very frequently. ARFID has recently been added to the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, 5th edition) as a new class of eating disorders (EDs) that has implications for nutritional disorders, such as malnutrition and undernutrition. Nutritional status was quantified using the anthropometric values of weight and age. Furthermore, nutritional status data were categorized based on Z-score weight-for-age: malnutrition = <-3.0 standard deviation (SD); undernutrition = -3 to <-2.0 SD; normal nutrition = -2 to 2 SD; excessive nutrition ≥ 2 SD.

Data was analyzed using IBM SPSS Statistics 23 with $p < 0.05$ as a significance level. Demographic data on mother-child relationships was presented in a frequency distribution (percentage). Data on parenting alliance and nutritional status were presented in mean value $\pm$ SD. The comparison of parenting alliance and children's nutritional status between working and non-working mothers was analyzed using the Mann-Whitney test. One-way analysis of variance (ANOVA) and Kruskal-Wallis test was applied to examine the differences in parenting alliance and nutritional status among demographic groups. Pearson correlation coefficients were used to analyze the correlation between parenting alliance and children's nutritional status. Multiple linear regression was used to examine the impact of demographic characteristics and parenting alliance on children's nutritional status. This research was reviewed and approved by an institutional review board or ethics committee, with approval letter No: 333/KEPK. All respondents gave their informed consent to participate in this research.

RESULT

Demographic Characteristics

According to the result (Table 1), working mothers' ages ranged from 36 to 45 years (28.9%), while the group of non-working mothers' ages were 26 to 35 years (81.3%). Most working mothers were university graduates (41.9%), while most non-working mothers had graduated from senior high school (85.4%). Working mothers tended to have one child (27.9%), while the non-working mothers had more than one child (81.6%). The working mothers' family income was mainly more than 2 million IDR/month (28.6%), while the non-working mothers' group was less than 1 million IDR/month (80.4%). Interestingly, most children who suffered from ARFID in the working mothers' group were girls (24.4%). In contrast, in the non-working mothers' group, most of the children who suffered from ARFID were boys (80%). In addition, the children suffering from ARFID in the group of working mothers were preschool-age (27.9%), while in the group of non-working mothers, they were toddlers (80.4%).

Table 1. The Demographic Characteristics of Working Mothers (n=55) and Non-Working Mothers (n=190) who had Children with ARFID

Mother-Child Demographic Characteristics		Working Mothers n (%)	Non-working Mothers n (%)
Mother's age	17 – 25 years old	16 (26.2)	45 (73.8)
	26 – 35 years old	26 (18.7)	113 (81.3)
	36 – 45 years old	13 (28.9)	32 (71.1)
Education	Primary School	12 (24.0)	38 (76.0)
	Junior High School	17 (22.7)	58 (77.3)
	Senior High School	13 (14.6)	76 (85.4)
	University	13 (41.9)	18 (58.1)
Number of children	One	29 (27.9)	75 (72.1)
	More than one	26 (18.4)	115 (81.6)
Family income	Less than 1 million IDR/month	11 (19.6)	45 (80.4)
	1 to 2 million IDR/month	26 (20.6)	100 (79.4)
	More than 2 million IDR/month	18 (28.6)	45 (71.4)
Children's sex	Boy	22 (20.0)	88 (80.0)
	Girl	33 (24.4)	102 (75.6)
Children's age	Infant	5 (26.3)	14 (73.7)
	Toddler	31 (19.6)	127 (80.4)
	Preschool	19 (27.9)	49 (72.1)

The Score of Parenting Alliance and Children's Nutritional Status

The parenting alliance consisted of three indicators, including providing care for children (10.1 ± 6.2), fulfilling children's elimination needs (6.4 ± 2.0), and communicating with children (12.65 ± 2.80). Parenting alliance in fulfilling children's elimination needs showed significant differences between working and non-working mothers, with a total score $p=0.037$ ($p<0.05$). However, there were no significant differences ($p>0.05$) in children's nutritional status between the group of working (-0.79 ± 0.98) and non-working mothers (-0.94 ± 1.21) (Table 2).

