Research Paper





The Role of Alexithymia and Dysfunctional Reactions in Predicting Marital Intimacy

Fatemeh Zakeri1 0, Maliheh Rezaei2* 0

- 1. Department of Consulting, Attar Institute of Higher Education, Mashhad, Iran.
- 2. Department of Psychology, Torbat-e-Jam Branch, Islamic Azad University, Torbat-e-Jam, Iran.



Citation Zakeri F., and Rezaei, M. (2022). The Role of Alexithymia and Dysfunctional Reactions in Predicting Marital Intimac. Journal of Practice in Clinical Psychology, 10(4), 329-342. https://doi.org/10.32598/jpcp.10.4.850.1



doj° https://doi.org/10.32598/jpcp.10.4.850.1



Article info:

Received: 10 Jul 2022 Accepted: 30 Apr 2022

Available Online: 01 Oct 2022

Keywords:

Alexithymia, Dysfunctional reactions, Marital intimacy, Married couples

<u>ABSTRACT</u>

Objective: This study aims to investigate the relationship between alexithymia and dysfunctional reactions with marital intimacy among married men and women in Mashhad City, Iran.

Methods: The data collection tools in this study included the Persian version of the Toronto alexithymia scale-20, the dysfunctional attitude scale (Weissman and Beck), and the intimacy scale (Walker and Thompson). The statistical population included all married men and women who lived in Mashhad City in the second half of 2019. The sample of this study consisted of 171 married individuals (100 women and 71 men) who were selected via the convenience sampling method.

Results: he results indicated a negative and significant relationship between marital intimacy and alexithymia (P<0.05, β =-25.258) and dysfunctional reactions (P<0.01, β =-0.0318). Alexithymia accounted for about 6% and dysfunctional reactions for about 10% of the dispersion of marital intimacy. Also, a positive and significant correlation existed between alexithymia and dysfunctional reactions (P<0.01, r=0.553) among married couples. In addition, alexithymia and dysfunctional reactions could be a predictor of marital intimacy.

Conclusion: Paying attention to variables, such as alexithymia and dysfunctional reactions can ensure marital intimacy. The results of this study have implications for improving marital intimacy and its positive outcomes in families.

Maliheh Rezaei, Phd. Student.

Address: Department of Psychology, Torbat-e-Jam Branch, Islamic Azad University, Torbat-e-Jam, Iran.

Tel: +98 (933) 7175649

E-mail: maliherezaee61.mr@gmail.com

^{*} Corresponding Author:

Highlights

- There was a negative and significant relationship between marital intimacy with Alexithymia and dysfunctional response.
- Alexithymia and dysfunctional response accounted for about 6 and 10 % of the dispersion of marital intimacy.
- There was a positive and significant correlation between Alexithymia and dysfunctional response.
- Alexithymia and dysfunctional response could be a predictor of marital intimacy.

Plain Language Summary

Marriage is one of the almost universal human foundations, and no other foundation has affected human life so sincerely. It has always been approved as the most important and supreme social custom to meet the emotional needs of individuals. But in recent decades, couples' relationships have been greatly affected by cultural changes, so these cultural changes have led to structural changes in the family and have gradually reduced intimacy between married couples and, consequently, increased divorce growth. This study aimed to investigate the relationship between Alexithymia and dysfunctional response and marital intimacy among married men and women in Mashhad. The statistical population of the present study included all married men and women who lived in the second half of 2019 in Mashhad. The sample of this study consisted of 171 married individuals (100 women and 71 men) who were selected by the convenience sampling method. According to results, there was a negative and significant relationship between marital intimacy with Alexithymia and dysfunctional response. Alexithymia and dysfunctional response accounted for about 6 and 10 % of the dispersion of marital intimacy. There was a positive and significant correlation between Alexithymia and dysfunctional response. Alexithymia and dysfunctional response could be a predictor of marital intimacy. Paying attention to variables such as alexithymia, and dysfunctional response can be ensuring marital intimacy. The results of this study have implications for improving marital intimacy and its positive outcomes in families.

1. Introduction



arriage is one of the universal human foundations and no other foundation has affected human life so considerably (Terman, 1938). Marriage has always been approved as the most important and supreme

social custom to meet the emotional needs of individuals. However, in recent decades, cultural changes have greatly affected couples' relationships. These cultural changes have led to structural changes in the family, gradually reduced the intimacy between married couples, and consequently increased the divorce rate (Davoodvandi et al., 2018). In examining the cause of divorce and social, economic, and legal factors, attention to individual and psychological causes, including the lack of marital intimacy that leads to divorce, is of particular importance. According to Walker and Thompson (1983), intimacy is defined as family members' attention and importance to each other and includes factors of emotional closeness in the form of affection, self-sacrifice, contentment, and satisfaction. Various studies show a direct relationship between intimacy and marital satisfaction (Sanderson & Cantor, 2001; Holland et al., 2016).

Studies of clinical experiences show that in contemporary societies, couples experience severe and pervasive problems when establishing and maintaining intimate relationships and demonstrating compatibility with each other (Bagarozzi, 2001). In their study of 147 married couples, Doss and Christensen (2010) found that one of the main reasons married couples go to clinics for psychotherapy is low or a lack of intimacy. Studies also show that intimacy between married couples is an important factor in creating lasting marriages (Canavarro et al., 2015; Martin & Guéguen, 2015; Ghochani et al., 2020a, b) and avoiding intimate relationships is one of the factors that lead to failure in family life (Blum, 2015). Bagarozzi (2001) believes that intimacy is a basic human need. Intimacy is a closeness, similarity, and a loving personal relationship with another person and requires awareness, deep understanding, acceptance, and expression of thoughts and feelings; intimacy is an interactive, dynamic and combinational process. Bagarozzi (2001) divides the components of intimacy into 9 areas: emotional, psychological, intellectual, sexual, physical, spiritual, aesthetic, social, and recreational. Although intimacy is a structure that is difficult to define comprehensively, the emphasis is often on the

verbal aspects, and most of the pleasure of intimacy is expressed through the exchange of intimacy between married couples (Carlson & Sperry, 1999).

