



## Mediating Role of Family Burden and Family Stress: Children Disability Type and Parenting Styles\*

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Article Information	ABSTRACT
Received: 05.07.2025	Having a child with disability in the family affects mother's family burden (FB), family stress (FS) and parenting styles (PS). The mediating role of FB and FS in the relationship between children's disability type (CDT) and mothers' PS is examined. 461 mothers having autism spectrum disorder (ASD), physical disability (PDC) and mental retardation (MR) participated in the study. Serial mediator effect, which is one of the mediator model analyzes was used. Mothers of children with ASD and MR, exhibited significantly lower democratic parenting style (DS) than mothers of children with PDC. While FB and FS cumulatively reduce DS in mothers of ASD children, they were found to have a direct effect in mothers of children with MR. In mothers of ASD children, increasing FB indirectly increased authoritarian style (AS) by increasing FS, while in mothers of MR children, the FS effect was more pronounced, while the FB effect was limited. Mothers of ASD and MR children had significantly higher permissive parenting style (PPS) levels than mothers of children with PDC. This was observed through direct and sequential effects in mothers of children with ASD, while in mothers of children with MR, this was more direct and indirectly mediated by FS. Studies and trainings can be planned to reduce the FB and FS levels in the DS of mothers with disabled children. <b>Keywords:</b> Parenting styles, disabled children, family burden, family stress, parent attitudes
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### 1. INTRODUCTION

The interaction between parents and children and parenting styles (PS) shape children's behaviors and their communication styles (Baumgardner Stolz, Renegar, McCaig & Reimnitz, 2022). PS are generally classified as democratic, authoritarian and permissive. In a democratic style (DS) family relationships are harmonious and consistent (Özyürek, 2022). These parents are warm and sensitive to their children, while applying strict control when necessary, they also take their children's opinions into consideration and use skills such as reasoning, open communication and discussion when communicating with their them (Ardahan Akgül et al. 2023). In authoritarian style (AS), parents put pressure on their children (Aral & Kadan, 2018), often show little warmth and affection (Phillips, Connors & Curtner-Smith, 2017; Yavuzer, 2019) and experience physical and emotional conflicts with their children (Shokoohi-Yekta, Zamani & Ahmadi, 2011). As a result of these, poor social skills, low self-esteem and high depression can be seen in children (Platt, Roper, Mandlco & Freeborn, 2014). They appear to be more negative, stressed, and less interested in their interactions with their children (Vega, 2024). Parents who exhibit a permissive parenting style (PPS) do not hinder children in any way. Children dominate their parents (Yavuzer, 2019), while parents ignore their children's disturbing behaviors and do not punish them and try to do whatever they want (Aral & Kadan, 2018).

Having a disabled child affects parenting styles. PS of the disabled child's parents are important in the child's learning of social life and in the application of what they have learned (Cuzzocrea, Larcan, Costa & Gazzano, 2014). The child's disability may cause the parent to exhibit a different parenting style than the normal child. Differences can be seen in PS of parents versus normal children and disabled children. For example; according to Gau et al. (2010) parents were more protective of their autism spectrum disorder (ASD) children and exhibited a more AS to their normal siblings. Similarly, Ayran and Baran (2016) determined that mothers with disabled children were more protective and authoritarian, and displayed more physical punishment than those with normal children. Phillips et al. (2017) determined that mothers with mental retardation (MR) children show less authoritarian and PPS than mothers with normal children.

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The disabled child imposes important responsibilities on the whole family. However, difficulties in gaining special education skills for the child and managing behavioral problems affect the parents more, especially the mother, who assumes more responsibility for the child (Bedel, 2017). Mothers interact more with their disabled children and take on more responsibility for meeting their needs (Şahin Varol & Altun Yılmaz, 2023). For this reason, mothers are more affected by the disability of their children than other family members (Park & Lee, 2022; Lebni, Ziapour, Khosravi, Rahimi & Kandi, 2021). Sharabi and Marom-Golan (2018) found high level of maternal involvement in education, disability-related services, and health services of children with ASD. Two of the important factors affecting PS of disabled children are family stress (FS) and family burden (FB).

FS is an emotion that occurs when the demands of parenting exceed the resources available to the parent, leading to a feeling of overwhelm (Shastri, Prakasan, Satheesan, Kumar, & Kalaiah, 2025). Parents of children with disabilities also experience significant sources of FS, including their children's communication difficulties, poor social relationships, behavioral problems (Argumedes, Lanovaz, & Larivee, 2018), unpredictable emotional reactions (Fu, Pan, Zhao, Ji, & Peng, 2024), and poor health and functioning (Arif, Ashraf, & Nusrat, 2021). Having a child with a disability limits parents' life choices and requires them to adjust their duties, responsibilities, and activities to meet the needs of their disabled child (Alemdar, Yılmaz, & Günaydın, 2023). In addition, difficulties such as obstacles in having formal education, interference with daily life, weakening of relationships with family and social environment (Sarı, Işık, Kaya, Gamsızkan & Sarı, 2024), constant need teaching life skills, trying to protect from various dangers (Kaur & Khanna, 2023), social isolation and loss of social opportunities (Noroozi, Farrar, Gharibi & Gashmard, 2024) also increase FS levels in parents. Savari, Naseri and Savari (2023) determined that children with disabilities are a source of high levels of stress that affects the quality of the parent-child relationship. In particular, it causes mothers to approach their children with grief, unhappiness, sadness and stress (Sarıkaya, 2011), parent exposure to social stigma and discrimination (Gugliandolo, Liga, Larcan, & Cuzzocrea, 2023). Stress in parents can manifest as self-doubt, low self-esteem, decreased social interaction, poor family interaction, and interpersonal difficulties (Nandini & Anuradha, 2021). These stress and difficulties affect parents' life quality, especially mothers, and increase the FB that mothers feel. Disabled children's characteristics and behavioral problems are also important factors in parents' FS (Miranda, Mira, Berenguer, Rosello & Baixauli, 2019). For instance while mothers try to meet the needs of their MR children and protect them from dangers, the effort they spend to meet the needs of other family members increase their stress levels (Bag, 2022). Mothers of physical disability (PDC) and MR children are mostly feeling guilty in terms of siblings. They worry about their disabled children's future and have fear of missing opportunities both for themselves and for them (Lebni et al. 2021). For mothers of children with PDC, the excessive and prolonged care and needs (Hassan, Hamid, & Eltayeb, 2021) the costs treatment and rehabilitation (Onwuakagba, Okoye, Simon, Okonkwo, & Nwankwo, 2024) negatively impact parents' physical and psychological health and may feel burdened by their disabled children (Hassan et al. 2021). Furthermore, for mothers of children with MR, excessive intervention in their children's lives and support can lead to lower levels of enjoyment in their relationships with them, while increasing FS levels. ASD, the expectations of parents from their children (Thomas, Liu & Umberson, 2017) put a strong pressure on parenting skills. Not only the difficulties of raising children and controlling their challenging behaviors but also the time management among family members (Montes & Halterman, 2007; Schiltz et al. 2022) make life more stressful for parents (Miranda et al. 2019). Mothers, who play a significant role in the rearing and care of children with ASD, experience FS at high levels for many reasons (Karpuzluk & Akalin, 2024) such as complex diagnostic process for ASD children, the difficulty of meeting their needs and caring for them (Han & Gao, 2025), managing their behavioral problems (Rfat, Koçak, & Uzun, 2023), feelings of inadequate communication with them, the lack of understanding of how to contribute to their education (Gıcı Vatansever & Ahmetoğlu, 2023), the frequent stigmatization of them by those around due to their unusual behaviors (Sabancıoğulları & Yıldırım, 2025) and not being able to have time for themselves as their disabled children with ASD need constant care (Picardi et al. 2018). The subjective stress and burden felt by the mothers of children with ASD causes depression.

