

# Formulating a model for the relationship between alexithymia, social support, loneliness, and marital satisfaction: Path analysis model

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## ABSTRACT

**Aim:** The present study was conducted in order to develop a relationship model of alexithymia, social support, loneliness, and marital satisfaction. **Methods:** One hundred eight couples who were parents of beginner students who participated in the assessment plan at the entrance to the primary school of Mahmoud Abad from Iran were selected using the accessible method to participate in this study; these couples completed self-reported questionnaires of alexithymia, social support, loneliness, and the Enrich's Couple Scales. **Results:** Findings showed that social support has a direct positive effect on marital satisfaction; additionally, alexithymia and social support have an indirect significant impact on marital satisfaction. **Conclusion:** The study provided additional evidence of the importance of alexithymia, social support, and loneliness in marital satisfaction.

**Keywords:** Alexithymia, loneliness, marital satisfaction, social support

## Introduction

Taylor *et al.* pointed out that the term “alexithymia” refers to the cluster identification of behaviors that often occurs in people with mental health problems.<sup>[1]</sup> As stated by Sifneos and Nimea, this disorder is commonly characterized with the difficulty in describing feelings for others, the difficulty in differentiating between these emotions and the physical development of emotional arousal, an external stimulus style of thinking, emotional inhibition, and the impoverishment of imaginative life.<sup>[2]</sup> Along with these basic features, several other features have also been observed in individuals struggling with this disorder; difficulty in the processing of emotional information<sup>[3,4]</sup> and the lack of capacity for empathy with others.<sup>[5,6]</sup> In addition, emotional knock-outs are thought to be social interactions

as people without feelings, secrecy, domination, and lack of attractiveness by their peers.<sup>[2,7]</sup>

Social support is one of the variables that plays a key role in marital satisfaction. Social protection is a multidimensional concept defined in various ways. For example, it can be defined as a source of support provided by others to deal with stress or exchange of resources.<sup>[8]</sup> Given the impact of perceived social support on stress, the researchers have insisted on concentrating it as much closely as possible.<sup>[9]</sup> According to the theory of Transactional Stress Model,<sup>[10]</sup> social support is a factor among others that influences cognitive assessment of an individual in coping with stress.<sup>[11]</sup> In general, research findings show that social support plays an important role in intimate relationships, especially in marital relationships.<sup>[12]</sup> Considering that couples are affected by members of the social network in the social context, this social influence can affect the quality of their marital affairs.<sup>[13]</sup> Hence, social support, which is one of the benefits

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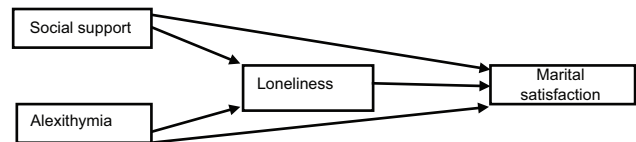
of membership in the social network, is one of the important factors in the satisfaction of couples.<sup>[14,15]</sup>

Some studies have shown that social support has a negative relationship with the violent behavior of couples.<sup>[16]</sup> It was also found that social support in marriage has a strong relationship with marital satisfaction and the well-being of young and middle-aged wives.<sup>[17]</sup> The results of Dehle and Landers<sup>[18]</sup> study showed that social support overcomes marital problems, and therefore couples who enjoy social protection have higher marital satisfaction. In addition, Rostami *et al.*<sup>[19]</sup> found that although the couples did not have a significant difference in terms of social support, women provide more support for their husbands in comparison to their partners. Therefore, it can be said that support provided by a spouse is more important than other dimensions of social support in the enrichment of marital satisfaction.

Loneliness is an unpleasant state originated in the discrepancy between what individuals want out of their relationship with others and what they actually get. This feeling is important because it correlates both with the emotional state of people and with the weakness of the social, behavioral, and health areas of adults, adolescents, and children.<sup>[20]</sup> This concept has been defined differently by different theoreticians and scholars. Peplau and Perlman<sup>[21]</sup> regard loneliness as an unpleasant feeling resulting from quantitative and qualitative inadequacy in the network of individual social relationships and the lack of access to close and desirable relationships with others. From the psychoanalytic view, it is assumed that loneliness originates in hostility and narcissism,<sup>[22]</sup> the unfulfilled needs of childhood in the field of intimacy,<sup>[23]</sup> and the lack of important forms of attachment.<sup>[24]</sup>