The verbal aspect is considered in the emotional dimension of intimacy. Cordova et al. (2007) also found a positive relationship between emotional intimacy and the ability to share emotions and feelings with a spouse and marital adjustment. Disturbed couples, on the other hand, typically express less intimacy, closeness, and affection for each other (Halford et al., 2001). In the emotional dimension of intimacy, a person wants to share all his positive and negative feelings with their spouse. In this type of intimacy, a person with a positive emotional discharge will experience more mental health and consequently higher marital satisfaction. Many different factors are influential in the formation of intimacy. Therefore, one of the factors that married couples are involved with is the inability to express emotions and alexithymia (Czernecka & Szymura, 2008; Faramarzi & Khafri, 2017). Alexithymia is determined by difficulty in recognizing and expressing emotions, very little daydreaming, and externally oriented and stimulus-oriented stylistics (Evren et al., 2015); in other words, this disorder can be defined as extraterrestrial thinking combined with the moral principle of utilitarianism and difficulty in distinguishing between emotions and physical senses (Tarik Kani et al., 2019).

Alexithymia, which means a lack of vocabulary for emotions, is called the difficulty in self-regulation and inability to cognitively process emotional information (Bagby, et al., 1994; Berenbaum & James, 1994). It is a personality trait characterized by difficulties in identifying feelings (DIF), describing feelings (DDF), and externally-oriented thinking (EOT) style (Rigby et al., 2020). People with alexithymia have serious DIF, DDF, and interconnectedness of their feelings. This limits their feedback, feelings, inclinations, and impulses (Sayar et al., 2017). The inability to use emotions as symptoms of emotional problems, the lack of emotional effects on the face, the DIF between emotional and bodily sensations, and the limited capacity for empathy and self-awareness are evident in people with alexithymia (Baker et al., 2010). Yi et al. (2007) also showed that people with high scores on the alexithymia scale use negative coping dimensions more than people with low scores on this scale. They have also shown that alexithymia is positively correlated with uncompromising styles of emotion regulation and negatively correlated with adaptive behaviors.

One of the areas in which its use is of great importance and can affect the behavioral performance and emotional development of married couples is self-regulation. Self-regulation is defined as psychological efforts to control one's inner state, processes, and functions to achieve higher goals (Cole et al., 2011). Klassen (2010) showed that people with higher self-regulation are more capable of expressing their feelings and emotions, and consequently have higher progress and more motivation and interest to continue on their path. He also noted that people with lower self-regulation are more likely to have low levels of emotional development (Swart et al., 2009).

Another area that affects the perception of intimacy by married couples is the rational dimension of intimacy, which means they need to share important ideas, thoughts, and beliefs with the spouse, in which the role of dysfunctional reactions and beliefs is crucial. Problematic families are also vulnerable in terms of attitudes (Weissman and Beck, 1978). Thus, dysfunctional attitudes are related to psychological pathology and the pathology of family relationships; in a way, this increases the vulnerability of family relationships and reduces intimacy. Some studies have also shown that dysfunctional attitudes are directly related to destructive responses, such as pessimism in interpersonal relationships and the threat of separation and divorce (Uebelacher & Whisman. 2005). According to Gottman et al. (1988), perception (cognition), physiology, and behavior are the three basic pillars of marital continuity, and couples' perception of each other is the most important. Buehlman and Gottman (1996) also believe that couples' perceptions of each other can predict the future and type of marital relationship. Interventional research on Iranian couples has also demonstrated that after a change in cognitive styles, marital satisfaction increases (Doss & Christensen, 2006; Davoodvandi et al., 2018). Thus, the way information is processed determines how events are experienced between married couples (Shapiro, 2007) and affects marital adjustment and intimacy. Theoretically, such findings indicate the relationship between cognitive variables (dysfunctional reactions and beliefs) and relationships within the family.

More interesting findings can be made when dealing with multidimensional and multiple relationships between variables. On the other hand, examining the possible relationship between mood distress and dysfunctional reactions and marital intimacy opens a new window that indicates the innovation of the present study and encourages researchers and psychologists to design and develop new psychological programs to reduce alex-

ithymia, promote marital satisfaction, and encourage the expression of marital intimacy (Parker et al., 2001). It is necessary to study the factors affecting intimacy and marital satisfaction, considering that divorce is the most acute and serious communication problem in the family and the high rate of divorce in Iran which is one of the seven countries in the world that has the highest divorce rate (Aghajanian & Thompson, 2013) because of a lack of intimacy and satisfaction between married couples. This research helps family therapists to look at the problem more comprehensively and aids married couples to become familiar with such factors to create, reinforce, or correct these variables, and achieve marital intimacy and satisfaction (Kaiser et al., 1998). Limited studies have been conducted on the variables of this research. However, in the searches conducted by the authors of the present study, no study was found that evaluated the relationship between alexithymia and dysfunctional reactions with marital intimacy among married men and women. Given the limited research conducted in this field and because alexithymia is associated with marital intimacy and other behavioral problems, to better understand the causes of the occurrence and persistence of this

disorder, the present study is conducted to investigate the relationship between alexithymia and dysfunctional reactions with marital intimacy among married men and women in Mashhad City, Iran.

2. Participants and Methods

Study design

The design of this research is descriptive-correlational of prediction type using simple correlation and regression analysis. In this study, the researchers seek to investigate the intensity and direction of the relationship between the research variables and to examine the independent and reciprocal relationship of the dependent variable with the criterion variables.

Study participants

The statistical population of the present study included all married men and women who lived in Mashhad City, Iran in the second half of 2019. The sample of this study consisted of 171 married individuals (100 women and 71

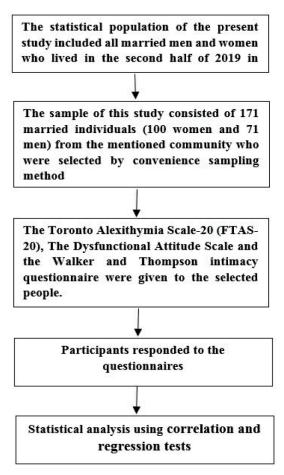


Figure 1. Schematic diagram of the study sampling process

PRACTICE IN CLINICAL PSYCH®LOGY

men) from the aforementioned community who were selected by the convenience sampling method (Figure 1). The ethical considerations of this study were obtaining informed written consent from the participants, keeping the participants' information confidential, respecting the participants' privacy, and allowing them to withdraw from the study at any time.

Inclusion and exclusion criteria

The inclusion criteria were being married, having passed at least 2 years of the marriage, and being in the age range of 20 to 50 years. The exclusion criteria were not participating in emotion-oriented treatments and previous diagnosis to alexithymia by a psychiatrist.

