

Marital Satisfaction Based on Father Involvement in Parenting, Problem-Solving Skills, and Cognitive Emotion Regulation through Emotional Empathy in Mothers of Children with Cerebral Palsy

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ABSTRACT

Objective: This study aimed to investigate marital satisfaction based on father involvement in parenting, problem-solving skills, and cognitive emotion regulation through emotional empathy in mothers of children with cerebral palsy.

Methods: The research design was descriptive-survey and used a structural equations approach. The statistical population included 148 mothers of children with cerebral palsy in the city of Rasht in 2022. Using a census and purposive sampling method, all 148 individuals were selected as the sample. Data were collected using the ENRICH Marital Satisfaction Questionnaire, Alabama Parenting Test (Parent Form), Family Problem-Solving Questionnaire, Emotion Regulation Questionnaire, and Emotional Empathy Questionnaire. Data analysis was performed using SPSS (version 28) and Lisrel (version 10).

Findings: The findings showed a direct relationship between father involvement in parenting, problem-solving skills, cognitive emotion regulation, and emotional empathy with marital satisfaction ($p \leq .01$). An indirect relationship was also found between father involvement in parenting, problem-solving skills, and cognitive emotion regulation through the mediation of emotional empathy with marital satisfaction ($p \leq .01$).

Conclusion: To alleviate or reduce the burden on mothers of children with cerebral palsy, fathers must actively participate in parenting. This collaboration enables both parents to solve problems and control negative emotions while supporting each other with a high level of emotional empathy, thereby fostering and enhancing marital satisfaction.

Keywords: Marital satisfaction, father involvement in parenting, problem-solving skills, cognitive emotion regulation, emotional empathy.

1. Introduction

Cerebral palsy is a neurological disorder caused by damage to the developing brain of a fetus or infant. It can result in problems such as intellectual disabilities, hearing impairments, visual defects, and perceptual disturbances, leading to a non-progressive motor system dysfunction (Galli et al., 2022; Koopmans et al., 2022). Cerebral palsy is a developmental disability accompanied by sensory, perceptual, cognitive, communicative, and behavioral issues, as well as epilepsy and musculoskeletal problems. This condition restricts daily and social activities (Pählman et al., 2020). A child's disability, as a family member, disrupts the family system's ability to perform its functions effectively, resulting in complications in the functioning of both individual members and the family as a whole (Boldyreva et al., 2020).

There is considerable evidence showing that parents caring for children with disabilities experience worse physical and mental health outcomes compared to parents of healthy children, with mothers being particularly affected (McCoy et al., 2020).

One approach to mitigating the negative impacts and burdens on mothers and parents of children with cerebral palsy is fostering marital satisfaction. Marital satisfaction is a crucial factor influencing family happiness, mental health, cohesive interpersonal relationships, and sustained, stable social interactions between spouses. Marital satisfaction is a positive and pleasurable attitude that spouses have toward various aspects of their marital relationship. Several factors, including mutual respect, shared beliefs, age at marriage, length of marital life, social networks, religious alignment, and the number and health status of children, impact marital satisfaction. Marital satisfaction reflects the overall level of satisfaction couples experience with different aspects of their marital relationship. It indicates low levels of conflict and encompasses satisfaction with the spouse and compatibility (Thomas et al., 2017).

Characteristics of exceptional children, such as learning difficulties, challenges in responding to environmental demands, and the high costs of their care and education, negatively affect their parents' marital satisfaction and happiness (Long & Bullare, 2018). Parents of such children often face high levels of anger, shame, or self-blame, depression, and stress. These factors impact psychological well-being, marital happiness, and the parent-child relationship (Solati, 2017).

Among the factors influencing child development, parenting is of paramount importance. The earliest efforts to conceptualize father involvement in parenting trace back to Lamb et al.'s research (2012). Their model outlines three components: (a) engagement (direct interaction with the child in care, play, and teaching-learning activities); (b) availability (being accessible to the child without direct physical presence); and (c) responsibility (planning and organizing child-related activities and ensuring the child's needs are met) (Sanders, 2018).

Over time, fathers have shown varying roles in child-rearing, sometimes succeeding and other times failing. Fathers do not replace mothers but complement them in fulfilling their parental roles. Fathers can significantly influence their children's emotions, socialization, and emotional regulation. Research has shown that paternal absence impacts sons more than daughters, with sons experiencing greater challenges in fulfilling their gender roles. Children who interact with their fathers tend to experience less stress during adolescence, demonstrate better problem-solving skills, and achieve greater adaptability (Afrooz, 2021; Mohammadi Aminzadeh et al., 2017; Mohammadi & Fouladchang, 2017).