Cognitive theories have suggested that the emotional solitude of married women and men is primarily related to the evaluation of the quality of marital relationship.<sup>[25]</sup> According to Waite and Lehrer,<sup>[26]</sup> marital support is a key path through which couples move toward to mental, physical, and emotional health. Prospective research has shown that loneliness is predictive of psychological distress and mental health,<sup>[27]</sup> marital satisfaction,<sup>[28]</sup> mortality in the elderly,<sup>[29]</sup> risk factor for suicidal thoughts,<sup>[30]</sup> and alcohol abuse.<sup>[31]</sup> In addition, through functioning as a moderating factor for social support and self-esteem, loneliness is directly<sup>[32,33]</sup> and indirectly related with life satisfaction.<sup>[34]</sup> It was also found that the quality of the relationship plays a moderating role between attachment orientation and loneliness.<sup>[35]</sup>

Previous studies have shown people with alexithymia encounter problems in building and maintaining relationships. Alexithymia has a positive relationship, and plays a meditating role, with loneliness and interpersonal<sup>[36]</sup> it, additionally, has a negative relationship with affection<sup>[2]</sup> and the quality of marital relationships.<sup>[37]</sup> Based on the results of Humphreys *et al.* study,<sup>[38]</sup> alexithymia has a negative effect on satisfaction with the relationship. Frye-Cox and Hesse<sup>[39]</sup> found that loneliness



**Figure 1:** The hypothetical conceptual model

and intimacy play a mediating role within the relationship of alexithymia and marital satisfaction. In addition, Hesse and Floyd<sup>[40]</sup> reported that alexithymia has a negative relationship with the experience of love, happiness, immediate non-verbal references, and intimacy.

Few studies have investigated the relationship between alexithymia and social support, the results of which indicate that alexithymia has a negative relationship with social support<sup>[41]</sup> and people with alexithymia are gifted with social support much less than those without this disorder. However, due to the lack of longitudinal studies, the causal relationship between alexithymia and social support is far from clear. Bratis *et al.*<sup>[42]</sup> found that alexithymia has a negative relationship with family support. Posse *et al.*<sup>[43]</sup> reported a relationship between alexithymia, social stress, and mental health, based on which a significant difference was observed in the social support experienced by those with and without alexithymia, so that the level of social support in alexithymia individuals is about three times less than those free from this disorder. A study conducted by Karukivi *et al.*,<sup>[44]</sup> on a group of adolescents found out that low social support was associated with alexithymia; additionally, the lack of social protection from friends is a stronger predictor of alexithymia in comparison with social protection from the family and persons of vital importance. Generally speaking, the relationship between social support and alexithymia is more closely related to two difficult subsets in identifying and describing emotions.

Although existing literature showed that alexithymia and lack of social support had a negative impact on interpersonal relationships, it has not yet become quite clear how they affect the quality of marital life and how variables play a mediating role in this regard; on one hand, former studies have less frequently focused on studying couples and, to the extent of our knowledge, no studies have been done with this set of variables. Therefore, the present study was conducted in order to assess the direct and indirect effects of alexithymia and lack of social support on marital satisfaction [Figure 1].

## Methods

### Participants

The statistical population consisted of parents of students participating in the measurement plan at the entrance of the primary school of Mahmoud Abad from Iran in 2016. One hundred fifteen couples (230 subjects), were selected through available sampling method. After removing 14 incomplete forms, 216 subjects were selected as the final sample. The following questionnaires were used in the present research.

### Revised loneliness scale (UCLA Russell, 1996)

A 20-point scale that measures one-dimensional sense of loneliness and is based on a 4-degree Likert scale. This scale has been implemented on four groups of students, nurses, teachers, and elderly people, and the Cronbach's alpha has been obtained within a range of 0.89–0.94.<sup>[45]</sup> In the research conducted on Iranian students, the reliability of this scale turned out to be 0.75 through Cronbach's alpha.<sup>[46]</sup> The Cronbach's alpha of this questionnaire turned out to be 0.78 in the present study.

### Toronto Tas-20 alexithymia scale<sup>[47]</sup>

Toronto Tas-20 alexithymia scale<sup>[47]</sup> is a 20-item test with three sub-scales difficulty in identifying emotion, difficulty in describing emotions, and orienting external thinking. This scale is scored in 5-degree Likert scale (score 1 completely opposite to 5-point perfectly agree). The psychometric properties of Toronto Tas-20 alexithymia scale have been reviewed and confirmed in several intercultural studies.<sup>[47,48]</sup> Based on a study conducted by Besharat,<sup>[49]</sup> the Cronbach alpha coefficient of overall alexithymia and three sub-scales of difficulty in identifying emotion, difficulty in describing emotions, and orienting external thinking turned out to be 0.85, 0.82, 0.75, and 0.72, respectively, indicating high internal consistency of this scale. In this research, the reliability of the questionnaire was calculated through Cronbach's alpha and turned out to be 0.82.

