The Relationship between Early Maladaptive Schemas and Suicidal Tendency of Students: The Moderating Role of Reasons for Living

Masume Karimi-Naman[1] (MSc), AliAkbar Soleimanian[1] (PhD), Tayebe Rahimi-Pordanjani[2] (PhD)

1. Department of Counseling, Faculty of Humanistic, University of Bojnord, Bojnord, Iran
2. Department of Psychology, Faculty of Humanistic, University of Bojnord, Bojnord, Iran

Corresponding Author:
AliAkbar Soleimanian,
Department of Counseling,
Faculty of Humanistic, University of
Bojnord,
Bojnord,
Iran
E-mail: Soliemanian@gmail.com

Abstract

Introduction: The purpose of this study was to investigate the moderating role of reasons for living in the relationship between early maladaptive schemas and suicidal tendency.
Method: In this descriptive–correlation study, the population included all students of public universities in Bojnord city. For this purpose, 399 students were selected using stratified sampling method who answered to maladaptive schemes, suicide probability and reasons for living questionnaires. Data were analyzed using the Pearson correlation coefficient and hierarchical regression analysis by SPSS-22 software.
Results: Findings indicate that the correlation between early maladaptive schemas and reasons for living with suicidal tendency were significant (P <0.001). Also, the interaction of schemas of the first area and reasons for living created 0.2% of the increased variance which is statistically insignificant ($\Delta R2=0.002$, p> 0.05), and the interaction of schemas of the second area and reasons for living, created 1.5% of the increased variance which is statistically significant ($\Delta R2=0.015$, p< 0.001).
Conclusion: The results showed the importance of reasons for living as the moderator of the relationship between early schemas and the suicidal tendency. Therefore, it is recommended to provide workshops for students to reduce the impact of early maladaptive schemas on the suicidal tendency.

Keywords: Early Maladaptive Schemas, Suicidal Tendency, Reasons for Living, Students

Introduction

Suicide is one of the significant concerns of the World Health Organization (WHO). At least 1 million people (one per 40 seconds) annually die around the world regarding the organization measurements, while different studies have shown that the highest suicide behavior scale is seen between the youth especially university students [1, 2]. A research in America shows that the rate of suicide and attempting to do it is more common in age groups with unique statues in universities [3].

Suicide is a conscious action of self-destruction aiming at affecting others, the release of mental pressures, or a very painful and suffering concern, which may lead to death [4]. The term suicide has a wide range from wishing to die, Suicidal Ideation (SI), Suicide Plans (SP), Suicide Attempts (SA), to suicide leading to death [5]. Suicide tendency is also recognized as one of the most important psychological factors in mental health [6]. In their research, Karbeyaz et al. [2] showed that suicidal tendency had been increased among the young people, and 42% of students had suicidal thoughts and 7% had suicide attempts. In Iran, studies showed that 13.5% of students suffer from various psychological problems, 9.9% of boy students and 7.3% of girl students reported suicidal thoughts, with 4.7% of students taking conscious action to harm themselves [7].

Different approaches have identified several factors associated with suicide. One of these approaches is the cognitive approach. Psychologists of this approach believe that the basis

of most clinical disorders and psychological problems is cognitive distortions and the nature of dysfunctional beliefs about themselves, and their surroundings [8]. Early maladaptive schemas are self-destroy emotional and cognitive patterns formed early in the development period by traumatic experiences and lack of satisfying basic needs in mind, repeated throughout life, and highly ineffective [9]. Early maladaptive schemas predict interpersonal maladaptation [10].

Young et al. [9] have described 18 negative schemas that are divided according to five unsatisfied emotional needs called schema areas [11]. The signs of high-risk individuals are more related to disconnection and rejection area and impaired autonomy and performance area schemas. The first-domain schemas that are related to disconnection and rejection are created due to a lack of needs such as security and empathy. People with schema in this domain grow up in a family that lacks intimacy, love, and security. They cannot establish secure and satisfying attachments with others and believe that their needs for stability, security, and attention, affection, and attachment will not be met [9, 12]. Second-domain schemas, namely impaired autonomy and performance, are more related to families that prevent individual self-esteem and lead to passivity and helplessness. The schemas have been created through parents' extreme support during childhood which as a result destroy their child's self‐ confidence [9].

