Relationship between Developmental Assets and Addiction Potential with Regard to Mediating Role of Alexithymia in Adolescents of Arak, Iran

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Abstract

Aims: This study aimed at presenting a model for addiction potential based on developmental assets mediating by alexithymia in adolescents living in Arak, Iran. Materials and Methods: Five hundred members were selected as samples (n = 500) among female and male second-grade high school students at the tenth and eleventh academic grades in Arak using cluster random sampling. To collect data, Iranian Addiction Potential Scale, Toronto Alexithymia Scale and Developmental Assets Profile were used. The data were analyzed using Structural Equation Modeling and LISREL Software. Results: Model fit indices had suitable model fit with data. Internal developmental assets with path coefficient of $B = -0.48$ were more effective in reducing addiction potential compared with external developmental assets with path coefficient of $B = -0.27$. Positive identity, empowerment, and social competency were the most effective components of developmental assets in reducing addiction potential. Internal assets could explain addiction potential in adolescence more than external assets. Conclusion: Direct effect of developmental assets on addiction potential was confirmed and its indirect effect with mediation of alexithymia was significant. Moreover, results showed that only internal developmental asset had an effect on addiction potential in adolescents mediating by alexithymia, so the effect of external developmental asset on addiction potential in adolescents based on the mediation of alexithymia was rejected.

Keywords: Addiction potential, adolescents, alexithymia, developmental assets, developmental external assets, developmental internal assets

INTRODUCTION

Substance use disorder is a pathologic dependence on the use of one or more drugs causing hazardous behaviors so that deprivation signs will appear in addicted persons in case of no drug use.[1] One of the most substantial reasons of such threatening crisis is lack of suitable and effective preventive programs; suitable preventive programs require scientific recognition of reasons affecting tendency and potential of individuals to use drug.[2] Research findings imply the significant role of addiction in unhealthy fields and addiction potential.[3] According to the theory of addiction potential, some individuals have potential for addiction under provided circumstances while other persons do not have such potential.[4]

Many of the addiction field authors assume that personality construct of some individuals is ready to accept addiction compared to others. In this regard, some factors increase possibility of drug abuse and addiction. Dangerous factors in tendency toward addiction do not show future addiction, but they are predictors or indices of potential addiction.[5]

Among growth periods, adolescent is potential highly for addiction because adolescence is an important developmental period along with identification and changes in all of the

