Relationship of depression symptoms with emotional maturity and dysfunctional attitudes in married students: The mediating role of emotional divorce

Soheila Zakizadeh, Alireza Heidari, Behnam Makvandi, Parviz Asgari

Abstract

Background and aims: Maladaptive cognitive patterns including negative cognitive style and dysfunctional attitudes are major risk factors for depression. This study aimed to investigate the relationship of depression symptoms with emotional maturity and dysfunctional attitudes mediated by emotional divorce in married students.

Methods: The statistical population included all married students at the Islamic Azad University of Ahvaz (Iran) during the academic year 2021–2022. A total of 301 students were selected as the research sample based on the research variables. The research instrument included Beck's Depression Inventory, Emotional Maturity Scale, Dysfunctional Attitudes Scale, and Emotional Divorce Scale. Path analysis was used to evaluate the proposed model in SPSS version 27 and AMOS version 25.

Results: The relationship between emotional maturity and emotional divorce was negative and significant (β = -0.45, P < 0.001). The relationship between dysfunctional attitudes and depression symptoms was positive and significant (β = 0.17, P < 0.002). There was a positive and significant relationship between dysfunctional attitudes and emotional divorce (β = 0.30, P < 0.001) and between emotional divorce and depression symptoms (β = 0.39, P < 0.001). There were also significant indirect paths from emotional maturity and dysfunctional attitudes to depression symptoms mediated by emotional divorce (P < 0.001).

Conclusion: The research results indicated that the proposed model had a good fit. Therefore, it was considered a major step in identifying the factors affecting depression symptoms in married students.

Keywords: Depression, Divorce, Dysfunctional, Emotions

Introduction

Depression is a major health priority in the modern world (1). Depression is considered the main cause of disability worldwide considering that it is among the most common psychological disorders that impose substantial healthcare costs on both individuals and societies (2,3). Based on environmental stressors, some studies emphasize the role of stressful events that can lead to depression (4). According to research results, depressed individuals interpret all events pessimistically and have selective concentration on the dark dimensions of their lives. They also focus on stressful events, shortcomings, and failures in their lives. Attributing every event to themselves, they are constantly engaged in self-criticism (5).

In married people, depression is affected by different factors, one of which is emotional maturity among couples. Emotional immaturity among couples is an important factor in emotional divorce and depression because it can fill the emotional gap in the relationship between spouses (6). According to studies, awareness of emotions and how they influence interpersonal relationships is influential in marital life (7). Emotional maturity refers to a person's ability to think, recognize, manage, perceive, and convey emotions properly and to understand how these factors form behaviors and relationships and affect thoughts and beliefs (8). Research analyses have shown that both emotional maturity and dysfunctional attitudes can directly affect depression (9). Emotional divorce is a social problem and a serious trauma in modern societies. It has raised concerns due to rapid growth and its profound economic, social, cultural, legal, and psychological impacts on different aspects of society. Modern families are now in a sensitive stage and experience widespread divorce (10). The growing divorce statistics have exceeded normal limits with concerning figures in metropolises, especially in recent years. Given the undeniable importance of family in every society, it is essential to study the causes, harms, and consequences of divorce (11). According to Pirak et al (12), individuals face additional changes and challenges including social health in life after divorce. These outcomes sometimes impact people's lives immediately after divorce or after some time.

In this regard, dysfunctional attitudes are directly correlated with depression (13). Dysfunctional attitudes were first introduced in describing the thoughts of depressed people as the main concept of depressive disorder. They are the beliefs and attitudes that make patients prone to depression and/or mental derangement.
in general. These beliefs, which are held by people about themselves and the world through experience, prepare them to interpret specific situations as negative and inefficient (14). Moreover, when these dysfunctional attitudes are accompanied by an attributional style based on the continuity and persistence of negative situations, forms of knowledge are formed in individuals concerning themselves and their surroundings that consider all events bad and harmful. Consequently, in addition to depression, they adopt a social lifestyle in which they are the least likely to be harmed by people and society. Hence, they develop negative social cognitions (15).