On the other hand, research has shown that increasing symptoms of depression and hopelessness do not lead to increased suicidal thoughts alone, but rather the presence of the signs with low levels of other protective factors called beliefs of reasons for living leads to suicide tendency [13]. The reasons for living can be divided into five categories: survival and coping beliefs, responsibilities to family, fear of suicide, fear of social disapproval, moral objections, and child-related concerns [13]. Luo et al. [14], have shown that reasons for living, survival and coping beliefs, responsibilities to family, moral objections, and child-related concerns and hope, were negatively associated with suicidal ideation. However, fear of social disapproval and fear of suicide did not influence suicidal ideation.

So, the present study seeks to investigate the moderating role of reasons for living in the relationship between early maladaptive schemas and suicidal tendency.

As suicidal tendency has increased among young people, identifying factors associated with suicide among students is extremely important. Furthermore, since no study has been conducted to investigate the relationship between the variables of this study in Iran, the present study seeks to investigate whether the reasons for living can moderate the relationship between early maladaptive schemas and the suicidal tendency among students or not.

Method

In this descriptive- correlational study, the population included undergraduate students of public universities of Bojnourd city Iran in 2017. Two universities (University of Bojnord and Payam-e-Noor University) were randomly selected. According to Krejcie and Morgan's [15] table, 500 students were selected by stratified random sampling. Accordingly, the questionnaires were individually completed. The criterion for entering the research was being an undergraduate student and having at least one year of study. The exclusion criteria were having a history of mental disorders and having not signed a written informed consent to participate in the study.

The tools used in this study were as follows:

Young Schema Questionnaire:

This questionnaire includes 75 items that measure 15 early maladaptive schemas which has been developed by Young and Long [16]. Each one of these 75 items is graded on a 6-item scale from 1 (totally wrong about me) to 6 (fully described me). These 15 early maladaptive schemas include; emotional deprivation, abandonment, failure, dependence/ incompetence, vulnerability to harm or illness, mistrust/abuse, social isolation, defectiveness/shame, entitlement, insufficient self-control/self-discipline, unrelenting standards, emotional inhibition, self-sacrifice, subjugation, and enmeshment. Each of the five questions in this questionnaire measures a schema [11]. The reliability of the Young Schema Questionnaire has been confirmed in previous studies [17]. Also, this questionnaire has high internal reliability in Iranian studies [10, 18, 19]. In the present study, the reliability was 0.94 using Cronbach's alpha for the whole questionnaire. The internal reliability coefficients were 0.97, and 0.86, for disconnection and rejection and impaired autonomy and performance schemas respectively.

Suicide Probability Scale:

This scale was developed by Cull and Gill [20], and consists of 36 items and four subscales, including hopelessness, suicidal ideation, hostility, aggression, and negative self-evaluation. The items are scored on a four-point scale, with scores ranging from 100-175 for high risk of suicide, 50-74 average risk score, and 25-49 low risk of suicide. In a Cronbach's alpha study, Cull and Gill [20] reported a total score of 0.93 on the scale and for subscales ranging from 0.62 to 0.89. Good evidence for item validity and reliability has been reported in the study of Eltz et al. [21].The reliability of the whole questionnaire was obtained using Cronbach's alpha coefficient of 0.80 in the present study.

Reasons for Life Scale:

This scale was developed for measuring reasons for living by Linehan et al. [22] in 1983. The questionnaire contains 48 items and six subscales of survival and coping beliefs (24 items), responsibilities to family (7 items), child-related concerns (3 items), fear of suicide (7 items), fear of social disapproval (3 items), and moral objections (4 items). Participants respond to each question on a scale of six degrees Likert (not important:1 to extremely important:6). The Cronbach's alpha coefficient calculated for each subscale in the Linehan et al. [22] study ranged from 0.72 to 0.89. The internal reliability coefficients (α

Cronbach) for the questionnaire and its components (survival and coping beliefs, responsibilities to family, child-related concerns, fear of suicide, fear of social disapproval and moral objections) were respectively calculated as 0.93, 0.94, 0.75, 0.70, 0.71, 0.62, and 0.72 in the present study.

