



## Addiction prevention based on character strengths: A narrative review

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### Review Article

#### Abstract

**BACKGROUND:** As a chronic psychological and social disorder, addiction has caused concern in many societies. Many researches are needed to explain the factors affecting addiction to provide better knowledge and offer treatment strategies for its prevention. Character strengths, as one of the new theories related to positive psychology, can play a vital role in explaining addiction; therefore, the present study is aimed to investigate addiction prevention based on the character strengths.

**METHODS:** This narrative review study used the keywords of “character strengths”, “addiction”, “drug use”, “drug abuse”, and “addiction tendency”, which were used in Persian and English databases.

**RESULTS:** Character strengths as positive human characteristics reduced the vulnerability of people to addiction by improving individual and interpersonal strengths in different areas of life.

**CONCLUSION:** The results of the present study have important implications for rehabilitators and addiction counselors in addiction prevention and empowerment of recovered addicts; therefore, paying attention to character strengths in mental and social health programs based on different levels of prevention could be of a great effectiveness.

**KEYWORDS:** Addiction; Medicine; Prevention; Positive Psychology

**Date of submission:** 24 Jan. 2021, **Date of acceptance:** 20 Jan. 2022

**Citation:** Ghasemi-Jobaneh R, Sodani M, Mehrabizadeh-Honarmand M. **Addiction prevention based on character strengths: A narrative review.** Chron Dis J 2022; 10(2): 109-16.

### Introduction

As a chronic disorder, addiction causes psychological and physical dependence on drugs<sup>1</sup> and it is associated with negative psychological, family, and social consequences.<sup>2-4</sup> Opioids increase depression, decrease physical activity, and increase vulnerability to heart diseases;<sup>5</sup> their stimulants are associated with negative consequences such as depression, psychosis, and increased risk of suicide.<sup>6</sup> Addiction is

highly prevalent in society due to its chronic nature<sup>1</sup> and a significant proportion of recovered addicts return to addiction.<sup>7</sup> As a result, addiction and its recurrence have caused concern in many communities.<sup>8</sup> In this regard, it is necessary to conduct studies on investigating the factors affecting addiction, because it leads to better knowledge and offers educational and therapeutic strategies for prevention and rehabilitation. What are needed are those studies explaining addiction based on the latest psychological theories. There are many theories whose protective role in the prevention of psychological disorders have been identified; however, not many studies have been conducted on their possible preventive role against addiction in a

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combined and coherent manner.

Character strengths, as a new theory related to positive psychology, can play a vital role in explaining addiction. Positive psychology focuses on the strengths of individuals and emphasizes that human beings could achieve personal growth, self-fulfillment, success, and well-being.<sup>9</sup> Character strengths include constructive traits and capacities that positively affect people's thoughts, feelings, and behaviors and make them powerful.<sup>10,11</sup> In one of the proposed classifications,<sup>12</sup> the types of character strengths fall into the six virtues of wisdom (creativity, curiosity, judgment, love of learning, perspective), courage (bravery, perseverance, honesty, zest), humanity (love, kindness, social intelligence), justice (teamwork, fairness, leadership), temperance (forgiveness, humility, prudence, self-regulation), and transcendence (appreciation of beauty and excellence, hope, humor, gratitude, spirituality).

Studies have shown a positive correlation between character strengths and reduced depression,<sup>13</sup> constructive coping,<sup>14</sup> improved heart function,<sup>15</sup> health, psychological well-being, and quality of life.<sup>16-18</sup> In fact, character strengths include positive, moral, and constructive concepts that lead to purposeful living, effective communication, managing problems in difficult situations, and facilitating happiness.<sup>11,16,18</sup> Moreover, interventions based on character strengths increase positive emotions and happiness<sup>19</sup> and can play a preventive role against addiction.<sup>20,21</sup>

Having adapted coping skills, positive evaluation of life, and positive mood are among the factors that play an important role in psychological empowerment, health-related behaviors, and reduced tendency to addiction.<sup>11-13</sup> Besides, interventions based on positive psychology include scientific and practical teachings whose understanding and applying in daily life lead to effective coping with important and challenging events. As a result, a person's

vulnerability to emotional distress and psychological disorders such as drug addiction is reduced.<sup>13</sup> In fact, people with higher levels of character strengths have cognitive and behavioral resources that cultivate flexibility and resilience, and prevent destructive behaviors.<sup>22</sup> In the present study, addiction as a serious public health concern is explained by character strengths as one of the new theories in positive psychology. Accordingly, the present study has important implications for rehabilitation and addiction counselors.