Since the research sample included married students in this study, they aged 18 to 29 years. The prevalence of depression is relatively high among students, who constitute a considerable part of the population in every country (16). In addition, depression plays a major role in academic failure, and suicide by students is the most catastrophic outcome of depression. Additionally, some disorders and traumatic factors such as alcohol dependence, substance abuse, some medical conditions, and other unpleasant outcomes of depression for health are the most common comorbid issues linked to it (17,18). Consequently, it is particularly important to identify factors related to depression. The research rationale is accentuated by the fact that the researcher found no other studies that analyzed the causal model for depression based on emotional maturity and dysfunctional attitudes mediated by emotional divorce. Accordingly, this study aims to investigate the relationship of depression symptoms with emotional maturity and dysfunctional attitudes mediated by emotional divorce in married students.

Materials and Methods
The study method was descriptive-correlational. The study population included all the married students at the Islamic Azad University of Alaviz, Iran, in the academic year 2021–2022. A total of 301 students were selected as the research sample based on the research variables. According to Kline's proposition (19), at least 10 participants are required for every parameter calculated to test a model in path analysis. However, it is possible to consider nearly 25 participants for every parameter so that the research sample can be sufficient for model testing. The inclusion criteria were as follows: being married students, 22 to 28 years old, married for at least one year, and willing to participate in the research. Exclusion criteria were incompleteness of the questionnaire and unwillingness to continue participation in the study. Before conducting the research, informed consent was obtained from the students. Participants were assured that their information would remain confidential.

Instruments
Beck's Depression Inventory (BDI–II): This tool was designed by Beck et al (20). This questionnaire is among the most appropriate tools designed and developed to measure depression. BDI–II has 21 four-choice items each receiving a score of 0 to 3. Hence, the total score ranges from 0 to 63. This questionnaire can be administered to individuals aged 13 and older. The 21 items of this inventory are classified into three categories: emotional symptoms, cognitive symptoms, and physical symptoms. Hence, the score ranges of 0–13, 14–19, 20–28, and 29–63 indicate minimal depression, minor depression, moderate depression, and major depression, respectively (20). The validity of the BDI–II was confirmed with a content validity index (CVI) of 0.99 and a content validity ratio (CVR) of 0.98 (21). Moreover, Ghassemzadeh et al (21) reported a Cronbach's alpha coefficient of 0.87 for the questionnaire. In our study, Cronbach's alpha was 0.83.

Emotional Maturity Scale: Designed by Sing and Bhargava, this 48-item scale measures five dimensions called emotional instability, emotional regression, social maladjustment, personal disintegration, and lack of independence. The responses are scored on a five-point Likert scale (5 for “very much”, 4 for “very”, 3 for “unclear”, 2 for “probably”, and 1 for “never”). Higher scores indicate lower levels of emotional maturity, whereas lower scores indicate higher levels of emotional maturity (22). The validity of the Emotional Maturity Scale was confirmed with a CVI of 0.97 and a CVR of 0.96 (23). Cronbach's alpha coefficient for this scale was reported to be 0.75 (23). In our study, Cronbach's alpha coefficient was 0.79.

Dysfunctional Attitudes Scale: Designed by Weissman and Beck in 1978, the Dysfunctional Attitudes Scale is based on Beck's theory about the content of cognitive structure in depression. This scale includes four subscales and the items are scored on a 7-point Likert scale (ranging from 7 for “completely agree” to 1 for “completely disagree”) (24). The validity of the Dysfunctional Attitudes Scale was confirmed with a CVI of 0.96 and a CVR of 0.92 (25). Cronbach's alpha coefficient for this tool was reported to be 0.72 (25). In our study, Cronbach's alpha coefficient was 0.77.