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growth dimensions. Cognitive growth is one of the substantial dimensions of adolescents that affect their adjustment and mental-physical health significantly. Emotion seeking is another part of this growth process appearing as unhealthy sexual behaviors, alcohol use, and drug abuse. Drug abuse in adolescents depends on various factors. Some of the young people consider alcohol and drug consumption as a kind of rebellion or facilitator of social link and/or dignity among peers. Some youths use drugs to enjoy life, to avoid boredom, to satisfy curiosity, and to avoid coping with problems. Some other youths tend to use drugs and alcohol due to the lack of information about possible dangers. In general, various factors including cultural-social environment, biological factors, interpersonal factors, and mental-behavioral factors anticipate addiction potential in young people. Despite such evidence, each study has examined some of the variables, so none of these factors can explain reason for addiction potential in youths in alone. Therefore, this study examined factors predicting addiction potential in young people in frame of a comprehensive model. Since researches have shown that consideration of developmental assets’ components in growth of children and youths can reduce harming behaviors such as drug abuse, this variable was used. Developmental assets are positive building blocks that all of the children, adolescents, and youths need to be successful; these assets comprise significant communications, skills, opportunities, and values that help youths to prevent from dangerous behaviors increasing their success in life. Hence, since developmental assets consist of numerous components as addiction potential predictors, then they can be introduced as suitable index but emotions of adolescents, which are significant predictors of addiction, have not been mentioned in components of developmental assets, while there is a significant relationship between addiction potential and emotional failure (alexithymia). The concept of alexithymia is determined by problems in identifying and describing feelings and reduction in ability to distinguish between affective moods, physical feelings, and imagine capacity. Moreover, alexithymia means inability to process emotional information cognitively and emotion regulation that is one of the factors leading to addiction in youths. Individuals with higher alexithymia have reported unhealthier behaviors such as eating disorder, alcohol consumption, drug abuse, and gambling compared to their peers; besides above-mentioned behaviors, there is a high rate of aggressive, illegal, irresponsible behaviors and sexual activities in such persons. If emotions of adolescents are controlled, there will be undeniable effect on their physical and mental health of them (Desatnik, A. Bahar 2017). Some of the adolescents might face numerous mental and physical problems due to the lack of control on their emotions and inability to regulate these emotions (Kolar, D. Huss, 2017). Those individuals with more emotional disorders have reported higher alcohol consumption and drug abuse (Schimmenti and Passanisi, 2018). Those adolescents who are unable to process and regulate their emotions and suffer from emotional disorder having parents with inappropriate behavioral style and poor religious beliefs are more exposed to addiction potential (Mohammadi, 2016). Furthermore, such individuals suffer from severe interpersonal problems which lead to addiction potential (Zarzella and Moura, 2017) since emotional disorder may act as a factor affecting addition potential in adolescents. Alexithymia has been used as a mediator in this process due to the importance of this variable in addiction potential in young people. These relations have been studied in frame of a structural model, in which developmental asset is defined as an independent and indigenous variable of model, alexithymia is defined as a mediating variable, and addiction potential is defined as a dependent variable in model. Therefore, this is an essential research aim to find if there is a relationship between developmental assets, alexithymia, and addiction potential within drug use process. Is it possible to design the causal model if the alexithymia is considered as the center for relationships between the selected variables? Which one of the components plays a vital role in addiction potential?

**Materials and Methods**

As adolescents have more potential for harmful behaviors such as addiction, this group was selected as the research society. Statistical population of study (11,200 subjects) consisted of male and female second-grade high school students at the tenth and eleventh academic grades who studied in governmental, specific, nongovernmental schools in majors of human sciences, mathematics and physics, and biological sciences in Arak, Iran, during the academic year of 2017–2018. To select sample members, cluster sampling method was used; in this way, two schools of girls and boys were selected randomly among high schools of Arak, and then, the tenth and eleventh grades were selected randomly of these two schools. Since preuniversity grade had a time limitation, it was not selected during sampling process; hence, stratified random sampling was used to select sample among female and male schools since each school had three majors of mathematics and physics, biological sciences, and human sciences.

**Statistical method of data analysis**

Descriptive methods and statistical indicators such as Pearson correlation and Structural Equation Modeling (SEM) were used to analyze research results. Two software were employed for data analysis; the main software was LISREL, which was used to design measurement and structural models of process and model fitting indicators; SPSS was the other employed software.

**Ethical considerations**

1. The consent letter was filled out by participants before distributing questionnaires and it was explained to them not to write their personal information in order to remain anonymous.

Research instruments have been introduced in the next section of the study.
Instruments

Iranian Addiction Potential Scale

Addiction potential scaled was designed by Weed and Butcher,[23] and then, sum attempts were done in Iran to determine the validity of this scale. This questionnaire is an Iranian scale of addiction potential that was designed by Zargar[24] considering mental-social circumstances of Iranian community. This questionnaire consists of 2 factors plus 36 items and 5 items measuring lying. Each item was scored based on a scale from 0 (strongly disagree) to 3 (strongly agree). However, some items including 6, 12, 15, and 21 were scored reverse. This questionnaire consists of lie detector factors including 12, 13, 15, 21, and 33. To obtain total score of scale, sum of scores of items (except for lie detector scale) was added. This score was at range between 0 and 108. Higher scores indicate more potential of respondent for addiction and vice versa. Construct validity of scale was calculated to 0.45 correlating it with a 25-item scale of clinical symptoms; this was a significant value. Reliability of scale obtained to suitable value of 0.90 using Cronbach’s alpha method. Cronbach’s alpha coefficient obtained to 0.80 for all of the scales and items of addiction potential scale indicating good reliability of the instrument.

