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An Evaluation of Training Performance of Health Care Workers in Training the Patients and Clients in Mashhad, Iran in 2013

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Abstract

Introduction: Health training is considered as the most important component of preliminary health care and is among the fundamental duties of the health workers. Therefore, the current study aimed to examine the training performance of the healthcare workers to the clients and patients referred to Mashhad's health centers.

Materials and methods: This is a descriptive cross sectional study conducted in Mashhad's health care centers in 2013 using probability stratified cluster sampling technique. A total of 250 heath care workers in the departments of vaccination, mothers and babies, disease fighting, midwifery and environmental health participated in the study. The research instrument included checklist of observing the measurement of training performance of the workers. The data were analyzed using descriptive statistics and analytical tests including Pearson correlation test, independent sample T-test, ANOVA, and Chi square.

Results: The results showed that the training performance of 166 workers (66.4%) (13.21 ± 1.79) were at good and acceptable level. There was a significant difference between training performance of the workers and their individual characteristics such as marital status, work place, employment status, and the experience of participating in training workshops ($p < 0.05$).

Conclusion: Appropriate training performance is the most important strategy in preliminary health care. In the present study, the training performance of the health workers and the factors influencing it were specified. Planning for promoting both training and assessment of the staff performance apart from their general performance is vital. Accordingly, further research is recommended in this area.

Keywords: Health workers; Training performance; Observation; Mashhad

Introduction

"Health for all by 2000" was announced as an inevitable fact in International Conference on Preliminary Health Care in Alma-Ata, Kazakhstan [1]. Various factors affect people's health which can be divided into four headings as follows: heredity, environment, lifestyle, health care provider organizations and centers and the way they provide their services. Since health care centers, the first provider of health services, act to meet the need of clients in various physical, mental and social aspects [2], health care centers and the way they provide their services by health workers are factors that greatly influence the health of society so that the more and better the activities of these organizations, the more the provision of the health of community will be [3]. Obviously, the realization of health for society requires working in health education and many other social and economic sectors. Suitable health education is in fact the fundamental and basic principles for understanding and enhancing health cares which will lead to the appropriate health behavior through learning [1]. World Health Organization (WHO) has also announced education as the heart of community health promotion [4] and it is important because it empowers people in order to maintain and promote their health and results in the growth of their knowledge to make appropriate decisions for better self-care [5]. The principle of this empowerment is based on the education whose positive impact on behavior change has been proven as a requirement [6]. In the overall structure of comprehensive health care, education and self-care has been emphasized more than treatment which would only be realized by appropriate training [7]. Since every health worker is responsible for educating people, their training performance is an important factor in the development and promotion of health level and social welfare [8]. On the other hand, due to the high costs of medical services in the last decade and financial problems in the community, health and treatment are not just a mere social matter and its economic aspects should also be taken into account [9]. In Iran, more than 5% of Gross National Product (GDP) and 5% to 10% of government costs have been allocated to this sector [10]; however, more than the half of national health resources are wasted in different countries and in underdeveloped countries, limited resources are consumed inefficiently and public funds are spent on services without proper proportionality and effectiveness

[11,12]. Therefore, assessing the performance of health care provider units has become a very important issue and is evaluated in various parts. For example, in his study, Hesari [11] pointed out to the deficiency of resources and facilities on the education of health workers and explained that meeting the educational needs and shortcomings of health workers is necessary for the optimal use of limited resources [13]. Kuhadja et al. [13] considered the educational services of health workers as an issue which requires modification [14]. Briggs [14] also reported educational services in the performance of health workers as inadequate [15]. Wasunna realized the performance of health workers on the education needing to be modified and showed that their performance dramatically changes on the education through implementing training courses [16]. Abdollahi [16] reported the performance of the employees in training and counseling the clients as moderate [17]. On the other hand, Tabarsa et al. [17] evaluated educational services provided in health centers as desirable [18].

As it has been shown, in most studies, only the performance of health workers has been assessed in general, while much of the performance is allocated to education. However, one of the studies has examined the training performance of workers not as a mere issue but as part of performance.

In fact, measuring the efficiency and performance of urban health centers, especially training performance can be applied as a source for feedback to the related managers and to enhance professional capabilities and employee participation, help for regulating properties, compare the efficiency of different units, realize reasons for increase or decrease in the efficiency and contribute to make decision to continue or discontinue activities or programs [9,19]. Thus, this study aimed to determine the performance of health workers in training the clients and patients in Mashhad's health care centers in 2013 to improve the quality of educational services in these centers.