Although fathers today play a more prominent role in parenting, societal expectations and their caregiving roles have evolved due to rapid social and economic changes and shifts in societal perceptions of fatherhood (Kleine, 2007).

Problem-solving is another variable affecting marital satisfaction. Families face problems during marital life for various reasons, depending on the magnitude of the issues and differences. Problem-solving is a key concept that equips individuals with competencies and accountability to address challenges. Problem-solving skills are essential life skills, and training in these skills improves individuals' interpersonal responsibility and social competence (Davai et al., 2021). Problem-solving involves cognitive-behavioral processes aimed at identifying effective, adaptive solutions to specific problematic situations encountered in life (Shokoohi Yekta & Motamed Yeganeh, 2024). Social problem-solving requires higher-order cognitive processes to effectively cope with stress-inducing life challenges (Ahmady & Shahbazi, 2020; Tajeryan et al., 2022).

Another factor influencing marital satisfaction in families with children with cerebral palsy is cognitive emotion regulation. Parents of children with disabilities often face emotional challenges due to the persistent stress of caregiving (Khoshnavay Fomani et al., 2022). Recent studies have highlighted the significant role of emotional

factors in the quality of relationships between couples (Shareh & Eshaghi Sani, 2018). Cognitive emotion regulation strategies are essential in predicting and treating psychological issues and play a role in strengthening or weakening marital bonds and satisfaction (Malekzadeh et al., 2024; Razavi, 2024). Positive cognitive emotion regulation strategies, such as positive refocusing and reappraisal, enhance couples' resilience in facing relational challenges, contributing to marital satisfaction (Barooti, 2024; Mikaeili et al., 2024; Sara Aman Alah Khani, 2024).

Another important factor influencing marital satisfaction is emotional empathy between spouses. Empathy refers to the emotional and cognitive ability to understand others' psychological states, emotions, thoughts, and motivations and to respond appropriately (Wang & Lu, 2023). Empathy is described as the ability to comprehend and experience others' feelings and respond appropriately (Hakimi Dezfouli & Ebrahimpour, 2024; Mohammadi Aminzadeh et al., 2017). It enables individuals to manage their emotions and align their behavior with societal expectations (Öztop et al., 2024; Pirhadi Tavandashti et al., 2024). Empathy also involves distinguishing between one's inner states and those of others and reacting accordingly (Salman Nasab et al., 2024; Shabanova, 2024).

Khoshnavay Foomani et al. (2022) demonstrated that reflective practice improved cognitive emotion regulation in mothers of children with autism (Khoshnavay Fomani et al., 2022). Davaei et al. (2022) found that creative problem-solving training positively impacted emotion management in mothers of gifted students (Davaei et al., 2021). Zarei et al. (2022) revealed that acceptance and commitment therapy increased marital satisfaction and self-efficacy in mothers of children with cerebral palsy (Zarei et al., 2021). Afrooz (2021) observed that fathers' roles have transitioned from sole breadwinners to supportive caregivers (Afrooz, 2021).

The physical and emotional burden of caregiving for children with cerebral palsy significantly impacts the mental and physical health of their mothers, necessitating research on factors such as father involvement, problem-solving skills, cognitive emotion regulation, and emotional empathy to enhance their marital satisfaction. Thus, this study seeks to answer the question: To what extent is marital satisfaction in mothers of children with cerebral palsy determined and explained by father involvement in parenting, problem-solving skills, and cognitive emotion regulation through emotional empathy?

2. Methods

2.1. Study Design and Participants

The research design of the present study was descriptive-survey with correlational relationships and utilized a structural equation modeling (SEM) approach. The statistical population consisted of 148 mothers of children with cerebral palsy in the city of Rasht in 2022. Using census and purposive sampling methods, all 148 individuals were selected as the sample. The data collection instruments are described as follows:

2.2. Measures

2.2.1. Marital Satisfaction

Translated into Persian by Soleimani (1994) and Saatchi et al. (2010), ENRICH Marital Satisfaction Questionnaire is available in a long form with 115 items and a short form with 47 items. The present study used the 47-item short form developed by Olson (1998), which includes 12 subscales: marital satisfaction, personality traits, communication, conflict resolution, financial management, leisure activities, sexual relationship, children and parenting, family and friends, idealistic distortion, egalitarian roles, and religious orientation. The questionnaire uses a 5-point Likert scale, with higher scores indicating greater satisfaction. Reliability coefficients reported in various studies in Iran range between 0.83 and 0.96 (Motahari, 2023; Namvar, 2023).