In this study, descriptive statistics indicators such as mean and standard deviations were used to analyse the data, and inferential statistics indicators such as Pearson correlation coefficient and moderated regression analysis (hierarchical regression) were used to test the research hypotheses.

Results

The questionnaire was administered to 500 students, but due to the uncompleted, only 414 questionnaires were collected (a return rate of 82.8%). Finally, after removing the univariate and multivariate outliers, 399 students were included in the final analysis. Of total participants, there were 191 (47.9%) male and 208 (52.1%) female students aged from 18 to 37 (M = 20.78, SD = 2.55). Also, 201 participants (50.4%) were majors in human sciences, 155 (38.8%) in engineering, 35 (8.8%) in basic sciences, and 5 (1.3%) in the arts.

Descriptive findings, consisting of the means, standard deviations, and internal correlation of the research variables, are presented in Table 2.

Table 2 indicates that the correlation coefficients between disconnection and rejection area and the suicidal tendency (r=0.61, p<0.001) and between impaired autonomy and performance area and the suicidal tendency (r=0.53, p<0.001) were positive and significant. Also, the correlation coefficients between reasons for living and the suicidal tendency was negative and significant (r=-0.40, p<0.001).

Moderated regression analysis (hierarchical regression) was used in order to test the moderating role of reasons for living in the relationship between early maladaptive schemas and suicidal tendency (Table 3). First, the raw scores are converted to deviant scores, so that the average of each variable is equal to zero [23], then, by multiplying the two vectors related to the predictor variables, a new variable is created as the interaction variable. Then, in the regression analysis, the interaction variable is entered into the regression equation after the two other predictor variables. If interaction variable increases the criterion variable variance significantly, the intended interactive relationship is significant. Alternatively, in other words, it can be stated that the second predictor variable (reasons for living) moderates the relationship between the first predictor variable (early maladaptive schemas) and the criterion (suicidal tendency) [24].

As presented in Table 3, in the first step, the disconnection and rejection area entered into regression analysis as the first predictor variable. Accordingly, the disconnection and rejection area explains 37% of the suicidal tendency variance (R^2= 0.37). Regression coefficients show that this variable has a significant role in predicting the criterion variable (β = 0.55, p <0.0001). In the second step, with the entry of reasons for living into the regression model, the results showed that this variable generated 45% of the monopoly variance for the model, which is significant (R^2= 0.45, P<0.0001). Regression coefficients in the second step show that this variable has a significant role in predicting the criterion variable (β = -0.29, P<0.0001). Finally, in the third step, in order to show the interactive effects, the interaction of the disconnection and rejection area and reasons for living were entered into the model. The results show that this interaction, beyond the effects of the main variables, created 0.2% of the increased monopoly variance for the model, which is statistically insignificant (R^2= 0.45, p <0.289). Regression coefficients in the third step show that this interaction did not have a significant role in predicting the criterion variable (β = 0.039, p <0.289).

Table 2. Descriptive Statistics for the Study Variable (N=399)

	$\bar{X}$	SD	correlations			
			1	2	3	4
1-Disconnection and Rejection	58.21	19.01	1			
2-Impaired Autonomy and Performance	41.07	14.55	0.63**	1		
3-Reasons for Living	148.55	36.06	-0.20**	-0.15**	1	
4-Suicidal Tendency	74.88	11.77	0.61**	0.53**	-0.40**	1

Table 3. The Results of Hierarchical Regression

	R	R^2	$R^2\Delta$	$F\Delta$	B	SE_B	β
Disconnection and rejection area	0.61**	0.37	0.37**	236.62	0.34	0.02	0.55**
Reasons for living	0.67**	0.45	0.08**	60.85	-0.09	0.01	-0.29**
Disconnection and rejection area × Reasons for living	0.67	0.45	0.002	1.12	0.007	0.001	0.039
Impaired autonomy and performance	0.53**	0.28	0.28**	158.29	0.39	0.03	0.48**
Reasons for living	0.62**	0.39	0.11**	71.76	-0.10	0.01	-0.32**
impaired autonomy and performance × Reasons for living	0.64**	0.41	0.015**	10.01	0.003	0.001	0.12*

