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The Causal Relationship between Mental Strength and Mindfulness with Marital Satisfaction through Parental Stress

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The purpose of this study was to design and test a model to investigate the effect of mental strength and mindfulness on marital satisfaction considering the mediating role of parenting stress in mothers of exceptional children. In this descriptive-correlational study, the statistical population consisted of all mothers of exceptional children in Ahvaz. A sample of 264 women was selected through convenient sampling method. The instruments were [Clough, Earle & Sewell \(2002\)](#) Mental Strength Questionnaire (2002), [Baer, Smit, Hopkins, Krietemeyer & Toney Mindfulness Questionnaire \(2006\)](#), [Enrich Marital Satisfaction Scale of Olson, Fournier, and Druckman \(1985\)](#) and [Abidin's Parenting Stress Index \(1990\)](#). The proposed model was evaluated by path analysis method. Bootstrap test was used to test indirect relationships. The results showed significant and direct relationships between mental strength and parenting stress, mindfulness and parenting stress, parenting stress and marital satisfaction and mindfulness and marital satisfaction but there was no significant relationship between mental strength and

marital satisfaction. Based on the results, the proposed model is a well-fitting model and is considered as an important step in determining the effective factors in the marital satisfaction of mothers.

Keywords: mental strength, mindfulness, marital satisfaction, parenting stress

Having a child with a disability creates problems for the parents and the family system. It is found in many researches suggest that parents of exceptional children experience more stress compared to parents of normal children (DePape & Lindsay, 2015). These families of exceptional children face more severe marital conflicts, fear of re-pregnancy, and a sense of guilt after childbirth, and huge educational costs and medical expenses (Yamaoka et al., 2016). With the presence of these children in the family, mothers usually suffer more psychological stress than other family members, because they spend more time taking care of the child, so they are seriously exposed to various kinds of tension and mental illness (Stylianou, 2017). Parents' reactions to such children are very diverse in marital relationships. Most of the previous researches have focused predominantly on negative processes leading to conflict, relationship dissatisfaction and separation. In a few cases, the focus is on the positive aspects of relationships such as marital satisfaction despite evidence that marital satisfaction may be a protective resource in families with exceptional children (Story & Dians, 2017). It could be argued that characteristics of these children, such as learning difficulties, lack of a proper response to environmental demands and adaptation to the environment, and the additional costs of keeping and educating these children, all negatively affect the marital satisfaction of their parents (Hartley et al., 2011). Having a child

is usually accompanied by reduced marital satisfaction, and this reduction will be much higher when the child has certain problems. (Sim et al., 2017). Previous studies have shown that the presence of exceptional children has a negative relationship with marital satisfaction of parents, especially on mothers. For example, in Babaei, Afrooz, and Arjmandnia (2017) the presence of girls with Down syndrome in families has negatively related to mental health and marital satisfaction of mothers but it is possible to improve the mental health and marital satisfaction of these mothers by improving their quality of life. It was also shown in (Ki & Joanne, 2014) that Parents with Children with Disabilities experience more stress and less marital satisfaction. Disabilities are associated with psychological distress and depression in most of the disabled individuals and their families and lead to social isolation and marital dissatisfactions (Bakhtiyari et al., 2017), while most of the times the psychological status of family members are ignored. It has been found that some factors such as close relationships between parents and other family members, can have effective psychological effects on the functioning of individuals with different disabilities. The importance of this issue led to some researches and intervention protocols designs providing social supports to parents and care givers if exceptional individuals (Bakhtiyari et al., 2017). In 2018 a descriptive study in Iran considered the impact of social supports and the mental empowering interventions on various components such as physical, psychological, social and spiritual dimensions of parents of disabled children (Gholami Jam et al., 2018). They suggested paying more attentions to social supports, mental interventions and relaxation methods for families with exceptional individuals (Gholami Jam et al., 2018). In 2011, a search conducted in Ahvaz about the effectiveness of social

supports and anti-stress interventions on psychological status of intellectual disabled parents (Naderi, Safarzadeh & Roya, 2011). The result showed that the mothers of children with intellectual disability need more psychological supports to confront with social anxiety. They really need to learn the relaxation techniques such as mindfulness and yoga to calm themselves (Naderi et al., 2011). They claimed that these anti-stress techniques influence on family well-being. Moreover, the family well-beings of one group with different disabilities were significantly improved in a study which was conducted in Kermanshah (Kakabaraei, Afrooz, Hooman & Moradi, 2011). This improvement had positive direct correlation with marital satisfaction and affected indirectly on the functions of intellectual disabled children.