Study instrumentation

Toronto alexithymia scale-20 (FTAS-20)

The Toronto alexithymia scale-20 (FTAS-20) is a 20item self-report scale. The participants rate their items on a 5-point Likert scale (from strongly disagree to strongly agree). This scale measures 3 dimensions: 1) difficulty in identifying emotions (7 items), 2) difficulties in describing emotions (5 items), and 3) focus on external experiences (8 items). The FTAS-20 has good psychometric properties. The internal consistency of each of the above subscales in terms of Cronbach α is 0.83, 0.77, and 0.73, respectively. The Cronbach α for the whole scale is obtained at 0.82 (Tull et al., 2005). Meanwhile, the Cronbach α of this scale in the Iranian sample was obtained at 0.85 for the whole scale, and 0.82, 0.75, and 0.72 for the subscales, respectively (Besharat et al., 2010). In the Farsi version of this scale, the Cronbach α coefficients for the scores of the 3 subscales were as follows: difficulty in identifying emotions=0.85, difficulty in describing emotions=0.75, and objective thinking=0.72. In the present study, the reliability coefficient of alexithymia in terms of Cronbach α for the whole scale and the 3 subscales were equal to 0.95, 0.54, 0.75, and 0.40, respectively.

Dysfunctional attitude scale (DAS) (Weissman and Beck 1978)

The dysfunctional attitude scale has 20 questions and it aims to assess the dysfunctional behavioral, emotional, and intellectual reactions in individuals (Weissman and Beck, 1978). The responses are yes/no and the score for the yes and no options is 5 and 0, respectively. To get the total score of the questionnaire, we added the total scores of all the questions. Accordingly, the score

ranges from 0 to 100. Merely having such thoughts do not necessarily account for a mental disorder; however, these thoughts are extremely stressful and provide the conditions in everyday life for the formation of various mental disorders. If the score on this test is less than 15, the person is happy and does not make life bitter all the time. For scores between 20 and 30, the subject needs to reconsider their behavior. If a person scores above 30 on this test, they should think about it and work separately to change these thoughts. The reliability was obtained at 0.70 using Cronbach α for 170 people, which indicates the acceptable reliability of this questionnaire. Internal consistency, test-retest reliability, and average item-total correlations of the dysfunctional attitude scale were satisfactory in different samples. In Iran, Golzar et al. (2017) obtained the total reliability of this questionnaire using Cronbach α coefficient at 0.78 and also using the retest method with an interval of one month for this scale obtained at 0.89.

Walker and thompson intimacy questionnaire

The Walker-Thompson intimacy questionnaire has 17 questions and is designed to measure the level of affection and intimacy of married couples and it is developed by Walker and Thompson (1983). This scale is a part of a larger tool that includes several dimensions of intimacy but can be used independently to measure intimacy. Walker and Thompson (1983) reported the reliability coefficient of this test using the Cronbach α method in the range of 0.91 to 0.97. Content and face validity methods were also used to evaluate the test validity. Accordingly, several professors in the field of counseling and psychology reviewed the above questionnaire and stated that it measures the intimacy of married couples. In the present study, the reliability coefficients of the intimacy questionnaire were calculated using Cronbach α and halving methods which were obtained at 0.90 and 0.83, respectively. This indicates the optimal reliability coefficients of the questionnaire. In Iran, Babaei et al. (2018) obtained the total reliability of this questionnaire at 0.9 and the concurrent validity at 0.61 compared to Bagarozzi's intimacy needs scale.

Study procedure

A questionnaire was used to collect the required information. After preparing the list of names of married couples and selecting them, first, the purpose of the research was explained to them and then the research tests were given to the participants. They were asked to express their opinions carefully. The data were collected

Table 1. Demographic characteristics of research variables

Variables		Groups	Mean±SD	Min	Max
		Women	5.76±1.13	1.76	7
Intimacy		Men	6±1.04	2.59	7
		Total	5.84±1.11	7.76	7
		Women	31.95±22.25	0	85
Dysfunctional reactions		Men	31.80±23.36	0	80
		Total	34.69±22.62	0	85
		Women	17.17±7.34	7	35
	DIF	Men	15.5±5.47	7	30
		Total	16.64±6.83	7	35
		Women	12±4.63	5	24
Alexithymia	DDF	Men	12.09±4.51	5	23
		Total	12.02±4.58	5	24
		Women	19.79±4.31	10	31
	EOT	Men	19.90±4.73	8	28
		Total	19.83±4.44	8	31

PRACTICE IN CLINICAL PSYCH®LOGY

DIF: difficulty in identifying feelings; DDF: difficulty in describing feelings; EOT: externally-oriented thinking.

in groups, and subsequently, the obtained data were analyzed using the SPSS software, v. 23.

Data analysis

To determine the contribution of aspects of alexithymia (predictor variables) in explaining the variance of criteri-

on variables (marital intimacy), we used the multiple regression analysis method simultaneously with the SPSS software, v. 23. Descriptive statistics (Mean±SD) and inferential statistics (correlation and regression analysis) were used to analyze the data. The data were analyzed using correlation calculation. In addition, for all hypotheses, a significance level of 0.05 was considered.

Table 2. Correlation matrix and validity of research variables

Variables	1	2	3	4	5
Intimacy	-	-	-	-	-
Alexithymia (DIF)	0.251**	-	-	-	-
Alexithymia (DDF)	0.213**	0.592**	-	-	-
Alexithymia (EOT)	0.131	0.320**	0.409**	-	-
Alexithymia (general)	0.258**	0.866**	0.824**	0.671**	-
Dysfunctional reactions	0.318**	0.513**	0.408**	0.369**	0.553**

* $(P \le 0.05)$. ** $(P \le 0.01)$

DIF: difficulty in identifying feelings; DDF: difficulty in describing feelings; EOT: externally-oriented thinking.

Table 3. Results of regression of statistical indices of alexithymia and dysfunctional reactions on marital intimacy

Variables	Model	Sum of Squares	df	Mean of Squares	F	Sig.	R	Square R	β	t
Alexithymia	Regression	14.035	1	14.035						
	Residual	19.241	169	1.161	12.087	0.001	0.258	0.067	-0.258	-3.477
	Total	210.276	170							
Dysfunctional reactions	Regression	21.253	1	21.253						
	Residual	189.022	169	1.118	19.002	0.001	0.318	0.101	-0.318	-4.359
	Total	210.276	170							

PRACTICE IN CLINICAL PSYCH OLOGY

Ethics approval and consent to participate

Written informed consent was obtained from all participants. The study protocol was approved by the Ethics Committee of Attar Institute of Higher Education and was conducted following the Declaration of Helsinki.