*p<0.05, **p<0.01

Also, as Table 3 shows, in the first step, the impaired autonomy and performance area entered into regression analysis as the first predictor variable. Also, the impaired autonomy and performance area explains 28% of the suicidal tendency variance ($R^2 = 0.28$). Regression coefficients show that this variable has a significant role in predicting the criterion variable ($\beta = 0.48$, p <0.0001). In the second step, with the entry of reasons for living into the regression model, the results showed that this variable generated 39% of the monopoly variance for the model, which is significant ($R^2 = 0.39$, P<0.0001). Regression coefficients in the second step show that this variable has a significant role in predicting the criterion variable ($\beta = -0.32$, P<0.0001). Finally, in the third step, the interaction of the impaired autonomy and performance area and reasons for living was entered into the model. The results show that this interaction, beyond the effects of the main variables, created 1.5% of the increased monopoly variance for the model, which is statistically insignificant ($R^2 = 0.41$, p <0.002). Regression coefficients in the third step show that this interaction did not have a significant role in predicting the criterion variable ($\beta = 0.122$, p <0.002).

In order to show this moderating effect, the participants were divided into two groups, both upper and lower, based on the median in two early maladaptive schemas and reasons for living variables. Then, the mean of the groups was calculated in the suicidal tendency. For more clarity, Figure 1 shows how the disconnection and rejection area and the impaired autonomy and performance area and reasons for living variables interact in predicting the suicidal tendency.

As shown in Fig. 1, the slope of the regression lines related to the relationship between the impaired autonomy and performance area and the suicide tendencyin students with low and high reasons for living is not equal. Accordingly, among students with high reasons for living, the average suicide tendency in participants with low disconnection and rejection area and impaired autonomy and performance area is lower than those with higher disconnection and rejection and impaired autonomy and performance areas. Also, the average suicide tendency in students with low reasons for living and higher impaired autonomy and performance area is higher than those who have higher reasons for living.
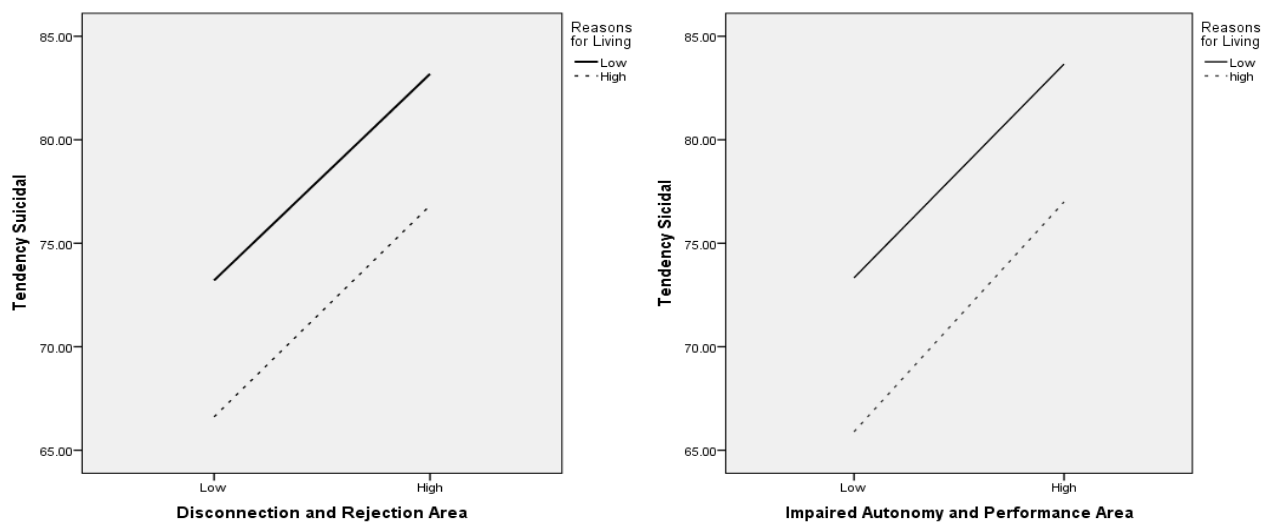