Materials and Methods

In this cross-sectional study conducted in 2013, the population consisted of a sample of 250 people working in health centers in Mashhad and the sampling was done using probability stratified cluster multi-stage sampling technique. Hence, 5 health centers in the mentioned city were considered as the class and a half of centers covered by each class were considered as cluster and all workers of the centers were finally investigated. The sample size was selected on the basis of Morgan sampling table. In this study, those working in vaccination ward, mother and child, midwifery and disease control and environmental health voluntarily participated (the study inclusion criteria was employed in one of the above-mentioned wards to provide training services and employee satisfaction to participate in the study and exclusion criteria was the mere reluctance of employees to continue cooperation). Training performance of each worker was observed 3 times by the researcher and in fact, training each employee to three clients was seen and recorded.

To collect the required data, a researcher-made Observation Check List was used to measure the educational performance (training empowerment) of health workers. To measure educational performance through observation, health staff training function was directly assessed by the researcher.

The check list for recording the training performance of workers contained 13 visible items that was completed to measure the training performance of workers by the researcher and evaluate their training performance based on grading, inappropriate, one (on a scale of 13 to 22), need to reform, two (on a scale of 23 to 32), appropriate, three (on a scale of 33 to 42) and excellent, four (on a scale of 43 to 52). To determine the validity of the questionnaire, the content validity was examined; in a way that in addition to studying articles and facts in relation to the role of employees and training performance, a sample of the questionnaire was presented to professionals and experts in the education field and after applying their views, a check list was finalized. For the reliability of the observation forms, inter-rater reliability was run in the way that the above forms were independently completed for 15 simultaneous samples by the researcher and the colleague and then, the correlation of scores obtained by two assessors was approved using Pearson's correlation coefficient with the coefficient of r=0.7.

Before completing the questionnaires, the objective of the study and confidentiality of the information were explained to the heads of centers and taking into account the inclusion and exclusion criteria, employees were enrolled in the study. Data was collected with the presence of researcher at the time of educational services provided to clients by workers. The study limitations included congestion of clients; physical fatigue; mental state of health workers; high workload and the presence of researcher and that the control of these factors was partly beyond the responsibility of researchers. Data analysis was performed using SPSS software version 16. Descriptive statistics such as frequency distribution of scores, independent t-tests (for comparing the training performance of health workers with variables such as marital status, history to participate in training empowering courses, ANOVA, Pearson Correlation Coefficient and Chi-square test were used to describe the results, to examine the significance, to compare the training performance of health workers with variables such as workplace and employment status, to compare the training performance of health workers with variables such as age and experience, and to compare the performance of health workers in terms of demographic characteristics, respectively. The difference less than 0.05 was considered as significant.

Results

The results of the study showed that most of the studied people i.e. 212 cases (84.7%) were female and 94 individuals were in the age range of 40-48 years. 214 cases (85.6%) were married and working experience of 77 ones (30.8%) was reported between 8 to 15 years. 138 ones were working as permanent employment. Most (160 (64%) cases) did not pass training courses of the principles of teaching process (Training

empowerment) and 74 (29.5%) ones were working in the mother and child ward.

The results indicated that 166 employees (66.4%) had the training performance in an appropriate and acceptable level (Table 1).

Table 1 Frequency distribution of workers in health care centers in terms of training performance.

Performance status	Frequency number	Percentage	Cumulative percentage
Inappropriate	4	1.6	1.6
Need to reform	72	28.8	30.4
Appropriate	166	66.4	96.8
Excellent	8	3.2	100
Total	250	100	

The results of T-test suggested that the married health workers (34.46 ± 4.53) indicated better performance than single employees (33.72 ± 5.43). The results of ANOVA revealed that workers employed in the vaccination ward (4.40 ± 37.19) had significantly better performance compared to workers employed in the midwifery ward (35.31 ± 3.88), disease control ward (34.82 ± 4.22), mother and children ward (33.04 ± 5.01) and environmental health ward (31.95 ± 3.92) ($P < 0.001$). Also, the result of Toki test showed a significant difference between vaccination ward and mother and child, midwifery, disease control and environmental health wards ($P < 0.001$). On the other hand, the training performance of workers included bill of human resources plan was significantly more than other workers and Toki test revealed a significant relationship between permanent and contractual employment status and contractual and project employment status ($P < 0.001$) and workers who had passed training empowering course (34.78 ± 4.70) had better performance compared with others and this has been reported significant in terms of independent T-test ($P < 0.05$ and $t = 1.91$). The result of Pearson correlation test revealed a direct and significant relationship between age ($P < 0.03$) and experience ($P < 0.02$) of workers with their training performance. In other words, the more the age and experience, the better the training performance of workers would be (Table 2).

Table 2 Training performance of health workers in terms of demographic characteristics.