In one study conducted by Arfai and Hesampour in Kashan, mindfulness had the positive effect on well-being, mental health and improving the functioning of families with mentally retarded children (Sedighi Arfaee & Hesampour, 2016). In 2015 in Rasht, a positive correlation was found between relaxation and psychological interventions and social support, with life satisfaction and resilience of parents of exceptional children. One of the other important factor among various factors that associated with marital satisfaction of mothers with exceptional children, is the mental strength of these mothers. From the opinion of Deutscher, Frick, & Prinz (2013), people restrict their empirical analysis to a particular dimension of an individual's personality that they call mental strength. In this view, mental strength can be understood as the set of each individual's beliefs about himself and the world around him, which has three components of commitment, control and accepting challenges; in the sense that commitment keeps the individual away from

internal and external pressures and helps him to survive threatening conditions. A person who is strong in the control component sees the events of life as controllable and predictable, and in the eyes of the people who accept challenges, transformation is a characteristic of the natural flow of life rather than a threat to the security of life (Mahoney, Gucciardi, Ntoumanis, Mallet & Psychology, 2014) while people with low levels of mental strength suffer from multiple psychological abnormalities such as depression and motivational, cognitive, physical, emotional and even motor (Jons, Horsburgh, Schermer Veselka & Vernon, 2012).

It was also found that mental strength affects how one responds to a critical situation and, consequently, their marital satisfaction and mental health (Mahoney et al., 2014). In 2015, it was found that mental strength affects how one responds to a critical situation and, consequently, their marital satisfaction and mental health Nicholls et al. (2015).

Another important factor which seems to be related to marital satisfaction of mothers of exceptional children is mindfulness. Mindfulness is one's momentarily and impartial awareness of his/her own experiences (Thienot et al., 2014). Mindfulness is defined as a state of stimulated attention and an awareness of what is happening at the present moment. In other words, mindfulness is a balanced mental framework that prevents unpleasant emotional exaggerations and provides an opportunity to keep an individual away from unpleasant emotional states and the emergence of unstable emotions (Kord & Mehdi Pour, 2018). In one research it has shown that mindfulness is associated with different dimensions of psychological well-being, which in turn increase the individual's marital satisfaction being (Gu, Strauss, Bond & Cavanagh, 2015). Researchers have argued that

mindfulness is associated with psychological well- and increased psychological well-being and reduced mental disorders (Tang, Hölzel & Posner, 2015). It worth to notice that this factor increases mental strength, either directly or indirectly. Also, research has shown that increased mindfulness is associated with a decrease in negative psychological symptoms and negative affect and, consequently, influence the the life satisfaction, happiness, optimism and psychological well-being, in parents of children with autism disorder (Cachia, Anderson, Moore & Studies, 2016; Jones et al., 2014).

It is important to notice that parenting stress is a factor that influences marital satisfaction directly or indirectly. Therefore, this factor should be considered in model designing of effective factors in maternal satisfaction, beside others. Research results indicate that stress in parents with children with disabilities is higher than that of normal children's parents (Dabrowska & Pisula, 2010). Given the special care needs of an exceptional child, his or her presence in the family is a source of stress for family members, especially mothers, who deal with their children more often than others; they get excessively stressed out by the child's requests and the demands of child care (Smith, Greenberg, Seltzer & disorders, 2012). These stresses increase anxiety, tension, irritability, anger and inability to fulfill their maternal role requirements, which in turn will have a direct effect on their marital satisfaction (McConkey, Truesdale-Kennedy, Chang, Jarrah & Shukri, 2008).

According to the findings of Afrooz and Taghizadeh in 2014, there are significant positive correlations between social, psychological and mental supports and interventions with the marital satisfaction and mental health of children with hearing

impairments' parents (Afrooz & Taghizadeh, 2014). For more example Ginieri-Coccossis et al. found that mothers of children with learning disabilities are less emotionally healthy, more stressed and less confident compared to mothers of normal children (Ginieri-Coccossis et al., 2013). Cachia et al. (2016), also showed that parents with children with autism spectrum are more stressed. In a similar study Niemczyk et al. (2019), showed that parenting stress was higher in the parents of children with autism and this stress was related to the psychological characteristics of the parents. Based on all of these explanations it was try to examine whether mental strength and mindfulness are casually related to marital satisfaction in mothers of exceptional children, with the mediating role of parenting stress mediators considered. Accordingly, the present research is guided by the following hypotheses:

1-There is a direct relationship between mental strength and marital satisfaction in mothers of exceptional children.

