



Prioritizing Motivational and Satisfactorily Factors of Volunteer Medical and Health Personnel in Natural Disasters

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Abstract

Introduction: Currently, volunteer forces are among the main members of the healthcare service body, particularly in the treatment sector, and play a key role in healthcare and treatment services. Since efficient human resources are the greatest and most important assets of all organizations, the organization constantly works to train, retain, and get maximum benefit of these valuable assets. The main objective of this work is to prioritize the Motivational factors and satisfaction of the volunteer forces participating in treatment and health programs in the case of emergencies.

Methods: The statistic research community of this work is all volunteers (N=600) in treatment and health programs in Kerman province. Using the Morgan Table, 360 statistical subjects were selected. The data-gathering instrument used in this research was Andam's questionnaire of motivational factors with reliability of 0.94, and Galindo-Kuhn and Guzley (2001) questionnaire of satisfaction with reliability of 0.92. To determine research data distribution, Kolmogorov-Smirnov test was applied. Moreover, for data analysis inferential statistics tests of Friedman, Mann-Whitney U, and Kruskal-Wallis were used at significance level of $p < 0.05$.

Results: The present research revealed that the most and least important motivational factors in volunteers of treatment and health units are purposeful motivation and financial motivation with average rankings of 5.45 and 1.99, respectively. In addition, among the satisfaction factors, the volunteers reported communication with volunteers and organizational communication as the most and least important satisfaction factors, respectively. The results of this research indicated that the female volunteers participated in volunteer activities with greater occupational, support, progress, and social motivations. In addition, single participants had greater occupational, social, and financial motivations towards participation in these activities as compared to married participants.

Conclusion: The results of this research revealed that to absorb a higher number of volunteers in health and treatment organizations, it is required to have an emphasis on commitment and purposeful aspects, as by improving the motivational and satisfaction factors, we can be hope that satisfaction and retention level increases in volunteers. Furthermore, by knowing the volunteers' motivations, the managers of the health and treatment organizations can provide their retention and satisfaction and play a key role in crisis management during disasters by exploiting the volunteer services.

Keywords: Volunteers, Motivational Factors, Satisfaction, Disasters

Introduction

Willing to be helpful is an important aspect of human nature, and some people, in particular, have an altruistic behavior toward helping others known as "volunteer behavior" (1). A large number of people annually participate in various volunteer activities and offer many services such as aiding the injured people, medical, managerial, and athletic services (2). A general definition describes a volunteer as the individual who helps without hope of being rewarded and considers volunteering as an activity for improving others' lives and helping them. There are more comprehensive definitions that consider volunteering as a willing, consistent, and systematic job without reward expectation, or a conducive behavior enhancing others' welfare, which occurs in an organizational environment (3). Today, volunteers are among the main components of the servicing sector of the healthcare system, and play a key role in caregiving. Because of their major impact on

different levels of the society, volunteers have many economic and social advantages (4). A research by the Volunteer Institute (2010) showed that 61.8 million Americans have been volunteers and participated about eight billion hours of volunteer work in 2008. Among these 61.8 million volunteers, 12.9 million were in non-profit organizations and their work value is estimated about 160 billion USD in 2010. Moreover, this institute estimated the value of volunteer work in European Union as 41 billion USD. Hence, a huge financial interest can be gained by the organizations through exploiting volunteer work. Here, it is obvious that the volunteer works have largely contributed to the health sector and other classes of societies (2, 5).

Considering the economic deflation and climax of the financial problems and budget splits, governments' role has been decreased in budgeting many services. This results in the more important role of non-profit organizations for providing these



