

Original Article

The Role of Voluntary Function in Predicting Addiction Potential: A Survey on Iranian Red Crescent Societies

Peyman MamSharifi¹, Faramarz Sohrabi^{1*}, Pegah. AM.Seidi², Ahmad Borjali¹, Nahid Hoseininezhad³, Nazanin Asadi⁴, Nasibeh Majdi⁵, Haniye Rouzbehani⁶, Sara Shabani Aval Khansari⁷, Negar Akbari Bejandi⁴, Fatemeh Ahmadi¹, Sedigheh Moshrefzadeh⁸

¹Department of Clinical Psychology, Faculty of Psychology and Educational Sciences, Allameh Tabataba'i University, Tehran

²Research Center, University of Garmian, Kalar, Kurdistan Region, Iraq

³Department of Counseling, Faculty of Education and Psychology, Alzahra University, Tehran, Iran

⁴Department of Psychology, Alzahra University, Tehran, Iran

⁵Department of Clinical Psychology, Islamic Azad University of Qods City, Tehran, Iran

⁶Department of Clinical Psychology, Islamic Azad University, Science and Research Branch, Tehran, Iran

⁷Department of Psychology, Kooshar High Tech Institute, Rasht, Iran

⁸Department of General Psychology, Faculty of Psychology and Educational Sciences, Allameh Tabataba'i University, Tehran, Iran

Received: 27 Oct 2021; Revised: 16 Nov 2021; Accepted: 30 Nov 2021

Abstract

Background and Aim: Considering Voluntary Function, the purpose of the present study was to predict the addiction potential among some members of the Iranian Red Crescent Society (IRCS).

Materials and Methods: The research method was descriptive-correlational. The statistical population of the present study was all members of the Iranian Red Crescent Society (IRCS). The sampling method was multi-stage cluster sampling, in which 620 active volunteers of the IRCS from 31 province and 175 cities of Iran (48.7% female and 50.1 Male mean age 23.27 ± 3.32 , range 14–31 years) were selected for this research. The research data was collected using the Iranian Addiction Potential Scale (IAPS) and Voluntary Function Inventory (VFI).

Results: Findings proved that there was a negative significant correlation between the AP and all measurements of VF such as protective enhancement, understanding, career, values, and motives; meaning that the more time youth spent on participating in voluntary activities, the less likely they sought to resort to misusing AP. Findings of the multiple regression has proved that volunteerism could predict 15% of changes in the AP as a criterion variable.

Conclusion: Voluntary function can increase happiness, mental health, expand interpersonal relationships and social networking, self-esteem and social skills in individuals. These skills can reduce the high-risk behaviors, including addiction. Therefore, it is necessary to pay attention to this valuable factors in preventive programs.

Keywords: Addiction potential, Voluntary function, Iranian Red Crescent Society

***Corresponding Author:** Faramarz Sohrabi, Department of Clinical Psychology, Faculty of Psychology and Educational Sciences, Allameh Tabataba'i University, Tehran, Iran. Email: sohrabi@atu.ac.ir.

ORCID: 0000-0001-6505-6812

Please cite this article as: MamSharifi P, Sohrabi F, Seidi PAM, Borjali A, Hoseininezhad N, Asadi N, et al. The Role of Voluntary Function in Predicting Addiction Potential: A Survey on Iranian Red Crescent Societies. *Int. J. Appl. Behav. Sci.* 2022;9(1):1-9.

Introduction

Addiction is one of the most ubiquitous psychological disorders (1,2,3). Innumerable factors would ease drug dependence as one of the main problems of people's lives. Apart from its noxious consequences, addiction is a mentally chronic and reversible disorder that is characterized by obsessive searching and using of drugs (4,5,6). The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), defines substance use disorder as the conglomeration of cognitive, behavioral, and physiological symptoms that illustrate a person continues using drugs despite facing substance abuse-related problems (7). Addiction is one of the fundamental predicaments that affects the hygienic, psychological, and social aspects of our lives. It threatens public health, specifically those of youths (8, 9). Addiction is a social problem that has been infiltrated in every corner of the globe (10). Nearly 162 to 324 million people worldwide have been affected by various types of substance abuse over the past 12 months (11). Nowadays, narcotism and drug abuse among youth have been on the rise. While exploring the matter of addiction, the issue that should be taken into consideration is that individuals are not inexplicably and unexpectedly victimized the drug abuse; rather they are gradually entangled in the process of addiction and its dependency by developing predisposing potentialities (12). Even though far-reaching efforts have been made to control the addiction potential (AP) among individuals, drug abuse has increased markedly (13).