Developmental Assets Profile (Research Institute of Minnesota)

This scale consists of 58 items to measure two categories of internal and external developmental assets that have been designed by research institute. Each of these categories comprises four sections forming eight categories; external developmental assets consist of support, empowerment, limitations and expectations, and constructive use of time (external relationships and opportunities provided by others for young people). Internal developmental assets consist of commitment to learning, positive values, social competencies, and positive identity (inner values, skill, and self-perceptions formed by youths during gradual process of self-regulation). This questionnaire creates scores of subscales with re-grouping of items that indicate that the obtained assets are provided based on which life contexts: individual, society, family, school, and communities. Each item of this scale is scored from 1 to 4.[25] The scale is scored based on a 4-point Likert scale.

Research institute[26] implemented Developmental Assets Scale on 2005 high school students with different races of white, American, Indian Asian, and multinational groups. Reliability of Developmental Assets Scale obtained to 0.81 while this value obtained to 0.79 after retest. Moreover, Research institute[26] reported average Cronbach’s alpha coefficient of 0.81 for 8 asset categories and reported this rate equal to 0.88 for contextual scale. Attitude and behavior (A and B) scale of research institute[26] has been used to examine the validity of the scale, and simultaneous validity results of correlation coefficient indicated 0.82 for total score of assets, 0.76 for external assets, 0.80 for internal assets, and 0.62 for average category of assets. The Developmental Assets Profile (DAP) has been used in many of the countries such as Albania, Armenia, Azerbaijan, Bangladesh, Bolivia, Brazil, China, Colombia, Republic of Dominica, Egypt, Gaza, Iraq, Japan, Jordan, Lebanon, Mexico, Morocco, Nepal, Philippine, Rwanda, and Yemen. A secondary analysis of data obtained from five countries (Albania, Bangladesh, Japan, Lebanon, and Philippines) among the above-mentioned countries with considerably sufficient databases and comparable data of America indicated that almost all of the scales had acceptable internal consistency. According to evidence, DAP has similar validity to the American version of this scale. Dehghanhesar[27] carried out a study in Iran and obtained Cronbach’s alpha of 0.84 and 0.89 for internal and external components, respectively.

Toronto Alexithymia Scale (FTAS. 20)

The Toronto Alexithymia Scale for children and youths has been adopted from the main version of adults’ alexithymia scale and designed by Riff, Esterwald, and Nezoget.[28] This questionnaire consists of 20 items scored based on a 3-point Likert scale (strongly, somewhat, and never) that evaluates three factors of inability to identify feelings and to describe feelings and externally oriented thinking. Inability to identify feelings: 1, 3, 6, 7, 9, 13, and 14. This subscale is scored at range of 7–21. Inability to express feelings: 2, 4, 11, 12, and 14. This subscale is scored at range of 5–15. Externally oriented thinking: 5, 8, 10, 15, 16, 18, 19, and 20. This subscale is scored at range of 8–24. Items 4, 10, 18, and 19 are scored reverse. Simultaneous validity of alexithymia scale was examined and confirmed based on the correlation between subscales of this test and scales of emotional intelligence, psychological well-being, and psychological distress. The results obtained from Pearson correlation coefficient showed a significant correlation between scores of respondents in total alexithymia scale and emotional intelligence ($r = -0.80, P < 0.001$), psychological well-being ($r = -0.78, P < 0.001$), and psychological distress ($r = -0.44, P < 0.001$). Correlation coefficients between subscales of emotional failure and above-mentioned variables were significant. Cronbach’s alpha coefficient of this scale obtained to 0.75. Correlation coefficient of subscale of this test with checklist of mental symptoms obtained between 0.07 and 0.48. Cronbach’s alpha rate of alexithymia scale obtained to 0.82 indicating suitable reliability. The results obtained from confirmatory factor analysis approved three factors making it difficult to identify feelings and to describe feelings and objective thinking within three Persian versions of alexithymia scale. The Cronbach’s alpha coefficient obtained 0.75 for this scale. Correlation coefficient of the subscale in this test reported at range of 0.07–0.48 with mental symptom checklist. Abolghasemi, Herafiti, and Rezaee (2011) obtained the significant correlation ($P < 0.01$) between alexithymia scale and mental abuse ($r = -0.34$) and mental negligence ($r = -0.20$); they also obtained the reliability of 0.83 using Cronbach’s alpha coefficient.
Results