2.2.2. Parenting Involvement

This questionnaire, developed by Shelton, Frick, and Wootton (1996), consists of 42 items measured on a 5-point Likert scale ranging from "never" (1) to "always" (5). The questionnaire assesses five domains: physical punishment, inconsistent discipline, poor monitoring, involvement, and positive parenting. Internal consistency for the scales ranged from moderate to high (0.46–0.80) as reported by Shelton et al. (1996). Test-retest reliability over a three-year interval was reported as 0.65. The Cronbach's alpha coefficient for the total scale was 0.62, and for subscales, it ranged from 0.53 to 0.79, indicating moderate to high reliability (Afrooz, 2021; Mousavi et al., 2021).

2.2.3. Family Problem-Solving

Developed by Ahmadi et al. (2007) based on Forgatch (1989), Diana and Thomas (1996), Berger and Hanna

(1991), Champion and Power (2000), and DiOrio, Blais, and Nuzzo (1990), this questionnaire evaluates methods of addressing current problems, recognition of problem-solving processes and steps, and the application of problem-solving strategies among couples. It contains 30 items rated on a 5-point Likert scale (1 = never, 5 = always). Reliability was reported as 0.92 (internal consistency using Cronbach's alpha) and 0.64 (test-retest reliability with a two-week interval) (Davaei et al., 2021; Mohammadi & Fouladchang, 2017; Panahi et al., 2017).

2.2.4. Cognitive Emotion Regulation

Developed by Garnefski and Kraaij (2006), this 36-item questionnaire uses a 5-point Likert scale. Internationally, internal consistency reliability (Cronbach's alpha) was reported as 0.95 for the entire questionnaire and 0.84–0.93 for subscales. In a local study, Cronbach's alpha was reported as 0.91. Convergent validity was demonstrated by Pearson correlations with depression (0.69), socially prescribed perfectionism (0.36), and self-oriented perfectionism (0.24). Construct validity was confirmed with Pearson correlations between the total score and dimensions, including non-acceptance of negative emotional responses (0.80), difficulty engaging in goal-directed behavior (0.67), impulse control difficulties (0.81), lack of emotional awareness (0.40), limited access to emotion regulation strategies (0.88), and lack of emotional clarity (0.78) (Khoshnavay Fomani et al., 2022; Shareh & Eshaghi Sani, 2018).

2.2.5. Emotional Empathy

Developed by Davis (1994), the Interpersonal Reactivity Index contains 28 items measuring four dimensions of empathy: empathic concern, personal distress, fantasy, and perspective-taking, with each dimension comprising seven items. The scale is rated on a 5-point Likert scale, with higher scores indicating greater empathy. Internal consistency reliability coefficients ranged from 0.70 to 0.78 for women and 0.72 for men. Test-retest reliability coefficients ranged from 0.62 to 0.71. Reverse scoring was applied to items 2, 3, 7, 8, and 9. Using Kaiser-Meyer-Olkin (KMO = 0.75) and Bartlett's test ($\chi^2 = 839.18, p \leq 0.05$), two factors were extracted, explaining 18.22% and 16.48% of the variance, respectively, with a total explained variance of 34.70%. Content validity was assessed by experts, and reliability (Cronbach's alpha) for the dimensions ranged from 0.804 to 0.818 (Mohammadi Aminzadeh et al., 2017).

2.3. Data Analysis

Data were analyzed using SPSS (version 28) and Lisrel (version 10).

3. Findings and Results

The majority of mothers in the study were between the ages of 30 and 40, held a bachelor's degree, and had one child. The children were mostly boys aged 10 to 12 years. Skewness and kurtosis tests were used to assess the normality of data for different therapeutic methods. According to Kline (2011), the absolute values of skewness and kurtosis should not exceed +1 or fall below -1.