3. Results

The examination of demographic characteristics of subjects (age, sex, age of marriage, duration of marriage, education, number of children) showed the Mean±SD age of men was 38.96±1.81 and the Mean±SD age of women was 34.24±1.06. Also, the data shows the Mean±SD age of marriage for men at 26±0.66 and for women at 21.33±0.47. Moreover, the Mean±SD of the average duration of marriage for men was 12.88±1.83 and for women was 12.79±1.06. Finally, the average level of education of men and women was an associate degree and a bachelor's degree, respectively. Table 1 presents the demographic characteristics of the research variables.

Analysis of hypothesis

Hypothesis 1: There is a significant relationship between alexithymia and dysfunctional reactions with the marital intimacy of married couples.

The correlation analysis method was used to examine the main hypothesis of the research. As shown in Table 2, there is a significant negative relationship between the subscales of DIF and DDF from the scale of alexithymia and marital intimacy with (P<0.01, r=-0.251; P<0.01, r=-0.213). However, no significant relationship was observed between the subscale of EOT from the scale of alexithymia and marital intimacy. According to Table 2, there is a significant negative relationship between alexithymia and marital intimacy in general (P<0.01, r=-0.25). As a result of increased alexithymia, marital intimacy decreases. In addition, there is a significant negative relationship between dysfunctional reactions and marital intimacy (P<0.01, r=-0.138); hence, increasing dysfunctional reactions and attitudes in the individual lead to a decrease in marital intimacy. According to the data in Table 2, there is a positive relationship between the subscales of alexithymia (DIF, DDF, and EOT) and dysfunctional reactions with statistical characteristics (P<0.01, r=0.513; P<0.01, r=0.408; P<0.01, r=0.369). Also, there is a positive relationship between general alexithymia and dysfunctional reactions with statistical characteristics (P<0.01, r=0.553); accordingly, as alexithymia increases, the dysfunctional reactions and attitudes increase as well.

Table 4. Results of alexithymia regression statistical indices on dysfunctional reactions

Variables	Model	Sum of Squares	df	Mean of Squares	F	Sig.	R	Square R	β	t
General Alexithymia	Regression	26636.308	1	26636.308						
	Residual	60392.503	169	357.352	74.538	0.001	0.553	0.306	0.553	8.634
	Total	87028.811	170							

PRACTICE IN CLINICAL PSYCH®LOGY

A multiple regression analysis was performed to examine the specific contribution of alexithymia and dysfunctional reactions to predicting marital intimacy in married couples. The results are presented in Table 3. As shown in Table 3, alexithymia (P<0.05, β =-0.258) and dysfunctional reactions (P<0.05, β =-0.318) appeared as negative significant predictors of marital intimacy in married couples.

The results of the regression of statistical characteristics are presented in Table 3. In this table, the independent variables (alexithymia and dysfunctional reactions) are calculated and their significance is tested. Accordingly, alexithymia and dysfunctional reactions predict marital intimacy, and concerning R², explain 6% and 10% of the variance, respectively.

Hypothesis 2: There is a significant relationship between alexithymia and dysfunctional reactions in married couples.

Table 4 presents the results of alexithymia regression statistical indices on dysfunctional reactions. As shown, alexithymia (P<0.05, β =0.553) emerged as positive significant predictor of dysfunctional reactions. The results of regression statistical characteristics are presented in Table 4. In this table, the independent variable (alexithymia) is calculated and its significance is tested. Accordingly, alexithymia predicts dysfunctional reactions and, in total, explains 30% of the variance concerning R².

Given that if we consider the variable of dysfunctional reactions as a predictor variable, the results obtained from this regression analysis will be similar to Table 3; therefore, dysfunctional reactions can also predict alexithymia and a 2-way relationship is established between these two variables. Each of the variables explains 30% of the other variance.

4. Discussion

This study aimed to investigate the relationship between alexithymia and dysfunctional reactions with marital intimacy. The results showed a significant negative relationship between alexithymia variability with marital intimacy so with increasing alexithymia, marital intimacy decreases. The results of the regression analysis also showed that alexithymia can predict marital intimacy (P<0.05, β =-0.258) and in total, explains 6% of its variance. These results are in line with the research by Yi et al. (2007), Zhu and Leung (2011), Luminet et al. (2004), Czernecka and Szymura (2008), Besharat et al. (2010), Lyvers et al. (2021), and Swart et al. (2009).

In explaining these findings, it can be maintained that since emotion regulation has been considered a multidimensional structure, alexithymia can be considered equivalent to difficulty in emotional self-regulation or the inability to process emotional information and emotion regulation. This structure includes awareness, understanding, and acceptance of emotions, the ability to control aroused behaviors, and the use of appropriate emotion regulation strategies (Luminet et al. 2004; Morie et al. 2019). This disability disrupts the organization of a person's emotions and cognitions and increases the likelihood of using annoving and ineffective psychic defense styles. Failure to regulate emotion can increase negative experiences (Frawley & Smith, 2001). Therefore, when people feel they have little control over the situation, they interpret it as negative and stressful (Estévez et al., 2021). This will result in a negative emotional experience, which can also lead to interpersonal problems, such as a cold relationship and an avoidant style of emotional expression (Henry et al., 2007). In addition, the inability to regulate emotion can be associated with low levels of physical and mental health in people with alexithymia disorder. One of the most important skills needed in every person's life is the ability to be aware of their own emotions and the dimension of others. This ability helps a person to become acquainted with the strengths and weaknesses and other characteristics of themselves and others and to enter different stages of life with a deep awareness of themselves and others (Da Silva et al., 2017; Edwards & Wupperman, 2017; Luminet & Zamariola, 2018; Gormley, Ryan, & McCusker, 2021). Therefore, a person who has little knowledge of his feelings and emotions and low emotional intelligence cannot properly express their feelings and desires in life and is not able to identify emotions and meet the emotional needs of their spouse. This leads to not having proper interactions with each other among married couples and given the lack of constructive and useful interactions, they experience less intimacy in their married life.