services. The majority of non-profit organizations reported that they have recruited more volunteers within 2008 to 2009 and predicted that this recruiting process would be more comprehensive in the future years. The rise of demand for work force constantly leads to a sustainable decrease in force resources. Over the past decade, volunteer work force has had a 25% drop, as it has shifted from 83 million in 2000 to 61.8 million in 2008. The importance of volunteer forces and reduction in their number necessitates study of motivation and satisfaction level of the volunteers (6). Few studies have been conducted on crisis and disasters. In general, motivation is an important tool in understanding volunteering behaviors. Motivation describes causes and goals directing an individual toward being a volunteer and retaining in the volunteer activity (7). Recently, researchers have studied volunteers' motivation for the volunteering behaviors in various classes including communities, organizations, commerce, and business (3). Understanding the motivations driving people toward the volunteer activities is a vital issue for managers and treatment and health organizations. Studies on the motives of volunteers reveal some interesting and rather contradicting results. Reviewing the literature revealed a rather consensus in on the multi-aspect nature of volunteers' motivations and the altruistic purposes in people's willingness toward volunteering activities. Some researchers believe that volunteers spend their time and efforts because of different causes. A conventional approach establishes understanding the volunteer's motives based on the altruistic and autistic theories. Classifying volunteers into two altruistic and autistic groups seems to be a simple task. However, once it is intended to study motivation of the volunteers, this two-group classification of the volunteers might not suffice for detection of the particular cases related to volunteers' management and recruiting (7). Further studies showed that volunteering motivations are not limited to a particular group of motivations and volunteers are engaged in volunteering activities with different motivations. Many motivation models are used for categorization and interpretation of the motivation in volunteers. In this regard, the most frequently used model is the multi-aspect model proposed by Kalari et al. (1998) which introduces six motivational factors of the volunteers including value, cognitive, social, occupational, support, and progress motives. This model is widely accepted by the researchers and is used in many cases. However, the models such as the one proposed by Kenan and Goldberg (1999) receive less attention due to their empirical and theoretical flaws (4, 8). It seems that the motivational factors of the volunteers in the treatment sector are different from those of other volunteering sectors and the motivations can be different for those working in health services.

Moreover, researchers define the "satisfaction" discourse in social, mental, human resource management, and organizational behavior aspects. Understanding satisfaction of volunteers is a key factor in absorbing and retention of volunteers in health organizations. Methods evaluating satisfaction level in the volunteers are considerably different. The majority of the performed studies emphasize on a single aspect of satisfaction (9). Omoto and Schneider (1995) used the 7-point Likert scale and evaluated satisfaction in volunteers using the aspects including interest, importance, and reward. Gidoren (1983) evaluated satisfaction in volunteers in a general fashion, where he identified 12 different factors as the satisfaction sources in the volunteers. On the other hand, Galindo-Kuhn and Guzley (2001) developed a volunteer satisfaction model using a four-aspect scale. It is believed that multi-aspect scales are more effective for evaluating the satisfaction level in volunteers. Since various factors and the general aspects of satisfaction deal with job, organization, affect satisfaction of the volunteers individual independence, or completion of the individual motives (value, social, and progress), an appropriate satisfaction evaluation must cover all these factors. This discrepancy among the various studies about their evaluation approaches used for satisfaction measurement also yields different outcomes (10).

Recent works have shown that age, religion, ethnicity, culture, and other environmental factors can also affect motivation of the volunteers. Age is an important demographic factor in motivation of the volunteers. Generally, young people are motivated through factors different from those motivating old people. Young volunteers are typically motivated by altruistic, occupational, social, and understanding as compared to the old volunteers. In addition, gender-based differences are highly important in volunteers' motivation (11). Rokach and Wenklin (2009) reported that the majority of the volunteers are females and people with high education. Mostly, it seems that females are more willing toward engagement in volunteer activities. Many works have been conducted on gender differences in volunteers, and researchers have found that women have higher motivation for volunteer programs as compared to men (12). Nassir McMillan mentions that education level plays a key role in volunteering action and is considered as a valid predictor of volunteer activities. In addition, White (2006) states that people with higher education are more willing to participate in various organizations (13).

There are 40 types of natural disasters, from which 32 occur in Iran. Therefore, Iran is considered among the ten and four most disastrous countries of the world and Asia, respectively. Many countries claiming their high potentials in rescuing process are not competent during the harsh and large-scale



disasters and even lose some of their rescue forces; implying that along the advanced rescue equipment, the most important component of rescue process is the efficient and well-trained forces. Because the most important problems occur after disasters is related to the human resources, programming and importance of motivation and satisfaction in volunteers in treatment sector is an indispensable issue during the disasters.

Many investigations have been carried out on motivation and prioritization of the sport volunteers (14). On the other hand, few studies have been performed on motivating factors of the treatment volunteers during the crisis and disaster, and it is not clear that what motives drive them toward volunteer activities and whether there is a difference in their motives considering the demographic specifications of the volunteers. Due to the fact that in Iran only the Red Crescent organization makes a long-term use of the organized volunteer forces, and volunteer sector in the treatment and health sector has poor function, and does not receive adequate attention, the researchers of the present article made an effort to investigate motivational and satisfaction factors of the volunteers in the view of healthcare staff.