## Methods

In this narrative review study, first studies related to the issue of interest were identified and reviewed. Then, a search was conducted through multiple databases to identify the most relevant studies, keywords were identified by searching for multiple keywords to determine the most relevant studies, and abstracts, articles, and document results were reviewed by summarizing, combining, and integrating selected related articles.<sup>23</sup>

Due to the increasing number of scientific journals, the importance of review articles is becoming more and more clear. Since in review studies, the researcher summarizes the available evidence on a specific topic, this type of article expands the knowledge of other researchers and those interested in that topic.<sup>24</sup>

Considering that character strengths include 24 cases according to one of the presented categories,<sup>12</sup> the relationship of all of these cases with addiction was examined. Then, keywords of "character strengths", "addiction", "drug use", "drug abuse", and "tendency to addiction" in Persian databases such as Magiran and SID and English databases such as PubMed, ScienceDirect, and Google Scholar were used.

Inclusion criteria included relevance and being published in Persian and English and exclusion criteria included lack of access to the full text of the study.

Considering ethical considerations, the present study was extracted from a PhD thesis with the ethics code of EE/98.24.3.70646/scu.ac.ir .

## Results

In this section, the relationship between character strengths and addiction and related explanations are presented.

**Spirituality and hope:** Studies showed a significant negative correlation between spirituality<sup>25,26</sup> and hope<sup>27</sup> with addiction in different statistical samples and interventions based on which spirituality<sup>28,29</sup> and hope<sup>30</sup> accelerated the treatment process of addicts and reduced the tendency to addiction. In fact, spirituality affects the whole life of a person and it is accompanied by attitudes and behaviors that cause inner peace and gives the person a double force to face the inevitable challenges and problems of life.<sup>2</sup> According to existential-humanistic psychology, addiction is a response to existential concerns such as boredom and meaninglessness, and spirituality, hope, purposefulness, and optimism could prevent addiction.<sup>31-33</sup>

**Zest and humor:** Character strengths such as zest and humor are associated with happiness, vitality, and positive emotions.<sup>12</sup> Studies show that people who do not have a happy life, experience less positive emotions, report less satisfaction with their lives, and are more prone to addiction.<sup>34,35</sup> A person can gain enthusiasm and vitality through engagement in positive and meaningful life activities such as family, work, and spiritual activities;<sup>36,37</sup> otherwise, there is a possibility of addiction. In fact, addiction can be considered as one of the maladaptive strategies to deal with unhappiness in life.<sup>34,35</sup> Humor is also one of the factors associated with positive emotions in life,<sup>38</sup> as it reduces stress hormones such as cortisol and increases happiness hormones in the body.<sup>39</sup> In addition, according to broaden-and-build theory, positive emotions improve resilience, constructive coping, social skills,

and well-being,<sup>40</sup> and thus reduce vulnerability to addiction.<sup>41</sup>

**Bravery and perseverance:** Bravery enables one to face the challenges and difficulties in life. Perseverance, on the other hand, enables one to continue to achieve goals despite obstacles.<sup>12</sup> Therefore, bravery and perseverance lead to hardiness and resilience, and according to studies, there is a significant negative correlation between hardiness<sup>42</sup> and resilience<sup>43</sup> with addiction. Bravery and perseverance are especially important during treatment, as addicts may experience physical pain or emotional distress such as anxiety;<sup>44,45</sup> however, only if they are able to overcome these challenges, they will be able to successfully complete their treatment.