The results also showed a significant negative relationship between dysfunctional reactions and marital intimacy, so that increasing dysfunctional reactions and attitudes in the individual, leads to a decrease in marital intimacy. In this regard, the results of the regression analysis indicated that the dysfunctional reaction (P<0.01, β =-0.318) predicts marital intimacy and explains 10% of its variance in total. These results are in line with the research of Sullivan and Swebel (1995), Antoine et al. (2008), Shapiro (2007), Canavarro et al. (2015), Martin and Guéguen (2015), and Ghochani et al. (2020 a, b).

In explaining these findings, it can be posited that various studies have shown that the degree of intimacy depends on the ability of the spouses to correctly and effectively convey their thoughts, feelings, needs, and wants. Cognitive processes, including selective attention, attributions, expectations, assumptions, and criteria (i.e. beliefs that each person has about marriage and intimate relationships) are associated with satisfaction and intimacy (Truax & Jacobson, 1989). The factors that can undermine the effectiveness of communication and cause misunderstanding of the message sent (or its correct decoding) are misconceptions, prejudices, and negative attitudes (Addis & Bernard, 2000; Bradbery & Fincham, 1992; Fincham, & Bradbury, 1987; Dattilio & Epstein, 2005; Fincham et al., 2000; Moller & Merwe, 1997; Moller & Vanzeyl, 1991; Nickl, 2006). According to Ellis and Knaus (1979), dysfunctional beliefs and reactions are the main cause of many social differences, and one of the main areas for the emergence and influence of irrational and dysfunctional thoughts is marriage. These findings support the model of explaining the family's psychological pathology based on the cognitive vulnerability developed by Hamamci and Büyükoztürk (2004). Hamamci (2005) showed that cognitive vulnerability (interpersonal cognitive distortions, irrational beliefs in relationships and attitudes, and dysfunctional reactions) in pathological families is higher than in a normal population. Hamamci (2005) claimed that dysfunctional thoughts, reactions, and beliefs related to mind-reading have negative effects on women's marital conflicts, and the continuation of dysfunctional thoughts and reactions intensifies marital conflicts and makes married couples feel more fearful. In Iranian society, cognitive distortions and dysfunctional attitudes seem to play an important role in explaining the disorder of family relationships. Research results of Sullivan and Swebel (1995) and Antoine et al. (2008) have also shown a negative correlation between irrational beliefs, communication, and dissatisfaction with married life. The higher the communication beliefs and dysfunctional reactions are specific to the marital relationship and the lower the intimacy in the marital relationship, the lower the prediction of satisfaction in the marital relationship. On the contrary, the lower the dysfunctional communication beliefs and the higher the marital intimacy, the higher the prediction of satisfaction in the marital relationship.

The results also demonstrated a positive relationship between alexithymia and dysfunctional reactions so with the increase of alexithymia, dysfunctional reactions and attitudes increase. On the other hand, based on the results of regression analysis, alexithymia can predict the dysfunctional reaction and, in total, explains 30% of its variance. These findings were consistent with the research of

Yi et al. (2007); Besharat et al. (2010); and Rostamoghli et al. (2013). In explaining these results, it can be stated that alexithymia is an emotional cognitive feature and the person with this disorder is unable to regulate and understand their emotions (Besharat, 2010). Because of a lack of emotional awareness and the inability to cognitively process their emotions, these people are usually unable to identify, understand, or describe their emotions. Rostamoghli et al. (2013)showed a negative and significant relationship between self-regulation and Alexithymia, i.e., with increasing the rate of alexithymia, the rate of self-regulation decreases in students. In their study, they concluded that students with higher alexithymia disorders had lower self-regulation. On the other hand, Yi et al. (2007) showed that people with high scores on the alexithymia scale, use the dimensions of negative coping more than people with low scores on this scale. They have also shown that alexithymia disorders have a positive correlation with uncompromising networks of emotion regulation and a negative correlation with adapted behaviors. In the cognitive model, it is argued that unpleasant emotions are often accompanied by distortions or biases of thinking and that spontaneous thoughts are associated with negative emotions and dysfunctional behaviors and reactions. There is no reason why a person should suddenly start thinking erroneously or how erroneous and distorted thoughts come to them semantically. In this regard, the research of Matte Blanco (1988) suggests a relationship between emotion (biologically functional and following the evolutionary system) and cognition. He introduces a biological (unconscious) structure for cognitive distortions and considers emotions as conscious awareness of emotions that are activated and engage in cognition following emotional activity. As a result of this disability, the organization disrupts the emotions and cognitions of the individual and increases the likelihood of using psychologically disturbed and ineffective defense styles. On the other hand, failure to regulate emotions can increase negative experiences. Therefore, when people feel that they have little control over the situation, they interpret it as negative and stressful, they have a limited ability to adapt to stressful situations, and they are more likely to have dysfunctional reactions and beliefs than other people. One of the most important skills needed in every individual's life is the ability to be aware of their emotions. This awareness of weaknesses makes it possible for a person to use this awareness to have more control over themselves and to express more efficient reactions. People with low self-esteem use emotional dysfunction as a defense mechanism. These people are more likely to use dysfunctional reactions in response to difficult living conditions.

Research limitations

One of the limitations of the present study was that the research method was correlational. It is suggested that in future research, the research be repeated in the form of an experimental design. Hence, the generalization and application of the results of this study should be done with caution. Another limitation of this study was the collection of information based on self-report scales. Accordingly, considering the effect of participants' perceptions on the subjects, it is suggested that in subsequent studies, in addition to self-reporting, other methods of data collection in which the couple's influence is less, such as interviews through expert observers, be used as well.

5. Conclusion

The results indicated a negative and significant relationship between marital intimacy with alexithymia and dysfunctional reactions. Alexithymia accounted for about 6% and dysfunctional reactions for about 10 % of the dispersion of marital intimacy. Also, there was a positive and significant correlation between alexithymia and dysfunctional reactions among married couples. Also, alexithymia and dysfunctional reactions could be a predictor of marital intimacy. Among the subscales of alexithymia, DIF and DDF had a significant negative relationship with marital intimacy; however, there was no significant relationship between the subscale of EOT and marital intimacy. As a result of decreased alexithymia, marital intimacy increases. Also, dysfunctional reactions had a positive relationship with the subscales of alexithymia (DIF, DDF, and EOT) and a negative relationship with marital intimacy; hence decreasing alexithymia leads to a decrease in dysfunctional reactions and an increase in the couple's marital intimacy. Based on the results, the relationship between alexithymia and dysfunctional reactions and marital intimacy was negative; therefore, alexithymia and dysfunctional reactions could affect this relationship. Also, alexithymia and dysfunctional reactions could be a predictor of marital intimacy.