Table 1

Descriptive Findings

Variables	Mean	Standard Deviation	Skewness	Kurtosis
Marital Satisfaction	154.87	20.980	0.862	0.381
Father Involvement in Parenting	136.24	16.690	0.052	0.442
Problem-Solving Skills	89.74	11.832	0.497	-0.034
Cognitive Emotion Regulation	118.61	16.044	0.552	0.028
Emotional Empathy	92.45	12.931	0.568	-0.013

As indicated in Table 1, the distribution of variables is normal, necessitating the use of parametric tests to evaluate the research hypotheses. Pearson correlation matrices were

used to examine relationships between the variables from the perspective of mothers of children with cerebral palsy in Rasht.

Table 2

Pearson Correlation Matrix of Research Variables

Row	Variable	1	2	3	4	5
1	Marital Satisfaction	1				
2	Father Involvement in Parenting	0.385	1			
3	Problem-Solving Skills	0.220	0.316	1		
4	Cognitive Emotion Regulation	0.353	0.314	0.210	1	
5	Emotional Empathy	0.225	0.248	0.253	0.246	1

The Pearson correlation matrix results indicated positive and significant relationships between marital satisfaction, father involvement in parenting, problem-solving skills, cognitive emotion regulation, and emotional empathy from the perspective of mothers of children with cerebral palsy in Rasht, at a 1% statistical level with 99% confidence (Table 2). To predict marital satisfaction from the mothers' perspective, the proposed conceptual model was tested using path analysis with the maximum likelihood method. In this study, marital satisfaction, father involvement in parenting, problem-solving skills, cognitive emotion regulation, and

emotional empathy were included as variables in the theoretical model. Marital satisfaction and emotional empathy were endogenous variables, while father involvement in parenting, problem-solving skills, and cognitive emotion regulation were exogenous variables. The tested models are presented in the below figures. Lisrel version 10 software was used for the analysis.

These findings confirm the suitability of the marital satisfaction model based on father involvement in parenting, problem-solving skills, cognitive emotion regulation, and emotional empathy.

Table 3

Direct, Indirect Effects, and Variance Explained by Variables

Pathway	Direct Effect	Indirect Effect	Total Effect	Variance Explained
Father Involvement in Parenting → Marital Satisfaction	0.66	-	-	-
Problem-Solving Skills → Marital Satisfaction	0.26	-	-	-
Cognitive Emotion Regulation → Marital Satisfaction	0.71	-	-	-
Emotional Empathy → Marital Satisfaction	0.27	-	-	-
Father Involvement in Parenting → Emotional Empathy	0.20	-	-	-
Problem-Solving Skills → Emotional Empathy	0.23	-	-	-
Cognitive Emotion Regulation → Emotional Empathy	0.59	-	-	-
Father Involvement in Parenting + Emotional Empathy → Marital Satisfaction	-	0.05	0.70	-
Problem-Solving Skills + Emotional Empathy → Marital Satisfaction	-	0.06	0.32	-
Cognitive Emotion Regulation + Emotional Empathy → Marital Satisfaction	-	0.16	0.87	-
Combined Variables → Emotional Empathy → Marital Satisfaction	-	-	-	0.94

The findings in Table 3 indicate that the combination of father involvement in parenting, problem-solving skills, and cognitive emotion regulation with emotional empathy explained 94% of the changes in marital satisfaction from

the perspective of mothers of children with cerebral palsy in Rasht. To assess model fit, three categories of fit indices—absolute, comparative, and parsimonious—were used. These indices are detailed in Table 4.

Figure 1

Path model for marital satisfaction in mothers of children with cerebral palsy in Rasht (Standardized Coefficients)