**Self-regulation, creativity, and social intelligence:** Self-regulation is related to self-control and emotion management<sup>12</sup> and according to various studies, emotion management<sup>46,47</sup> and self-control<sup>48</sup> are associated with reducing addiction. When individuals experience an unpleasant emotion, they seek a remedy to alleviate it, but if they lack adaptive self-regulatory skills, they may engage in non-constructive strategies such as addiction.<sup>46,47</sup> Creativity, which involves thinking and doing things in a productive way,<sup>12</sup> is also related to problem-solving, which plays a vital role in reducing the tendency to addiction.<sup>49,50</sup> It is because creativity and problem-solving make people use the best and most efficient options to solve problems in life.<sup>50,51</sup> On the other hand, addiction as one of the ineffective coping strategies reduces distress in the short run, but it has more negative consequences in the long run.<sup>52</sup> Social intelligence also includes awareness of the motivations of oneself and others and appropriate action according to different situations, and it is related to similar concepts such as emotional intelligence and social skills.<sup>53,54</sup>

**Love and kindness:** Love (having close relationships with others through caring and

sharing) and kindness (altruism, helping and caring for others), especially in intimate relationships such as family and marriage,<sup>12</sup> are associated with addiction prevention.<sup>55-57</sup> Due to the chronic nature of addiction,<sup>1</sup> recovery is a lifelong process, and perceived social support, especially by the family, perpetuates the recovery process.<sup>58</sup> Studies have shown that when couples have a satisfying and intimate relationship, they are less prone to addiction<sup>56,57</sup> and experience higher general health.<sup>59</sup> Close relationships meet the vital attachment-related needs in healthy, intimate, and trusting relations and increase self-esteem and resilience.<sup>2</sup> In fact, loneliness and depression are some of the reasons for addiction,<sup>60,61</sup> however, when people have a higher perceived social support and are satisfied with their family, it means that there is enough love and kindness in their life and as a result, they are less likely to become addicted.<sup>55-57</sup>

**Teamwork and leadership:** Teamwork involves working well as a team member, and leadership involves encouraging the group to achieve goals and striving for action. One of the characteristics of teamwork is social responsibility.<sup>12</sup> Humanistic-existential scientists emphasize free will and believe that despite bio-psycho-social limitations, how to deal with these limitations depends on the choice of individuals and they are responsible for the consequences of their choice.<sup>62</sup> For instance, an individual can increase his or her character strengths to reduce his or her vulnerability to addiction,<sup>19</sup> which indicates his or her responsibility. The family can also be considered as an important system to which the person belongs and poor family functioning is one of the important causes in the tendency to addiction.<sup>55</sup> Therefore, every step taken to educate families to improve communication patterns and family intimacy will play an effective role in improving the family's performance as a group and system.

In this regard, those who grow up in such families feel more empowered and less involved in harms such as addiction.<sup>63-65</sup>

**Judgment, perspective, and prudence:** Judgment, perspective, and prudence lead to critical thinking, broad-mindedness, and wisdom; therefore, those with these characteristics are less likely to do something that will later cause regret.<sup>12</sup> Addiction can be considered as one of the maladaptive coping strategies to face life challenges.<sup>66,67</sup> These make a person think about the consequences of drug use and gain the insight not to get involved in addiction due to its negative consequences.<sup>68</sup> Moreover, the persons show less reactive behaviors and instead of using maladaptive coping strategies such as addiction, they respond to life challenges consciously and constructively.<sup>69,70</sup> Thus, strengths such as judgment that are associated with critical thinking improve problem-solving skills<sup>70</sup> and social acceptance, and reduce the risk of addiction.<sup>68</sup>

**Humility and fairness:** Humility leads to modesty. On the other hand, fairness causes one to treat others equally.<sup>10</sup> The opposite of humility can be considered narcissism, which comes from a fragile self-esteem, and studies show that there is a significant negative correlation between self-esteem and addiction.<sup>71,72</sup> Thus, a person with less humility and a low self-esteem experiences emotional distresses such as anxiety and depression<sup>73</sup> and is more likely to become addicted.<sup>71,72</sup>

**Gratitude, appreciation, and forgiveness:** Gratitude and appreciation make persons be aware of the beauties of life and value good things like health and a supportive family;<sup>12</sup> thus, they are less likely to do something that shows ingratitude. For instance, a person does not engage in high-risk behaviors such as addiction, which is a serious threat to health or does not cause dissatisfaction and distress in the family system with addiction.<sup>64,65</sup> Forgiveness, by acknowledging one's own and others'

shortcomings and not being vindictive,<sup>12</sup> prevents chronic tension, and reduces anger and negativity.<sup>74,75</sup> Therefore, those with forgiveness are less prone to addiction.