Emotional Divorce Scale: The Emotional Divorce Scale was designed by Gottman and Levenson (26). This scale consists of some sentences about different aspects of life, with which respondents may agree or disagree. It includes 24 yes/no items. An affirmative response receives a score of 1 and a negative response receives a score of zero. The higher the number of affirmative responses, the greater the risk of emotional divorce. The respondent's marriage is threatened and there is the risk of divorce if there are 8 or more affirmative responses (26). The validity of the Emotional Divorce Scale was confirmed with a CVI of 0.99 and a CVR of 0.97 (27). Moreover, Cronbach's alpha coefficient for this scale was reported to be 0.97 (27). In our study, Cronbach's alpha coefficient was 0.87.

Data analysis
The Pearson correlation coefficient and path analysis were employed to evaluate the correlation of variables.
Moreover, to analyze the study model, the structural equation model was used in SPSS version 27 and AMOS version 25.

**Results**

According to the demographic findings, there were 181 (60.13%) female married students and 120 (39.87%) male married students. Based on the results, 24.0%, 60.0%, and 16.0% of the participants had bachelor's degrees, master's degrees, and doctoral degrees, respectively. Descriptive data including mean and standard deviation (SD), skewness and kurtosis, and Pearson correlation coefficient of each variable are presented in Table 1. In this research, skewness and kurtosis were used to check the normality of the variables. The skewness values ranged from -0.35 to 0.93 and kurtosis values ranged from -0.74 to 0.92. In total, the skewness and kurtosis values of the research variables were less than 1, which showed that the distribution of the observed variables was normal.

Figure 1 demonstrates the initial proposed model for explaining depression symptoms based on emotional maturity, dysfunctional attitudes, and emotional divorce.

The root mean square error of approximation indicated that the initial model needed revision (RMSEA = 0.367) (Table 2). In fact, it was saturated because all possible paths were drawn. Hence, it could not be used to calculate the Chi-square value and other indices. After one path was deleted (from emotional maturity to depression symptoms), the model became unsaturated. Figure 2 depicts the final model, in which the root mean square error of approximation (RMSEA = 0.052) indicated its goodness of fit.

The results showed that there was no significant relationship between emotional maturity and depression symptoms ($P=0.176$). The relationship between emotional maturity and emotional divorce was negative and significant ($P<0.001$). The relationship between dysfunctional attitudes and depression symptoms was positive and significant ($P=0.002$). There was a positive and significant relationship between dysfunctional attitudes and emotional divorce ($P<0.001$) and between emotional divorce and depression symptoms ($P<0.001$) (Table 3).

Table 3 confirmed the significance of an indirect path from emotional maturity and depression symptoms mediated by emotional divorce ($P<0.001$). There was also a significant indirect path from dysfunctional attitudes and depression symptoms mediated by emotional divorce ($P<0.001$).

**Discussion**

This study aims to investigate the relationship of depression symptoms with emotional maturity and dysfunctional attitudes mediated by emotional divorce in married students. According to the results, there were no significant relationships between emotional maturity and depression symptoms. This finding is not consistent with previous research findings (28). In our research, the

![Figure 1. The proposed model of the research](image1)

![Figure 2. The final model of the research](image2)

**Table 1. Descriptive data and correlation coefficients of the research variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean ± SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Depression symptoms</td>
<td>18.16 ± 2.95</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>0.93</td>
<td>0.92</td>
</tr>
<tr>
<td>2- Emotional maturity</td>
<td>144.23 ± 20.85</td>
<td>1</td>
<td>-0.32 ($P&lt;0.001$)</td>
<td>1</td>
<td>-0.35</td>
<td>-0.74</td>
<td></td>
</tr>
<tr>
<td>3- Dysfunctional attitudes</td>
<td>103.68 ± 24.19</td>
<td>1</td>
<td>-0.30 ($P&lt;0.001$)</td>
<td>1</td>
<td>0.30</td>
<td>-0.06</td>
<td></td>
</tr>
<tr>
<td>4- Emotional divorce</td>
<td>11.06 ± 3.78</td>
<td>1</td>
<td>-0.46 ($P&lt;0.001$)</td>
<td>-0.54 ($P&lt;0.001$)</td>
<td>0.43 ($P&lt;0.001$)</td>
<td>1</td>
<td>-0.16</td>
</tr>
</tbody>
</table>