Table 2. Mean Score of Parenting Alliance and Nutritional Status in All Respondents (n = 245), Working Mothers (n=55), and Non-Working Mothers (n=190) who had Children with ARFID

Variable	All Respondents (Mean ± SD)	Working Mother (Mean ± SD)	Non-working mother (Mean ± SD)	<i>p</i>
Parenting alliance	2.6 ± 6.2	30.1 ± 6.7	29.5 ± 6.1	0.300
Provide care for children	10.1 ± 2.7	10.1 ± 2.7	10.7 ± 2.7	0.600
Fulfill children's elimination needs	6.4 ± 2.0	6.4 ± 2.0	5.5 ± 2.2	<0.001
Communication with children	12.6 ± 2.8	12.6 ± 2.8	12.7 ± 2.7	0.700
Children's nutritional status*	-0.9 ± 0.9	-0.8 ± 0.1	-0.9 ± 1.2	0.300

* Z-score weight-for-age: malnutrition ≤ -3.0 SD; undernutrition = -3 to < -2.0 SD; normal nutrition = -2 to 2 SD; excessive nutrition = > 2 SD

The Effect of Demographic Characteristics on Parenting Alliance and Nutritional Status in Children with ARFID

The result showed that the highest score of parenting alliance on the mother's age was found in mothers aged 26 to 35 years (30.58 ± 5.24). This score significantly differed between mothers' age groups, $p=0.023$ ($p<0.05$). In contrast, there were no differences in children's nutritional status scores between mothers of different ages; all groups had normal nutritional status. In addition, parenting alliance was strongly determined by the maternal education $p=0.026$ ($p<0.05$). In contrast, family income, children's sex and age, and maternal employment did not influence parenting alliance. Furthermore, demographic characteristics, such as mother's age, maternal education, number of children, family income, maternal employment, and children's sex and age, were not differentiating factors and were not included as factors influencing children's nutritional status ($p>0.05$) (Table 3).

Table 3. The Differences of Parenting Alliance and Children's Nutritional Status Based on Mother-Child Demographic Characteristics (n = 245)

Mother-Child Demographic Characteristics	Parenting Alliance	Children's Nutritional Status
Mothers' age		
17 – 25 years old	29.2 ± 7.3	-0.1 ± 1.1
26 – 35 years old	30.6 ± 5.2	-0.9 ± 1.2
36 – 45 years old	27.4 ± 6.8	-0.1 ± 1.2
<i>F</i>	5	1.1
<i>p</i>	<0.001	1.000
Maternal education		
Primary school	29.4 ± 6.8	-1 ± 1.1
Junior High School	28.1 ± 6	-1.01 ± 1.14
Senior High School	30.6 ± 5.6	-0.9 ± 1.2
University	31.1 ± 6.8	-0.4 ± 0.1
<i>F</i>	2.8	0.9
<i>p</i>	<0.001	0.100
Number of Children		
One	29.6 ± 6.3	-0.7 ± 1.2
More than one	29.7 ± 6.1	-1.0 ± 1.1
<i>F</i>	0	0.1
<i>p</i>	0.800	0.100
Family Income		
Less than 1 million IDR/month	28.8 ± 6.4	-1 ± 1
1 to 2 million IDR/month	29.2 ± 6.5	-1 ± 1.1
More than 1 million IDR	31.2 ± 5.2	-0.6 ± 1.3

Mother-Child Demographic Characteristics	Parenting Alliance	Children's Nutritional Status
<i>F</i>	2.9	1
<i>p</i>	0.100	0.100
Children's sex		
Boy	29.1 ± 6.5	-0.9 ± 1.2
Girl	30.1 ± 6	-0.9 ± 1.1
<i>F</i>	1.7	1.4
<i>p</i>	0.200	0.600
Children's age		
Infant	26.3 ± 8.5	-0.4 ± 1.1
Toddler	29.9 ± 6.1	-0.9 ± 1.2
Preschool	29.9 ± 5.6	-1.1 ± 1.1
<i>F</i>	3	1.4
<i>p</i>	0.100	0.10
Maternal employment		
Working	30.1 ± 6.7	-0.8 ± 0.1
Non-working	29.5 ± 6.1	-0.9 ± 1.2
<i>F</i>	0.4	1.4
<i>p</i> -value	0.300	0.400

The Correlation between Parenting Alliance and Nutritional Status in Children with ARFID

The result showed that there was no correlation between parenting alliance and children's nutritional status in children with ARFID ($p > 0.05$) (Table 4).