Descriptive findings
According to Table 1, the highest means of addiction potential were ranked as follows:
• 1 – Passive addiction potential
• 2 – Active addiction potential.

External developmental assets with mean of 3.02 were greater than the internal developmental assets with mean of 2.93. Emotional disorders can be ranked considering the highest mean of alexithymia:
• 1 – Inability to identify feelings
• 2 – Objective thinking style
• 3 – Inability to express feelings.

Goodness of fit tests
Table 2 showed the results of the goodness of fit.

a. Root Mean Square Error of Approximation (RMSEA): this index is based on the noncentral parameter ($\chi^2$), which is less affected by sample size. RMSEA can measure lack of fit in each degree of freedom. This value was calculated in this research:
RMSEA = 0.0656.
As RMSEA = 0.0656, research data are suitably fitted to this model.

b. Root mean square residual (RMSR) and Standardized RMR (SRMR) are <0.08 indicating good model fitting. The values obtained from the software are as follows:
RM = 0.01 and SRMR = 0.03, which are suitable values.

Table 1: Descriptive indicators ($n=500$)

| Variables                  | Mean  | SD   |
|----------------------------|-------|------|
| Active addiction potential | 1.69  | 0.523|
| Passive addiction potential| 2.48  | 0.811|
| Addiction potential        | 2.09  | 0.587|
| Commitment to learning     | 3.11  | 0.568|
| Positive values            | 2.98  | 0.546|
| Social competence          | 2.74  | 0.512|
| Positive identity          | 2.09  | 0.677|
| Internal developmental asset| 2.93 | 0.459|
| Constrictive use of time   | 2.67  | 0.753|
| Support                    | 3.02  | 0.618|
| Empowerment                | 3.12  | 0.667|
| Limits and expectations    | 3.29  | 0.663|
| External developmental asset| 3.02 | 0.555|
| Inability to identify feelings | 2   | 0.556|
| Inability to express feelings | 1.81 | 0.540|
| Objective thinking style   | 1.98  | 0.266|
| Alexithymia                | 1.93  | 0.335|

Table 2: Fit indexes and result of structural fitting model

| Row | Fit index | Acceptable value | Model value | Fitting result |
|-----|-----------|------------------|-------------|---------------|
| 1   | $\chi^2$  |                  | 157.39      |               |
| 2   | df        |                  | 51          |               |
| 3   | RMSEA     | <0.08 suitable   | 3           | Suitable      |
| 4   | RMSR      | <0.08 suitable   | 0.065       | Suitable      |
| 5   | NNFI      | >0.9             | 0.97        | Suitable      |
| 6   | CFI       | >0.9             | 0.98        | Suitable      |

RMSEA: Root Mean Square Error of Approximation, RMSR: Root mean square residual, NFI: Normed Fit Index, NNFI: Non-NFI, CFI: Comparative Fit Index

Table 3: Frequency distribution

| School     | Class    | Major                      | n (%) | Total | Sum total |
|------------|----------|----------------------------|-------|-------|-----------|
| Girls      | Tenth    | Mathematics and physics    | 26 (21.8) | 119 | 238       |
|            |          | Human sciences             | 31 (26.1) |     |           |
|            |          | Biological sciences        | 62 (52.1) |     |           |
|            | Eleventh | Mathematics and physics    | 55 (50.5) | 119 |       |
|            |          | Human sciences             | 36 (23.9) |     |           |
|            |          | Biological sciences        | 28 (25.7) |     |           |
| Boys       | Tenth    | Mathematics and physics    | 37 (26.2) | 141 | 250       |
|            |          | Human sciences             | 78 (55.3) |     |           |
|            |          | Biological sciences        | 26 (18.4) |     |           |
|            | Eleventh | Mathematics and physics    | 55 (50.5) | 109 |       |
|            |          | Human sciences             | 26 (23.9) |     |           |
|            |          | Biological sciences        | 28 (25.7) |     |           |
| Sum total  |          |                            | 488    |       |           |