### The perceived social support scale of MSPSS 4<sup>[50]</sup>

A multidimensional scale of perceived social support<sup>[50]</sup> provides a subjective evaluation of the social support value in three sources of family, friends, and others, and includes 12 articles that are scored based on the 7-degree Likert system. On this scale, each of the four materials is attributed to one of the family groups, family, friends, and others, based on social support sources. By increasing the score of individuals, their score in the overall factor of perceived social support increases. Additionally, the total score of individuals in regard with each category is obtained by summing the scores of individuals. Canty-Mitchell and Zimet<sup>[51]</sup> reported that the reliability of this scale for family, friends, and other important persons and total was 0.91, 0.89, 0.91, and 93.9, respectively. Based on the results of the Edward's study,<sup>[52]</sup> the reliability of this scale for family, friends, and others was 0.88, 0.90, 0.61 and 0.86, respectively. The Cronbach's alpha of this questionnaire turned out to be 0.87 in the present study.

### Enrich marital satisfaction scale

This questionnaire was developed by Olson 1985 and updated in 2010. The ECS comprises 35 items and 4 sub-scales of marital satisfaction, communication, conflict resolution, and idealistic distortion. Alpha coefficient for the questionnaire for the sub-scales of marital satisfaction, communication, conflict resolution, and idealistic distortion equals to 0.86, 0.80, 0.84, 0.83, respectively, and the test-retest reliability was equal to 0.86, 0.81, 0.90, and 0.92 in order. The reliability of the Persian version of this scale with 365 couples (730 people) was 0.68, 0.78, 0.62 and 0.77, respectively.<sup>[53]</sup> The total

Cronbach's alpha of this questionnaire turned out to be 0.79 in the present study.

### Data analysis

The path analysis method (fitting the model) and the AMOS version 18 was used to investigate the effect of alexithymia in predicting marital satisfaction. The results of the initial model showed that direct coagulation coefficient of alexithymia was not significant for marital satisfaction, although some indices [incremental fit index (IFI) = 0/95, comparative fitness index (CFI) = 0/95, normalized fitness index (NFI) = 0/94, goodness fit index (GFI) = 0/96] showed good fit. However, some of the other indicators ( $\chi^2 = 8/64, P > 0/05$ ) and [root squared error approximation average (RMSEA) above 0.08] indicate a disadvantage of the model. Therefore, the initial model was moderated and the new model was re-tested by removing insignificant path of alexithymia toward marital satisfaction in order to achieve a better fit. The coefficients of the new model path are presented in Table 1.

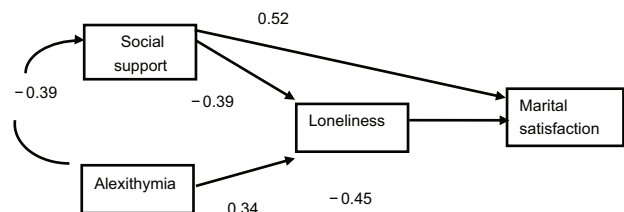
As shown in Figure 2, all path coefficients are significant and fit indexes indicate the optimal fit of the model with the data. These indicators are presented in Table 1.

Path coefficient of alexithymia to loneliness ( $\beta = 0.34, P < 0.001$ ) and social support path coefficient to loneliness ( $\beta < -0.30, P < 0.001$ ) were significant. Additionally, social support and loneliness path coefficients are significant toward marital satisfaction, ( $\beta = 0.52, P < 0.001$ ) and ( $\beta = -0.45, P < 0.001$ ). Given the significance of path coefficients, the indirect effect of alexithymia on marital satisfaction is  $-0.15$ , the effect of social support on marital satisfaction is  $0.13$ , and the total effect of social support on marital satisfaction is  $0.65$ .