Many factors, like the difficulties experienced by parents of children with disabilities in meeting the needs of other family members, the health problems of their children with disabilities, their need for lifelong care (Çiftçi, Batmaz, & Kedirkıran, 2024), educational needs, economic difficulties, social exclusion (Adıyaman, Can, & Sarman, 2025), healthcare expenses, stress, depression, anxiety (Visilopoulou & Nisbet, 2016), family conflict (Berger, 2013), and the negative conditions in which the family exists (Avsaroglu & Okutan, 2018) can be a burden on the family. These can lead to difficulties in providing continuous guidance and support to their children (Çiftçi et al. 2024) and might cause the parents perceive their disabled child as a burden (Sarı & Basbakkal, 2008). FB can be considered as economic difficulty, loss of income, restrictions in daily life and social activities or tension in the home environment. Difficulties related to caring for a disabled child are defined as subjective burden. This type of FB involves various psychological reactions in relatives, such as anxiety, frustration, and depression (Hassan et al. 2021; Şahin, Çakmak, & Erdem, 2025). This burden felt by the family eventually leads to problems with the parents' own functioning. These issues can be seen in various areas, such as economy, social, friendship, and psychology (Doğan Bal & Akyüz, 2023).

The needs of disabled children cause the family to feel a medical, emotional and social burden. From a medical point of view, medical interventions, surgeries, hospital and care expenses applied to them require significant expenditures (Miller, Nugent & Russell, 2015). From the point of view of emotional burden, it is seen that mothers are especially worried about their children's future (Sethi, Bhargava & Dhiman, 2007) and feel guilty in their relations with them (Farhadi, Bahreini, Moradi, Mirzaei & Nemati, 2022). They cannot show enough attention to other siblings (Eldeniz-Çetin & Sönmez, 2018). These factors also increase the emotional burden of parents (Copley & Bodensteiner, 1987). In terms of social burden, attitudes and

judgments of the society towards disability reduce the rate of participation of mothers in social activities (Bag, 2022). Mothers cannot have time for themselves (Özmen & Çetinkaya, 2012). These situations cause mothers to feel more burden.

### 1.1. Statement of the Problem

This study was conducted with mothers of children with ADS, MR and PDC, and fathers were not included in the study. In the province where the research was conducted in Turkey (Sakarya), families earn their living by working in the automotive, machinery manufacturing, metal and food industry, and furniture manufacturing sectors. Fathers mostly work in factories. Mothers are more responsible for the care of children with disabilities as they are more likely to assume responsibility for their disabled children due to the general characteristics of the province. Considering this cultural fact, it was believed that more accurate and realistic information would be obtained from mothers. During the study, mothers were encountered more frequently, demonstrating this view which was kind of proving what was assumed. Therefore, we decided to conduct the research with mothers. When we examine the literature in Turkey, we see that studies have been conducted mostly with mothers of disabled children and so does in our study. To give examples from these studies; Doğan Bal and Akyüz (2023) examined the impact of the burden of caregiving for individuals with disabilities on life satisfaction, finding a negative correlation between caregiving burden and life satisfaction, with life satisfaction decreasing as caregiving burden increases. Çiftçi et al. (2024) found that mothers of children with MR had higher perceptions of inadequacy, emotional burden, and time requirements than fathers. They also found that as mothers' social, physical, and emotional burdens increased, their goals in life and their perception of life as meaningful decreased. Şahin et al. (2025) examined the FB and social isolation felt by mothers of children with disabilities. The study concluded that mothers reported high levels of FB, and that having a child with a disability negatively impacted social communication. Zabun Sever and Tas Arslan (2021) found that as the FB of the mothers increased, their anger level increased. Yılmaz (2019) examined the relationship between the needs and stress levels of mothers and family functionality in rehabilitation centers and determined that as the needs of mothers in rehabilitation increased, their stress levels increased too but as the family functionality level increased, their stress levels decreased. Degirmenci & Demircioglu (2020) examined mothers' coping with family stressors and determined a significant relationship between the presence of someone they can get help from, education and family income levels and coping with family stressors. Gökmenoğlu and Başer (2023) examined the relationship between perceived FS and family needs in parents of children with MR. They found that mothers had higher perceived FS and family needs than fathers, and that when family needs increased FS also increased. Karpuzluk and Akalın (2024) determined that mothers with ASD children had moderately high FS levels, while their motivation to have children was low. As seen in the literature, the relationships between variables such as FS levels of parents of children with disabilities, family stressors, FS, and mothers' needs, quality of life, and social isolation were examined. Studies in the field have primarily focused on the relationships between these variables. However, the present study used a mediation model to examine the direct and indirect effects of mothers' perceived FB and FS on their attitudes toward their children with disabilities. This study will provide the basis for planning studies aimed at reducing perceived FB and FS in parents', especially mothers', attitudes toward their children with disabilities. It is thought that studies aimed at reducing the FB and FS that parents feel will lead to measures that support parents in having a more balanced and democratic attitude towards their children and in planning studies and projects.

### 1.2. Purpose and Sub-Purpose of the Study

In present study, by using mediator models, we were able to examine in more detail the direct/indirect effects of FS and FB on mothers' PS using mediator models. In this respect, we think that the study will contribute to the literature so the answers to the following questions are sought.

- (1) Do FB and FS have a sequential mediating role in the relationship between children's disability type (CDT) and the mother's DS?
- (2) Do FB and FS have a sequential mediating role in the relationship between CDT and mothers' AS?
- (3) Do FB and FS have a sequential mediating role in the relationship between CDT and the mother's PPS.

This addresses relevant gaps in the field such as the lack of studies assessing: 1) to determine the direct or indirect mediating role of mothers' PS with disabled children in FB and FS, 2) to determine whether the direct or indirect mediating role of FB and FS in the PS of mothers with disabled children varies according to CDT. Therefore, the results can advance our knowledge of: 1) the role of mothers with disabled children in PS in determining FB and FS, 2) to draw attention to the importance of factors that can indirectly affect the PS of mothers with disabled children.

## 2. METHODOLOGY

### 2.1. Participants and Procedure

Datas of the current study was collected from mothers of children with MR, ASD and PDC children who are living in Sakarya, Turkey. The research was approved by the Üsküdar University Non-Interventional Research Ethics Committee. The correlational research method was used in this study. The "convenience sampling" method was used while forming the sample of the study. The convenience sampling method was used while forming the sample of the study. Convenience sampling is a

sampling technique in which the researcher collects data from individuals who are easily accessible (Büyüköztürk et. al., 2020). Before starting the research, permissions from the Special Education Rehabilitation Centers, Early Childhood Education Center and Special Education Application Centers affiliated to the Ministry of National Education. In line with the main purpose of the research, the appropriate sample size was determined using the G\*Power 3.1.9.4 program (Faul, Erdfelder, Lang, & Buchner, 2007). According to the results of the analysis, the minimum required sample size was calculated as 391 for a statistical power of 95%, with an alpha level of .05 and an effect size of  $f^2 = .02$ . Considering possible sampling errors and missing data, a total of 461 participants were included in the study.