Figure1. Interactive Graph of Early Maladaptive Schemas and Reasons for Living

Discussion

The purpose of this study was to evaluate the moderating role of reasons for living in the relationship between maladaptive schemas and suicidal tendency. The results showed that there is a significant positive relationship between maladaptive schemas of disconnection and rejection and suicidal tendency. This finding is consistent with the results of other research [9, 25-27]. Schemas in this area are one of the most harmful schemas. Shocking childhoods, multiple self-harming relationships, and avoiding close interpersonal relationships are among the characteristics of individuals with disconnection and rejection schemas [9]. An insecure attachment style is generated as a result of the deprivation of caregivers' emotional support in the childhood of people with this schema. That is, although they tend to be close to others, on the other hand, they feel strongly about being rejected. So they have a

negative self-image and a positive image of others. This sense reduces one's self-esteem, loneliness, depression and hopelessness, and leads to suicidal thoughts in stressful situations [25].

The results also showed a significant positive relationship between maladaptive schemas of impaired autonomy, performance area and suicidal tendency. This finding is consistent with the results of previous research [9, 26-28]. Autonomy means one's ability to separate from the family and act independently. Individuals whose schemas fall into this area cannot separate themselves from their parents and form an independent life. The schemas in this area are formed because of parents' excess in child support and care, which include the schemas of dependency/inadequacy, vulnerability to diseases and losses, not evolving/suffering, and failure [9, 29]. All of these factors reduce their self-esteem and increase self-blame and feeling worthless. If the coping

style that people use to deal with negative life experiences and stressful situations is not effective, the sense of despair, isolation and loneliness will develop more negative thoughts, depression and hopelessness. These factors are the main predictors of suicidal ideation and thought predictors [28].

The findings also showed that there is a significant negative relationship between the reasons for living and the suicidal tendency. This finding is consistent with the results of previous studies [5, 30, 31]. In fact, reasons for living are modifiable factors and positive psychological attitudes, including adaptive coping styles, problem-solving ability, goal setting, self-esteem, social support, spirituality, and hope that potentially affect suicidal thoughts and behaviours. This decisive protective factor is not only inversely related to suicidal thoughts but also reduces suicide levels and leads to its prevention [32, 33].

Findings related to the interactive hypotheses also showed that the overall score of reasons for living did not have a moderating role in the relationship between maladaptive schemas of disconnection and rejection area and suicide tendency. However, it moderated the relationship between maladaptive schemas in the impaired autonomy and performance area and suicidal tendency. Until now, no research has been found to assess the moderating role of reasons for living in the relationship between early maladaptive schemas and suicidal tendencies. In explaining these findings, it can be stated that when people experience severe depression, despair, and personal pain while facing bad life conditions, maladaptive cognitive schemas are activated and biased in processing information and thinking style, and affect one's emotions and behaviour. In these sad situations, depression and anxiety are triggered [34]. In this situation, if they cannot find a justification for their concerns, then they will choose suicide as the only possible solution for their problems [31]. However, if these people have more life reasons, their tolerance will rise even when they feel helpless, and with changing attitudes towards life and diminishing despair, they will be able to find meaning in their suffering and hardships of life. The sense of meaning creates intrinsic motivation and hope in the person that no matter how difficult life is, there is still an enjoyable and better future [14].

The additional findings of this study showed that some subscales of reasons for living such as child-related concerns, moral objections, and fear of suicide moderate the relationship between maladaptive schemas of disconnection and rejection area and suicidal tendency. Parents are likely not to end their life, and this attachment is a compelling commitment to continue living when there is a strong sense of responsibility for the child and family [14, 35]. Religious beliefs are also essential and valuable cognitive factors in coping with stressful situations and moderating negative emotions, which act as a deterrent factor to suicide. Also, fear of suicide does not affect suicidal thoughts and indicates to what extent one fears about suicide and also death [35].