**Table 1: Fit indices of the adjusted model**

Indices	Accepted range	Value
$\chi^2$	$P > 0.05$	2.06
df	-	2
GFI	GFI > 0.9	0.99
IFI	IFI > 0.9	0.99
CFI	CFI > 0.9	0.98
RMSEA	RMSEA < 0.05	0.03
NFI	NFI > 0.9	0.99

NFI: Normalized fitness index; RMSEA: Root squared error approximation average; CFI: Comparative fitness index; IFI: Incremental fit index; GFI: Goodness fit index, df: Degree of freedom;  $\chi^2$ : Chi-square index



**Figure 2: Modified model and standard coefficients of prediction path of marital satisfaction through alexithymia, social support, and loneliness**

## Discussion and Conclusion

The present study was conducted in order to develop a relationship model of alexithymia, social support, loneliness, and marital satisfaction. The results showed that the initial model is not suitable and fit. Therefore, by eliminating the irregular route, the modified model was tested and fitted more favorably. Given that no research has so far tested these variables within the framework of a model, it is not possible to compare this model with previous research. However, research findings are consistent with the model provided by Frye-Cox and Hesse.<sup>[39]</sup> In addition, the study of standardized path coefficients showed that social support has a direct effect and indirect effect, owing to loneliness, on marital satisfaction, which is consistent with the findings of following researches Segrin and Flora, 2001; Jalali *et al.*, 2006; Rostami *et al.*, 2013. These consistencies are explained in terms of the following possibilities.

Social support can increase the quality of life and marital satisfaction through enhancing the ability to cope with the challenges life puts on your way. Social support seems to affect the overall satisfaction of life directly and indirectly through some cognitive mechanisms (including marital satisfaction) in two ways: first, the direct impact of social support, regardless of the degree of distress experienced by the individual; second, an indirect effect or mediator effect that protects individuals from negative effects in stress conditions.<sup>[54]</sup> For example, Heffner *et al.*,<sup>[55]</sup> reported that perceived high level support provided by the husband for the newly married wives is directly associated with decreased negative emotions and changes in the response of cortisol to conflicts. Dehle and Landers<sup>[18]</sup> reported that social support would overcome marital problems and thereby increase marital satisfaction. On the other hand, social support is considered as one of the ways to cope with loneliness, since sharing the emotional states of others is a prerequisite for establishing positive social relationships, receiving social support, and maintaining the relationship on an intimate level.<sup>[56]</sup> On the other hand, due to the impact of social support against stress, those who feel lonely because of the limited social networking context have lower social support level which, in turn, has a negative effect and may lead to psychological distress and interpersonal problems among couples. Consequently, couples may feel less happy and show positive emotions less frequently in marital relationships.

In addition, the findings showed that loneliness correlates the relationship between alexithymia and marital satisfaction, which is consistent with previous researches; e.g., Qualter, *et al.*, 2009; Yelsma and Marrow, 2003; Hesse and Floyd; 2008; Humphreys *et al.*, 2009. These consistencies are explained in terms of the following possibilities.

Since effective communication has a prominent role in marital satisfaction, and based on the theory of exchanging emotions, an affective and adaptive emotional relationship increases the social network and provides more access to supportive resources

through the creation and maintaining relationships through which people are led to psychological and physical well-being.<sup>[57]</sup> However, evidence has shown that people with alexithymia have limited capacity to empathize with others due to the difficulty in processing emotional information.<sup>[1]</sup> Hence, the limitation of empathy can have a negative effect on the social network of people with this complication.<sup>[5]</sup> On the other hand, it has become a known fact that individuals with alexithymia cannot easily show or talk about their emotions. In addition, there is a limited external connection.<sup>[4]</sup> Given that feeling alone is an unpleasant state that is affected by the emotional state and the lack of social relationships,<sup>[20]</sup> therefore, alexithymia can increase loneliness by limiting the communication network and exchanging emotions, and it has an indirect negative effect on marital satisfaction.

There is also a range of research that suggests that alexithymia causes chronic negative mood, experience social stress, and interpersonal problems.<sup>[58]</sup> Therefore, these factors may enhance isolation and withdrawal from society and loneliness, and have a negative effect on establishing a strong emotional relationship between couples and, finally, increase dissatisfaction with marriage.

In terms of practicality, the results of the present study foregrounded the effect of social support on decreasing loneliness and increasing marital satisfaction, as well as the effect of alexithymia on increasing sense of loneliness and thus reducing marital satisfaction. Hence, interventions that aim to promote social support and reduce alexithymia through emotional identification and expression strategies can increase marital satisfaction in couples.

## Limitation

This study had its own limitations. To gather information about all the variables, a self-report scale was used which might be afflicted with the potential of bias. The next limitation is the generalizability of the results according to the available sampling method. In addition, other factors such as personality trait (e.g., extraversion or introversion) or qualitative correlations may play a significant role in analysis; therefore, it is suggested for further researchers in this field to consider these potentials.

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## Conflicts of interest

There are no conflicts of interest.

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