Methods

The present work is a descriptive causal-comparative study conducted to prioritize the motivational and satisfactory factors in volunteers of the treatment and healthcare system. The statistical group of this research was all treatment and healthcare volunteers from Kerman Province working in this system in 2012 to 2013. Based on Morgan's Table, the number of subjects required for this research was determined as 360 and sampling was performed through the random clustering method. The instrument used in this research consists of a demographic questionnaire and motivational factors inventory extracted from Andam's volunteer motivation questionnaire with reliability of 94% and a 5-point Likert scale (from "I strongly disagree" = 1 to "I strongly agree" = 5), which evaluates seven motivational factors (occupational, financial, social, support, purposeful, commitment, and progress) in the volunteers of healthcare system. Occupational factor covers the opportunities contributing the volunteer to gain a job and experience. Financial motivational factor is the opportunity for gaining profit and benefits for the volunteers, whereas social motivation is a chance for being with friends and engaging in social activities for the volunteers. The next factor is progress motivation, which implies the individuals' need for self-actualization, self-esteem, success, and attention to the private interests and benefits. Purposeful motivational factor is related to the philanthropic and altruistic aspects and indicates the volunteer's willingness towards giving effective and valuable help to the organization and society. Support

motivational factor is about eliminating negative feelings and thoughts by volunteers through the voluntary work. Finally, commitment motivational factor involves expectations of others (family, friends, and organization) of the volunteers considering their skills. After being fitted with perspectives of the volunteers working in healthcare sector, the motivation questionnaire was also confirmed by 10 experts (1).

Using the volunteers' satisfaction questionnaire in this research, which is extracted from satisfaction questionnaire of Galindo-Kuhn and Guzley (2001) with a 5-point Likert scale ("I am strongly satisfied"=1 to "I am strongly dissatisfied"=5), satisfaction was evaluated in the volunteers. The satisfaction questionnaire consists of the following three parts. Part 1, organizational communications, contains 10 questions, which evaluate satisfaction towards the mutual relationships between staffs inside within the organization. Part 2, individual interest, contains 10 questions dealing with individual interests and benefits of the staffs and their involvement in organization, independence, individual growth and sense of satisfaction through offering financial aids, and spending time and effort on the volunteer work. Part 3, communications with colleagues, have four questions, which are managed around satisfaction through developing communications with other colleagues (14). After being translated, edited, and adjusted with activities related to treatment and healthcare sector, the questionnaire was submitted to the experts and confirmed by them. The reliability of this questionnaire was calculated as 94% using the Cronbach's Alpha criterion. After applying ethical considerations, the questionnaire was finally distributed among the subjects. To determine distribution of the data used in this work, Kolmogorov-Smirnov test was used. In addition, for data analysis inferential statistics including Friedman, Mann-Whitney U, and Kruskal-Wallis were used at significance level of $p < 0.05$.

Results

Among the 360 participants of this work, 66.4% are male and the rest (33.6%) are female. Participants' ages vary from 20 to 60 years, with the mean and standard deviation being 32 years and 9.06 years, respectively. The results of this work revealed that the majority (61.1%) of the subjects were married. In addition, 50% of them were employees; most (39.4%) of them had a bachelor degree; and the majority of them (79.2%) graduates of paramedics. Among the participants, 188 subjects had the volunteering work experience in disaster events such as earthquake, flood, etc. Using the normal data distribution (k-s), it was observed that the studied variables (except occupational, progress, and support factors among the motivational factors, and



organizational benefit and individual benefit, among the satisfaction factors) have a significant difference ($p < 0.05$) with normal distribution. Therefore, nonparametric Friedman test was applied in this research.

The results of this work revealed that there is a significant difference among the motivational priorities of the volunteers. The most important motivational factors in volunteers of treatment and healthcare system are purposeful, commitment, support, progress, social, and financial motives. Since not all studied variables were normal in this research, Mann-Whitney U analysis was used for comparing the motivation aspects in male and female volunteers.

According to Table 3, there is a significant difference among occupational, progress, and social motives for two genders (i.e. female volunteers participated in volunteering programs with stronger occupational, support, progress, and social motivations). The results also indicated that there is a significant difference among the motivations of the single and married volunteers of the treatment and healthcare programs in terms of occupational, social, and financial motivations. In other words, the single volunteers have stronger occupational, social, and financial motivations towards participation in volunteering programs as compared to the married volunteers. Table 5 presents a comparison among the motivations of the volunteers in terms of their education level. The results revealed that there is a significant difference among the purposeful and financial motivations and education level and people with diploma or bachelorette degrees seek purposeful and financial motives, respectively.