Therefore, the counselling centres in the universities can explain the critical role of the reasons for living for the students by providing programs and workshops. Also, referring to counselling centres are advised to reduce students' suicidal tendency in universities. Schema therapy sessions are recommended to inform students of their early maladaptive schemas and to reduce these schemas. Also, other researchers are suggested to study other areas in addition to maladaptive schemas in the first and second areas. Also, the subjects' attachment styles should be considered in other studies.

The present study had some limitations. Firstly, this study was conducted only on students at public universities in Bojnord city, and the results of this study are not necessarily generalizable to all organizations with different characteristics. Therefore, one should be careful about precautions in generalizing the results of this research to other groups (both similar and non-similar groups). Secondly, the design of the present study i.e., correlation, does not prove the causality of a kind of prediction. Thirdly, the self-report questionnaires were used to only collect data, so it is possible to bias the answers.

Conclusion

The findings indicated that early maladaptive schemas and reasons for living have significant relationships with suicidal tendency. Also, the reasons for living did not moderate the relationship between maladaptive schemas of the first area and suicide tendency, but moderated the relationship between maladaptive schemas of the second area and suicidal tendency.

Conflict of Interest

The authors declare no conflicts of interest.

Ethical Approval

The study was approved by the Ethical Review Committee of the University of Bojnord. Additionally, participation was anonymous and voluntary and a written informed consent was obtained before administering questionnaires.

Acknowledgement

References

1. Choi NG, DiNitto DM, Marti CN, Segal SP. Adverse childhood experiences and suicide attempts among those with mental and substance use disorders. Child abuse & neglect. 2017;69:252-62.
2. Karbeyaz K, Toygar M, Çelikel A. Completed suicide among University student in Eskisehir, Turkey. Journal of forensic and legal medicine. 2016;44:111-5.
3. Association ACH. ACHA-national college health assessment II: Reference group executive summary Spring 2011. Hanover, MD: Author. 2011.
4. Nazarzadeh M, Bidel Z, Ayubi E, Soori H, Sayehmiri K. Factors related to suicide attempt in Iran: a systematic review and meta-analysis. Hakim Research Journal. 2013;15(4):352-63.
5. Bakhiyi CL, Calati R, Guillaume S, Courtet P. Do reasons for living protect against suicidal thoughts and behaviors? A systematic review of the literature. Journal of psychiatric research. 2016;77:92-108.
6. Akbari S, Firooz Abadi A. Comparative study of mental health

suicidal attitude in prisoner and normal women. 5 th (nt), conf on psychology & sociology2016. p. 1-10.

7. Zardkhaneh SA, Yaghubi H, Shalbaf A, Abdollahpour Y, Ramazani V, Haddadi R. Risk and protective behaviors and related factors among students of ministry of science. Applied Research Psychological Quarterly. 2015;6(1):115-35.

8. Beck AT, Haigh EA. Advances in cognitive theory and therapy: The generic cognitive model. Annual review of clinical psychology. 2014;10:1-24.

9. Young JE, Klosko JS, Weishaar ME. Schema therapy: A practitioner's guide: guilford press; 2006.

10. Mohammadi B, Soleymani A. Early maladaptive schemas and marital satisfaction as predictors of marital commitment. International Journal of Behavioral Science. 2017;11(1):16-22.

11. Kooraneh AE, Amirsardari L. Predicting early maladaptive schemas using Baumrind's parenting styles. Iranian journal of psychiatry and behavioral sciences. 2015;9(2).

12. OmidiRad S, HR. H. Comparative early maladaptive schemas (disconnection & rejection, impaired autonomy & performance,impaired limits, other – directedness and overvigilance/inhibition) in orphaned, single parent and normal teens. Global Conference on Psychology and Educational Sciences at the beginning of Third Millennium 2016. p. 1-21.

13. Bagge CL, Lamis DA, Nadorff M, Osman A. Relations between hopelessness, depressive symptoms and suicidality: Mediation by reasons for living. Journal of Clinical Psychology. 2014;70(1):18-31.