Addiction is not something that can be simply attributed to a certain group of people (14, 15). Rather, it spans through a wide range of professions, social classes, and students with different levels of education. The interplay of numerous factors can result in substance abuse and addiction (16). Until recently, considerable number of research have mainly targeted studying effects of addiction, determinative elements hastening the emergence of addiction and its prevention. Taking these issues into account, the AP theory states that some people, unlike others, are prone to addiction provided that some conditions are met (17). According to many studies,

some of the predicting measures of addiction include social and cultural milieu, biological, interpersonal, and emotional-behavioral factors (18, 19, 20). As such, the main goal of the present study is to explore socio-psychological dynamics in the AP (21). Making voluntary functions (VF) is one of the major socio-psychological factors that can mitigate risky behaviors (22).

Volunteering is a type of activity through which a person freely devotes his/her time to the benefit of other people, groups, or even organizations (23, 24, 25). Volunteers contribute to some organizations in two ways including reducing costs that are exerted over organizations by law and lessening the amount of budget allotted to full-time employees (26). Both society and volunteers can benefit from socially voluntary actions (27). Making voluntary actions and helping others assist volunteers in relieving their stress, dealing with depression, keeping their minds fresh, and pursuing proper goals in their lives (28). The more people get engaged in voluntarism, the more opportunities they obtain to be benefited from (29, 30, 31). This justifies why some volunteers have been successful in obtaining status in both governmental and non-governmental organizations as human resources in the forms of employees, volunteers, and clients (32, 33). Non-governmental organizations annually recruit some members and volunteers through drawing up both intra and extra-organizational agreements with the department of education, for instance (34). To enlist new members, non-governmental organizations spend much money on organizing members, holding numerous workshops, and arranging recreational camps. Additionally, an abundant number of plans are made to facilitate cooperative activities (35). Getting involved in voluntary function help unpaid assistants to palliate the side effects of difficulties they confront on the path of doing service (22).

Seldom does volunteerism cause people to get engaged in anti-social behaviors. There is a positive correlation between volunteerism, personal, and social advantages (36). To do voluntary services, people need not to show long-term commitments. Volunteers can benefit from volunteerism even if they commit for a limited number of hours per week (28). Satisfaction, happiness, and the promotion of health are among those advantages (37).

Therefore, the feelings of happiness and fulfillment, to a great extent, prevent volunteers from inclining to hazardous, anomalous, and anti-social behaviors. It causes volunteers not to victimize others and do self-destructive deeds (38). On the other hand, the findings of some surveys have shown that stress, anxiety, depression, and a low level of fulfillment and emotional health would increase people's tendency to resort to using addictive drugs (39, 40).

Unfortunately, despite the ceaseless efforts some experts, a clear-cut preventive method has not been discovered yet (41). One possible reason can be that addiction is a multi-dimensional phenomenon. It is influenced by biological and socio-psychological factors. Since addiction is one of the most contentious issues of today's world, the present study is to explore the prognosticating role of VF in the AP among youths. On the other hand, it should be noted that previous studies have not explored the relationship between VF and AP among youth who have done VF in the Iranian Red Crescent Society (IRCS). Furthermore, less attention has been paid to the relationship between making VF and palliating anti-social behaviors. Thus, it has been decided to discover whether there is any relationship between voluntarism and the AP. The research also intends to understand whether voluntarism can prognosticate the AP.

Methods

The research design was descriptive-correlational. In this type of research, after the data collection, the correlation coefficient method has been used to investigate the relationship between the variables of the research. Data was analyzed by Pearson correlation and multiple regression (42). The statistical population of research included the total number of youths who contributed to the IRCS as volunteers recruiting from 31 province and 175 cities of Iran in 2018. The sampling method was multi-stage cluster sampling. A sample of 620 volunteers from the Iranian Red Crescent Society was selected for this study.

Thereafter, the Iranian Addiction Potential Scale (43) and Voluntary Function Inventory (44) were distributed among the participants. It is noteworthy that 595 questionnaires were suitable for analysis and

other questionnaires were excluded from the analysis.