Table 4. The Correlation between Parenting Alliance and Children's Nutritional Status (r/p)

Variable	Children's Nutritional Status
Parenting alliance	0.1 / 0.1
Provide care for children	0.1 / 0.1
Fulfill children's elimination needs	0 / 0.7
Communication with children	0.1 / 0.1

The Effect of Demographic Characteristics and Parenting Alliance on Nutritional Status in Children with ARFID

The multiple linear regression analysis demonstrated that children's nutritional status was influenced by a child's age and the number of children in a family (Table 5). Child's age and number of children in a family were predicted to correlate negatively with children's nutritional status ($\beta = -0.156$, $p = 0.020$; $\beta = -0.263$, $p = 0.029$, respectively). On the other hand, the mother's age, cooperation in fulfilling children's elimination needs, cooperation in communicating with children, and parenting alliance did not affect children's nutritional status.

Table 5. Multiple Linear Regression Analysis of Demographic Characteristics and Parenting Alliance on Children's Nutritional Status

Variable	B	SE	β	t	<i>p</i>
Constant	-1.4	0.6		-2.4	<0.001
Mother's age	0	0	0.1	1.0	0.300
Children's age	-0.2	0.1	-0.2	-2.3	<0.001
Number of children in a family	-0.3	0.1	-0.2	-2.2	<0.001
Parenting alliance	0	0	0.2	0.8	0.400
Fulfill children's elimination needs	-0.1	0.1	-0.1	-0.8	0.400
Communication with children	0	0.1	0	0.2	0.900

DISCUSSION

The Impact of Demographic Characteristics on Parenting Alliance and Nutritional Status in Children with ARFID

This study showed that most mothers ranged in age from 26 to 35 years old, which is considered a transition period in intellectual and social growth. At this age, mothers tend to learn more about themselves and are more responsible for their children with ARFID. Age is an indicator of a person's maturity, and therefore, the older one gets, the more knowledge and experience one gains about appropriate behavior for educating children. An age range of 20–35 is the best for parenting roles. Those younger or older may not perform parenting roles optimally due to physical and psychological aspects. In addition to physical factors, a mother's age also affects her psychological condition. Very young mothers may not be ready to manage childcare skills adequately. Moreover, they will have more characteristics of young people and less maternal nature. Furthermore, children who live with young parents receive more lenient parental supervision, as young parents tend to be more tolerant of their children (Federal Interagency Forum on Child and Family Statistics, 2017).

Lack of parental supervision results in poor feeding styles for children. An indulgent/permissive feeding style is a parenting style in which parents pamper their children by giving them whatever food they want whenever they want it. Caregivers provide several diets that do not satisfy children's nutritional intake (Kerzner *et al.*, 2015), sometimes without dietary limitations (Gerards and Kremers, 2015; Van Der Horst and Sleddens, 2017). The permissive feeding style is characterized by inconsistent supervision, avoiding affection, and punishment (Ebrahimi *et al.*, 2017). The main characteristic of permissive feeding is that caregivers provide high support and low control over children's behavior. In addition, parents have a positive attitude and do not punish children for bad behavior (Van Der Horst and Sleddens, 2017), resulting in a lack of nutritional intake due to poor feeding style.

Children's age is also a demographic factor. Most children with ARFID in this paper were toddlers (1–3 years old), known to be the transition age for children related to diet and motor development. ARFID symptoms in both infants and toddlers are the refusal to eat, irregular eating schedule, and poor ability to eat food that is not appropriate for their developmental stage. Children aged six months to 3 years can have infantile anorexia, shown by refusing to eat, inability to control hunger and fullness, easy environmental distraction, and impaired growth and development. Children also experience a transition in their eating habits during this age, from being fed by their parents or caregivers to eating by themselves. Children learn to put food in their mouths and identify their hunger and glut in this transition period. Caregivers who try to keep feeding children when they refuse to eat can cause them to feel depressed while eating (Merwin, 2011).