Reasons for including only mothers in the study is because of the fact that mothers are more likely to care for children with disabilities in Sakarya province. They also spend more time with their children, and they are the ones bringing their children to the institutions where the study was conducted, and that fathers are more likely busy with making money. Three disability types were included in the study: MR, ASD, and PDC. The purpose of choosing three types of disabled type in the current study was to determine the level of difference in mother's child rearing style, FB and FS, and the effects of these on their PS, regarding the CDT. The criteria for including mothers in the sample group are; a) their disabled child were attending the institutions in the city center of Sakarya Special Education Rehabilitation Centers, Early Childhood Education Center and Special Education Application Centers, b) they had children with MR, ASD and PDC, c) the absence of an additional disability group in children with disabilities and d) the children with disabilities were between the ages of 3-12. Exclusion criteria included: a) mothers had children diagnosed with more than one disability, b) children were diagnosed with a diagnosis other than MR, ASD and PDC, c) the children were under 3 years of age or over 12 years of age, and d) fathers. After determining mothers, the researcher visited private educational institutions and informed the mothers about the purpose of the study, its purpose, importance and the measurement tools that were going to be used. Mothers who volunteered to participate in the study were given "Informed Voluntary Consent Form" and asked to sign so that they could participate and fill the form. The measurement tools were prepared both as Google forms and on paper. Depending on their preferences, links to the scales were sent to mothers' phones or they were asked to complete them on paper if they would like to. The scales were administered to mothers in a quiet environment at the institutions where their children with disabilities were attending, usually while they were waiting for their children. However, for mothers of children with the appropriate disability type and age group who were unable to attend the institution, the "Informed Voluntary Consent Form" and the scales were sent to them by their children's classroom teachers. There were only five mothers who participated in the study had difficulty in reading the form so the researchers read the scale items to them and marked the answers as they are told.

Table 1.

*The Descriptive Characteristics of Participants*

<b>Baseline characteristic</b>	<b>n</b>	<b>%</b>
<b>Mother</b>		
<b>Age</b>		
20-30	66	14.3
31-40	177	38.4
41-50	197	42.7
51 and over	21	4.6
<b>Education status</b>		
Elementary	203	44.0
Secondary	58	12.6
High School	108	23.4
Associate Degree	31	6.7
University	56	12.1
Missing data	5	1.2
<b>Children</b>		
<b>Gender</b>		
Female	148	32.1
Male	313	67.9
<b>Age</b>		
3-4	49	10.6
5-6	90	19.5
7-8	87	18.9
9-10	91	19.7
11-12	144	31.2
<b>Disabled type</b>		
MR	157	34.0
ASD	171	37.1
PDC	133	28.9

MR=Mental Retardation, ASD=Autism Spectrum Disorder, PDC=Physical Disability

## 2.2. Measures

“Family Demographic Information Form” was used to collect the data of the research, “Questionnaire on Resources and Stress-F”, “Family Burden Assessment Scale for the Families of Children with Intellectual Disability (FBAS)” and “Parenting Styles and Dimensions Scale (PSDS)” are used.

### 2.2.1. Family Demographic Information Form

The General Information Form was used to obtain demographic information about the families and children participating in the study. For families with a disabled child, the form asked about the parents' age, education level, occupation, and family income. For children, it included questions about the child's disability type (ASD, MR, or PDC), the child's age and gender, and if there were any caregivers other than the mother. For siblings, it included questions about the sibling's disability, the type of disability (if any), and the length of time they had accessed educational opportunities.

### 2.2.2. Questionnaire on Resources and Stress-F

The Turkish version of the Questionnaire on Resources and Stress-F Scale developed by Holroyd (1987) was used in this study. Küçüker (1999) adapted the Turkish version of the scale. Later, Kaner (2004) re-tested the validity and reliability of the scale in order to determine the stress level of parents of children in a wider age range and disability group. In the scale, parents were asked to answer their feelings as “True” or “False” by putting child's name in the space in front of each statement. The scale consists of 52 items and 3 subscales. These subscales are as follows; “functional inadequacy”, “pessimism” and “parent and family problems”. Examples to sub-dimensions; Functional inadequacy: “....(considering the name of the disabled child).... unable to communicate with peers”, pessimism: “When I am unable to care for him/her, I worry about what will happen to ...” and Parent and family problems: “Sometimes I feel so ashamed because of ...”. The Cronbach Alpha ( $\alpha$ ) results were determined as 0.91 for the scale overall, 0.89 for functional inadequacy, 0.86 for pessimism, and 0.55 for the dimension of parental and family issues. In current study, the reliability of the measurements obtained from the scales and its subscales were tested. The Cronbach Alpha ( $\alpha$ ) results were determined as 0.93 for the scale overall, 0.86 for dysfunction, 0.88 for pessimism, and 0.77 for the dimension of parental and family issues.

### 2.2.3. Family Burden Assessment Scale for the Families of Children with Intellectual Disability (FBAS)

FBAS was developed by Sarı and Basbakkal (2008) in order to determine the perceived FB of the families of children MR. The 43-item scale is prepared in a 5-point Likert format and is scored as “never (1), rarely (2), sometimes (3), mostly – often (4), always (5)”. The scale consists of 43 items and 6 subscales. These subscales are economic burden, perceived inadequacy, physical burden, social burden, emotional burden, and time requirement. In these sub-dimensions, the anxiety and sadness of the families about the future of their disabled children, the physical difficulties of the child such as personal care and transportation, the problems they experience in their own social and interpersonal relationships, hopelessness and time needs are determined. The following items on the scale can be given as examples. “I am worried that my child will need my care for the rest of her life”, “Taking care of my child makes me tired”, “I cannot get together with my neighbors because of my child”, “I get angry at even the smallest things because of my child”, “I spend most of my time taking care of my child”. The Cronbach's alpha reliability coefficient of the scale was found as 0.92, and in the retest application it was 0.93. The validity and reliability study of this scale was conducted only for families of children with intellectual disabilities. However, mothers with ASD and PDC were also included in this study. For this reason, Confirmatory Factor Analysis (CFA) was applied on the group of mothers who had children with these disability types. The standardized regression coefficients (factor loads) of the measurement model established with 43 items in the scale vary between 0.32 and 0.89. All these coefficients are significant at the 0.05 level. Within the scope of current research, the reliability of the measurements obtained from the scales and its sub-dimensions were tested. The Cronbach Alpha ( $\alpha$ ) results were determined as 0.96 across the scale.