2-There is a direct relationship between mindfulness and marital satisfaction in mothers of exceptional children.

3-There is an indirect relationship between mental strength and marital satisfaction in mothers of exceptional children, with parenting stress acting as a mediator.

4-There is an indirect relationship between mindfulness and marital satisfaction in mothers of exceptional children, with parenting stress acting as a mediator

5- Removed as recommended

6- Removed as recommended

Method

This study has adopted a descriptive-correlational design in which the relationship between variables is investigated in the

form of path analysis. The statistical population consisted of all mothers of exceptional children in Ahvaz city in 2019. The first criterion for entering the study was having one and the only exceptional child (regardless of the type of disability), without any siblings. The children should have been in the range of 7 to 11 years old and educable and studied in the selected schools. None of the participants (parents) should have had the experience of having or caring another disabled child or family members. All the participants (parents of mentioned exceptional children) submitted a consent form after the first discussion session. Finally, 264 women were selected through convenient sampling method. It is necessary to mention that the birth of another child, dissatisfaction of continuing the cooperation, receiving any medication or interventions during the research period were the exclusion criteria of the research. All the participants fulfilled and signed the consent form. The questionnaires were then administered to the subjects

Instruments

To investigate the relationship between variables, Pearson correlation coefficient and path analysis using Amos software were employed. The following tools were used in the study:

Enrich Marital Satisfaction Scale

ENRICH Marital Satisfaction Scale has been developed by [Olson et al., \(1985\)](#). It has 47 items with 12 subscales rated based on 5-point Likert-type scale (1=strongly disagree, 2=moderately disagree, 3=neither agree nor disagree, 4=moderately agree, 5=strongly agree). Items 4, 6, 8, 11-16, 18-24, 30-33, 37-42, and 45-47 have reverse scoring. Scores 47-84 indicate very low

Marital Satisfaction (MS); 85-122 low MS; 123-160 moderate MS; 161-198 high MS; and 199-235 indicates very high level of MS in couples. In one study, the Enrich reliability was calculated with Cronbach alpha as .78. [Nourani, Seraj, Shakeri and Mokhber \(2018\)](#). In this study, the Cronbach's alpha coefficient was used to examine the internal consistency of the questionnaire. The Cronbach's alpha coefficient of the whole questionnaire was .90.

Mental Strength Questionnaire

[Clough et al., \(2002\)](#) mental strength Questionnaire is a 48-item questionnaire, designed in the form of 6 subscales, including challenge, commitment, emotional control, life control, confidence in abilities and interpersonal confidence. The respondent's answer to each of the questions is rated on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). According to [Clough et al., \(2002\)](#) the *test-retest*-reliability coefficient of the questionnaire was .9, which was divided into 4 qualities, including low (0-60), mild (60-120), moderate (120-180) and intense (180-240). Cronbach alpha of .69 was obtained for the questionnaire (Naji, Hosseinsabet, and Pourasadi, 2018). In this study, Cronbach's alpha coefficient was used to examine the internal consistency of the questionnaire. The Cronbach's alpha coefficient for the whole questionnaire was .87.

Mindfulness Questionnaire

The Five Facet Mindfulness Questionnaire ([Baer et al., 2006](#)) is a 39-item self-report measure of trait mindfulness. Respondents report the extent to which each statement is true for them using a 5-point Likert-type scale. The FFMQ has been shown to have good internal consistency reliability ([Van Dam, Earleywine & Danoff-Burg, 2009](#)). Additionally, the FFMQ has been shown to

have good convergent, discriminates, and construct validity in both meditating and without meditating samples (Baer et al., 2006). Furthermore, in a study which was conducted on the validity of the questionnaire in Iran, the test-retest correlation coefficients of five facet mindfulness questionnaire were observed in the Iranian sample between $r=.57$ related to non-judgmental factor) and $r=.84$ (observation factor). Also, the alpha coefficients were obtained at an acceptable level (between $\alpha=.55$ related to non-reactiveness factor and $\alpha=.83$ related to description factor). In the present study, the reliability of this tool was calculated .78 by Cronbach's alpha method.