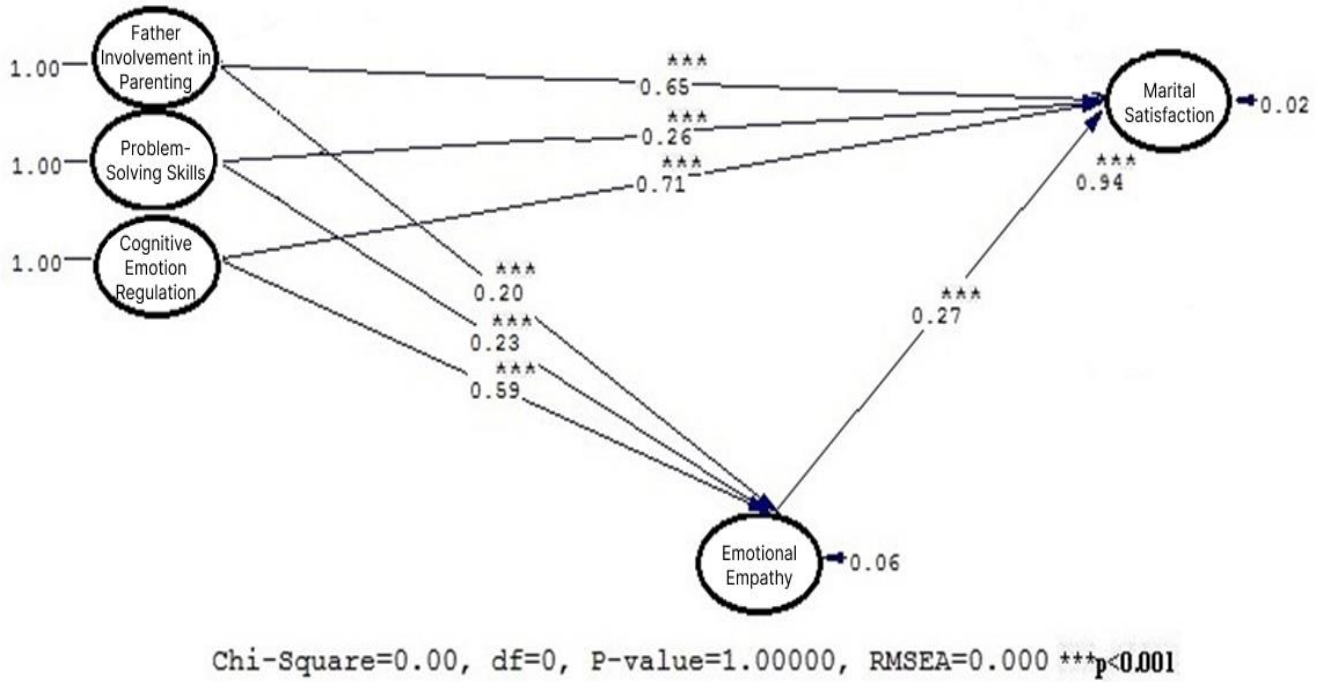
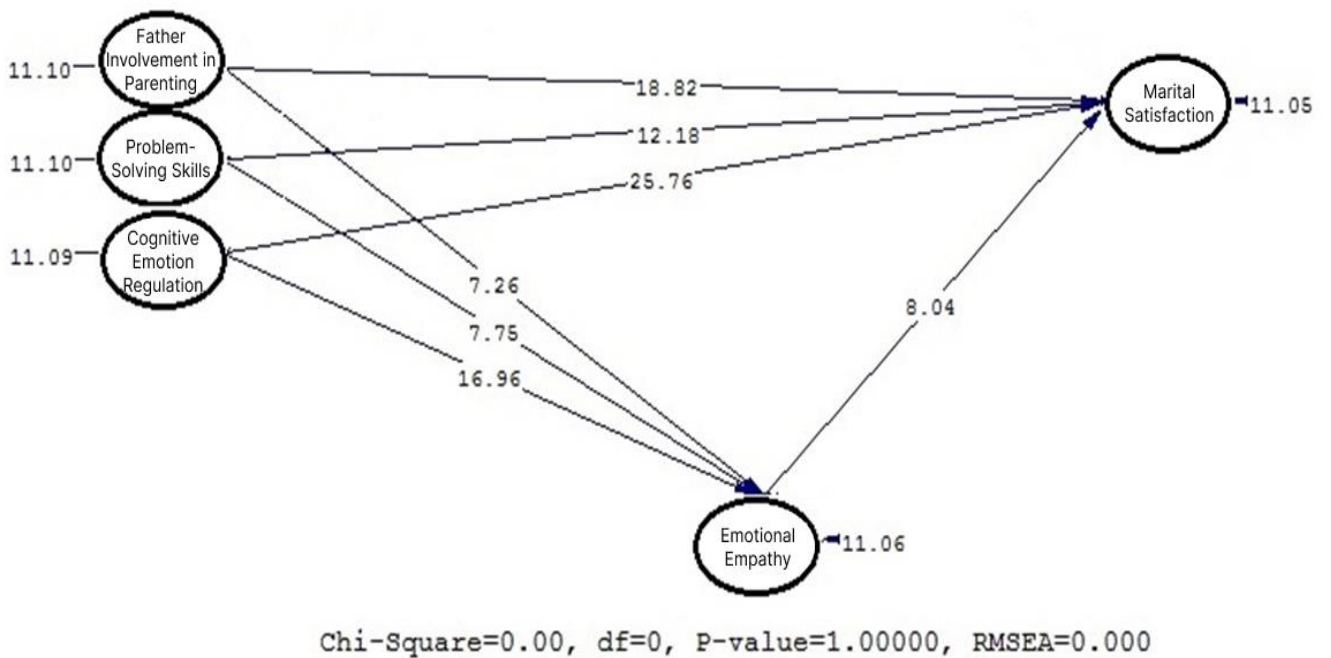


Figure 2

Path model for marital satisfaction in mothers of children with cerebral palsy in Rasht (t-Statistics)



Based on Table 4, the tested model demonstrates good fit.