Discussion

This research was conducted on volunteers of treatment and healthcare programs in Kerman Province, Iran, working in 2012-2013 in treatment and health organizations. The present work revealed that the most important motivational factor in volunteers of the treatment and health organizations, by order of importance, are purposeful, commitment, and occupational motives, while the financial motives is the least important factor. This finding is in agreement with findings of Salas (2008), Gonzales (2009), Finkelstien (2009), and Adam (2010) who reported purposeful and commitment motives as the most important motivational factors (3, 10, 14, 15). However, this finding is not consistent with the findings of Moharram Zadeh and Afrozeh who reported value (purposeful) factor as the least important motivational factor among the volunteer students. This severe contradiction might be attributed to the statistical community of Moharramzadeh whose research subjects were students and mainly seeking for the financial and occupational interests (2). Purposeful motive is based

on a desire for performing a conducive work effective on the society (16). The volunteers of treatment and health sector understand the volunteer job properly because of their altruistic and religious beliefs, which is not surprising considering the cultural and Islamic context of Iran. Young (2004) mentioned that religion and values could affect important factors of individuals' motivation (12, 17). Thus, it can be concluded that religious commands can serve as a driving force for the volunteers and play a key role in satisfaction and commitment of the volunteer forces. Another point extracted from this work is professional responsibility, religious, and ethics in the volunteers of treatment sector, who regard contribution to the disaster-stricken people as a professional responsibility. This factor, coupled with the previously mentioned cultural and religious issues, can serve a factor in being committed towards the altruistic issues. Occupational motivation is among the important motivations in the treatment volunteers; as increase in occupational motivation enhances satisfaction level in the volunteers. Occupational factor offers a considerable assistance to the volunteers for gaining a job and experience. This finding was in agreement with results reported by Marta et al. (2006) who reported that occupational motivation is significantly related to satisfaction (18). In addition, the results of present work are consistent with those of Gonzales (2009) and Hu Han Thi (2010) who believed that the volunteers are mainly motivated towards gaining job experiences (6, 10). However, the findings of present work are in disagreement with those of Finkelstien (2005) and Adam (2010) who explored the relationship between motivational factors and satisfaction level in sport volunteers; as they reported that occupational progress is of less importance in the volunteers. This inconsistency might be attributed to the high age of the samples studied in their work that had a low occupational motive (3, 15). The treatment and health volunteers of the present work consider volunteering process as a tool for developing and improving the occupational skills as well as gaining experience. Azbog and Web (2008) reported that the employed people consider volunteering as a credit for themselves (19, 20). Since a number of volunteers in the present work were students of nursing, medicine, and other paramedics fields, likewise the employed volunteers, they redeem occupational motivation as a good resume for their job future and consider it as a factor enhancing their skills and potentials when dealing with disasters. These volunteers understand the importance of participation in volunteer activities, particularly in social responsibilities and professional skills, and would see its benefit in their future activities. The results of this research also revealed that the financial motives are the least important motivational factors in volunteers of treatment and health sector.



The low importance of this factor can be attributed to the employment of the majority of volunteers of this research and their professional responsibility and ethics. Thus, they, particularly the nursing volunteers, had a less emphasis on financial aspects.

Nevertheless, managers of the health and treatment organizations are required to accept this factor among the needs of treatment volunteers and try to fulfill that, which in turn provides retention of the volunteers.

Table 1: A Comparison between motivational preference of the volunteers in treatment and healthcare system

Motivational factors	Mean ranking	Chi-square	Degrees of freedom	Significance level
Purposeful	45.5			
Commitment	51.4			
Occupational	34.4			
Support	20.4	71.531	6	0.001*
Progress	95.3			
Social	56.3			
Financial	99.1			

Table 2: A comparison among the satisfaction preferences in volunteers of treatment and healthcare system

Motivational factors	mean ranking	Chi-square	Degrees of freedom	Significance level
Communication with volunteers	36.2			
Individual interests	17.2	13.165	2	0.001
Organization interest	47.1			