Parenting Stress Index

Parenting Stress Index (PSI), developed by Abidin and Abidin (1990), is a questionnaire that can be used to evaluate the importance of stress in the parent-child system. The questionnaire is based on the premise that parenting stress can be derived from some characteristics of the child, some characteristics of the parents or various situations that are directly related to the parenting roles. The subscales for each domain as well as the number of items subsumed by each are as follows: within child domain (overall 47 items), six subscales including Distractibility/Hyperactivity (9 items), Adaptability (11 items), Reinforces Parent (6 items), Demandingness(9items), Mood (5 items), and Acceptability (7 items); and within the parent domain (overall 54 items), seven subscales including Competence (13 items), Isolation(6items), Attachment (7items), Health(5 items), Role Restriction (7 items), Depression (9 items), and Spouse/Parenting Partner Relationship (7 items); and the situational life stress scale (19 items) is an optional scale . The

items are rated based on a 5-point Likert scale ranging from 1 to 5 (strongly agree to strongly disagree). The 36-item screening form of PSI was employed in this study. In a sample of 248 mothers in Hong Kong, the reliability and internal consistency reliability coefficient of the questionnaire overall, assessed through calculating Cronbach's alpha, was reported to be .93. The instrument's differential validity was .93 and its concurrent validity with 5 different stress scales ranged from .38 to .66. It also showed that the internal consistency reliability coefficient of the questionnaire to be .93 overall, in a group of American mothers (Abidin & Abidin, 1990; Dadsetan, AHMADI & Hasanabadi, 2006). In this study, Cronbach's alpha coefficient was used to examine the internal consistency of the questionnaire. The Cronbach's Alpha coefficient for the whole questionnaire was .86.

Results

Descriptive statistics of the samples (mothers of the mentioned exceptional children) such as age, education and occupational statues are presented in Table 1.

With Pearson's correlation coefficient (Table 2), it was shown that there is a positive and significant relationship between mental strength and marital satisfaction ($r = .249$, $p < .01$).

Table 1
Demographic Features (age, education and job status)

Features		Frequency	Percent
Age			
	Under 25	29	11.03
	25-35	81	30.80
	35-45	104	39.16
	More than 45	50	19.01
		264	100
education			
	Diploma & below	139	52.85
	Bachelor	96	36.12
	Master & PhD	29	11.03
		264	100
job status			
	Employment	89	33.84
	Housewife	175	66.16
		264	100

With Pearson's correlation coefficient (Table 2), it was shown that there is a positive and significant relationship between mental strength and marital satisfaction ($r = .249$, $p < .01$).

Table 2
Pearson's Correlation Coefficient Matrix for the Variables under Study

Research variables	1	2	3	4
1-Marital satisfaction	1			
2-Mental strength	$r=.249^{**}$	1		
3-Mindfulness	$r=.332^{**}$	$r=.704^{**}$	1	
4-Parenting stress	$r=-.325^{**}$	$r=-.359^{**}$	$r=-.379^{**}$	1

$^{**}p \leq .01$

Moreover, there is a positive and significant relationship between mindfulness and marital satisfaction ($r = .332, p < .01$). There is a significant negative correlation between parenting stress and marital satisfaction, as sub-finding ($r = -0.325, p < .01$). The proposed model of the study was evaluated through path analysis using SPSS and AMOS software, version 24. An initial proposed model for explaining marital satisfaction based on mental strength, mindfulness and parenting stress is presented in Fig. 1.

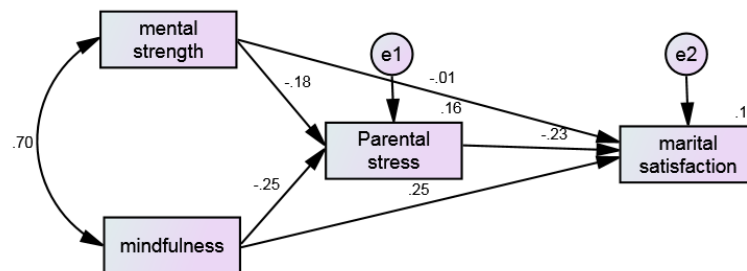


Figure 1. Initial model in standard mode

The Root Mean Square Error of Approximation estimated.410 (RMSEA= .410) which indicates that the initial model needs to be modified. To modify the model, the relationship between

mental strength and marital satisfaction was eliminated. The final model is presented in fig. 2. In the final model, the Root Mean Square Error of Approximation (RMSEA = .000), $\chi^2/df = .027$, and CFI = 1.00, which suggests a good model fit. The modified model is presented below.