Table 4

Goodness-of-Fit Indices for the Tested Research Model

Index	Model Estimates	Acceptable Threshold	Result
Absolute Fit Indices			
GFI	0.99	> 0.90	Confirmed
AGFI	0.93	> 0.80	Confirmed
SRMR	0.012	< 0.05	Confirmed
Comparative Fit Indices			
CFI	0.98	> 0.90	Confirmed
NFI	0.95	> 0.90	Confirmed
NNFI	0.94	> 0.90	Confirmed
Parsimonious Fit Indices			
X ² /df	1.88	< 3.00	Confirmed
PNFI	0.96	> 0.60	Confirmed
RMSEA	0.026	< 0.08	Confirmed

Table 5 presents the path analysis results for the first hypothesis.

Table 5

Direct Relationships Between Research Variables and Marital Satisfaction

Path	Unstandardized Path	Standardized Path	Standard Error	t-Value	Significance Level
Father Involvement in Parenting → Marital Satisfaction	0.77	0.65	0.05	18.82	0.001
Problem-Solving Skills → Marital Satisfaction	0.48	0.26	0.05	12.18	0.001
Cognitive Emotion Regulation → Marital Satisfaction	0.91	0.71	0.05	25.76	0.001
Emotional Empathy → Marital Satisfaction	0.44	0.27	0.05	8.04	0.001

Based on Table 5, the following results were obtained: The unstandardized direct path coefficient from father involvement in parenting to marital satisfaction was 0.77; the standardized coefficient for this path was 0.65, with a t-value of 18.82, which was positive and significant at the 0.001 level. The unstandardized direct path coefficient from problem-solving skills to marital satisfaction was 0.48; the standardized coefficient for this path was 0.26, with a t-value of 12.18, which was positive and significant at the 0.001 level. The unstandardized direct path coefficient from cognitive emotion regulation to marital satisfaction was 0.91; the standardized coefficient for this path was 0.71, with

a t-value of 25.76, which was positive and significant at the 0.001 level. The unstandardized direct path coefficient from emotional empathy to marital satisfaction was 0.44; the standardized coefficient for this path was 0.27, with a t-value of 8.04, which was positive and significant at the 0.001 level. Based on these significant results, the first hypothesis of the study is confirmed, indicating a direct relationship between father involvement in parenting, problem-solving skills, cognitive emotion regulation, and emotional empathy with marital satisfaction. Table 6 presents the path analysis results for the second hypothesis.

Table 6

Indirect Relationships of Research Variables Through Emotional Empathy With Marital Satisfaction

Path	Unstandardized Path	Standardized Path	Standard Error	t-Value	Significance Level
Father Involvement in Parenting → Marital Satisfaction (via Emotional Empathy)	0.07	0.05	0.05	58.37	0.001
Problem-Solving Skills → Marital Satisfaction (via Emotional Empathy)	0.12	0.06	0.05	62.31	0.001
Cognitive Emotion Regulation → Marital Satisfaction (via Emotional Empathy)	0.21	0.16	0.05	136.358	0.001

Based on [Table 6](#), the following results were obtained: The unstandardized indirect path coefficient from father involvement in parenting to marital satisfaction through emotional empathy was 0.07; the standardized coefficient for this path was 0.05, with a t-value of 58.37, which was positive and significant at the 0.001 level. The unstandardized indirect path coefficient from problem-solving skills to marital satisfaction through emotional empathy was 0.12; the standardized coefficient for this path was 0.06, with a t-value of 62.31, which was positive and significant at the 0.001 level. The unstandardized indirect path coefficient from cognitive emotion regulation to marital satisfaction through emotional empathy was 0.21; the standardized coefficient for this path was 0.16, with a t-value of 136.358, which was positive and significant at the 0.001 level. Based on these significant results, the second hypothesis of the study is confirmed, indicating an indirect relationship between father involvement in parenting, problem-solving skills, and cognitive emotion regulation with marital satisfaction through the mediation of emotional empathy.