### Discussion

A person with a dysregulation of character strengths could hardly connect with life, live purposefully, experience positive emotions,<sup>14,16</sup> and have a higher quality of life. Thus, dysregulation of character strengths causes distress and vulnerability to addiction and its recurrence. In fact, to alleviate one's suffering, one is exposed to addictive behaviors such as drug abuse.<sup>19-21</sup> Character strengths cause people to think, feel, and behave better, and to be in a better position individually and interpersonally,<sup>10,11</sup> which makes them more prepared to deal with stressors.<sup>14,15</sup> It is also directly and indirectly associated with a reduced tendency to disorders such as addiction. Further, the character strengths such as honesty, curiosity, and love of learning can be used to teach skills cultivating patients' moral qualities and integrity, and thus empowering them in a positive and constructive way.<sup>9,10</sup>

Addiction as a non-constructive strategy to deal with stress, unhappiness, and boredom in everyday life may bring pleasure and satisfaction in the short run,<sup>34,35</sup> but in the long run, it negatively affects a person's whole life.<sup>52</sup> On the other hand, using each of the character strengths that reflect the human characteristics leads to long-term gratification and brings well-being. Character strengths enable a person to identify meaningful and enjoyable life activities and plan to do so to experience more zest.<sup>9,10,16,17</sup>

### Conclusion

Considering that character strengths depend on the will of individuals, addiction counselors can make positive changes in clients' thoughts, emotions, and behaviors based on their

character strengths to take more constructive action in a variety of intrapersonal and interpersonal life situations, thus reducing their tendency to use non-constructive reactions such as addiction. The results of the present study have important implications for rehabilitation and addiction counselors to take a positive step in addiction prevention and empowerment of recovered addicts; therefore, paying attention to character strengths in mental and social health programs based on different levels of prevention can be of great effectiveness.

### Conflict of Interests

Authors have no conflict of interests.

### Acknowledgments

We would like to thank Department of Counseling of Shahid Chamran University of Ahvaz, Iran.

### Financials support and sponsorship

This research has been done with the financial support of Shahid Chamran University of Ahvaz.

### References

1. Menon J, Kandasamy A. Relapse prevention. *Indian J Psychiatry*. 2018; 60(Suppl 4): S473-S478.
2. Mohsenzadeh F, Ghasemi Jobaneh R, Dargahi Sh, Jalili Nikoo S. Spiritual health, family hardiness and family satisfaction: A comparison between addicts and nonaddicts. *Journal of Research on Religion and Health*. 2018; 4(4): 33-43.
3. Daley DC. Family and social aspects of substance use disorders and treatment. *J Food Drug Anal*. 2013; 21(4): S73-S76.
4. Saban A, Flisher AJ, Grimsrud A, Morojele N, London L, Williams DR, et al. The association between substance use and common mental disorders in young adults: Results from the South African Stress and Health (SASH) Survey. *Pan Afr Med J*. 2014; 17(Suppl 1): 11.
5. Najafipour H, Masoomi M, Shahesmaeili A, Haghdoost AA, Afshari M, Nasri HR, et al. Effects of opium consumption on coronary artery disease risk factors and oral health: Results of Kerman Coronary