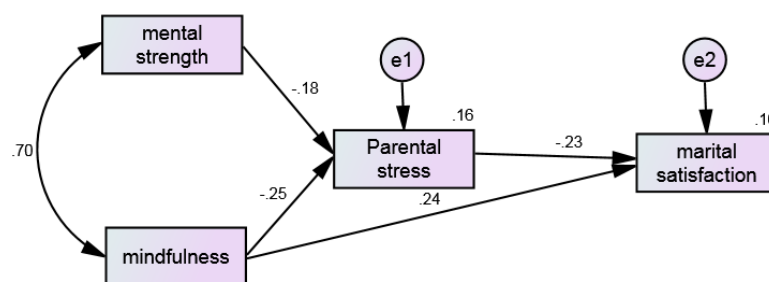


Figure 2. The final model in standard mode.

The results of calculating path coefficients in order to test the direct hypotheses are presented in Table 3.

The results in Table 4 indicate that, in the first hypothesis, $\beta = -.013$, which is not statistically significant at $p > .05$ level; thus this hypothesis is not confirmed. In the second hypothesis $\beta = -.183$, which is statistically significant at $p < .05$ level; therefore, the second hypothesis is confirmed. In the third hypothesis $\beta = .244$, which is statistically significant at $p < .01$ level; therefore, this hypothesis is confirmed as well. In the fourth hypothesis $\beta = .250$, which is statistically significant at $p < .01$ level; thus the fourth hypothesis is confirmed too. In the fourth hypothesis $\beta = .232$, which is statistically significant at $p < .01$ level; thus this hypothesis is also confirmed. Bootstrap method was used to

determine the significance of mediated relationships; the results are presented in Table 4.

Table 3
The Path Coefficients of Direct Effects between Research Variables in the Initial and Final Model

path	The initial model			The final model		
	Path type	Standardized path coefficients (β)	significance	Path type	Standardized estimate (β)	significance
Mental strength to marital satisfaction	direct	-.013	.869	direct	-	-
Mental strength to parenting stress	direct	-.183	.021	direct	-.183	.021
Mindfulness to marital satisfaction	direct	.253	.001	direct	.244	.001
Mindfulness to parenting stress	direct	-.250	.002	direct	-.250	.002
Parenting stress to marital satisfaction	direct	-.234	.001	direct	-.232	.001

Table 4
The Results of the Bootstrap Method for Examining Indirect and Mediated Paths

Predictor variable	Mediator variable	Criterion variable	The initial model	The final model	
			Bootstrap	Sig.	Sig.
Mental strength	Parenting stress	Marital satisfaction	-.043	.020	.020
mindfulness	Parenting stress	Marital satisfaction	.143	.002	.002

The confidence intervals in Table 4 indicate the significance of the indirect path of mental strength to marital satisfaction with the role of parenting stress as a mediator variable ($\beta = -.042$), which is statistically significant at $p < .05$ level; therefore, the sixth hypothesis is confirmed. The table also suggests the significance of the indirect path of mindfulness to marital satisfaction with the mediating role of parenting stress ($\beta = -.142$), which is statistically significant at $p < .01$ level; therefore, the seventh hypothesis is confirmed in addition. Due to the absence of a zero point (0) at these intervals, the relationship of the indirect path is considered significant.

Discussion

The purpose of the present study was to design and test a model to investigate the effect of mental strength and mindfulness on marital satisfaction with considering the mediating role of

parenting stress in mothers of exceptional children. The results suggest that the proposed model is a well-fitting model and is considered as the final model. According to this research, there is an indirect relationship between mental strength and marital satisfaction, with the role of parenting stress as a mediator, ($p = .042$, $p < .01$). This result could be justified by adopting coping strategies and defense mechanisms with the mothers to reduce the stress. Although, this result between mental strength and marital satisfaction was not consistent with [Nicholls et al. \(2015\)](#) since they have been used correlation coefficient and regression tests. Therefore, this relationship turned out to be significant; while by applying path analysis method this relation became significant, but indirectly with mediating the parenting stress. As a result, mental strength increases the individual's capacity for tolerating anxiety and stress; therefore, individuals behave more flexible during stressful situations. Mental strength in mothers of exceptional children gives them the ability to organize their parenting tasks and be optimistic about their child's future, so the parenting stress is reduced. This will directly influence marital relationships, too.