Materials

The Iranian Addiction Potential Scale (IAPS)

The Addiction Potential Scale (APS) is one of the subscales of the Minnesota Multiphasic Personality Inventory (MMPI) that has been adopted from the second version of it namely, the Addiction Potential Scale. It is a 39-item empirically derived scale that has been designed by Weed, Butcher, McKenna, and Ben-Porath in 1992 (45). Zargar (43) has specified the aforementioned scale giving it an Iranian motif (IAPS). Thus, in the present study, the Iranian version of the IAPS is used to evaluate the AP among some Iranian youth volunteers. It is a 36-item inventory associated with five polygraph items. The inventory is a four-item spectrum rating from strongly disagree to strongly agree with zero showing the lowest and four the highest values. The reliability of the given scale has been examined by MamSharifi *et al* using Cronbach's alpha coefficient (0/91) (46). Cronbach's Alpha coefficient in the present study has been 0/90 for the scale of the IAPS.

Voluntary Function Inventory (VFI)

Volunteer Function Inventory (VFI) has been proposed by Clary *et al* in 1998 (44). As a seven-item scale questionnaire, VFI consists of 30 questions grading from insignificant to significant with zero illustrating the lowest and seven the highest values. The inventory is made of six subscales namely protective motives (a way that a person comes across to protect himself/herself from life hardships), values (a way to express altruistic values), career (a way to develop career perspective), social interactions (a way to reinforce social relations), Understanding (a way to acquire knowledge, skill, and potency), enhancement (a way to enhance oneself). Questions 7, 9, 11, 20, and 24 allude to protective motives. Questions 3, 8, 16, 19, and 22 refer to the second subscale. Questions 1, 10, 15, 21, and 28 indicate the third subscale. Questions 2, 4, 6, 17, and 23 make a reference to the fourth subscale. Questions 12, 14, 18, 25, and 30 refer to understanding, and, finally, questions 5, 13, 26, 27, and 29 allude to enhancement. Cronbach's alpha for VFI in the workings of Greenslade and White (47), Wu, Lo and Liu (48), Philips and Philips (49) and Vociono and

Polonsky (50), has been 0.89, 0.92, 0.85 and 0.82 respectively. The assessment of Cronbach's alpha in the present study for each of the subscales has shown the following values; protective motives (0/72), values (0/56), career (0/73), social (0/75), understanding (0/77), and enhancement (0/72). The total scale has been equal to 0/92.

Results

Demographic information of respondents is shown in Table (1). It is worth noting that a total number of 27 people from different groupings, who have been active in the Red Crescent Organization, have not responded to the questions. They include 7 persons from the category of sexual orientation, 15 people from different age groups, 3 persons from the category of education, and 2 individuals from the grouping of the number of years informants have offered services. Statistical data shown in table 2 illustrates that the mean for AP is 23/43. The highest mean for the AP is 108 and the lowest is 0 (43, 46). Put it bluntly, in as

much as the score transcends the mean, the more likely person tends to resort to misusing drugs; and insofar as the scores get lower than that of mean, the AP would decline. Table 2 also indicates that the mean for the variable of the VF is 175/90. It is worth noting that the highest score in each item of the inventory of volunteerism is 35 and the total score for the given questionnaire is 210 (44).

Statistical data in table 3 displays that there is a negative significant correlation between VF and AP. To put it simply, when people do voluntary services, the less likely they tend to resort to addiction. Similarly, there is a negative significant correlation between all the subscales of VA and AP.

To evaluate the predictability of the AP, we made use of multiple regression test. Table 4 reports the results of the multiple regression analysis with total expert rated AP score as dependent variable and VF as predictor. Given the data in table 4 displays that the variable of VF (total score) would prognosticate the AP (total score). According to the information shown in table 4, the predictor variable of VF (Total) could prognosticate 15 percent of the AP as the criterion variable. Higher

Table 1: Demographic variables.

(n=595)	
Gender	
- Male	290 (48.7%)
- Female	298 (50.1%)
Age	
- 14-19	79 (13.27%)
- 20-25	334 (56.13%)
- 26-31	167 (28.06%)
Educational Level	
- High School Diploma	31 (5.2%)
- Diploma	138 (23.3%)
- Associate's Degree	113 (19.1%)
- Bachelor's Degree	285 (48.1%)
- Master's Degree	25 (4.2%)
Years as a Member of the Red Crescent	
- 1-2	100 (16.8%)
- 3-4	189 (31.7%)
- 5-6	122 (20.5%)
- 7-8	87 (14.6%)
- More than 9	95 (15.9%)

Table 2: Descriptive Statistics of the Variables Studied in the Sample.