### 2.2.4. Parenting Styles and Dimensions Scale (PSDS)

The scale was developed by Robinson, Mandlco, Olsen and Hart (2001) to evaluate the styles of parents who have children between the ages of 2-13. The Turkish version of the scale was used in this study. Turkish version was adapted by Kapçı and Erdinç-Demirci (2009). The scale consists of 32 items and 3 subscales and it was filled by parents. It is prepared in a 5-point Likert type and has three subscales: “democratic”, “authoritarian” and “permissive”. When sample items are given to these sub-dimensions of the scale; “before asking my child to do something, I consider her/his wishes” (DS), “I threaten my child with little or no reason” (AS), “I give up when my child is against something” (PPS). Authoritarian and permissive sub-dimensions show negative parental attitudes, while democratic sub-dimensions show positive parental attitudes. The Cronbach Alpha coefficient of the scale was determined as 0.88 for “democratic”, 0.74 for “authoritarian” and 0.64 for “permissive”. In current study, the reliability of the scale and its sub-dimensions were also examined. The Cronbach Alpha ( $\alpha$ ) results were determined and found as 0.91 for the DS, 0.88 for the AS, and 0.64 for the PPS. In the CFA model,  $X^2 / sd = 4.02$  was obtained. This value is at an acceptable level. Similarly, the RMSEA and SRMR values are equal to 0.08 and are at an acceptable level. It was concluded that the CFI, NFI, and NNFI values were above 0.90, demonstrating an acceptable fit.

Reliability values ranged from 0.80 to 0.96 across all subscales. When all the findings are evaluated together, it is seen that the measurements obtained from the family burden scale and the inferences based on these results are valid.

### 2.3. Statistical Analyses

In the scope of the research, path analysis was used as the purpose of the study was to examine the mediating role of mothers' FB and FS in the relationship between the CDT and PS of mothers. Jamovi 2.3.21 statistical program was used for data analysis. It is a statistical technique used to examine the effects of direct and indirect relationships between variables (Klem, 1995). It has some assumptions as it is basically a statistical technique based on regression. In order to perform the regression analysis, multicollinearity was examined. The high level of correlation of the variables in the established Regression model was considered as multicollinearity. To test this assumption, Variance Inflation Factor (VIF) values were examined. A VIF value less than 10 indicates that there is no multicollinearity problem between the variables. Within the scope of the research, it was observed that the VIF values of the variables included in the Regression model were less than 10. While establishing the path analysis model, the Diagonally Weighted Least Square (DWLS) estimation method was preferred because the independent variable is categorical and is more resistant to deviations from its normal distribution (Brown, 2015). While establishing the path analysis, both direct effects and indirect effects were tested. Since the sequential mediating roles of two variables in the relationship between the independent variable and the dependent variable were tested in the established model, the sequential mediator effect was preferred. The general representation of sequential mediation models is given in Figure 1.

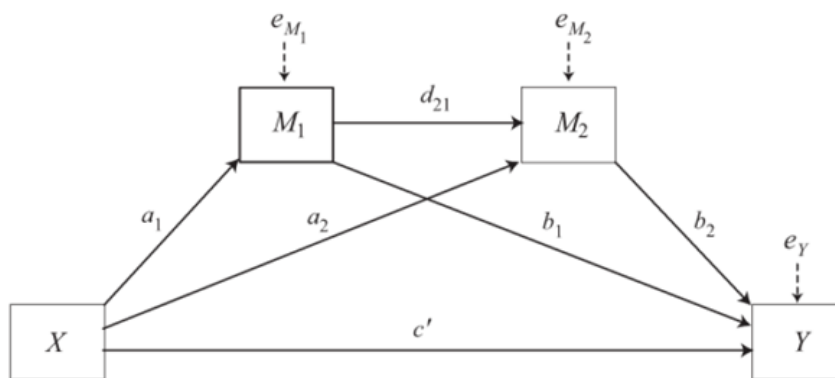


Figure 1. Sequential mediation model

In the sequential mediation model, regardless of the number of mediating variables ( $M_1$ ,  $M_2$ ), the total effect is denoted by  $c$  and the direct effect is denoted by  $c^*$ . In this model, the indirect effect of the independent variable "X" on the dependent variable "Y" is " $a_1b_1$ " only through " $M_1$ ", while the indirect effect of "X" through " $M_2$ " is " $a_2b_2$ " and both mediator variables are included in the model. The indirect effect obtained by taking them together is the product of " $a_1d_{21}b_2$ ". The sum of these three indirect effects and the sum of the direct effects gives the total effect ( $c=c^* + a_1b_1 + a_2b_2 + a_1d_{21}b_2$ ). The total indirect effect in the sequential mediation model is tested with  $c-c^* = a_1b_1 + a_2b_2 + a_1d_{21}b_2$  (Hayes, 2013). If the direct effect ( $c^*$ ) is equal to zero, it is interpreted as an intermediary effect. The bootstrap method, based on a 95% confidence interval, was used to assess the statistical significance of the mediation paths. The bootstrap sample size was set at 10,000.

### 3. FINDINGS

A regression-based mediator model analyzes is applied to determine the variables that affect mothers' parenting styles. For this purpose, sequential mediator models (serial mediator effect) were used. From this point of view, a separate model was established for each parenting style and a total of three different models were established and the direct and indirect effects between the variables were tested.

### 3.1. The Sequential Mediating Effects of FB and FS in the Relationship between CDT and Mothers' DS

Table 2.

*Coefficients of Direct and Indirect Effects of CDT on Mothers' Democratic Style (DS)*

Total Effect	B	SE	95% C.I.		$\beta$	z	p
			Lower	Upper			
CDT1 → DS (c)	-7.60	1.71	-11.0	-4.25	-0.33	-4.44	.000*
CDT2 → DS (c)	-6.95	1.82	-10.5	-3.37	-0.30	-3.81	.000*
<b>Direct Effects</b>							
CDT1 → DS (c*)	-0.78	1.36	-3.40	1.92	-0.03	-0.57	.596
CDT2 → DS (c*)	-4.01	1.12	-6.23	-1.78	-0.17	-3.56	.000*
CDT1 → FB (a1)	42.99	3.54	35.96	49.81	0.59	12.13	.000*
CDT2 → FB (a1)	7.30	4.09	-0.76	15.37	0.09	1.78	.074
CDT1 → FS (a2)	3.59	0.80	2.03	5.20	0.19	4.43	.000*
CDT2 → FS (a2)	3.04	0.61	1.86	4.22	0.16	4.97	.000*
FB → DS (b1)	0.04	0.02	-0.00	0.09	0.13	1.70	.088
FS → DS (b2)	-0.73	0.10	-0.92	-0.54	-0.60	-7.48	.000*
FB → FS (d)	0.19	0.02	0.17	0.21	0.73	8.34	.000*
<b>Indirect Effects</b>							
FB → FS → DS (d*b2)	-0.14	0.02	-0.18	-0.10	-0.44	-7.15	.000*
CDT1 → FS → DS (a2*b2)	-2.62	0.70	-4.14	-1.35	-0.11	-3.71	.000*
CDT1 → FB → DS (a1*b1)	1.75	1.05	-2.27	3.88	0.08	1.67	.095
CDT1 → FB → FS → DS (a1*d*b2)	-5.96	0.97	-7.93	-4.18	-0.26	-6.16	.000*
CDT2 → FS → DS (a2*b2)	-2.22	0.54	-3.35	-1.26	-0.10	-4.14	.000*
CDT2 → FB → DS (a1*b1)	0.30	0.27	-0.07	0.96	0.01	1.09	.272
CDT2 → FB → FS → DS (a1*d*b2)	-1.01	0.59	-2.23	0.10	-0.04	-1.73	.084