More than the indirect relationship between the mental strength and marital satisfaction, there was a direct relationship between mindfulness and marital satisfaction ($\beta = .244$, $p < .01$). This result was consistent with the studies of [Sedighi Arfaee & Hesampour \(2016\)](#), [Jones et al. \(2014\)](#). Thus, mindfulness significantly increases the marital satisfaction of the exceptional children's mothers. This might be due to the fact that raising one's awareness on negative feelings such as anxiety or tension and reducing these tensions at the time, will result in a marital satisfaction considerably. Therefore, the ability to increase

concentration and attention will help mothers of exceptional children to keep calm and avoiding stress.

It is worth mentioning that there was an indirect relationship between mindfulness and marital satisfaction, with the mediating role of parenting stress ($\beta = .143$, $p < .01$). In justifying and describing it can be said that during environmental stresses, the mindful people have more self-control, higher adjustment, a more positive attitude towards their spouse and more effective communication and Mindfulness is an important underlying factor in achieving emancipation. To manage one's mental state it is necessary for individuals to correctly understand the rules of the mind and to utilize its maximum capabilities through managing it. Mindfulness is an effective strategy for maximizing the ability of the mind and managing it. The mindful people carefully attend to his thoughts and examine them without any hesitations or judgments, and find out the cause of their existence. Once a person can achieve this skill, he will become aware of his problems and stress and can then find the right solutions, thereby reducing stress in his relationship with his spouse and achieving marital satisfaction. Therefore, parenting stress can play a prominent mediating role in the relationship between mindfulness and marital satisfaction.

In addition to main targets, some additional findings were obtained during the research, as follows:

First of all, there was a direct relationship between mindfulness and parenting stress ($\beta = -.250$, $p < .01$). The mothers who have a high level of mindfulness paid more attention to their interactions, thoughts and feelings. Moreover, there was a positive correlation between mental strength and parenting stress although a consistent research with the same result was not found.

Mental strength can help mothers of exceptional children experience more positive emotions and thus better cope with parenting stress. And since mental strength enables effective communication with others and having a hold on the relationship with one's environment, this makes it possible for these mothers to receive more social support from family and relatives in difficult circumstances and thus reduces their stress burden. In general, mental strength acts as an internal defensive structure, helping people to reduce stress by increasing their problem-solving abilities and their motivation to deal with problems. In fact, the capacity created by mental strength in individuals allows them to manage difficult and stressful situations in life and provides the opportunity for positive growth and balance. All these capacities help people deal with difficult life situations more easily.

The other sub-finding was regarding to the relationship between parenting stress and marital satisfaction ($\beta = -.232$, $p < .01$). Since one potential source of parents' stress is the birth of an exceptional child, the most important issues for these mothers are: the problem of accepting a child's disability, fatigue due to nursing and caring, leisure issues, family financial problems, and medical and therapeutic issues. Higher levels of parenting stress are associated with poor family functioning, low marital satisfaction

Overall, the results and the designed model would be the valid and safe method and step in determining the effective factors in the marital satisfaction of exceptional children's mothers, and it can be useful as a model for designing prevention programs for the tensions experienced by these mothers.

In addition to valuable findings and outputs, this research encounters with some limitations. One of the major limitations of

this study is focusing and considering one city of Iran with specific culture and ethnicity in a period of time; this research was done in Ahvaz and the results are related to the mothers of that environmental condition, during a period of time. Therefore, generalization of the results and the designed model for other cities and ethnicities should be done with cautions. It is suggested that this research be continued with other research methods in longer period of time with consideration of other ethnicities. longitudinal studies and (including qualitative and quantitative) can be more beneficial for conducting this study. Regarding the role of mental strength, mindfulness and parenting stress in marital satisfaction, developing educational programs based on mental strength, mindfulness and parenting stress within educational systems with the aim of improving marital satisfaction is highly recommended.

References

- Abidin, R. R., & Abidin, EdD. (1990). *Parenting Stress Index (PSI), Fourth Edition (PSI™-4)* (Vol. 100). Charlottesville, VA: Pediatric Psychology Press.
- Afrooz, Q., & Taghizadeh, H. (2014). Comparison of perceived social support and mental health of mothers of children with and without hearing-impairment. *Exceptional Education Journal*, 2(124), 7-17.
- Afrooz, G. A., Hooman, H. A., & Moradi, A. (2012). Investigation and comparison of the mental wellbeing, coping styles and Perceived Social Support in Parents having exceptional and normal children, *Journal of Research in Psychological Health*, 5(2), 45-58.