	N	Min.	Max.	M	SD	Skewness		Kurtosis	
						Value	Error	Value	Error
AP (Total)	595	1.00	87.00	23.43	12.57	1.00	0.10	1.92	0.20
VF (Protective Motives)	595	10.00	35.00	27.76	4.54	-0.64	0.10	0.31	0.20
VF (Values)	595	17.00	35.00	30.00	3.22	-0.79	0.10	0.80	0.20
VF (Career)	595	14.00	35.00	29.37	4.00	-0.80	0.10	0.52	0.20
VF (Social)	595	8.00	35.00	27.90	4.35	-0.73	0.10	0.71	0.20
VF (Understanding)	595	17.00	35.00	30.46	3.62	-0.94	0.10	0.68	0.20
VF (Enhancement)	595	17.00	35.00	30.39	3.50	-0.92	0.10	0.82	0.20
VF (Total)	595	102.00	210.00	175.90	18.92	-0.63	0.10	0.20	0.20

AP Addiction Potential, VF Voluntary Function

Table 3: Overview of correlation coefficients between Addiction Potential and Voluntary Function.

variables	1	2	3	4	5	6	7	8
1. VF (Protective Motives)	1							
2. VF (Values)	0.60**	1						
3. VF (Career)	0.61**	0.60**	1					
4. VF (Social)	0.48**	0.56**	0.58**	1				
5. VF (Understanding)	0.62**	0.62**	0.64**	0.51**	1			
6. VF (Enhancement)	0.64**	0.61**	0.65**	0.52**	0.66**	1		
7. VF (Total)	0.82**	0.80**	0.84**	0.76**	0.82**	0.83**	1	
8. AP (Total)	-0.25**	-0.35**	-0.33**	-0.27**	-0.40**	-0.31**	-0.39**	1

n= 595, **p< 0.01; AP Addiction Potential, VF Voluntary Function

Table 4: Multiple regression with addiction potential (total score) as dependent variable, and Voluntary Function as predictor.

Dimension	Variable	Coefficients	Std. Error	Coefficient B	t	P	R	R ²	Durbin-Watson Coefficient
AP (Total)	1 (Constant)	46.254	4.925	-	9.39	.001	0.3	.15	1.802
	VF (Total)	-.132	.028	-.177	-	.001	.92	.3	
					4.71				
					4				

a. Dependent Variable: AP Addiction Potential

scores for Voluntary Function, indicate the low scores for Addiction Potential.

Discussion

The findings of the research have shown that there was a negative significant correlation between VF and AP

(P<0/01, - 0/39). Findings proved that the predictor variable of VF could prognosticate 15 percent of the AP; meaning that the more tendency people showed to do voluntary services, the less likely they tended to resort to doing risky behaviors such as addiction. To put it more simply, the research hypothesis was proved. The interpretation of data would be like this; the higher

scores people got in the test, the more likely they gravitated to VF. Therefore, it can be said that getting engaged in more VF would deplete the inclination of youths to AP. The finding was in tune with the results of the previous research (27, 51).

Millions of people do voluntary works per annum. They devote a great deal of time to it. They help and support people in need. They provide disadvantaged people with social support, financial assistance, and consultation; unpaid assistants teach them how to organize themselves as well (27). Voluntary engagement is a kind of VF that some people would prefer to practice. It is an opportunity for them to help underprivileged people (52). These actions are fruitful in nature and are highly dependent on people's free will. Volunteerism is in harmony with personal values, needs, and motives (25). Besides, volunteers are sometimes offered some ancillary benefits. For instance, they learn new skills. They are also given a chance to be recognized by others. It should not be left unmentioned that volunteers do not engage in voluntary work for the sake of receiving any reward. Nor do they involve in voluntary works for the fear of punishments (53). Volunteerism would connect you to the society at large through which you can make the surrounding a more suitable place to live in. Even doing insignificant activities can change people's lives (27). Volunteerism looks like a two-way street. Not only can it be beneficial to the public, but also you and your family. Spending time and energy on voluntary works would help you make new friends, expand your social network, and boost your social skills. Based on previous research, social network and social skills can reinforce social support (54). These all provide a source of social support which, in return, can lessen the addictive potential of drugs among youths (53, 55). Health Guide Organization (37) acknowledges that volunteerism provides bashful and withdrawn people with an opportunity to learn socially new skills. Social skills would possibly get withdrawn people out of solitude. According to previous studies, loneliness would act as a driving force in getting addicted (56, 57).