\* $p < .05$ ; CDT1= ASD-PDC; CDT2= MR-PDC; PDC is reference category

(Children's Disability Type (CDT1)=Autism Spectrum Disorder-Physical Disability (ASD-PDC); Children's Disability Type (CDT2)=Mental Retardation- Physical Disability (MR-PDC); Physical Disability (PDC)

As seen in Table 2, mothers who had children with ASD had significantly lower DS levels compared to mothers who had children with PDC (total effect:  $B = -7.60$ , 95% CI [-11.00, -4.25],  $\beta = -0.33$ ,  $p < .001$ ). The direct effect of this difference was not significant ( $B = -0.78$ , 95% CI [-3.40, 1.92],  $\beta = -0.03$ ,  $p = .596$ ) but the indirect effects were significant. Mothers of ASD children had significantly higher FD ( $B = 42.99$ , 95% CI [35.96, 49.81],  $\beta = 0.59$ ,  $p < .001$ ). Increasing FB also significantly increased FS<sup>^</sup> (FB → FS:  $B = 0.19$ , 95% CI [0.17, 0.21],  $\beta = 0.73$ ,  $p < .001$ ). The sequential mediation effect (CDT1 → FB → FS → DS) in the model was found to be significant ( $B = -5.96$ , 95% CI [-7.93, -4.18],  $\beta = -0.26$ ,  $p < .001$ ). In addition, the single indirect effect CDT1 → FS → DS path was also significant ( $B = -2.62$ , 95% CI [-4.14, -1.35],  $\beta = -0.11$ ,  $p < .001$ ). In contrast, the CDT1 → FB → DS path was not significant ( $B = 1.75$ , 95% CI [-2.27, 3.88],  $\beta = 0.08$ ,  $p = .095$ ). These findings suggest that the decrease in DS tendencies in mothers of ASD children is a result of increased FB and the resulting FS. In other words, the negative total effect on DS in mothers of ASD children is not direct, but rather indirectly through FB and FS.

Mothers who had children with MR also had significantly lower DS propensity than those who had children with PDC (total effect:  $B = -6.95$ , 95% CI [-10.50, -3.37],  $\beta = -0.30$ ,  $p < .001$ ). The direct effect of this difference was significant ( $B = -4.01$ , 95% CI [-6.23, -1.78],  $\beta = -0.17$ ,  $p < .001$ ). In addition, the single indirect effect CDT2 → FS → DS was also significant ( $B = -2.22$ , 95% CI [-3.35, -1.26],  $\beta = -0.10$ ,  $p < .001$ ). However, the paths CDT2 → FB → DS ( $B = 0.30$ , 95% CI [-0.07, 0.96],  $\beta = 0.01$ ,  $p = .272$ ) and CDT2 → FB → FS → DS ( $B = -1.01$ , 95% CI [-2.23, 0.10],  $\beta = -0.04$ ,  $p = .084$ ) were not significant. This result suggests that FB and FS do not form a chain mechanism operating together in mothers of children with MR. On the contrary, high FS levels directly weaken DS tendencies. In other words, the negative effect on DS in mothers of children with MR emerges both directly and indirectly through FS, while the effect of FB remains limited.

Overall, the findings indicate that mothers of both groups of children (with ASD and MR) adopted the DS style less than mothers of those with PDC. However, the source of this effect differed across groups. For mothers of children with ASD, the effects were largely indirect, mediated by the sequential mediation between FB and FS. For mothers whose children had MR, the direct effect was dominant, with only a significant indirect effect through FS.

### 3.2. The Sequential Mediating Effects of FB and FS in the Relationship between CDT and Mothers' AS

Table 3.

*Coefficients of Direct and Indirect Effects of CDT on Mothers' Authoritarian Style (AS)*

Total Effect	B	SE	95% C.I.		$\beta$	z	p
			Lower	Upper			
CDT1 → AS (c)	5.24	1.09	3.10	7.38	0.37	4.80	.000*
CDT2 → AS (c)	4.76	1.13	2.55	6.98	0.33	4.21	.000*
<b>Direct Effects</b>							
CDT1 → AS (c*)	2.45	0.93	0.59	4.23	0.17	2.62	.009
CDT2 → AS (c*)	3.96	0.74	2.52	5.41	0.27	5.35	.000*
CDT1 → FB (a1)	42.99	3.56	35.94	49.89	0.59	12.06	.000*
CDT2 → FB (a1)	7.30	4.07	-0.77	15.26	0.10	1.80	.000*
CDT1 → FS (a2)	3.59	0.80	2.06	5.16	0.19	4.50	.096
CDT2 → FS (a2)	3.04	0.60	1.86	4.22	0.16	5.04	.000*
FB → AS (b1)	0.03	0.02	-0.01	0.06	0.14	1.72	.086
FS → AS (b2)	0.13	0.06	0.01	0.26	0.18	2.09	.396
FB → FS (d)	0.19	0.02	0.17	0.20	0.73	8.34	.000*
<b>Indirect Effects</b>							
FB → FS → AS (d*b2)	0.03	0.01	0.01	0.05	0.13	2.07	.039*
CDT1 → FS → AS (a2*b2)	0.48	0.25	0.03	1.02	0.03	1.90	.058
CDT1 → FB → AS (a1*b1)	1.22	0.71	-0.18	2.63	0.09	1.71	.087
CDT1 → FB → FS → AS (a1*d*b2)	1.09	0.54	0.07	2.19	0.08	2.03	.042*
CDT2 → FS → AS (a2*b2)	0.40	0.21	0.03	0.85	0.03	1.96	.049*
CDT2 → FB → AS (a1*b1)	0.21	0.73	-0.06	0.60	0.01	1.19	.232
CDT2 → FB → FS → AS (a1*d*b2)	0.19	0.14	-0.030	0.51	0.01	1.32	.188

\* $p < .05$ ; CDT1= ASD-PDC; CDT2= MR-PDC; PDC is reference category

(Children's Disability Type (CDT1) =Autism Spectrum Disorder-Physical Disability (ASD-PDC); Children's Disability Type (CDT2) =Mental Retardation- Physical Disability (MR-PDC); Physical Disability (PDC)

As seen in Table 3, mothers of ASD children had significantly higher AS tendencies compared to mothers of PDC children (total effect:  $B = 5.24$ , 95% CI [3.10, 7.38],  $\beta = 0.37$ ,  $p < .001$ ). The direct effect of this difference was also significant ( $B = 2.45$ , 95% CI [0.59, 4.23],  $\beta = 0.17$ ,  $p = .009$ ), with indirect effects providing additional explanatory contribution. Mothers of ASD children had significantly higher FB levels ( $B = 42.99$ , 95% CI [35.94, 49.89],  $\beta = 0.59$ ,  $p < .001$ ). In parallel, increased FB also significantly increased FS (FB → FS:  $B = 0.19$ , 95% CI [0.17, 0.20],  $\beta = 0.73$ ,  $p < .001$ ). The sequential mediation effect (CDT1 → FB → FS → AS) in the model was found to be significant ( $B = 1.09$ , 95% CI [0.07, 2.19],  $\beta = 0.08$ ,  $p = .042$ ). This suggests that increased FB in mothers of ASD children indirectly increases AS by increasing FS. In addition, the FB → FS → AS path was also significant ( $B = 0.03$ , 95% CI [0.01, 0.05],  $\beta = 0.13$ ,  $p = .039$ ), supporting the idea that FB and FS operate together. In other words, the positive total effect on AS in mothers of ASD children occurs both directly and indirectly through the FB-FS effect.