This study shows that most mothers had a senior high school and university education. A good maternal education supports mothers in accessing information related to good feeding style and parenting compared to mothers with lower family income and education. Therefore, mothers with a lower education were more likely to have children suffering from stunting (Dessie *et al.*, 2019). Education can improve mothers' capabilities for processing information and developing the ability to nurture their children. Mothers with a good education can optimally utilize health facilities, interact effectively with health professionals, follow parenting recommendations, and maintain environmental cleanliness. In addition, they tend to use their household resources to benefit their children. They also tend to follow health professionals' recommendations regarding children's diet and feeding schedule, which can improve children's nutritional intake and establish regular eating schedules (Dessie *et al.*, 2019).

Family income potentially is associated with a mother's education, as it may help them be accepted into a profitable company or obtain a better occupation. Higher family income may improve and support children's growth and development. However, challenges faced by working mothers include providing warmth, affection, and care for their children. When they can prevail against these challenges, they can develop a positive bond with their children and positively influence their children's growth. Good communication in a family can create a harmonious family that is open to one another and trusting one another. On the other hand, poorly educated mothers tended to force their children to eat any food, whereas well-educated mothers practiced a good parenting style and supplied the recommended diet (Sacrato, Pellicciari and Franzoni, 2010).

The results of this study showed that most respondents were non-working mothers. Non-working mothers likely had more time to care for children suffering from ARFID through good interaction and communication. It can improve a mother's ability to nurture her children's health. The non-working mother plays a significant role in caring for and arranging the dietary intake of her family. On the other hand, the working mother tends to have limited time for the care and arrangement of her children's food intake, which leads to undernutrition. Previous studies demonstrated that the children aged 6–60 months with undernutrition were mainly children of a working mother (22.44%), compared to a non-working mother (19.9%) (Putri, Sulastri and Lestari, 2015).

Well-developed communication between parents and children is essential to monitor, understand, and manage children's development. Open communication makes children feel valued, loved, and cared for by their parents. In addition, continuous, effective, and efficient communication creates intimacy, openness, and greater affection between parents and children, allowing parents to monitor their children's physical and psychological development. One way to develop good communication and interaction is by being a good listener without making a special schedule to meet or gather (Mufidah, 2008).

Recent studies revealed that mother-child demographic factors did not influence children's nutritional status. Cullinane and Novak (2013) described how dietary problems in children were affected by children's social experiences and parent-child interaction, as these contribute to the formation of children's feeding style. Blaine *et al.* (2015) added that responsive interaction might result in a good feeding style, especially with toddlers. During this period, toddlers learn how to feed themselves and taste various new foods. Therefore, children's nutritional status was mainly determined by feeding style in the family (O'Connor *et al.*, 2017).

Khodaveisi *et al.* (2017) reported that demographic characteristics, such as family income and maternal education, were not related to children's nutritional status; nevertheless, those factors were related to feeding style in the family. A good family income and a well-educated mother might improve the capability of providing good-quality food regularly, since parents in this demographic were more open to receiving and filtering new information related to good practices for raising toddlers. By contrast, children raised in a low-income family tend to experience obstacles during their development because of the mother's nurturing behavior. The Ministry of Health Republic of Indonesia has explained that children need strong family support for growth and development (Indonesia Ministry of Health, 2012). Well-educated parents are more likely to raise their children with consideration for their personalities, emotions, and age.

The Correlation between Parenting Alliance and Nutritional Status in Children with ARFID

This investigation revealed no correlation between parenting alliance and nutritional status in children with ARFID. Nutritional status was mainly influenced by socio-economic characteristics, including the mother's education, occupation, number of children in a family, family income, and parenting style (Putri, Sulastri and Lestari, 2015). Parenting alliance was considered an indirect factor that creates good feeding habits in children with ARFID. Parents parenting children with ARFID tend to feel pressured and tense. Therefore, a good parenting alliance can support the mother and reduce her tension and stress, both physically and psychologically, thus helping her provide better care to her children (Frank *et al.*, 2017).

By reducing stress levels, parents will be more sensitive to reading signals from their children (such as drowsiness, fussiness, sensitivity, anger, boredom, and hunger). Parental sensitivity is an interactive process in which parents can: (a) recognize signals from their baby; (b) interpret the signals adequately; (c) identify an appropriate response; (d) carry out an appropriate response according to the situation. On the other hand, higher stress levels linearly resulted in a higher probability of behavioral issues in children (Verkleij *et al.*, 2015).