These results could apply to married couples' therapists and family counselors to use appropriate and effective methods to increase the quality of intimacy in married couples and help them improve their quality of life through the appropriate and effective increase of intimacy. Also, other practical topics are the use of these results in divorce counseling centers to reduce the divorce rate and increase couples' marital satisfaction. Therefore, the use of these approaches is recommended in married couples with intimacy problems

caused by alexithymia and dysfunctional reactions. As alexithymia is prevalent among married men and women and affects marital intimacy functioning, we suggest it should be routinely evaluated by mental physicians at community levels. Paying attention to variables such as alexithymia, and dysfunctional reactions can be ensuring marital intimacy. The results of this study have implications for improving marital intimacy and its positive outcomes in families.

Ethical Considerations

Compliance with ethical guidelines

All ethical principles are considered in this article. The participants were informed of the purpose of the research and its implementation stages. They were also assured about the confidentiality of their information and were free to leave the study whenever they wished, and if desired, the research results would be available to them. A written consent has been obtained from the subjects. Principles of the Helsinki Convention were also observed.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-forprofit sectors.

Authors' contributions

Investigation, Data collection, Data analysis, Writing-original draft, Methodology: Maliheh Rezaei; Conceptualization and Supervision, review & editing: Fatemeh Zakeri.

Conflict of interest

The authors declared no conflict of interest.

Acknowledgments

The authors would like to thank the Psychological Counseling Clinics in Mashhad City for allowing us to carry out this research. We are also thankful to all participants for making the data available for this study.

References

Addis, J., & Bernard, M. E. (2000). Marital adjustment and irrational belief. *Journal of Rational-Emotive and cognitive-Behavior Therapy*, 20, 3-13. [DOI:10.1023/A:1015199803099]

- Aghajanian, A., & Thompson, V. (2013). Recent divorce trend in Iran. *Journal of Divorce & Remarriage*, 54(2), 112-125. [DOI:10.10 80/10502556.2012.752687]
- Antoine, P., Antoine, C., & Nandrino, J. L. (2008). Development and validation of the Cognitive Inventory of subjective distress. *International Journal of Geriatric Psychiatry*, 23(11), 1175-1181. [PMID]
- Babaei, R., Yazdi, S. M., & Ghasemzadeh, S. (2019). [Prediction of marital satisfaction based on perceived support, alexithymia and empressement (Persian)]. Journal of Nurse and Physician Within War, 6(18), 41-52. [Link]
- Bagarozzi, D. A. (2014). Enhancing intimacy in marriage: A clinician's guide. Oxfordshire: Taylor & Francis. [Link]
- Bagbay, R. M., Parker, J. D. A., & Taylor, G.J. (1994). The twentyitem Alexithymia Scale: I. Item selection and cross-validation of the factor structure. *Journal of Psychosomatic Research*, 38(1), 23-32. [DOI:10.1016/0022-3999(94)90005-1.]
- Baker, R., Thomas, S., Thomas, P.W., Gower, P., Santonastaso, M., & Whittlesea, A. (2010). The Emotional Processing Scale: Scale refinement and abridgment (EPS-25). *Journal of Psychosomatic Research*, 68(1), 83-88. [PMID]
- Berenbaum, H., & James, T. (1994). Correlates and retrospectively reported antecedents of alexithymia. Psychosomatic Medicine, 56(4), 353-359. [PMID]
- Besharat, M.A., Karimi, M., Ghorbani, N. & Rahimine Jed, A. (2010). [Gifted and non-gifted High school students (Persian)]. Advances in Cognitive Science, 11, 40, 18-28. [Link]
- Blum, A. (2016). The border between intimacy and anonymity in innocuous action: The greeting as a social form. *Journal of Classical Sociology*, 16(1), 69-83. [DOI:10.1177/1468795X15574410]
- Bradbery, T. N., & Fincham, F. D. (1992). Attributions and behavior in marital interaction. *Journal of Personality and Social Psychology*, 63(4), 613-628. [PMID]
- Buehlman, K. T., Gottman, J. M., & Katz, L. F. (1992). How a couple views their past predicts their future: Predicting divorce from an oral history interview. *Journal of Family Psychology*, 5(3-4), 295–318. [DOI:10.1037/0893-3200.5.3-4.295]
- Canavarro, M. C., Silva, S., & Moreira, H. (2015). Is the link between posttraumatic growth and anxious symptoms mediated by marital intimacy in breast cancer patients? *European Journal of Oncology Nursing*, 19(6), 673-679. [PMID]
- Carlson, J., & Sperry, L. (2013). Introduction: A context for thinking about intimacy. In J. Carlson & L. Sperry (Eds.), The intimate couple (pp. 3-6). Oxfordshire: Taylor & Francis. [Link]
- Cole, J., Logan, T. K., & Walker, R. (2011). Social exclusion, personal control, self-regulation, and stress among substance abuse treatment clients. *Drug and Alcohol Dependence*, 113(1), 13–20. [PMID]
- Cordova, J. V., Warren, L. Z., & Gee, C. B. (2001). Motivational interviewing as an intervention for at-risk couples. *Journal of Marital and Family Therapy*, 27(3), 315-326. [PMID]
- Czernecka, K., & Szymura, B. (2008). Alexithymia, imagination and creativity. Personality and Individual Differences, 45(6), 445-450. [DOI:10.1016/j.paid.2008.05.019]