Mothers of MR children also had significantly higher AS levels than those who had children with PDC (total effect:  $B = 4.76$ , 95% CI [2.55, 6.98],  $\beta = 0.33$ ,  $p < .001$ ). The direct effect of this difference was also significant ( $B = 3.96$ , 95% CI [2.52, 5.41],  $\beta = 0.27$ ,  $p < .001$ ). Mothers of MR children did not have a significant effect on increasing FB ( $B = 7.30$ , 95% CI [-0.77, 15.26],  $\beta = 0.10$ ,  $p = .072$ ), but did have a significant increase in FS ( $B = 3.04$ , 95% CI [1.86, 4.22],  $\beta = 0.16$ ,  $p < .001$ ). The unique indirect effect CDT2 → FS → AS path was found to be significant ( $B = 0.40$ , 95% CI [0.03, 0.85],  $\beta = 0.03$ ,  $p = .049$ ). On the other hand, the paths CDT2 → FB → AS ( $B = 0.21$ , 95% CI [-0.06, 0.60],  $\beta = 0.01$ ,  $p = .232$ ) and CDT2 → FB → FS → AS ( $B = 0.19$ , 95% CI [-0.03, 0.51],  $\beta = 0.01$ ,  $p = .188$ ) were not significant. This result shows that the increase in AS tendencies in mothers of MR children mainly occurs directly and indirectly through FS; FB does not play a significant role in this process. In other words, AS tendencies in mothers who had children with MR are strengthened through direct effects and FS. The impact of FB remains limited.

Overall, compared to the reference group of mothers who had children with PDC, mothers of both ASD and MR children exhibited significantly increased AS tendencies. This increase occurred both directly and through the sequential effects of FB and FS in mothers with ASD children, while in mothers with MR children, the increase was more direct and indirectly mediated by FS.

### 3.3. The Sequential Mediating Effects of FB and FS in the Relationship between CDT and Mothers' PPS

Table 4.

*Coefficients of Direct and Indirect Effects of CDT Mothers' Permissive Parenting Style (PPS)*

Total Effect	95% C.I.						
	B	SE	Lower	Lower	$\beta$	z	p
CDT1 → PPS (c)	4.00	0.39	3.23	4.77	0.52	10.22	.000*
CDT2 → PPS (c)	2.95	0.42	2.14	3.75	0.38	7.08	.000*
<b>Direct Effects</b>							
CDT1 → PPS (c*)	2.36	0.47	1.42	3.30	0.31	4.99	.000*
CDT2 → PPS (c*)	2.44	0.40	1.65	3.22	0.31	6.08	.000*
CDT1 → FB (a1)	42.99	3.62	35.79	50.00	0.59	11.89	.000*
CDT2 → FB (a1)	7.30	4.11	-0.84	15.25	0.10	1.78	.076
CDT1 → FS (a2)	3.59	0.81	2.03	5.17	0.19	4.45	.000*
CDT2 → FS (a2)	3.04	0.60	1.85	4.24	0.16	5.03	.000*
FB → PPS (b1)	0.01	0.00	-0.00	0.02	0.12	1.59	.111
FS → PPS (b2)	0.09	0.03	0.04	0.16	0.23	3.10	.002*
FB → FS (d)	0.19	0.02			0.73	8.34	.000*
<b>Indirect Effects</b>							
FB → FS → PPS (d*b2)	0.02	0.01	0.01	0.03	0.17	3.02	.003*
CDT1 → FS → PPS (a2*b2)	0.34	0.13	0.12	0.61	0.04	2.70	.007*
CDT1 → FB → PPS (a1*b1)	0.53	0.34	-0.16	1.16	0.07	1.60	.111
CDT1 → FB → FS → PPS (a1*d*b2)	0.77	0.27	0.28	1.33	0.10	2.88	.004*
CDT2 → FS → PPS (a2*b2)	0.29	0.10	0.11	0.51	0.04	2.80	.005*
CDT2 → FB → PPS (a1*b1)	0.09	0.08	-0.04	0.27	0.01	1.16	.248
CDT2 → FB → FS → PPS (a1*d*b2)	0.13	0.10	-0.02	0.34	0.02	1.47	.142

\* $p < .05$ ; CDT1= ASD-PDC; CDT2= ASD-PDC; PDC; PDC is reference category

(Children's Disability Type (CDT1) =Autism Spectrum Disorder-Physical Disability (ASD-PDC); Children's Disability Type (CDT2) =Mental Retardation- Physical Disability (MR-PDC); Physical Disability (PDC)

As seen in Table 4, mothers of ASD children had significantly higher PPS levels than mothers of PDC children (total effect:  $B = 4.00$ , 95% CI [3.23, 4.77],  $\beta = 0.52$ ,  $p < .001$ ). The direct effect of this difference was also significant ( $B = 2.36$ , 95% CI [1.42, 3.30],  $\beta = 0.31$ ,  $p < .001$ ). Mothers of ASD children had significantly increased FB ( $B = 42.99$ , 95% CI [35.79, 50.00],  $\beta = 0.59$ ,  $p < .001$ ) and also increased FS ( $B = 3.59$ , 95% CI [2.03, 5.17],  $\beta = 0.19$ ,  $p < .001$ ). FS also had an increasing effect on PPS (FS → PPS:  $B = 0.09$ , 95% CI [0.04, 0.16],  $\beta = 0.23$ ,  $p = .002$ ). However, the direct effect of FB was not significant ( $B = 0.01$ , 95% CI [-0.00, 0.02],  $\beta = 0.12$ ,  $p = .111$ ). The sequential mediation effect (CDT1 → FB → FS → PPS) in the model was found to be significant ( $B = 0.77$ , 95% CI [0.28, 1.33],  $\beta = 0.10$ ,  $p = .004$ ). In addition, the individual indirect effects CDT1 → FS → PPS ( $B = 0.34$ , 95% CI [0.12, 0.61],  $\beta = 0.04$ ,  $p = .007$ ) and FB → FS → PPS ( $B = 0.02$ , 95% CI [0.01, 0.03],  $\beta = 0.17$ ,  $p = .003$ ) were also significant. In contrast, the CDT1 → FB → PPS path was not significant ( $B = 0.53$ , 95% CI [-0.16, 1.16],  $\beta = 0.07$ ,  $p = .111$ ). These findings suggest that mothers of ASD children show greater increases in positive parenting tendencies than mothers of PDC children, both directly and through the effects of FB and FS. In other words, the FB-FS effect favors PPS parenting in mothers who had children with ASD.