Table 3: A gender-based comparison among the motivational factors

Motivational factors	Group	Mean	Standard deviation	Mean ranking	Mann-Whitney U test		
					Calculated Z	U value	Significance level
Purposeful	Male	87.3	60.0	73.179	-0.198	14276	0.84
	Female	90.3	60.0	02.182			
Commitment	Male	44.3	72.0	64.162	-4.584	10190	0.001*
	Female	82.3	61.0	79.215			
Occupational	Male	54.3	76.0	95.177	-0.655	13851	0.51
	Female	60.3	73.0	53.185			
Support	Male	35.3	90.0	22.170	-2.639	12003	0.008*
	Female	62.3	90.0	80.200			
Progress	Male	31.3	80.0	08.167	-3.447	11252	0.001*
	Female	88.3	80.0	207			
Social	Male	18.3	80.0	42.172	-2.083	12529	0.037*
	Female	40.3	84.0	45.196			
Financial	Male	66.2	95.0	173	-1.925	12666	0.054
	Female	88.2	1.02	32.195			

Table 4: A comparison among the motivational factors in terms of marital status

Motivational factors	Group	Mean	Standard deviation	Mean ranking	Mann-Whitney U test		
					Calculated Z	U value	Significance level
Purposeful	Single	3.84	0.58	172.66	1.146	14302.500	0.25
	Married	2.91	0.62	185.49			
Commitment	Single	3.69	0.64	195.24	2.147	13336.500	0.032*
	Married	3.49	0.74	171.12			
Occupational	Single	3.50	0.72	172.14	1.219	14230	0.22
	Married	3.59	0.77	185.82			
Support	Single	3.54	0.88	192.66	1.772	13523	0.076
	Married	3.38	0.93	172.76			
Progress	Single	3.49	0.76	191.17	1.556	13906	0.12
	Married	3.37	0.89	173.71			
Social	Single	3.38	0.80	193.91	-	13523	0.050*



	Married	3.17	0.89	171.97	1.963		
Financial	Single	2.96	0.97	205.65	-	11879	0.001*
	Married	2.59	0.95	164.50	3.662		

Stifen (2008) mentions that irrespective to the philosophical objective of volunteering, many people receive some form of payment for their volunteer job (11). Here, the financial factor indicates the desire of an individual for gaining tangible interests such as financial rewards and different services. The results of present research are in agreement with those of Johnson (2007) and Hoerber (2010) who consider financial motives among the less important factors (12, 21). The results also revealed that communication with volunteers and organizational communications are the most and least important satisfaction factors in the volunteers of treatment and health sector, respectively. This finding is in agreement with those of Salas (2008) (14). McKey (2003) mentioned that many people participate in volunteering acts for developing friendly relationships with others. Through the volunteering, they could communicate with other volunteers and share their common values and have a friendly relationship, which provides a feeling of satisfaction for them (22). Health and treatment organizations are some organized and official media, which provide an opportunity for the volunteers to communicate in a friendly environment and perform volunteering acts. Hence, these activities serve as a tool for developing the social capital among the participants in treatment and health sector and, in general results in better performance and higher satisfaction of the volunteers. The results of present work are in agreement with those reported by Galindo-Kuhn and Guzley (2001), Hung (2009), and Kang (2011) (16, 19, 23).

Individual characteristics of the volunteers can be categorized into the sociological and demographic specifications. Hu Han (2010) mentions that specifications such as age, gender, ethnicity, health, income level, education level, religion, political believes, as well as individual experiences and skills play a key role in motivational factors of the individuals (6). The results of this research identified that the difference among the female and male volunteers is in terms of occupational, support, progress, and social motives. In other words, female volunteers have a stronger occupational, support, progress, and social motives towards the long-term volunteer activities. In general, it seems that women are more willing to participate in volunteer activities. Many studies explore gender-based differences in volunteering motivations. Many works have been conducted on gender-based differences in volunteering motivations and it has been found that women gains higher scores than men in terms of participation in volunteer activities (5-7). This finding is consistent with that of Fletcher and Mitcher (2004) who believed that women are more eager towards the volunteer activities than men and progress, understanding, and value motives are among the their

dominant motivations (24). Women typically have an imitative behavior and are intrinsically willing to perform caring services. Such gender-based expectations might emphasize responsibility of the women for volunteering programs and make them more enthusiastic than men towards these programs. Prentis (2000) reported that men are generally attracted by the utility motives such as occupational motivations, while women are mainly absorbed by the altruistic motives such as value. Sweitzer (1999) reported that value and progress motives are stronger in female medical volunteers as compared to the male ones (25). The higher occupational performance of the men in comparison to women can be attributed to the assertiveness, emotionality, and perseverance, and getting along with difficulties in men. However, both genders are mainly motivated with value, understanding, and progress motives. Researchers believe that, due to their social limitations, women are familiar mainly with care and training roles since the early stages of their lives and they are expected to participate in long-term activities, unlike men who are generally engaged in short-term activities. This finding is in agreement with present research .