On the other hand, voluntary works are instrumental in both physical and emotional health (58). Emotional health is a factor that can prognosticate the AP. As emotional health improves, the AP decreases (37, 59,

60). Health Guide Organization (37) also states that emotional health would help people make improvements in their workplace, and meet those who are interested in doing a business in their desired field of work. Even if people would not prefer to change their occupations, volunteerism would allow them to learn important skills such as teamwork, communications, problem-solving, project planning, management, and work scheduling programs in the workplace (37). Doing business is an important preventive factor (61, 62).

Health Guide Organization (37) concedes that volunteers feel gratified while helping others. When the life expectancy is high in a certain society, social interactions, co-operation, life satisfaction, social and emotional health would proliferate (63, 64, 65). The lack of spirit for social cooperation would possibly result in depression, pessimism, the negative evaluation of incidents, indifference to social affairs and work, dwindling of work ethics, social anomalies, the prevalence of violence in social relations, divorce, and the inclination to the culture of outsiders (20, 66, 67).

To sum, it can be said that volunteerism teaches some skills to people through which they would be able to improve their weaknesses and interpersonal relations. Also, they can put their acquired skills into practice properly and get involved in less risky behaviors. In other words, voluntary activities act as a sort of preventive factor in committing hazardous behaviors. Besides doing daily chores, those people who get engaged in voluntary works would be protected from possible threats and perils.

The findings of the present study show that the variable of volunteerism plays a vital role in prognosticating the addictive potential of drugs. It is incumbent that special attention is paid to the importance of volunteerism while making preventive plans. People can be persuaded to make voluntary activities by publicizing the positive effects of volunteerism. On the other hand, due to the significance of drawing attention to the issue of addiction in the whole society, the findings of the study can be employed in those organizations and centers that are mainly concerned about addiction.

One of the limitations of the study is related to the research method. The present study has nothing to do with the cause and effect relationship. Moreover, since the study primarily places emphasis on a certain group, members of the Iranian Red Crescent Society in this

respect, the matter of generalization should be considered.

As a suggestion, it is recommended that prospective researchers explore other variables such as emotions, beliefs, and thoughts that may encourage people to get addicted. It should be noted that cross-sectional and longitudinal studies can possibly explain the predisposing factors in addiction more appropriately.

Conclusion

It can be concluded that voluntary activities play an important role in reducing high-risk behaviors, including addiction potential. Therefore, by encouraging people to voluntary activities, the risk of addiction potential can be reduced.

Acknowledgment

Special thanks go to those who have contributed with us and devoted their time and energy, especially, Iranian Red Crescent Society.

Conflict of Interest

The authors declare that they have no conflict of interest.