Mothers of MR children also had significantly higher PPS tendencies than mothers of PDC children (total effect:  $B = 2.95$ , 95% CI [2.14, 3.75],  $\beta = 0.38$ ,  $p < .001$ ). The direct effect of this difference was also significant ( $B = 2.44$ , 95% CI [1.65, 3.22],  $\beta = 0.31$ ,  $p < .001$ ). Mothers of MR children had no significant effect on FB ( $B = 7.30$ , 95% CI [-0.84, 15.25],  $\beta = 0.10$ ,  $p = .076$ ), but did have significantly increased FS ( $B = 3.04$ , 95% CI [1.85, 4.24],  $\beta = 0.16$ ,  $p < .001$ ). When indirect effects were examined, the CDT2 → FS → PPS path was significant ( $B = 0.29$ , 95% CI [0.11, 0.51],  $\beta = 0.04$ ,  $p = .005$ ), but the CDT2 → FB → PPS ( $B = 0.09$ , 95% CI [-0.04, 0.27],  $\beta = 0.01$ ,  $p = .248$ ) and CDT2 → FB → FS → PPS ( $B = 0.13$ , 95% CI [-0.02, 0.34],  $\beta = 0.02$ ,  $p = .142$ ) paths were not significant. This result suggests that the increase in PPS levels in mothers of MR children mainly occurs directly and indirectly through FS, and that FB does not play a significant role in this process. In other words, while positive parenting tendencies in mothers of MR children are strengthened through FS; The impact of FB remains limited.

Overall, compared to the reference group of mothers with PDC children, mothers of both ASD and MR children exhibited significantly increased PPS levels. This increase occurred both directly in the case of mothers with ASD children and through the sequential effects of FB and FS, and more directly and indirectly through FS in the case of mothers with MR children.

## 4. RESULTS, DISCUSSION AND RECOMMENDATIONS

### 4.1. Results and Discussion

The mediating role of FB and FS in the relationship between DS, AS, and PPS in mothers of children who had ASD, MR, and PDC was examined according to children's special needs type (SDT). For this purpose, serial mediator models (serial mediator

effect) were used, and regression-based mediator model analyses were applied. The study concluded that mothers of children with ASD and MR exhibited significantly lower DS than mothers of those with PDC. In mothers of children with ASD, increased FB indirectly increased AS levels by increasing FS levels. In mothers of children who had MR, the FS effect was more significant, while the FB effect was limited. Mothers of children with ASD and MR had significantly higher PPS levels than mothers of those with PDC. It was found that this was mediated through direct and sequential effects in mothers having children with ASD. In mothers of MR children, it was mediated more directly and indirectly through FS. This was also discussed in line with the sub-objectives of the study.

*Discussion regarding first sub-goal (mothers' democratic parenting styles/DS):* Mothers of ASD children had significantly lower levels of democratic parenting styles (DS) compared to mothers of PDC children. While this difference did not have any significant direct effect, it was observed to have an indirect effect. Mothers of ASD children were found to significantly increase their perceived FB. Increased FB also significantly increased FS. These findings suggest that the decrease in DS tendencies observed in mothers of ASD children is a result of increased FB and the resulting FS. Deficiencies and difficulties in social adaptation and communication skills in ASD children reduce the likelihood of mothers exhibiting DS in their children. The fact that mothers who had children with PDC can communicate more easily with their children and that their children's ability to comprehend what is being said may facilitate mothers' democratic behavior. Picardi et al. (2018) found that parents of children with ASD experienced higher levels of perceived FB, more frequent psychological distress, and less social support. In this study, mothers of children with MR were found to have significantly lower propensity to display/display DS compared to mothers of children having PDC. This result suggests that mothers of MR children do not exhibit both FD and FS, but that a higher FS level directly weakens DS tendencies. While there are differences depending on the type and level of intellectual disability of children, MR children generally exhibit more difficulty understanding instructions, obeying rules, communicating and behaving appropriately. These problems may increase the FS level of MR mothers while decreasing the DS level. PDC children's assertiveness, friendliness, and positive social responses, higher levels of comprehension and cognitive skills, and a lower incidence of family adjustment and behavioral problems may enable mothers of PDC children to communicate more effectively and easily with their children, thereby increasing their likelihood of displaying DS in their children. According to Uguz, Toros, İnanç and Çolakkadıoğlu (2004) the children of mothers with disabled children (ASD, MR and PDC) being more dependent on themselves and having difficulties in controlling their behaviors increased the FB and FS levels of the mothers. Estes et. al. (2009), Estes et. al. (2013) and Argumedes et al. (2018) also stated that the differences in symptoms, severity and symptoms and behavioral problems of children with ASD increased the stress of parents. The current study showed that mothers of ASD and MR children exhibited significantly lower DS than mothers of PDC children. However, the source of this effect differed between the groups. In mothers of ASD children, the effects largely occurred indirectly through the sequential mediation effect between FB and FS. However, in mothers of MR children, the direct effect was dominant, and a significant indirect effect was observed only through FS. These findings also show that FB and FS cumulatively reduce DS in mothers of ASD children, and direct psychosocial factors are more pronounced in mothers of MR children.

*Discussion regarding second sub-goal (mothers' authoritarian parenting styles/AS):* Mothers of ASD children were found to have a significantly higher direct effect on AS tendencies than mothers of children with PDD. FB levels were found to be significantly higher in mothers of ASD children. Increased FB significantly increased FS. The sequential mediation effect in the model was also found to be significant. This suggests that increased FB in mothers of ASD children indirectly increases AS levels by increasing FS levels. Furthermore, it supports the notion that FB and FS exert a combined effect in mothers of ASD children. In other words, the positive total effect on AS in mothers of ASD children occurs both directly and indirectly through the FB-FS effect. Considering the characteristics of children with ASD, the frequent temper tantrums, communication difficulties, and social adjustment problems may cause mothers to have difficulty controlling the behavior of their children with ASD. These difficulties, in turn, may lead to mothers feeling FB and FS, leading to more authoritarian behavior towards their children. Ventola, Lei, Paisley, Lebowitz and Silverman (2017), determined that parents with children with ASD behave more authoritatively with their children due to problems related to daily difficulties and psychological problems. Ayran and Baran (2016) and Özyürek and Ergun (2021) found that mothers with normally developing children had more AS than those having children with ASD. Gau et al. (2010) conducted a study with ASD children and their normal siblings. Mothers of MR children had significantly higher AS levels compared to mothers of those with PDC who had a direct effect. While the effect of children with MR on increasing their mothers' FB was not significant, it was observed that FS significantly increased. This result suggests that the increase in AS tendencies of mothers of children with MR occurs primarily directly and indirectly through FS. FB does not play a significant role in this process. In other words, AS in mothers of children with MR is strengthened through direct effects while the effect of FB is limited. It can be thought that children with MR have difficulty in understanding some rules at home, behavior problems, tantrums. The mother's difficulty in communicating with her child, and the lack of adequate support, especially in communicating and disciplining with her child might cause mothers to show more authoritarian behaviors towards their children. Onwuakagba et al. (2024) found in their study that parents felt high PD and exhibited negative attitudes towards their children with CP. Keser, Kapcı and Odabaş (2012) found that mothers of children with developmental delays exhibited more AS and PPS, while Boer and Munde (2014) determined that parents of children with MR and multiple disabilities exhibited negative attitudes. These studies also support the results of the current study. In this study, mothers of children having both ASD and MR had significantly increased AS tendencies compared to those having children with PDC, the reference group. This increase occurred through both direct and sequential effects of FB and FS in mothers who had children with ASD, while the increase in FB in mothers of MR children was observed to occur more directly and indirectly through FS. Therefore, the psychosocial processes changing due to CDT shape mothers' parenting approaches

in different ways. In particular, the FB–FS effect in mothers of ASD children creates a significant effect that strengthens AS tendencies, while the FS effect is more pronounced and the FB effect is limited in mothers of MR children. These results clearly demonstrate that the parenting styles of mothers of disabled children are closely related to their perceived levels of FB and FS.