4. Discussion and Conclusion

The results indicated that there is a direct relationship between father involvement in parenting, problem-solving skills, cognitive emotion regulation, and emotional empathy with marital satisfaction. Additionally, there was an indirect relationship between father involvement in parenting, problem-solving skills, and cognitive emotion regulation with marital satisfaction through emotional empathy. The findings of the current study are consistent with the results of prior studies ([Afrooz, 2021](#); [Amirafshari et al., 2017](#); [Asghari et al., 2019](#); [Decety & Jackson, 2006](#); [Du et al., 2022](#); [Freeman, 2022](#); [Khoshnavay Fomani et al., 2022](#); [Klein et al., 2022](#); [Lishner et al., 2016](#); [Mohammadi Aminzadeh et al., 2017](#); [Mohammadi & Fouladchang, 2017](#); [Mousavi, 2018](#); [Mousavi et al., 2021](#); [Rezapour Mirsaleh & Esmail Beigi, 2020](#); [Rusu et al., 2019](#); [Sanders, 2018](#); [Shareh & Eshaghi Sani, 2018](#); [Solati, 2017](#); [Zarei et al., 2021](#)), showing similarity and overlap.

The results suggest that, from the perspective of mothers with children suffering from cerebral palsy, there is a direct relationship between father involvement in parenting and marital satisfaction. To explain this result, it can be stated that one of the main complaints mothers often express is the lack of cooperation from fathers in raising children. If fathers cooperate with mothers in raising children, especially

children with special needs such as those with cerebral palsy, this collaboration will lead to increased encouragement and peace of mind for mothers in taking care of their children. The emotional support and reassurance mothers receive from father involvement in parenting will strengthen the bond between the spouses, thereby enhancing their marital satisfaction. The more both parents collaborate in child-rearing, whether for healthy children or those with disabilities, the more this will foster mutual affection and strengthen their relationship, enabling them to care for their children and overcome challenges, particularly when caring for children with specific needs, such as cerebral palsy. If fathers assist mothers in caring for a child with cerebral palsy, mothers will be able to rest and attend to household chores and other children, alleviating their fatigue. This will create an atmosphere of love and affection between the parents, and they will behave kindly toward each other ([Klein et al., 2022](#); [Mousavi & Asghari, 2020](#)). This, in turn, will improve cooperation and harmony in the home, and the mother will not feel alone in the demanding task of caring for her child with cerebral palsy.

The findings of the study revealed that, from the perspective of mothers with children suffering from cerebral palsy, there is a direct relationship between problem-solving skills and marital satisfaction. To explain this, it can be stated that one of the most important factors in overcoming difficulties in life is having problem-solving abilities. If couples can work together, carefully assess the challenges they face, and find appropriate solutions, they will be able to resolve these issues calmly, even in difficult and critical circumstances. This will lead to a stronger bond between spouses, as they will not abandon each other in tough times but will collaborate to solve problems. These factors will encourage couples to work together, with greater affection, in facing life's challenges, and will prevent life's difficulties from breaking them apart. If both parents engage in mutual consultation and support each other in the challenging task of caring for a child with cerebral palsy, they will be able to pass on this sense of collaboration and problem-solving to other family members, fostering a cooperative atmosphere and making it easier to resolve household issues ([Davaei et al., 2021](#); [Mohammadi & Fouladchang, 2017](#)).

The results of the study indicated that, from the perspective of mothers with children suffering from cerebral palsy, there is a direct relationship between cognitive emotion regulation and marital satisfaction. To explain this result, it can be stated that emotions are always present in life. Positive emotions energize and invigorate life, while

negative emotions may lead to despair, lethargy, and sometimes conflict. If couples can manage negative emotions and adopt positive strategies, they will be able to maintain an optimistic view of life and approach it with encouragement. In this way, they will enjoy being together and will collaborate and coordinate to overcome any challenges they face. This will enhance marital satisfaction as they actively work together to overcome the factors that introduce negative emotions into their lives. The presence of positive emotions, when handled properly, strengthens affection, love, and patience, enabling family members to endure difficult situations and resolve conflicts together with love.