- Davoodvandi, M., Navabi Nejad, S., & Farzad, V. (2018). Examining the effectiveness of gottman couple therapy on improving marital adjustment and couples' intimacy. *Iranian Journal of Psychiatry*, 13(2), 135-141. [PMID]
- Da Silva, A. N., Vasco, A. B., & Watson, J. C. (2017). Alexithymia and emotional processing: A mediation model. *Journal of Clinical Psychology*, 73(9), 1196–1205. [PMID]
- Dattilio, F. M., & Epstein, N. B. (2005). Introduction to the special section: The role of cognitive-behavioral interventions in couple and family therapy. *Journal of Marital and Family Therapy*, 31(1), 7-13. [PMID]
- Doss, B. D., & Christensen, A. (2006). Acceptance in romantic relationships: The frequency and acceptability of partner behavior inventory. *Psychological Assessment*, 18(3), 289-302.
 [PMID]
- Edwards, E. R., & Wupperman, P. (2017). Emotion regulation mediates effects of alexithymia and emotion differentiation on impulsive aggressive behavior. *Deviant Behavior*, 38(10), 1160-1171. [DOI:10.1080/01639625.2016.1241066]
- Ellis, A., & Knaus, W.J. (1979). Overcoming procrastination: or, how to think and act rationally in spite of life's inevitable hassles. Signet. [Link]
- Estévez, A., Jauregui, P., Macía, L., & Martín-Pérez, C. (2022). Alexithymia and emotion regulation strategies in adolescent gamblers with and without at-risk profiles. *Journal of Gam*bling Studies, 38(1), 15–29. [PMID]
- Evren, C., Cinar, O, Evren, B., Umut, G., Can, Y., & Bozkurt, M. (2015). Relationship between alexithymia and aggression in a sample of men with substance dependence. Klinik Psikofarmakoloji Bülteni-Bulletin of Clinical Psychopharmacology, 25(3), 233-242. [DOI:10.5455/bcp.20130408020445]
- Faramarzi, M., & Khafri, S. (2017). Role of alexithymia, anxiety, and depression in predicting self-efficacy in academic students. *TheScientificWorldJournal*, 2017, 5798372. [PMID]
- Fincham, F. D. & Bradbury, T. N. (1987). Cognitive processes and conflict in close relationships: An attribution-efficacy model. *Journal of Personality and Social Psychology*, 53(6), 1106– 1118. [PMID]
- Fincham, F. D., Harold, G. T., & Gano-Philips, S. (2000). The longitudinal association between attributions and marital satisfaction. *Journal of Family Psychology*, 14(2), 267-285. [PMID]
- Frawley, W., & Smith, R. N. (2001). A processing theory of alexithymia. *Cognitive Systems Research*, 2(3), 189-206. [DOI:10.1016/S1389-0417(01)00029-8]
- Ghochani, M., Saffarian Toosi, M. R., & Khoynezhad, G. R. (2020). A comparison between the effectiveness of the combined couple therapy and emotionally focused therapy for couples on the improvement of intimacy and PTSD. *Learning* and Motivation, 71, 101637. [DOI:10.1016/j.lmot.2020.101637]
- Ghochani, M., Saffarian Toosi, M. R., & Khoynezhad, G. R. (2020). Investigation of the effectiveness of the combined couple therapy for couples on the improvement of intimacy and PTSD. The American Journal of Family Therapy, 49(3), 299-320. [DOI:10.1080/01926187.2020.1813657]

- Golzar, H. R., Aflakseir, A., & Molazadeh, J. (2017). [Structural Equation Modeling of dysfunctional attitudes and depression symptoms: Investigation of the mediation role of ruminative response style (Persian)]. *Iranian Journal of Psychiatry* and Clinical Psychology, 22(4), 318-329. [DOI:10.18869/nirp. ijpcp.22.4.318]
- Gormley, E., Ryan, C., & McCusker, C. (2021). Alexithymia is associated with emotion dysregulation in young people with autism spectrum disorder. *Journal of Developmental and Physi*cal Disabilities, 34, 171–186. [DOI:10.1007/s10882-021-09795-9]
- Gottman, J. M., Coan, J., Carrere, S., & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. *Journal of Marriage and the Family*, 60(1), 5-22. [DOI:10.2307/353438]
- Hamamci, Z., & Büyükoztürk, S. (2004). The interpersonal cognitive distortions scale: Development and psychometric characteristics. *Psychological Reports*, 95(1), 291-303. [PMID]
- Hamamci, Z. (2005). Dysfunctional relationship beliefs in marital conflict. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 23, 245-261. [DOI:10.1007/s10942-005-0013-y]
- Halford, W. K., & Sanders, M. R. (1990). The relationship of cognition and behavior during marital interaction. *Journal* of Social and Clinical Psychology, 9(4), 489-510. [DOI:10.1521/ jscp.1990.9.4.489]
- Halford, W. K., Sanders, M. R., & Behrens, B. C. (2001). Can skills training prevent relationship problems in at-risk couples? Four-year effects of a behavioral relationship education problems. American Journal of Family Psychology, 15(4), 750-768. [PMID]
- Henry, J. D., Green, M. J., de Lucia, A., Restuccia, C., McDonald, S., & O'Donnell, M. (2007). Emotion dysregulation in schizophrenia: Reduced amplification of emotional expression is associated with emotional blunting. Schizophrenia Research, 95(1-3), 197-204. [PMID]
- Holland, K. J., Lee, J. W., Marshak, H. H., & Martin, L. R. (2016). Spiritual intimacy, marital intimacy, and physical/psychological well-being: Spiritual meaning as a mediator. *Psychology of Religion and Spirituality*, 8(3), 218-227. [PMID]
- Luminet, O., Rime, B., Bagby, R. M., & Tayler, G. (2004). A multimodal investigation of emotional responding in alexithymia. Cognition and Emotion, 18(5), 741-766. [DOI:10.1080/026 99930341000275]
- Luminet, O., & Zamariola, G. (2018). Emotion knowledge and emotion regulation in alexithymia from part II - Emotion and cognitive processing. In O, 1., Luminet, R. M. Michael Bagby, & G. J. Taylor (Eds.), Alexithymia advances in research, theory, and clinical practice (pp. 49-77). Cambridge: Cambridge University Press [DOI:10.1017/9781108241595.006]
- Lyvers, M., Pickett, L., Needham, K., & Thorberg, F. A. (2021). Alexithymia, fear of intimacy, and relationship satisfaction. *Journal of Family Issues*, 43(4), 1068–1089. [DOI:10.1177/0192 513X211010206]
- Kaiser, A., Hahlweg, K., Fehm-Wolfsdorf, G., & Groth, T. (1998). The efficacy of a compact psycho-educational group training program for married couples. *Journal of Consulting and Clini*cal Psychology, 66(5), 753-760. [PMID]