- Artery Disease Risk factors Study a population-based survey on 5900 subjects aged 15-75 years. *Int J Prev Med.* 2015; 6: 42.
6. Marshall BD, Werb D. Health outcomes associated with methamphetamine use among young people: A systematic review. *Addiction.* 2010; 105(6): 991-1002.
  7. Kassani A, Niazi M, Hassanzadeh J, Menati R. Survival analysis of drug abuse relapse in addiction treatment centers. *Int J High Risk Behav Addict.* 2015; 4(3): e23402.
  8. Lo TW, Yeung JWK, Tam CHL. Substance abuse and public health: a multilevel perspective and multiple responses. *Int J Environ Res Public Health.* 2020; 17(7): 2610.
  9. Macaskill A. Review of positive psychology applications in clinical medical populations. *Healthcare (Basel).* 2016; 4(3): 66.
  10. Peterson C, Seligman M. Strengths of character and well-being. *J Soc Clin Psychol.* 2004; 23: 603-19.
  11. Niemiec RM. *Mindfulness and character strengths.* Göttingen, Germany: Hogrefe Publishing; 2013.
  12. Peterson C, Seligman MEP. *Character Strengths and Virtues: A Handbook and Classification.* New York, NY: Oxford University Press, USA; 2004.
  13. Yan T, Chan CWH, Chow KM, Zheng W, Sun M. A systematic review of the effects of character strengths-based intervention on the psychological well-being of patients suffering from chronic illnesses. *J Adv Nurs.* 2020; 76(7): 1567-80.
  14. Harzer C, Ruch W. The relationships of character strengths with coping, work-related stress, and job satisfaction. *Front Psychol.* 2015; 6: 165.
  15. Li T, Duan W, Guo P. Character strengths, social anxiety, and physiological stress reactivity. *Peer J.* 2017; 5: e3396.
  16. Smith BW, Ford CG, Erickson K, Guzman A. The effects of a character strength focused positive psychology course on undergraduate happiness and well-being. *J Happiness Stud.* 2021; 22(1): 343-62.
  17. Wagner L, Gander F, Proyer RT, Ruch W. Character strengths and PERMA: Investigating the relationships of character strengths with a multidimensional framework of well-being. *Appl Res Qual Life.* 2020; 15(2): 307-28.
  18. Martinez-Marti ML, Theirs CI, Pascual D, Corradi G. Character strengths predict an increase in mental health and subjective well-being over a one-month period during the COVID-19 pandemic lockdown. *Front Psychol.* 2020; 11: 584567.
  19. Schutte NS, Malouff JM. The impact of signature character strengths interventions: A meta-analysis. *J Happiness Stud.* 2019; 20(4): 1179-96.
  20. Krentzman AR. Review of the application of positive psychology to substance use, addiction, and recovery research. *Psychol Addict Behav.* 2013; 27(1): 151-65.
  21. Harris SK, Seale D, Pande Y, Lewis TM, Gibson E, Hadfield K, et al. 25. Testing feasibility/acceptability and initial outcomes of a spiritually-based character strengths training curriculum to enhance resilience and reduce substance use rates among Zambian adolescents. *J Adolesc Health.* 2020; 66(2): S13-S14.
  22. Demirci I, Eksi H, Eksi F, Kaya C. Character strengths and psychological vulnerability: The mediating role of resilience. *Curr Psychol.* 2021; 40(11): 5626-36.
  23. Demiris G, Oliver DP, Washington KT. *Behavioral intervention research in hospice and palliative care: Building an evidence base.* London, UK: Elsevier Science; 2018.
  24. Rezaeian M. Writing Review Articles for JRUMS. *J Rafsanjan Univ Med Sci.* 2017; 16(8): 701-2.
  25. Aliakbarzadeh AZ, Biderafsh A, Salmani S. The relationship of spirituality development and addiction potential among students of Qom University of Medical Sciences. *J Relig Health.* 2019; 58(4): 1107-14.
  26. Debnam K, Milam AJ, Furr-Holden CD, Bradshaw C. The role of stress and spirituality in adolescent substance use. *Subst Use Misuse.* 2016; 51(6): 733-41.
  27. Mathis GM, Ferrari JR, Groh DR, Jason LA. Hope and substance abuse recovery: The impact of agency and pathways within an abstinent communal-living setting. *J Groups Addict Recover.* 2009; 4(1/2): 42-50.
  28. Shamsalina A, Norouzi K, Fallahi KM, Farhoudiyan A. Recovery based on spirituality in substance abusers in Iran. *Glob J Health Sci.* 2014; 6(6): 154-62.
  29. Heinz AJ, Disney ER, Epstein DH, Glezen LA, Clark PI, Preston KL. A focus-group study on spirituality and substance-user treatment. *Subst Use Misuse.* 2010; 45(1-2): 134-53.
  30. Dehghani Z, Khodabakhshi-Koolae A. Effectiveness of group hope therapy on quality of life and resilience in addicted women. *J Educ Community Health.* 2017; 4(1): 28-34.
  31. Ghasemi-Jobaneh R, Zahrakar K, Hamdami M, Karimi K. Role of spiritual health and mindfulness in psychological capital of students of University of Guilan. *Research in Medical Education.* 2016; 8(2): 27-36.
  32. Sadeghi H, Ebrahimi L, Vatandoust L. Effectiveness of hope therapy protocol on depression and hope in amphetamine users. *Int J High Risk Behav Addict.* 2015; 4(4): 21905.
  33. Thompson GR. Meaning therapy for addictions: A case study. *J Humanist Psychol.* 2015; 56(5): 457-82.
  34. Lew D, Xian H, Qian Z, Vaughn MG. Examining the relationships between life satisfaction and alcohol,