According to Table 3, to test data normality, Kolmogorov–Smirnov test was used. Accordingly, $H_0$ (data normality) was rejected for all of the variables except for internal developmental asset and alexithymia ($P < 0.05$), but as the sample size is almost large, a partial violation of this hypothesis can be ignored and accurate results are obtained.

As it has been shown in Table 4, the obtained results indicated a significant correlation between subscales of developmental assets and addiction potential. Direct effect of internal developmental asset on addiction potential obtained to −0.25, and indirect effect of internal developmental asset on addiction potential with alexithymia’s mediation obtained to −0.23. Therefore, total effect of internal developmental asset on addiction potential was confirmed with path coefficient of −0.48 and alexithymia mediation. Direct effect of external developmental asset on addiction
potential has been significant (-0.27), but indirect effect of external developmental asset on addiction potential has been insignificant (-0.08). Therefore, direct effect of external developmental asset on addiction potential was confirmed with path coefficient of −0.27 while indirect effect was rejected. Hence, only internal developmental asset has a significant indirect effect on addiction potential in adolescents. According to the results obtained from SEM, total effect of internal developmental asset on addiction potential obtained to −0.48 and total effect of external developmental asset on addiction potential obtained to −0.27. After evaluating models for measurement of latent variables, SEM was used through LISREL8 Software (LISREL 8.54, Scientific Software International Inc, Chicago, United States) with maximum likelihood estimation to assess the proposed model.

Eight factors of developmental assets have different effect rates on addiction potential. It was required to design a structural model in order to compare effects of these factors of developmental assets on addiction potential; such model should encompass all of the components of developmental assets explaining their effect on addiction potential. Hence, the structural model was designed and evaluated based on this principle. According to Figure 1, among internal developmental assets, social competencies and positive identity remained in fit model and empowerment remained in model among external developmental asset. Components of commitment to learning, positive values, support, constructive use of time, limitations, and expectations were removed due to the lack of significant structural coefficient of these factors. Accordingly, a new structural model was designed after removal of insignificant. Results obtained from model fit indices have been demonstrated in Table 5.

According to Table 5, total effect of positive identity on addiction potential with path coefficient of −0.38 is higher than effect of empowerment with path coefficient of −0.31 and social competency with path coefficient of −0.10. Therefore, positive identity, empowerment, and social competency were the most effective components of developmental assets on addiction potential, respectively.

### Table 4: Direct and indirect effects of developmental asset on addiction potential based on the Figure 1

|                                | Direct effect | Indirect effect | Total effect |
|--------------------------------|--------------|----------------|-------------|
| Internal developmental asset → Alexithymia | −0.36        |                |             |
| Alexithymia → Addiction potential       | 0.65         |                |             |
| Internal developmental asset → Addiction potential | −0.25        | −0.36×0.65 = −0.23 | (−0.23) + (−0.25) = −0.48 |
| External developmental asset → Alexithymia | Rejected     |                |             |
| Alexithymia → Addiction potential       | 0.65         |                |             |
| External developmental asset → Addiction potential | −0.27        | Rejected       | −0.27       |

![Figure 1: Path analysis and standardized parameters of the proposed model](image-url)
Table 5: Direct and indirect effects of developmental asset on addiction potential

|                          | Direct effect | Indirect effect | Total effect |
|--------------------------|---------------|-----------------|-------------|
| Social competencies → Alexithymia | -0.13         | -0.10           | -0.33       |
| Alexithymia → Addiction potential | 0.50          |                 | 0.50        |
| Social competency → Addiction potential | -            | -0.05           | -0.05       |
| Positive identity → Addiction potential | -0.23         |                 | -0.23       |
| Alexithymia → Addiction potential | 0.50          |                 | 0.50        |
| Positive identity → Addiction potential | -0.27         | -0.11           | -0.38       |
| Empowerment → Addiction potential | -0.31         |                 | -0.31       |