14. Luo X, Wang Q, Wang X, Cai T. Reasons for living and hope as the protective factors against suicidality in Chinese patients with depression: a cross sectional study. BMC psychiatry. 2016;16(1):252.

15. Krejcie RV, Morgan DW. Determining sample size for research activities. Educational and psychological measurement. 1970;30(3):607-10.

16. Young ME, Long LL. Counseling and therapy for couples: Thomson Brooks/Cole Publishing Co; 1998.

17. Schmidt NB, Joiner TE, Young JE, Telch MJ. The schema questionnaire: Investigation of psychometric properties and the hierarchical structure of a measure of maladaptive schemas. Cognitive therapy and research. 1995;19(3):295-321.

18. Afshari A. Predicting Social Intimacy by Early Maladaptive Schemas and Attachment Styles. International Journal of Behavioral Sciences. 2017;11(2):61-6.

19. Salehi H, Ranjkesh M, Salehi Z. Designed to evaluate early maladaptive schemas in normal soldiers and addicted soldiers. International Journal of Educational and Psychological Researches. 2015;1(3):193.

20. Cull JG, Gill WS. Suicide probability scale (SPS). Los Angeles: Western Psychological Services. 1989.

21. Eltz M, Evans AS, Celio M, Dyl J, Hunt J, Armstrong L, et al. Suicide probability scale and its utility with adolescent psychiatric patients. Child psychiatry and human development. 2007;38(1):17-29.

22. Linehan MM, Goodstein JL, Nielsen SL, Chiles JA. Reasons for staying alive when you are thinking of killing yourself: the Reasons for Living Inventory. Journal of consulting and clinical psychology. 1983;51(2):276.

23. Aiken LS, West SG, Reno RR. Multiple regression: Testing and interpreting interactions: Sage; 1991.

24. Baron RM, Kenny DA. The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of personality and social psychology. 1986;51(6):1173.

25. Adibnia F, Ahmadi AJ, AM M. A review of the causes of high risk behaviors in adolescents. . Journal of Social Health and Addiction. 2016;3(9):11-36.

26. Dutra L, Callahan K, Forman E, Mendelsohn M, Herman J. Core schemas and suicidality in a chronically traumatized population. The Journal of nervous and mental disease. 2008;196(1):71-4.

27. Renner F, Lobbestael J, Peeters F, Arntz A, Huibers M. Early maladaptive schemas in depressed patients: Stability and relation with depressive symptoms over the course of treatment. Journal of affective disorders. 2012;136(3):581-90.

28. Engin E, Cuhadar D, Ozturk E. Healthy life behaviors and suicide probability in university students. Archives of psychiatric nursing. 2012;26(1):43-53.

29. Aslani K, Samadifard A, Sodani M. The Test of the Model of Disconnection and Rejection Domain of Early Maladaptive Schemas and Marital Satisfaction with Mediating Unsecure Attachment Style, and Depression. Family Counseling and Psychotherapy. 2015;5(1):94-114.

30. McLaren S. Age, gender, and reasons for living among Australian adults. Suicide and Life- Threatening Behavior. 2011;41(6):650-60.

31. Leal SC, Santos JC. Suicidal behaviors, social support and reasons for living among nursing students. Nurse education today. 2016;36:434-8.

32. Salami TK, Brooks BA, Lamis DA. Impulsivity and reasons for living among African American youth: A risk-protection framework of suicidal ideation. International journal of environmental research and public health. 2015;12(5):5196-214.

33. Wang MC, Nyutu PN, Tran KK. Coping, reasons for living, and suicide in Black college students. Journal of Counseling & Development. 2012;90(4):459-66.

34. Fazel A, F N. Evaluate the relation between early maladaptive schemas and cognitive distortions in young adults. Global Conference on New Horizsi in Humanities, Future Studies and Empowerment2016. p. 1-8.

35. Ebrahimi F, Kianzad S, H. F. The structural model of the relationship between religious beliefs, psychological pleasure and mental health in students. . The Rise of Psychology. 2016;5(3):1-14.