- tobacco and marijuana use among school-aged children. *J Public Health (Oxf)*. 2019; 41(2): 346-53.
35. Miller PG, Hyder S, Zinkiewicz L, Droste N, Harris JB. Comparing subjective well-being and health-related quality of life of Australian drug users in treatment in regional and rural Victoria. *Drug Alcohol Rev*. 2014; 33(6): 651-7.
  36. Villani D, Sorgente A, Iannello P, Antonietti A. The role of spirituality and religiosity in subjective well-being of individuals with different religious status. *Front Psychol*. 2019; 10: 1525.
  37. Nordenmark M. The importance of job and family satisfaction for happiness among women and men in different gender regimes. *Societies*. 2018; 8(1): 1-10.
  38. Ford TE, Lappi SK, Holden CJ. Personality, humor styles and happiness: Happy people have positive humor styles. *Eur J Psychol*. 2016; 12(3): 320-37.
  39. Savage BM, Lujan HL, Thipparthi RR, DiCarlo SE. Humor, laughter, learning, and health! A brief review. *Adv Physiol Educ*. 2017; 41(3): 341-7.
  40. Fredrickson BL. The broaden-and-build theory of positive emotions. *Philos Trans R Soc Lond B Biol Sci*. 2004; 359(1449): 1367-78.
  41. Canha B. Using humor in treatment of substance use disorders: Worthy of further investigation. *Open Nurs J*. 2016; 10: 37-44.
  42. Soleimani M A, Pahlevan Sharif S, Yaghoobzadeh A, Sim Ong F. Relationship between hardiness and addiction potential in medical students. *Iran J Psychiatry Behav Sci*. 2016; 10(4): e6225.
  43. Fadardi JS, Azad H, Nemati A. The relationship between resilience, motivational structure, and substance use. *Procedia Soc Behav Sci*. 2010; 5: 1956-60.
  44. Edlund MJ, Sullivan MD, Han X, Booth BM. Days with pain and substance use disorders: Is there an association? *Clin J Pain*. 2013; 29(8): 689-95.
  45. Goodwin RD, Stein DJ. Anxiety disorders and drug dependence: Evidence on sequence and specificity among adults. *Psychiatry Clin Neurosci*. 2013; 67(3): 167-73.
  46. Rahbarian M, Mohammadi A, Abasi I, Soleimani M. Emotion regulation problems and addiction potential in iranian students. *Practice in Clinical Psychology*. 2017; 5(4): 235-42.
  47. Zareban I, Bakhshani NM, Bor MH, Bakhshani S. Emotion regulation difficulties in drug abusers. *Ann Trop Med Public Health*. 2017; 10(6): 1724-8.
  48. Ghasemi Jobaneh R, Jalili Nikoo S, Taghvaeinia A. The mediating role of self- control in the relationship between emotion regulation and addiction potential among students. *Report of Health Care*. 2018; 4(2): 8-13.
  49. Sorsdahl K, Stein DJ, Carrara H, Myers B. Problem solving styles among people who use alcohol and other drugs in South Africa. *Addict Behav*. 2014; 39(1): 122-6.
  50. Demirbas H, Ilhan IO, Dogan YB. Ways of problem solving as predictors of relapse in alcohol dependent male inpatients. *Addict Behav*. 2012; 37(1): 131-4.
  51. Wimmer L. Problem solving as a sufficient condition of the creative process: A case for closer cooperation of creativity research and problem solving research. *Front Psychol*. 2016; 7: 488.
  52. Hassanbeigi, A., Askari, J., Hassanbeigi, D. and Pourmovahed, Z. The relationship between stress and addiction. *Procedia Soc Behav Sci*. 2013; 84: 1333-40.
  53. Limberger J, Andretta I. Social skills training for drug users under treatment: a pilot study with follow-up. *Psicol Reflex Crit*. 2018; 31(1): 29.
  54. Kun B, Demetrovics Z. Emotional intelligence and addictions: a systematic review. *Subst Use Misuse*. 2010; 45(7-8): 1131-60.
  55. Hosseinbor M, Bakhshani NM, Shakiba M. Family functioning of addicted and non-addicted individuals: a comparative study. *Int J High Risk Behav Addict*. 2012; 1(3): 109-14.
  56. Heinz AJ, Wu J, Witkiewitz K, Epstein DH, Preston KL. Marriage and relationship closeness as predictors of cocaine and heroin use. *Addict Behav*. 2009; 34(3): 258-63.
  57. Homish GG, Leonard KE, Cornelius JR. Illicit drug use and marital satisfaction. *Addict Behav*. 2008; 33(2): 279-91.
  58. Laudet AB, Savage R, Mahmood D. Pathways to long-term recovery: A preliminary investigation. *J Psychoactive Drugs*. 2002; 34(3): 305-11.
  59. Azimian J, Piran P, Jahanihashemi H, Dehghankar L. Investigation of marital satisfaction and its relationship with job stress and general health of nurses in Qazvin, Iran. *Electron Physician*. 2017; 9(4): 4231-7.
  60. Hosseinbor M, Yassini Ardekani SM, Bakhshani S, Bakhshani S. Emotional and social loneliness in individuals with and without substance dependence disorder. *Int J High Risk Behav Addict*. 2014; 3(3): e22688.
  61. Wu P, Hoven CW, Liu X, Fuller CJ, Fan B, Musa G, et al. The relationship between depressive symptom levels and subsequent increases in substance use among youth with severe emotional disturbance. *J Stud Alcohol Drugs*. 2008; 69(4): 520-7.
  62. Feldman G, Baumeister RF, Wong KFE. Free will is about choosing: The link between choice and the belief in free will. *J Exp Soc Psychol*. 2014; 55: 239-45.
  63. Kourgiantakis T, Ashcroft R. Family-focused