References

- Andersen SL. Stress, sensitive periods, and substance abuse. *Neurobiol Stress*. 2018;10:100140.-
- Ghoreishi FS, Assarian F, Rezaei M, Kermanshah Z. The Efficacy of Methadone Maintenance Therapy on the Quality of Life and Marital Satisfaction among Substance Users. *Int J Appl Behav Sci*. 2020;7(1):24-32.
- Mamsharifi P, Jamehbozorg A, Takjoo J. The Effectiveness of Cognitive Rehabilitation on Increased Attention and Memory Functions in Heroin Addicts. *etiadjohi*. 2020; 4(55): 143-229.
- Daniels J, Netherland JC, Lyons AP. White Women, U.S. Popular Culture, and Narratives of Addiction. *Contemp Drug Probl*. 2018;45(3):329-46.
- Perka EJ, Jr. Culture change in addictions treatment: a targeted training and technical assistance initiative affects tobacco-related attitudes and beliefs in addiction treatment settings. *Health Promot Pract*. 2011;12(6 Suppl 2):159s-65s.
- Ghaseminejad MA, Purgholami F, Sadrmohamadi R. Simple and Multiple Relationships between morningness/eveningness Orientation, anxiety sensitivity and Addiction in University Students. *Int J Appl Behav Sci*. 2015;2(2):1-6.
- Diagnostic and statistical manual of mental disorders: DSM-5™, 5th ed. Arlington, VA, US: American Psychiatric Publishing, Inc.; 2013. xliv, 947-xliv, p.
- Garami J, Valikhani A, Parkes D, Haber P, Mahlberg J, Misiak B, et al. Examining Perceived Stress, Childhood Trauma and Interpersonal Trauma in Individuals With Drug Addiction. *Psychol Rep*. 2019; 122(2):433-50.
- Siadat M, Gholami Z. The Effectiveness of Group Logotherapy in Increasing Resilience and Decreasing Depression among Individuals Affected by Substance Abuse in Tehran. *Int J Appl Behav Sci*. 2018; 5(1); 24-30.
- Nutt D, Nestor L. *Addiction* (Oxford Psychiatry Library). Oxford, UK: Oxford University Press; 2013 2013-10.
- Aryan N, Banafshe HR, Farnia V, Shakeri J, Alikhani M, Rahimi H, et al. The therapeutic effects of methylphenidate and matrix-methylphenidate on addiction severity, craving, relapse and mental health in the methamphetamine use disorder. *Subst Abuse Treat Prev Policy*. 2020;15(1):72.
- Rodzlan Hasani WS, Miaw Yn JL, Saminathan TA, Robert Lourdes TG, Ramly R, Abd Hamid HA, et al. Risk Factors for Illicit Drug Use Among Malaysian Male Adolescents. *Asia-Pacific J Publ Health*. 2019;31(8_suppl):48s-56s.
- Thille P. Book Review: Todd Meyers, *The Clinic and Elsewhere: Addiction, Adolescents, and the Afterlife of Therapy*. *Health*. 2014;19(1):108-9.
- Gopiram P, Kishore MT. Psychosocial Attributes of Substance Abuse Among Adolescents and Young Adults: A Comparative Study of Users and Non-users. *Indian J Psychol Med*. 2014;36(1):58-61.
- Mamsharifi P, Sohrabi F, Borjali A. Mediating Role of Coping Strategies in the Relationship between Family Communication Pattern and Addiction Potential. *etiadjohi*. 2021;15(59):311-34.
- Malik AA, Nawaz S, Tahir AA, Ahmed S, Ashraf S, Hanif N, et al. Knowledge and awareness of harmful effect of substance abuse among users and non-users: a cross-sectional study from Bari Imam. *JPMA*. 2012;62(4):412-5.
- Gendreau P, Gendreau LP. The "addiction-prone" personality: A study of Canadian heroin addicts. *Can J Behav Sci / Revue canadienne des sciences du comportement*. 1970;2(1):18-25.
- Simcharoen S, Pinyopompanish M, Haoprom P, Kuntawong P, Wongpakaran N, Wongpakaran T. Prevalence, associated factors and impact of loneliness and interpersonal problems on internet addiction: A study in Chiang Mai medical students. *Asian J Psychiatr*. 2018;31:2-7.
- Ramsay DS, Kaiyala KJ, Woods SC. Individual differences in biological regulation: Predicting vulnerability to drug addiction, obesity, and other dysregulatory disorders. *Exp Clin Psychopharmacol*. 2020;28(4):388-403.
- Rahman MM, Rahaman MM, Hamadani JD, Mustafa K, Shariful Islam SM. Psycho-social factors associated with relapse to drug addiction in Bangladesh. *J Subst Use*. 2016;21(6):627-30.
- Lee J, Sung M-J, Song S-H, Lee Y-M, Lee J-J, Cho S-M, et al. Psychological Factors Associated With Smartphone Addiction in South Korean Adolescents. *J Early Adolesc*. 2016;38(3):288-302.
- Kee YH, Li C, Wang J, Kailani MIB. Motivations for Volunteering and Its Associations with Time Perspectives and Life Satisfaction: A Latent Profile Approach. *Psychol Rep*. 2018;121:932 - 51.
- Wilson J. Volunteering. *Annu Rev Sociol*. 2000;26(1):215-40.
- Jenkinson CE, Dickens AP, Jones K, Thompson-Coon J, Taylor RS, Rogers M, et al. Is volunteering a public health intervention? A systematic review and meta-analysis of the health and survival of volunteers. *BMC public health*. 2013;13:773.
- Chacón F, Gutiérrez G, Sauto V, Vecina ML, Pérez A. Volunteer Functions Inventory: A systematic review. *Psicothema*. 2017;29(3):306-16.
- Oh D-G. Analysis of the factors affecting volunteering, satisfaction, continuation will, and loyalty for public library volunteers: An integrated structural equation model. *J Librarian*