The results of this work also indicated that there is a significant difference between purposeful and financial motives and education level, and people with diploma or bachelorette degree follow the purposeful and financial motives, respectively. The findings of this research also revealed that the higher education level is the less strong the financial motives would be; as the financial preferences of volunteers with MS or MA degrees are less strong as compared to those with lower educations. Due to not having a clear job and the consequent financial problems, the volunteers with lower educations consider volunteering as a medium for gaining job experience, escape from unemployment, and partial supplying of their financial needs. On the other hand, people with higher education are not willing to attend the main crisis scenes and prefer to work in the programming and headquarter.

An uncontrollable limitation of the present work is lack of control on subjects' personal attitudes when responding the questions, probability of different interpretation of the subjects of the questions due to factors such as their bias and carelessness, as well as the limited number domestic works on prioritization of the motivations of the volunteers active in health and treatment sector in disaster events. An uncontrollable limitation of the present work is lack of control on subjects' personal attitudes when responding the questions, probability of different interpretation of the subjects of the questions due to factors such as their bias and carelessness, as well as the limited number domestic works on prioritization of the motivations of the



volunteers active in health and treatment sector in disaster events.

In generally, motivation and satisfaction are among the important tools perceiving the volunteering behaviors. One of the most important strategies for recruiting and retention of the volunteers is to know their motives and satisfactions. Detecting these valuable human resources is of great importance in applying and exploiting the potentials and skills of the volunteers in crisis management during the emergencies. People occupied in treatment and health sectors perform volunteering duties with their own will without any rewarding expectation or receive only an insubstantial amount of money. Through exploring the motives of volunteers, the managers of the health and treatment organizations can detect the purposes and plans of the volunteers for participation in

volunteering acts and retention in these activities. This detection can be considered as an important step in crisis management in the emergencies. Besides, it seems that if the volunteers consider the activities as valuable and important, as they enhance their work experiences, feel responsibility towards gaining knowledge and skills for performing these activities, and improve their communications and social interactions, they would be more satisfied. Therefore, by preparing suitable media for enhancing the social interactions, offering proper feedbacks, and using the rewarding, support, and acknowledgement polices, the managers of the health and treatment organizations can play a key role in satisfaction and constant participation of the volunteers in the disasters.

Table 5: A comparison among the motivational factors in terms of academic field of study

	Group	Mean	Standard deviation	Mean ranking			Kruscal Wallace test
							Significance level
Motivational factors	Diploma	4.01	0.56	201.25	Chi-square	Degrees of freedom	
	Associate degree	3.93	0.56	186.51			
	Bachelor	3.77	0.64	164.08			
	MSc. & higher	3.69	0.61	151.16			
	Diploma	3.65	0.74	192.11			
	Associate degree	3.62	0.67	191.14			
	Bachelor	3.49	0.71	168.53			
	MSc. & higher	3.47	0.73	161.87			
	Diploma	3.67	0.73	195.79			
	Associate degree	3.49	0.69	170.36			
	Bachelor	3.50	0.76	173.79			
	MSc. & higher	3.37	0.88	155.95			
	Diploma	3.67	0.94	205.82			
	Associate degree	3.34	0.85	168.72			
	Bachelor	3.35	0.89	169.75			
	MSc. & higher	3.05	0.88	136.37			
Social	Diploma				10.938	5	0.053
	Associate degree	3.45	0.95	203.10			
	Bachelor	3.10	0.84	163.57			
	MSc. & higher	3.25	0.89	174.31			
	Diploma	3.05	0.88	161.58			
Financial					11.497	5	0.0425
	Diploma	2.94	1.05	201.39			
	Associate	2.58	0.90	165.32			