- practices in addictions: A scoping review protocol. *BMJ Open*. 2018; 8(1): e019433.
64. Hamdami M, Hakim Javadi M, Gholamali Lavasani M, Ghasemi Jobaneh R. Comparison of family resilience and emotional maturity between dependent and non-dependent men. *Middle Eastern Journal of Disability Studies*. 2017; 7(13): 1-7.
65. Jalili Nikoo S, Kharamin S, Ghasemi Jobaneh R, Mohammad Alippoor Z. Role of family resilience and mindfulness in addiction potential of students. *Armaghane-danesh*. 2015; 20(4): 357-68.
66. Ayadi N, Ghasemi Jobaneh R, Dargahi S, Ganji B. The role of alexithymia and decisional procrastination in predicting addictive use of the internet among students. *J Police Med*. 2019; 8(4): 171-5.
67. Kennett J, Matthews S, Snoek A. Pleasure and addiction. *Front Psychiatry*. 2013; 4: 117.
68. Moshki M, Hassanzade T, Taymoori P. Effect of life skills training on drug abuse preventive behaviors among university students. *Int J Prev Med*. 2014; 5(5): 577-83.
69. Ghasemi Jobaneh R, Nazari A, Sanai Zaker B. The effect of mindfulness training on reducing couple burnout of addicts' wife. *J Research Health*. 2018; 8(6): 506-12.
70. Kanbay Y, Okanli A. The effect of critical thinking education on nursing students' problem-solving skills. *Contemp Nurse*. 2017; 53(3): 313-21.
71. Ersogutcu F, Karakas SA. Social Functioning and self-esteem of substance abuse patients. *Arch Psychiatr Nurs*. 2016; 30(5): 587-92.
72. Alavi HR. The role of self-esteem in tendency towards drugs, theft and prostitution. *Addict Health*. 2011; 3(3-4): 119-24.
73. Sowislo JF, Orth U. Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychol Bull*. 2013; 139(1): 213-40.
74. Wu Q, Chi P, Zeng X, Lin X, Du H. Roles of anger and rumination in the relationship between self-compassion and forgiveness. *Mindfulness*. 2019; 10(2): 272-8.
75. Orbon M, Mercado J, Balila J. Effects of forgiveness therapy on recovery among residents of drug rehabilitation centers. *Procedia Soc Behav Sci*. 2015; 165: 12-20.