- Klassen, R. M. (2010). Confidence to manage learning: The self-efficacy for self-regulated learning of early adolescents with learning disabilities. *Learning Disability Quarterly*, 33(1), 19-30. [DOI:10.1177/073194871003300102]
- Martin, A., & Guéguen, N. (2015). Repeating what children say positively influences their learning and motivation. *Learning* and Motivation, 52, 48-53. [DOI:10.1016/j.lmot.2015.08.004]
- Matte Blanco, I. (2003). Thinking feeling and being. London and Oxfordshire: Taylor & Francis. [Link]
- Moller, A. T., & van der Merwe, J. D. (1997). Irrational belief, interpersonal perception and marital adjustment. *Journal of Rational-Emotive and Cognitive Behavioral Therapy*, 15, 260-290. [DOI:10.1023/A:1025089809243]
- Möller, A. T., & Van Zyl, P. D. (1991). Relationship beliefs, interpersonal perception & marital adjustment. Journal of Clinical Psychology, 47(1), 28-33. [PMID]
- Morie, K. P., Jackson, S., Zhai, Z. W., Potenza, M. N., & Dritschel, B. (2019). Mood disorders in high-functioning Autism: The importance of alexithymia and emotional regulation. *Journal of Autism and Developmental Disorders*, 49(7), 2935-2945. [PMID]
- Nickl, T. K. (2006). The relationship between irrational belief and marital satisfaction [PhD Dissertation]. Northern Arizona University. [Link]
- Parker, D. A., Taylor, G. J., & Bagby, R. M. (2001). The relationship between emotional intelligence and alexithymia. *Personality and Individual Differences*, 30(1), 107-115. [DOI:10.1016/S0191-8869(00)00014-3]
- Rigby, S. N., Jakobson, L. S., Pearson, P. M., & Stoesz, B. M. (2020). Alexithymia and the evaluation of emotionally valenced scenes. *Frontiers in Psychology*, 11, 1820. [PMID]
- Rostamoghli, Z., Mosazade, T., Rezazadeh, B., & Rostamoghli, S. (2013). [The role of procrastination, self-regulation and metacognitive beliefs in predicting alexithymia and academic burnout in female high school students (Prsian)]. Journal of School Psychology, 2(3), 76-96. [Link]
- Sanderson, C. A., & Cantor, N. (2001). The association of intimacy goals and marital satisfaction: A test of four mediational hypotheses. *Personality and Social Psychology Bulletin*, 27(12), 1567-1577. [DOI:10.1177/01461672012712001]
- Sayar, N., Yanartaş, O., Tigen, K., Özben Sadıç, B., Ergun, S., & Kepez, A., et al. (2017). Depression, anxiety, alexithymia and somatosensory sensitivity in patients with benign palpitation. *Psychiatry and Clinical Psychopharmacology*, 27(2), 139-142. [DOI:10.1080/24750573.2017.1328095]
- Shapiro, F. (2007). EMDR and case conceptualization from an adaptive information processing perspective. In F. Shapiro, L. Maxfield, & F. Whiteman Kaslow (eds), *Handbook EMDR and family therapy processes* (pp. 3-34). USA: John Wiley and Sons. [DOI:10.1002/9781118269985]
- Sullivan, B. F., & Swebel, A. I. (1995). Relationship beliefs & expectations of satisfaction in marital relationship: Implications for family practitioners. *The Family Journal*, 3(4),298-305. [DOI:10.1177/1066480795034003]

- Swart, M., Kortekaas, R., & Aleman, A. (2009). Dealing with feelings: Characterizations of trait alexithymia on emotion regulation strategies and cognitive-emotional processing. *PloS One*, 4(6), e5751. [PMID]
- Kani, H. T., Dural, U., Sakalli Kani, A., Yanartas, O., Kiziltas, S., & Yilmaz Enc, F., et al. (2019). Evaluation of depression, anxiety, alexithymia, attachment, social support and somatization in functional dyspepsia. *Psychiatry and Clinical Psychopharmacology*, 29(1), 45-51. [DOI:10.1080/24750573.2018.1480081]
- Taylor, G. J., Bagby, R. M., & Parker, J. D. A. (1997). Disorders of affect regulation: Alexithymia in medical and psychiatric illness. Cambridge: Cambridge University Press. [DOI:10.1017/ CBO9780511526831]
- Terman, L.M., Buttenwieser, P., Ferguson, L.W., Johnson, W.B., & Wilson, D.P. (1938). *Psychological factors in marital happiness*. McGraw-Hill. [Link]
- Truax, P., & Jacobson, N. (1989). Cognitive processes and marital satisfaction: Research, theories and clinical implications. *Behaviour Change*, 6(3-4), 137-152. [DOI:10.1017/S0813483900007518]
- Tull, M. T., Medaglia, E., & Roemer, L. (2005). An investigation of the construct validity of the 20-itemtoronto alexithymia scale through the use of a verbalization task. *Journal of Psycho-somatic Research*, 59(2), 77-84. [PMID]
- Uebelacker, L. A., & Whisman, M. A. (2005). Relationship beliefs, attributions, and partner behaviors among depressed married women. *Cognitive Therapy and Research*, 29, 143-154. [DOI:10.1007/s10608-005-3161-6]
- Walker, A. B., & Thompson, L. (1983). Intimacy and intergenerational aid and contact among mothers and daughters. *Journal of Marriage and the Family*, 45(4), 841-849. [DOI:10.2307/351796]
- Weissman, A. N., & Beck, A. T. (1978). Development and validation of the Dysfunctional Attitude Scale: A preliminary investigation. *Annual Meeting of the American Educational Research Association*, Toronto.
- Whisman, M. A., Uebelacker, L. A. (2003). Comorbidity of relationship distress and mental and physical health problems. In D. K. Snyder, & M. A. Whisman (eds.), Treating difficult couples: Helping clients with coexisting mental and relationship disorders (pp. 3-26). New York: Guilford Press. [Link]
- Zhu, Y., & Leung, F. K. S. (2011). Motivation and achievement: Is there an East Asian model? *International Journal of Science and Mathematics Education*, *9*, 1189-1212. [DOI:10.1007/s10763-010-9255-y]
- Yi, J. Y., Luo, Y. Z., & Zhong, M. T. (2007). Characteristics of affective priming effect in Alexithymics. *Chinese Mental Health Journal*, 21(5), 302-306. [Link]