The Correlation between Demographic Characteristics and Nutritional Status in Children with ARFID

This study revealed that factors influencing the nutritional status of children with ARFID were age and the number of children in a family. The child's age was predicted to affect nutritional status negatively. The younger the child with ARFID, the higher the potency of the nutritional problem. This result is supported by a previous study, which found that most children with ARFID were toddlers and infants. More importantly, the interaction between infants and their mothers was the main predictor of children's behavior (Van Der Horst and Sleddens, 2017). Hence, habituating children to eat a healthy nutritional intake is essential in a good infant feeding style (Walton *et al.*, 2017). Conversely, a poor feeding style may lead to future dietary problems. Prior studies described that feeding style was determined by the parent, including restrictions on consuming unhealthy food and coercion to consume large quantities of food (Helland, Bere and Øverby, 2016).

Furthermore, the number of children in a family was predicted to affect children's nutritional status in this investigation. The higher the number of children, the higher the possibility of children with undernutrition. Parents with fewer children would develop an authoritative parenting pattern or be more responsive, leading to good mother-child communication and interaction (Putri, 2023). By applying authoritative parenting, parents will be able to meet the nutritional needs of their children with full responsibility. Kerzner *et al.* (2015) describe this type of parenting as involving a caregiver who comprehends the appropriate time and place to feed the children and the proper amount of food to be fed. Van Der Horst and Sleddens (2017) add that some responsive ways to encourage children to develop a good feeding pattern are making food plating more appealing and giving appropriate compliments.

A good feeding pattern has positive results in children, such as controlling the amount of food, speaking positively about food, developing correct table manners, and responding correctly to hunger signals. Caregivers should express appreciation following a child's achievement and not force children into eating behaviors. A good feeding pattern is characterized by children who love to eat fruits and vegetables and hate junk food (Kerzner *et al.*, 2015). An authoritative feeding style influences eating behavior through a child copying the parents' healthy feeding pattern, which should restrict unhealthy food (Hansson *et al.*, 2016).

The characteristics of an authoritative feeding style are warm interaction/relationship between caregivers and children; encouragement and providing children with a sense of freedom; good communication; explicit expressions of love and affection; the existence of rational rules that impact positively on children's eating behavior in terms of independence; social responsibility; and good adaptability (Kimble, 2014). In addition, this type of feeding style is also characterized by a caregiver who is sensitive to children's needs and avoids punishment in the parenting process. In addition, they raise their children with

warmth, kindness, and intimacy, and they respect children's opinions within certain limits (Ebrahimi *et al.*, 2017).

Mothers who raise many children tend to control their children dominantly, have less communication, and fall short in fulfilling their children's needs. They tend to develop a controlling feeding style characterized by over-controlling children's food by forcing them to eat or limiting their access to delicious food. Such actions counterproductively affect children's self-regulation skills concerning food intake. At first, this pattern looks beneficial, but it will have a counterproductive impact in the long term. Children will eat fewer fruits and vegetables, leading to a higher risk of dietary problems, both undernutrition and excessive nutrition. Accordingly, controlling the feeding style is essential to improving healthy feeding habits (Kimble, 2014).

The controlling feeding style is like the authoritative feeding style, which is a pattern where parents strongly demand that children eat well but with low responsiveness, provide low support but exhibit substantial behavioral control, and often fail to explain to children the reasons behind their instructions and are overprotective (Ebrahimi *et al.*, 2017). This pattern is characterized by a lack of a reciprocal relationship between parent and child, and the caregiver takes excessive control over the eating behavior (forcing, pressing, or limiting food intake) (Gerards and Kremers, 2015).

CONCLUSION

Parenting alliance was not directly related to nutritional status in children with ARFID. Nevertheless, the children's nutritional status was affected by a child's age and the number of children in a family. Although parenting alliance is not related to the nutritional status of children, this aspect is essential in determining parenting patterns for children. Parenting alliance will set a good feeding style and positively impact the growth and development of children. Further research should analyze the influence of family feeding style on nutritional status in children.

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