- Avila, J. D. F. (2017). *Stress and Marital Satisfaction of Parents with Children with Fragile X Syndrome* (Doctoral dissertation, Walden University).
- Babaei, N., Afrooz, G. A., & Arjmandnia, A. A. (2017). Developing a life quality promoting program and investigation of its effectiveness on mental health and marital satisfaction of mothers with down syndrome daughters. *Journal of Family Psychology*, 4(1), 75-86.
- Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment*, 13(1), 27-45.
- Bakhtiyari, M., Emaminaeini, M., Hatami, H., Khodakarim, S., & Sahaf, R. (2017). Depression and perceived social support in the elderly. *Iranian Journal of Ageing*, 12(2), 192-207.
- Cachia, R. L., Anderson, A., & Moore, D. W. (2016). Mindfulness, Stress and Well-Being in Parents of Children with Autism Spectrum Disorder: A Systematic Review. *Journal of Child and Family Studies*, 25(1), 1-14
- Clough, P., Earle, K., & Sewell, D. (2002). Mental toughness: The concept and its measurement. In: *Solutions in Sport Psychology*, 32-43. London: Thomson..
- Dabrowska, A., & Pisula, E. (2010). Parenting stress and coping styles in mothers and fathers of pre-school children with autism and Down syndrome. *Journal of Intellectual Disability Research*, 54(3), 266-280.
- Dadsetan, P., Ahmadi, A. A., & Hasanabadi, H. R. (2006). Parenting stress and general health: A research on the relation between parenting stress and general health among housewife-mothers and nurse-mothers with young children. *Developmental Psychology Journal of Iranian Psychologists*, 2(7), 171-184.

- DePape, A. M., & Lindsay, S. (2015). Parents' experiences of caring for a child with autism spectrum disorder. *Qualitative Health Research*, 25(4), 569-583.
- Gholami Jam, F., Takaffoli, M., Kamali, M., Eslamian, A., Alavi, Z., & AliNia, V. (2018). Systematic review on social support of parent/parents of disabled children. *Archives of Rehabilitation*, 19(2), 126-141.
- Ginieri-Coccossis, M., Rotsika, V., Skevington, S., Papaevangelou, S., Malliori, M., Tomaras, V., & Kokkevi, A. (2013). Quality of life in newly diagnosed children with specific learning disabilities (SpLD) and differences from typically developing children: a study of child and parent reports. *Child: Care, Health and Development*, 39(4), 581-591.
- Gu, J., Strauss, C., Bond, R., & Cavanagh, K. (2015). How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies. *Clinical Psychology Review*, 37, 1-12.
- Hartley, S. L., Barker, E. T., Seltzer, M. M., Greenberg, J. S., & Floyd, F. J. (2011). Marital satisfaction and parenting experiences of mothers and fathers of adolescents and adults with autism. *American Journal of Intellectual and Developmental Disabilities*, 116(1), 81-95.
- Hssrdh, H., Ghdfg, D., & Sgsdg, G. (2015). The relationship of resiliency and perceived social support with adjustment of mothers with intellectually disable child. *Psychology of Exceptional Individuals*, 5(20), 125-139.
- Jones, L., Hastings, R. P., Totsika, V., Keane, L., & Rhule, N. (2014). Child behavior problems and parental well-being in

- families of children with autism: The mediating role of mindfulness and acceptance. *American Journal on Intellectual and Developmental Disabilities*, 119(2), 171-185.
- Jons, B., Horsburgh, V. A., Schermer, J. A., Veselka, A., & Vernon, P. A. (2012). A behavioral genetic study of mental toughness and personality. *Pers Individ Dif*, 46(2), 100-105.
- Ki, Y. W., & Joanne, C. C. Y. (2014). Stress and marital satisfaction of parents with children with disabilities in Hong Kong. *Psychology*.
- Kokkevi, A. (2012). Quality of life in newly diagnosed children with specific learning disabilities (SLD) and differences from typically developing children: a study of child and parent reports. *Child Care Health Dev*, doi: 10.1111/j.1365-2214.01369.x. [Epub ahead of print].
- Kord, B. (2018). The relationship between mindfulness and perceived self-efficacy with subjective well-being among cancer patients in Tabriz hospitals. *Iranian Journal of Nursing Research*, 13(1), 11-17.
- Lawrence, E., Rothman, A. D., Cobb, R. J., & Bradbury, T. N. (2010). *Marital satisfaction across the transition to parenthood: Three Eras of Research*. In M. S. Schulz, M. K. Pruett, P. K. Kerig, & R. D. Parke (Eds.), *Decade of Behavior (science conference). Strengthening couple relationships for optimal child development: Lessons from research and intervention* (97–114). American Psychological Association. <https://doi.org/10.1037/12058-007>.
- Mahoney, J. W., Gucciardi, D. F., Ntoumanis, N., & Mallet, C. J. (2014). Mental toughness in sport: Motivational antecedents and associations with performance and psychological health. *Journal of Sport and Exercise Psychology*, 36(3), 281-292.