**Discussion**

The objective of this study was to process a comprehensive model for important consequence addiction potential in order to achieve a better knowledge in this area. The finding obtained from this research showed that the assumed structural model of addiction potential predictors in adolescents is fit to empirical acceptably. The designed structural model in this research is a suitable anticipator in order to prevent from drug abuse in young people. Such findings clarified direct and indirect effects of internal and external developmental assets as well as mediating role of alexithymia. The results obtained from this study approve the results obtained of studies conducted by Scales et al., Benson and Scales, Lerner et al., Scott-Parker, and Scales et al. The results of the current study showed effect of developmental assets on addiction potential so that internal developmental assets had direct effect on addiction potential while external developmental assets had only direct effect on addiction potential and indirect effect of this variable was rejected. Moreover, it was confirmed that internal developmental assets had a higher effect on reducing addiction potential compared to external developmental assets. The last result showed that among eight factors of developmental assets, positive identity, empowerment, and social competency were the most effective components in addiction potential. Fundamental assumptions related to internal and external developmental assets were adopted form ecological theory of Bronfenbrenner. This is assumed that development of young people is affected by the nature and construct of the body internally and pedagogy that includes environmental and external factors; in this regard, it is possible to prevent from harmful behaviors in adolescents and young people considering both of internal and external factors to protect young people from possible harms. This theory is matched with direct effect of internal and external developmental assets on addiction potential in youths.

Moreover, the emphasis of Bandura social learning theory is on social and interpersonal factors when explaining drug abuse. This theory states that adolescents acquire their beliefs about offensive behaviors from the role patterns, in particular, their close friends and parents. Theory of Bandura is matched with direct effect of external developmental assets on addiction potential in adolescents, in particular, with the use of boundaries and expectations of external developmental assets that consist of some subscales including family boundaries, school boundaries, neighborhood boundaries, adults’ role model, positive effects of peers, and high expectations. Family systems theory is another theory emphasizing on the importance of family role in drug abuse and other risky behaviors of adolescents. In family systems approach toward drug abuse in adolescents, the focus is on the relationship between adolescent’s function and function of parents, siblings, extensive family, and communication and interaction patterns with different family subsystems such as parent–adolescent, parent–parent, and parent–siblings. Particularly, a family systems approach considers a method, in which communication levels and emotional separation, coherence, and conflict between family members are kept and then appeared as addiction potential or risky behaviors in adolescents. Murray Bowen stated at the early 1950s that families are emotional and interactional systems; hence, problems of a family member are not isolated from other ones. Family systems theories are matched with effect of external developmental asset on addiction potential in adolescents; in particular, the family life should provide high levels of love and support using component of support and relationship with adults. The more love and affection parents spend in childrearing and the more suitable their support for their children, the more motivated the adolescent will be to receive family advice and the lower the risky behaviors in adolescent will be. This subject is in line with results obtained from a study conducted by Elbeygi Ghalee and Rostami. As a factor preventing from risky behaviors, suitable interaction between family members leads to growth development and identity fostering in young people. The above-mentioned results were matched with findings obtained by Najafavi and Navabinejad, Ghafari, Heydarnia and Charkhian, Seyfi Gondmani et al., Abdoli, Soltan, Ahmadi, and Amani, Shalchi et al., Salimi et al., and Hajarian and Ghanbari. Tension reduction assumption is one of the etiology patterns of social learning that is matched with Bowen’s viewpoint in family systems approach. Opponents of these two approaches believe that all of the disorders existing in family function such as drug abuse are caused by inefficient anxiety management within a family system. Addiction potential and drug abuse for family members as a group may be a solution to control anxiety. Therefore, a person who consumes alcohol or drug can reduce his/her anxiety to some extents temporarily; these results are in line with subscale of security under the component of...
Empowerment in external developmental assets. This subscale expresses that adolescent should feel security in home, school, and living place. Such sense of security that begins at the first step of family focus happens when family is calm and competent and autonomy and self-reliance of adolescents are valuable in such family. An outstanding and new subject in treatment and prevention from drug abuse is training life skills such as coping with stress. Mental calmness and coherent mental, spiritual, and practical actions can reduce tendency toward risky behaviors effectively. Therefore, it is possible to prevent from harmful behaviors in youths holding workshops and stress management courses for families and youths. The results obtained from studies conducted by Haj Hosseini and Hashemi, Nemati Sogolitape, Piri and Pirani, and Moosavinasab et al. were in line with these theories.