**Table 2. Fitting indices of proposed and final models**

<table>
<thead>
<tr>
<th>Fit indicators</th>
<th>$X^2$</th>
<th>df</th>
<th>(g^2/df)</th>
<th>IFI</th>
<th>RFI</th>
<th>TLI</th>
<th>CFI</th>
<th>NFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed model</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.91</td>
<td>-</td>
<td>-</td>
<td>0.80</td>
<td>0.86</td>
<td>0.367</td>
</tr>
<tr>
<td>Final model</td>
<td>1.82</td>
<td>1</td>
<td>1.82</td>
<td>0.99</td>
<td>0.99</td>
<td>0.98</td>
<td>0.99</td>
<td>0.99</td>
<td>0.052</td>
</tr>
</tbody>
</table>

IFI, Incremental Fit Index; RFI, Relative Fit Index; TLI, Tucker–Lewis index; CFI, Comparative Fit Index; NFI, Normed Fit Index; RMSEA, Root Mean Square Error of Approximation.

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relationship between emotional maturity and depression was significant in the Pearson test; however, all effects of emotional maturity on depression were explained by the mediating variables (that is, indirect relationships) due to the presence of mediating variables in the model. In other words, emotional maturity affected depression in this model but indirectly. Couples with higher levels of emotional and social maturity have emotional and social competencies, which are considered important resources for their health. Couples with such competencies are more capable of adapting to different situations and coping with mental tension and hardships. Hence, having emotional and social maturity can alleviate certain disorders such as depression. At the same time, individuals with lower levels of emotional and social maturity will be unable to control their emotions. They may react to stressful situations only through the discharge of emotions because they lack an alternative method for responding to stress. At the same time, couples may experience a kind of emotional and social surprise along with depression when they are students. Therefore, paying insufficient attention to the emotional and social maturity of couples when they are students can have negative impacts on their psychological health and lead to the development of depression symptoms. If an individual has not reached a level of emotional growth and development, they cannot live peacefully with others due to their lack of control over their emotions and feelings as they do not know how to control them (28).

The second research finding showed that there was a significant positive relationship between dysfunctional attitudes and depression symptoms. This finding is consistent with previous research results (29,30). The variable of dysfunctional attitudes was considered a direct underlying factor or a vulnerability factor under stressful environmental conditions. The high levels of dysfunctional attitudes are correlated with longer periods of depression attacks and shorter intervals between relapses (29). Furthermore, cognitive vulnerability can be considered a trait-like tendency to interpret information negatively or distort information as opposed to the subjective perception of problems. This phenomenon is regarded as a risk factor for depression and probably other disorders. Generally, maladaptive cognitive patterns including negative cognitive style and dysfunctional attitudes are major risk factors for depression. Research studies indicate that people's attitudes toward themselves, their environment, and others can greatly affect how they cope with tension (31). In fact, a specific attitude toward a stressful situation affects the immune system response, increases vulnerability to diseases, and may cause a psychosomatic disorder (30).

The third research finding indicated that there was a positive direct relationship between emotional divorce and depression symptoms. This finding is in line with the research results of previous studies (28). In other words, improving emotional divorce could alleviate depression. Generally, individuals who are capable of identifying their feelings and expressing their emotional states in different