- Inform Sci. 2019;51(4):894-914.
27. Stukas AA, Snyder M, Clary EG. Understanding and encouraging volunteerism and community involvement. *The J Soc Psychol.* 2016;156(3):243-55.
28. Anderson ND, Damianakis T, Kröger E, Wagner LM, Dawson DR, Binns MA, et al. The benefits associated with volunteering among seniors: a critical review and recommendations for future research. *Psychol Bull.* 2014;140(6):1505-33.
29. Sundram F, Corattur T, Dong C, Zhong K. Motivations, Expectations and Experiences in Being a Mental Health Helpline Volunteer. *Int J Environ Res Public Health.* 2018;15(10):2123.
30. Vanderstichelen S, Houttekier D, Cohen J, Van Wesemael Y, Deliens L, Chambaere K. Palliative care volunteerism across the healthcare system: A survey study. *Palliat Med.* 2018;32(7):1233-45.
31. Niebuur J, Liefbroer AC, Steverink N, Smidt N. The Dutch Comparative Scale for Assessing Volunteer Motivations among Volunteers and Non-Volunteers: An Adaptation of the Volunteer Functions Inventory. *Int J Environ Res Public Health.* 2019;16(24):5047.
32. Lough BJ, Xiang X. Skills-Based International Volunteering Among Older Adults From the United States. *Admin Soc.* 2014;48(9):1085-100.
33. Lough BJ, Oppenheim W. Revisiting reciprocity in international volunteering. *Progr Dev Stud.* 2017;17(3):197-213.
34. Caligiuri P, Mencin A, Jiang K. Win-win-win: The influence of company-sponsored volunteerism programs on employees, NGO's, and business units. *Person Psychol.* 2013; 66(4):825-60.
35. Mikołajczak P, Bajak P. Does NGOs' Commercialization Affect Volunteer Work? The Crowding out or Crowding in Effect. *Publ Organ Rev.* 2020.
36. Niebuur J, van Lente L, Liefbroer AC, Steverink N, Smidt N. Determinants of participation in voluntary work: a systematic review and meta-analysis of longitudinal cohort studies. *BMC public health.* 2018;18(1):1213.
37. Organization HG. Volunteering and its Surprising Benefits: How Giving to Others Makes You Healthier and Happier www.helpguide.org; www.helpguide.org; 2020 [updated October 2020].
38. Handy F, Mook L. Volunteering and Volunteers: Benefit-Cost Analyses. *Res Soc Work Pract.* 2010;21(4):412-20.
39. Hasin DS, O'Brien CP, Auriacombe M, Borges G, Bucholz K, Budney A, et al. DSM-5 criteria for substance use disorders: recommendations and rationale. *Am J Psychiatry.* 2013;170(8):834-51.
40. Kim HS, Hodgins DC. Component Model of Addiction Treatment: A Pragmatic Transdiagnostic Treatment Model of Behavioral and Substance Addictions. *Front Psychiatr.* 2018;9:406.
41. Cockcroft JD, Adams SM, Matlock D, Dietrich MS. Reliability and construct validity of 3 psychometric trust scales for women seeking substance abuse treatment in a community setting. *Subst Abuse.* 2020;41(3):391-9.
42. Bell J. *Doing Your Research Project: A guide for first-time researchers*; McGraw-Hill Education (UK); 2014.
43. Sohrabi F, Mamsharifi P, Rafezi Z, A'azami Y. Predicting Addiction Potential based on Mental Health, Social Support and Neuroticism and Agreeableness Personality Traits. *IJPN.* 2019; 6(6):57-66
44. Clary EG, Snyder M, Ridge RD, Copeland J, Stukas AA, Haugen J, et al. Understanding and assessing the motivations of volunteers: A functional approach. *J Pers Soc Psychol.* 1998;74(6):1516-30.
45. Weed NC, Butcher JN, McKenna T, Ben-Porath YS. New measures for assessing alcohol and drug abuse with the MMPI-2: The APS and AAS. *J Pers Assess.* 1992;58(2):389-404.
46. MamSharifi P, Koorani Z, Dortaj F, Haghmohamadi Sharahi G, Sohi M. Addiction prone prediction modeling based on meta-cognitive beliefs and sensation seeking: the mediating role of big five personality traits. *psychol sci.* 2020;19(94):1219-30.
47. Greenslade J, White K. The Prediction of Above-Average Participation in Volunteerism: A Test of the Theory of Planned Behavior and the Volunteers Functions Inventory in Older Australian Adults. *J Soc Psychol.* 2005; 145:155 - 72.
48. Wu J, Wing Lo T, Liu ESC. Psychometric properties of the volunteer functions inventory with Chinese students. *J Community Psychol.* 2009; 37(6):769-80.