	degree						
	Bachelor	2.69	0.95	175.93			
	MSc. & higher	2.37	0.71	145.95			

Significant at $p < 0.05$

References

1. Andam R. Volunteering motivations in sport. *Olympics Quarterly*. 2008;17(3(47)).
2. Aminzadeh M, Nourayi Gh. T, Neyrizi K. Relations among the motivational and satisfaction factors in volunteer forces in sport associate of Kerman Province: Shahid Bahonar University of Kerman; 2011.
3. Love A, Hardin R, Koo G-Y, Morse A. Effects of motives on satisfaction and behavioral intentions of volunteers at a PGA tour event. *International Journal of Sport Management*. 2011;12(1):86-101.
4. Cuskelly G, Hoye R, Auld C. *Working with volunteers in sport: Theory and practice*: Routledge; 2006.
5. Independent Sector Research. Research: Value of volunteer time.: Independent Sector Web; 2010 [cited 2010 February 16]. Available from: http://www.independentsector.org/programs/research/volunteer_time.html.
6. Huu Hanh T. *Volunteer Management*: Lahti University of Applied Science 2010.
7. Chun H. A Study of volunteers motivation and satisfaction the 2002 Fifa world cup Korea & Japan. A thesis submitted to the faculty of the united states sports academy in partial fulfillment of the requirement for degree of master of sport science 2003.
8. Corporation for National & Community Service. *Volunteering in America 2010 Fact Sheet 2010*. Available from: <http://www.VolunteeringinAmerica.gov>.
9. Davis MH, Hall JA, Meyer M. The first year: Influences on the satisfaction, involvement, and persistence of new community volunteers. *Personality and Social Psychology Bulletin*. 2003;29(2):248-60.
10. Gonzalez K. *Volunteer Motivations and Satisfaction in a Tutoring Program: Implications for Recruitment and Retention*. New York: Pace University; 2009.
11. Hunter AT. *Why volunteer for the environment? An exploration of environmental volunteer motivation, satisfaction and retention*: University of Victoria; 2010.
12. Hoerber L. Experiences of volunteering in sport: Views from Aboriginal individuals. *Sport Management Review*. 2010;13(4):345-54.
13. Engelberg T, Skinner J, Zakus D. Exploring the commitment of volunteers in Little Athletics centres. *Australian Journal on Volunteering*. 2006;11(2):57-67.
14. Salas GR. *Volunteer Functions, Satisfaction, Commitment and Intention to Leave Government Volunteering*: Lynn University; 2008.
15. Finkelstien MA. Intrinsic vs. extrinsic motivational orientations and the volunteer process. *Personality and Individual Differences*. 2009;46(5):653-8.
16. Kang C, Welty Peachey J, editors. *A Cross-National Comparison of Sport Volunteer Motivation*. 2011 North American Society for Sport Management Conference (NASSM 2011); 2011 June 1 – 4, 2011; London, ON.
17. Kim M, Trail GT. Influence of role identities on volunteer intentions. *International Journal of Sport Management*. 2007;8(3):1-15.
18. Marta E, Guglielmetti C, Pozzi M. Volunteerism during young adulthood: an Italian investigation into motivational patterns. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*. 2006;17(3):221-32.
19. Atkinson MA. The Real Wealth of Nations: A Case Study in Valuing Volunteer Services at a Community Radio Station. *ASBBS Annual Conference*; February 2011; Las Vegas 2011. p. 208-13.
20. Messer-Knode G. *Volunteerism: An investigation of volunteer experiences in community development program [Dissertation/Thesis]*. Ann Arbor: Capella University; 2007.
21. Johnson JA. *Getting and staying involved: What motivates volunteers in a non-profit organization [Dissertation/Thesis]*. Ann Arbor: Capella University; 2007.
22. Nelson HW, Hooker K, DeHart KN, Edwards JA, Lanning K. Factors important to success in the volunteer long-term care ombudsman role. *The Gerontologist*. 2004;44(1):116-20.
23. Harvey J, Lévesque DM, Donnelly P, Safai P, Rose M, Pitre S. *Volunteerism: Researching the capacity of Canadian sport*. Unpublished report submitted to Sport Canada Retrieved January. 2005;10:2007.
24. Independent Sector Research. Value of volunteer time: Independent Sector Web 2007 [cited 2007 February 27]. Available from: http://www.independentsector.org/programs/research/volunteer_time.html.
25. Omoto AM, Snyder M. Considerations of Community The Context and Process of Volunteerism. *American Behavioral Scientist*. 2002;45(5):846-67.