- McConkey, R., Truesdale-Kennedy, M., Chang, M. Y., Jarrah, S., & Shukri, R. (2008). The impact on mothers of bringing up a child with intellectual disabilities: a cross-cultural study. *Int J Nurs Stud.* 45(1), 65-74.
- Musavinasab, M., Ravanipour, M., Pouladi, S., Motamed, N., & Barekat, M. (2016). Examining the validity and reliability of the cardiovascular disease questionnaire in measuring the empowerment of elderly patients to receive social support. *Iranian Journal of Ageing*, 11(2), 258-269.
- Naderi, F., Safarzadeh, S., & Roya, M. (2011). Comparison of self-sickness, social support, social anxiety and general health among mothers with mentally retarded and normal children. *Health and Psychology*, 1(1), 17-40.
- Naji, A. A., Hosseinsabet, F., & Poursadi, Z. (2018). Prediction of mental health based on mental toughness by the mediation of personality dimensions. *Yafteh*, 19(5), 81-92.
- Nicholls, A. R., Perry, J. L., Jones, L., Sanctuary, C., Carson, F., & Clough, P. J. (2015). The mediating role of mental toughness in sport. *J Sports Med Phys Fitness*, 55(7-8), 824-34.
- Niemczyk, J., Fischer, R., Wagner, C., Burau, A., Link, T., & von Gontard, A. (2019). Detailed assessment of incontinence, psychological problems and parental stress in children with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 49(5), 1966-1975.
- Nourani, S., Seraj, F., & Shakeri, M. T. (2018). The Comparison of Marital Satisfaction between Men without Child and Men with First and Second Child in Transition to Parenthood. *The Horizon of Medical Sciences*, 24(3), 214-222.

- Olson, D. H., Fournier, D. G., & Druckman, J. M. (1985). Enrich: enriching & nurturing relationship issues, communication & happiness. *Family inventories: inventories used in a national survey of families across the family life cycle/ [David H. Olson...[et al.]]*.
- Sedighi Arfaee, F., & Hesampour, F. (2016). The relationship between mindfulness and perceived social support and mental health in mothers of children with intellectual disability. *Quarterly Journal of Social Work*, 4(4), 42-52.
- Sim, A., Cordier, R., Vaz, S., Parsons, R., & Falkmer, T. (2017). Relationship satisfaction and dyadic coping in couples with a child with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 47(11), 3562-3573.
- Smith, L. E., Greenberg, J. S., & Seltzer, M. M. (2012). Social support and well-being at mid-life among mothers of adolescents and adults with autism spectrum disorders. *Journal of autism and developmental disorders*, 42(9), 1818-1826.
- Story, L. B., & Dians, T. N. (2017). Understanding marriage and stress: Essential questions and challenges. *Clinical Psychology Review*, 23(8), 1139-62.
- Stylianou, A. (2017). Mothers with disabled children in Cyprus: experiences and support. published *doctoral dissertation*, Institute of Education CL University College London. http://discovery.ucl.ac.uk/10023393/1/Stylianou_10023393
- Tang, Y. Y., Hölzel, B. K., & Posner, M. I. (2015). The neuroscience of mindfulness meditation. *Nature Reviews Neuroscience*, 16(4), 213-225.
- Thienot, E. B., Jackson, J., Dimmock, J. R., Grove, M., Bernier & Fournier, J. F. (2014). Development and preliminary

validation of the mindfulness inventory for sport. *Psychology of Sport and Exercise*, 15(1), 72-80.

Van Dam, N. T., Earleywine, M., & Danoff-Burg, S. (2009). Differential item function across meditators and non-meditators on the Five Facet Mindfulness Questionnaire. *Personality and Individual Differences*, 47(5), 516-521.

Yamaoka, Y., Tamiya, N., Izumida, N., Kawamura, A., Takahashi, H., & Noguchi, H. (2016). The relationship between raising a child with a disability and the mental health of mothers compared to raising a child without disability in Japan. *SSM-Population Health*, 2, 542-548.