### Table 3. Direct and indirect paths in proposed and final models

<table>
<thead>
<tr>
<th>Paths</th>
<th>Proposed model</th>
<th>Final model</th>
<th>Sobel statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional maturity → Depression symptoms</td>
<td>-0.08</td>
<td>-</td>
<td>0.11</td>
</tr>
<tr>
<td>Emotional maturity → Emotional divorce</td>
<td>-0.45</td>
<td>-0.45</td>
<td>0.001</td>
</tr>
<tr>
<td>Dysfunctional attitudes → Depression symptoms</td>
<td>0.16</td>
<td>0.17</td>
<td>1.68</td>
</tr>
<tr>
<td>Dysfunctional attitudes → Emotional divorce</td>
<td>0.30</td>
<td>0.30</td>
<td>2.04</td>
</tr>
<tr>
<td>Emotional divorce → Depression symptoms</td>
<td>0.56</td>
<td>0.39</td>
<td>2.51</td>
</tr>
<tr>
<td>Emotional maturity → Depression symptoms through an emotional divorce</td>
<td>-0.22</td>
<td>-0.25</td>
<td>0.001</td>
</tr>
<tr>
<td>Dysfunctional attitudes → Depression symptoms through an emotional divorce</td>
<td>0.13</td>
<td>0.14</td>
<td>1.45</td>
</tr>
</tbody>
</table>

Figure 2. The final model of the research
ways can better deal with hardships in life. They can adapt to environments and other people more successfully. By contrast, people with depression experience distress and fail to cognitively process, perceive, and evaluate their emotions because they are incapable of identifying and regulating their emotions. Hence, their emotional organization and cognitions are disrupted, and their successful adjustment will be obstructed. As a result, the mutual relationships of couples with depression will experience emotional divorce and lack of intimacy because romantic and satisfactory relationships require the ability to identify feelings and express them to a spouse (32). In other words, depression prevents couples from developing romantic relationships because it leads to alexithymia. When couples face difficulty in recognizing, describing, expressing, and conveying their emotions and feelings, romantic relationships cannot be established between spouses. Basically, the underlying conditions cannot be provided for such relationships; hence, emotional divorce among couples can exacerbate depression.

The results also indicated that emotional divorce mediated the relationships of depression symptoms with emotional maturity and dysfunctional attitudes. To the best of our knowledge, no study was available in the literature to compare with this finding. The results also confirmed that there were no significant relationships between emotional maturity and depression; however, the indirect path showed that emotional maturity could affect depression when it could first improve emotional divorce and then mitigate depression. In general, negative self-evaluation is a symptom of depression. The couples in this study were students; hence, it is essential to maintain emotional balance, especially in facing stressful factors during university education and environmental expectations. In conclusion, if students fail to reach emotional and social maturity, they may engage in negative evaluations and experience feelings of shame, worthlessness, failure, guilt, and so on, which are symptoms of depression (28). As for the indirect relationships, it was found that emotional maturity mitigated emotional divorce and indirectly alleviated depression in married students. In fact, the variable of dysfunctional attitudes was considered a direct underlying factor at the onset of depression and/or a vulnerability factor under stressful environmental conditions.

This study faced certain limitations, the first of which was its statistical population which included married students in Ahvaz (Iran). As a result, caution should be exercised when generalizing the results to other married students and married people in other cities and universities. Hence, it is recommended that further studies be conducted on other samples to generalize the results of the present research.

Conclusion
The proposed model was a good fit and can be considered a major step in identifying the factors affecting depression symptoms in married students. There was a positive relationship between emotional divorce and depression symptoms. In other words, improving emotional divorce was expected to alleviate depression in married students. Furthermore, emotional divorce mediated the relationship of depression symptoms with emotional maturity and dysfunctional attitudes. It is recommended that educational workshops be held to improve the dysfunctional attitudes of couples, mitigate the risk of emotional divorce in them, and alleviate their depression.

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Validation: Parviz Asgari.
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Writing, review, and editing: Alireza Heidari.

Competing Interests
The authors declare that there is no conflict of interests.

Ethical Approval
This study was approved by the Ethics Committee of Islamic Azad University, Ahvaz Branch (IR.IAU.AHVAZ.REC.1401.012). Additionally, written consent to participate in the study was obtained from the participants.

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