49. Phillips L, Phillips M. Volunteer Motivation and Reward Preference: An Empirical Study of Volunteerism in a Large, Not-for-Profit Organization. *SAM Advanced Management Journal.* 2010;75:12.
50. Vocino A, Polonsky MJ. Volunteering for Research: A Test of the Psychometric Properties of the Volunteer Functions Inventory with Online Panellists. *Int J Publ Opin Res.* 2011; 23(4):508-21.
51. Musick MA, Wilson J. Volunteering and depression: the role of psychological and social resources in different age groups. *Soc Sci Med.* 2003; 56(2):259-69.
52. Baruch A, May A, Yu D. The motivations, enablers and barriers for voluntary participation in an online crowdsourcing platform. *Comput Hum Behav.* 2016;64:923-31.
53. Omoto AM, Packard CD. The power of connections: Psychological sense of community as a predictor of volunteerism. *J Soc Psychol.* 2016; 156(3):272-90.
54. Agran M, Hughes C, Thoma CA, Scott LA. Employment Social Skills: What Skills Are Really Valued? *Career Development and Transition for Exceptional Individuals.* 2014;39(2):111-20.
55. Khasanzanova A. How volunteering helps students to develop soft skills. *Int Rev Educ.* 2017; 63:363-79.
56. McCann SJH. Higher USA State Resident Neuroticism Is Associated With Lower State Volunteering Rates. *Pers Soc Psychol Bull.* 2017;43(12):1659-74.
57. Carr DC, Kail BL, Matz-Costa C, Shavit YZ. Does Becoming A Volunteer Attenuate Loneliness Among Recently Widowed Older Adults? *The Journals of Gerontology: Series B.* 2018; 73(3): 501-510.
58. Filges T, Siren A, Fridberg T, Nielsen BCV. Voluntary work for the physical and mental health of older volunteers: A systematic review. *Campbell Syst Rev.* 2020;16(4):e1124.
59. Burr JA, Tavares J, Mutchler JE. Volunteering and Hypertension Risk in Later Life. *J Aging Health.* 2010;23(1):24-51.
60. Kahana E, Bhatta T, Lovegreen LD, Kahana B, Midlarsky E. Altruism, helping, and volunteering: pathways to well-being in late life. *J Aging Health.* 2013; 25(1): 159-187.
61. Loosemore M, Bridgeman J. Corporate volunteering in the construction industry: motivations, costs and benefits. *Construct Manag Econ.* 2017;35(10):641-53.
62. Yeung JWK, Zhang Z, Kim TY. Volunteering and health benefits in general adults: cumulative effects and forms. *BMC public health.* 2017;18(1):8.-
63. Borgonovi F. Doing well by doing good. The relationship between formal volunteering and self-reported health and happiness. *Soc Sci Med.* (1982). 2008;66(11): 2321-2334.
64. Plagnol AC, Huppert FA. Happy to help? Exploring the factors associated with variations in rates of volunteering across Europe. *Soc Indic Res.* 2010;97(2):157-76.
65. Brown KM, Hoyer R, Nicholson M. Self-Esteem, Self-Efficacy, and Social Connectedness as Mediators of the Relationship Between Volunteering and Well-Being. *J Soc Serv Res.* 2012; 38(4):468-83.
66. Zuckerman M. Psychological factors and addiction: Personality. *APA addiction syndrome handbook, Vol 1 :Foundations, influences, and expressions of addiction.* APA handbooks in psychology®. Washington, DC, US: American Psychological Association; 2012. p. 175-94.
67. Wu AM, Cheung VI, Ku L, Hung EP. Psychological risk factors

of addiction to social networking sites among Chinese smartphone users. *J Behav Addict.* 2013;2(3):160-6.

© **Peyman MamSharifi, Faramarz Sohrabi, Pegah. AM.Seidi, Ahmad Borjali, Nahid Hoseinezhad, Nazanin Asadi**, et al. Originally published in the International Journal of Applied Behavioral Sciences (<https://journals.sbmu.ac.ir/ijabs/index>), 23.5.2022. This article is an open-access article under the terms of Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>); the license permits unlimited use, distribution, and reproduction in any medium, provided the original work is properly cited in the International Journal of Applied Behavioral Sciences. The complete bibliographic information, a link to the original publication on <https://journals.sbmu.ac.ir/ijabs/index>, as well as this copyright and license information must be included.