The results of the study showed that, from the perspective of mothers with children suffering from cerebral palsy, there is a direct relationship between emotional empathy and marital satisfaction. Emotional empathy is a key factor in fostering a sense of responsibility among family members, leading them to make decisions together with care and affection in various aspects of life, both material and spiritual. It ensures that no family member feels alone in difficult times and that others are always there to support and assist them. This enhances affection between spouses, as they work together with greater love, and they will pass this empathy on to their children, thereby creating a cohesive, strong family unit where everyone is attentive to each other and stands together in challenging situations. Emotional empathy is, in essence, the distribution of love and affection among family members. When love, empathy, and care prevail in a household, difficult times become easier to bear, and they will successfully overcome challenges together, enjoying the hardships and working through them as a united family.

The results of the current study indicated that there is an indirect relationship between father involvement in parenting through emotional empathy and marital satisfaction. This suggests that the more a father participates in household and child-rearing tasks alongside the mother, providing both material and emotional support in the care of children, the greater the family's resilience will be. Moreover, the emotional empathy among family members will increase, leading to a more coordinated and supportive effort to deal with the challenges of caring for a child with cerebral palsy. This collaborative effort will enhance marital satisfaction, as both parents will continue to work together, supported by mutual understanding and love, ensuring a successful approach to child-rearing and a positive home environment. When emotional empathy is combined with

patience and love, parents will approach problems with greater understanding, assessing solutions for the care of their child with cerebral palsy in a way that improves the family's overall wellbeing.

The findings indicated that there is an indirect relationship between problem-solving skills through emotional empathy and marital satisfaction. To explain this, it can be stated that problem-solving involves identifying and finding solutions to challenges in a calm and stress-free manner. If all family members, particularly in the care of a child with cerebral palsy, collaborate both mentally and practically, they will easily identify the problems and preemptively find solutions. This leads to better consultation and cooperation among family members, resulting in positive solutions to challenges. With this approach, couples will work together with love and empathy to navigate difficulties, leading to greater satisfaction in their marriage. Problem-solving, when combined with patience, love, and empathy, will enhance the family's ability to handle challenges in child-rearing, marriage, and other life difficulties.

The results of this study showed that there is an indirect relationship between cognitive emotion regulation through emotional empathy and marital satisfaction. It can be stated that when mothers, with the support of other family members, particularly fathers, manage stressful and adverse situations, they can regulate their emotions and enhance their resilience. With a positive perspective and mutual support, they will be better able to care for their child with cerebral palsy, leading to increased marital satisfaction and creating a calmer and more stable family environment. When emotions, love, patience, and resilience are combined, negative emotions are minimized, and positive emotions strengthen family bonds, leading to improved cooperation and affection between parents. This enhances their ability to care for their child with cerebral palsy while improving their relationship with each other.

5. Suggestions and Limitations

Despite the valuable insights provided by this study, there are several limitations that should be acknowledged. First, the sample was limited to mothers of children with cerebral palsy, which may limit the generalizability of the findings to other populations, such as parents of children with different disabilities or healthy children. Additionally, the cross-sectional design of the study does not allow for causal inferences, and future research could benefit from a

longitudinal approach to assess the long-term effects of father involvement and emotional factors on marital satisfaction. Furthermore, the study relied on self-reported data, which may introduce biases such as social desirability or recall bias, affecting the accuracy of the responses.

Future research could explore the dynamics of father involvement in parenting and marital satisfaction in broader populations, including fathers of children with disabilities or other special needs, to identify potential gender differences in parenting roles. Longitudinal studies would help clarify the long-term impact of problem-solving skills, emotion regulation, and emotional empathy on marital satisfaction and family functioning. Additionally, future studies could investigate the role of external support systems, such as social networks or professional counseling, in enhancing marital satisfaction and emotional wellbeing in families of children with disabilities.

The findings of this study have several practical implications for clinicians, counselors, and family therapists. Interventions aimed at improving marital satisfaction and family dynamics should focus on enhancing father involvement in parenting, particularly in families with children with special needs like cerebral palsy. Programs that promote emotional empathy, problem-solving skills, and effective emotion regulation techniques can be beneficial in strengthening marital relationships and family resilience. Healthcare providers and social workers should also consider offering family counseling or support groups to encourage collaborative parenting and improve emotional wellbeing, thereby fostering a more supportive and balanced family environment.

Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript. The article is based on the doctoral thesis of the first author.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

This study has an ethics code (IR.IAU.AHVAZ.REC.1402.085) from the Ethics Committee of Ahvaz Islamic Azad University.

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