Pioneers of cognitive theory, Aaron Beck and Albert Ellis, believe that behaviors and affections will be changed when thoughts (cognitions) are changed. Distorted beliefs lead to destructive behaviors. Attitude provides the field for many of the risky behaviors in human so that some of the behaviors showed by people in future can be anticipated by recognizing and measuring this variable. This theory is matched with self-control that is one of the components of internal developmental assets, expressing that adolescents’ attitude toward sexual activity, alcohol consumption, and other issues is important since such adolescents believe that these behaviors are stressful and he or she should avoid them. Moreover, this theory is in line with subscale of family limits that is a component of limitations and expectations under external developmental assets expressing that families build their transparent principles and rules based on efficient beliefs monitoring adolescents. According to this theory, agents and responsible persons for the prevention of drug abuse should reorganize beliefs and attitudes of family members cognitively using cognitive-behavioral approach; in this case, required skill should be trained to change inefficient thoughts of families. These results were in line with findings obtained from studies conducted by Babae et al., Nemati Sogolitape et al., Rahmanian et al., Yavari et al., and Khodayari et al.

Emotions do not exist among developmental assets; hence, this variable has been taken as mediator in this research. According to the results, internal developmental assets can affect addiction potential directly or indirectly with mediating role of alexithymia, while external developmental assets can affect just within a direct way. The indirect effect of this variable through alexithymia was rejected. Emotions and coping strategies play a vital role in physical, mental, and rational health of people so that they can be considered as the factor protecting individuals against harms and risks. Sifnos (1973) introduced alexithymia as the main trait of patients with psychological disorders, and then, Gardner (1983) expressed it in multiple intelligences theory including interpersonal and intrapersonal intelligences. Moreover, Melanie Klein (1975) addresses alexithymia in her object relations theory. Klein considers the jealousy as one of the basic emotions of a human. Jealousy emerges at the early days of life and moves toward the mother’s breast. The love, warmth, care, and food received by the child lead to conflicting reactions. Selfish satisfaction of the baby being aware of the outside source of goodness leads to some feelings such as anger, hostility, and jealousy in the child. In terms of addiction, selfish satisfaction caused by the drugs will be broken by the addicted person since drugs are external subjects that addicted persons need them. Addicted individuals cannot tolerate dependence because it means hatred, jealousy, and unbearable failures so that such negative emotions make them more vulnerable. According to the presented theories, as an intrapersonal factor, failure in emotions may expose the person to the harmful behaviors such as addiction potential; hence, it is required to take such emotions serious in order to make persona capable of handling their emotions using them at the right time and place. In this way, addiction potential and harmful behaviors will be reduced.

**Conclusion**

In order to findings, it concluded that all of the individuals who are responsible to foster personality of adolescent (family, educational environments, government, and politicians) should emphasize on components of developmental assets in order to prepare the field for fostering healthy personality in adolescents to prevent from risky behaviors in them. Moreover, as emotions are important factors, adolescents should be trained to identify and accept feelings, to find causes for feelings, and to learn strategies to cope with negative emotions.

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**Conflicts of interest**

There are no conflicts of interest.

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