*Discussion regarding the third sub-goal (mothers' permissive parenting styles/PPS):* PPS levels were found to be significantly higher in mothers whose children had ASD compared to mothers of those with PSC. Mothers who had children with ASD significantly increased FB and also increased FS levels. Furthermore, FS was found to increase PPS attitudes, while the direct effect of FB was not significant. The sequential mediation effect in the model was also found to be significant. This indicates that mothers of ASD children experience greater increases in positive parenting tendencies than mothers of PSC children, both directly and through the effects of FB and FS. In other words, the FB–FS effect of mothers who had ASD children supports PPS levels. ASD children experience inadequate relationships, overreactions to changes in daily life, stereotyped and repetitive body movements, problems with interpersonal relationships and social skills, behavioral problems such as self-harm and aggression, and sensory and movement disorders, which hinder social interactions between mothers and those around them. These problems can increase mothers' FB and FS levels, which can lead to difficulties controlling their children's behavior and leading them to show PPS attitudes. The direct effect of PPS attitudes was found to be significantly higher in mothers of MR children compared to mothers of PDC children. The effect of MR children on FB was not found to be significant. However, it was found to significantly increase FS levels. An examination of indirect effects indicated that MR status influenced the mother's FS level, while FB did not significantly influence the effect of FS on PPS. This result suggests that the increase in PPS levels in mothers of MR children is primarily direct and indirectly mediated by FS, with FB not playing a significant role in this process. In other words, while the positive parenting tendencies of mothers of MR children are strengthened through FS, its impact on their perceived FB remains limited. The social problems experienced by MR children, their hesitation to take responsibility, low self-confidence, difficulties in following play and social rules, adjustment problems, self-mutilation, biting, and hitting behaviors, may all lead to an increase in FS in mothers. However, although mothers' FS increases, it also indicates that they do not perceive their children as FS. In the current study, significantly increased PPS levels were observed in mothers of both with children who had ASD and MR compared to the reference group of mothers having children with PDC. This increase was observed both directly in the case of mothers of ASD children and through the sequential effects of FB and FS, while in mothers of MR children, it was more direct and indirectly mediated by FS. Gökmenoğlu and Başer (2023) and Ardahan Akgül et al. (2023) determined that mothers having children with MR exhibited more PPS than those whose children were developing typically. Aydın and Sönmez (2014) determined that mothers of 7-12 year-old children with MR showed more overprotective parenting style. Phillips et al. (2017) determined that mothers with MR children used the PPS more than mothers with normal children. These results overlap with the results of the present study.

## 4.2. Strengths, Limitations and Recommendations

### 4.2.1. Strengths and limitations

Many factors affect the PS of mothers with disabled children. In this study, the effect of disability type on the mother's PS and the sequential mediating roles of FB and FS were examined. The choice of mediator models in this study clarifies the relationship between the dependent and independent variable. In particular, the mediating effects of FB and FS on the causal relationship between the CDT and the PS of the parents were emphasized. Thus, the causality relationship has been shown more clearly and accurately. In this way, the nature of the relationship is better understood. Another strong aspect of the research is the intelligibility of the measurement tools used. The items in the measurement tools used consisted of simple and understandable expressions. Even the mothers with a low level of education (such as primary school graduates) could easily understand the items in the scale. Thus, the mothers answered the form comfortably. There was no data loss in the research due to incomplete answers. This study can make a significant contribution to future studies. By examining the styles and attitudes, it is hoped that these studies can give them support so that they do not feel like a burden to society. It is hoped that they could rely on effective communication and spend more productive time with both their disabled children and with their normally developing siblings.

The biggest limitation of this study may be that we only conducted the study on mothers. In smaller provinces such as the province of Turkey (Sakarya), where the research was conducted, more mothers take on the responsibility of caring for children with disabilities. Fathers undertake more work and economic responsibilities. Therefore, we could not determine the mediating role of fathers' FS and FB on PS. We also could not examine the differences between PS of mothers and fathers. In addition, another limitation of the study was the differences in the education level of the mothers participating in the study. 369 of 416 parents had associate degree or below education level. The imbalance in the education level of mothers also complicates the generalizability of the research results to the general population. Finally, collecting research data during the pandemic period forced us to reach mothers. The research had started before the pandemic process. However, the onset of the pandemic process has caused fewer mothers to come to private education institutions due to measures such as the closure of educational institutions in our country. We were also unable to measure the effects of the pandemic process. Because even though the collection of data coincided with the pandemic process, the research started before the pandemic process. Another limitation of the study might be that it was planned in a cross-sectional design.

## 4.2.2. Recommendations

Considering the results of the study, recommendations for parents of disabled children and for future researches are presented. In current research, only worked with mothers. Since we did not include fathers in the study, we could not determine the mediating role of FB and FS in fathers' PS. Therefore, in future studies, a study including fathers can be planned and FB, FS and PS of mothers and fathers can be determined. As a result of the study, mothers of ASD and MR children showed significantly lower DS than mothers of PDC children, while exhibiting higher levels of AS and PPS. As can be seen, the FB and FS felt by mothers have a strong impact on AS and PPS, while reducing the level of DS. These results suggest that conferences, seminars, and courses can be organized for mothers of ASD and MR children, particularly those with communication difficulties, on topics such as effective communication with their children, combating problem behaviors, and coping with stress, taking into account the child's disability type. Individual and group family education programs can be planned to provide psychological support and parenting skills to mothers to reduce FB and FS, and to enhance parenting skills. Besides, activities can be planned to enable mothers to communicate effectively with other family members and to relax them socially and emotionally. In addition, training activities for special education teachers to support mothers and fathers can be increased. In other words, it can be ensured that special education professionals work not only with disabled children but also with their mothers and fathers. For example, activities for the socialization of parents can be planned. Trainings can be planned for fathers to reduce the burden of mothers at home. Guiding activities and educational activities can be planned for parents, disabled children and siblings to spend effective time at home.

This study is a quantitative research and the fact that the FB of mothers causes FS, and FS reduces the DS reveals the necessity of reducing the FB of mothers. Therefore, as an advanced stage of this study, an experimental study can be planned by including a smaller group of mothers and even fathers. In this research, FB, FS and PS can be determined. Parents can be trained on issues such as communication with their children, effective parenting, ways to cope with stress, and also activities for parent-child interaction can be planned. The effect of the education program on parents' PS, FB and FS can be examined. The applied training program can be implemented to larger groups through a project and they can turn into training modules that can be applied to society.

## Research and Publication Ethics Statement

Ethical procedures have been followed and the standards governing research involving human participants (currently in force in the Turkey) have been met. Ethical approval for the research procedures has been given by the Faculty of Health Sciences, Uskudar University Non-Interventional Research Ethics Committee, Istanbul, Turkey.

## Contribution Rates of Authors to the Article

First author % 30, second author % 70.

## Statement of Interest

Statement of interest: none

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