Training performance of variable		Inappropriate No. (%)	Need to reform No. (%)	Appropriate No. (%)	Excellent No. (%)	P-Value
Married status	Single	1(2.7)	11(30.5)(	22(61.3)	2(5.5)	P<0.05
	Married	3(1.5)	61(28.5)	144(67.2)	6(2.8)	
Working place	Vaccination	0(0.0)	7(14.9)	37(78.8)	3(6.3)	P<0.001
	Mother and child	3(4.0)	26(35.2)	45(60.8)	0(0.0)	
	Midwifery	0(0.0)	6(11.8)	43(84.3)	2(3.9)	
	disease control	0(0.0)	12(34.3)	20(57.1)	3(8.6)	
	Environmental health	1(2.4)	21(48.8)	21(48.8)	0(0.0)	
Employment status	Formal	2(1.5)	34(24.6)	96(69.5)	6(4.4)	P<0.001
	پیمانی (Contractual)	2(3.3)	20(32.8)	37(60.6)	2(3.3)	
	Contractual	0(0.0)	14(43.8)	18(56.2)	0(0.0)	
	Project	0(0.0)	4(21.1)	15(78.9)	0(0.0)	
Training empowering course	Passed	2(2.3)	18(20.0)	65(72.2)	5(5.5)	P<0.001
	Not passed	3(1.7)	53(33.6)	101(63.0)	3(1.7)	

Chi-square test significant at $P<0.05$

Discussion

In this study, the training performance of health workers was evaluated. The results of this study revealed that the training performance of most research units is at an appropriate and acceptable level. In their study, Rowe et al. [19] evaluated the performance of health workers and reported it as inappropriate and as a widespread problem in all wards such as training which was not consistent with the results of this study. The difference may pertain to the reality that Rowe et al. [19] conducted their study in poor countries. Therefore, both larger examined population and cultural difference can have an impact on it [20]. In their study, Mkopi et al. [20] realized that the performance of health workers needed modification in Tanzania [21] which is not consistent with the results of this study. They reported the deficiency of facilities and the poor performance of health centers and workers as the main reason of high mortality in these countries. The difference can be due to the different population of the two studies. Although in both studies, the

importance of training has been confirmed and both groups of workers complained on the deficiency of time and a large number of clients to workers, in this study, the main principles of education, especially outpatient education was considered. In their study, Fedyshin et al. [21] stated that workers face with the deficiency of time to train their clients and have no good training performance. In our health centers, this issue is seen a lot and workers also complain on this and what was assessed was to apply the training principles in a short time which were observed in most cases [22].

Barati et al. [22] evaluated the training performance of workers in separated aspects of communication, feedback and listening skills and reported the skills of most employees at the appropriate level in a way that each of the above skills is considered as part of training capability and that training performance means to apply these skills and that study results cover the present study. When training performance of health workers is monitored, in fact, applying each of the above cases is controlled at the right time which is consistent with the results of this study [23]. Bayrami et al. [23] investigated the performance of 218 health workers in Khoy, Iran in relation to training and prenatal care and announced the performance of 75% of experts of family health as poor. The difference pertains to the overall and training investigation of workers in a particular ward (Midwifery), while the present study examined mother and child, environmental health; vaccination etc. wards and evaluated the training performance of workers in all wards on an outpatient basis [24]. To analyze the performance of health centers, Abadi et al. [24] reported the performance of 60% of selected health centers of Isfahan University of Medical Sciences at the appropriate level. The performance of health centers is based on training. In fact, when health centers and its performance are considered, training performance lies at its heart. This result is consistent with the results of this study [25]. In evaluating the relative effectiveness of workers in health centers in Yazd, Ardekani et al. [25] reported the performance of these centers at the desirable level which is consistent with the results of this study; however, their study examined the performance of employees in all fields including training, services provided in various wards, time spent to provide each service, the number of times of each service, workload depending on the number of employees and number of clients per ward [26] while in this study, only training ward has been discussed.

Kirigia et al. [26] examined the working and training performance of health centers in Seychelles and found that overall efficiency of health centers in Seychelles has been 93% which is not consistent with the results of the current study. This difference can be due to the difference in the study population and different levels of training in the two cities that achieving the desired level will be possible through further efforts and providing appropriate trainings [26].

Another result of this study was the higher training performance of workers with employment status of human resources plan compared to other employees participating in the study. Such finding can be justified by considering greater interest of this group of employees. This is also consistent with the study by Barati [22]. There was also a significant and positive correlation between age and experience of health workers and training performance which is consistent with the study conducted by Rezai and Ardekani [18,25].

The results showed that employees working in the vaccination ward had a higher training performance in which in addition to efficient human resources, factors such as amenities, facilities and good and strong communication are involved in the issue. On the experience of participating in training empowerment courses, workers participating in the training courses held for achieving training empowerment had higher training performance than others i.e. workers who received training on the principles of learning and teaching process will accordingly use it in contact with the clients. Obviously, the development of any training system depends on an achievement of the relevant capabilities. Therefore, enhancing employees' capabilities is noteworthy because of their key role in health training system.

Conclusion

Training performance of health care workers was at the appropriate and acceptable level and there was a positive and significant relationship between training performance and other factors. Such a situation was in line with the mission of health centers and is one of the important factors to maintain, provide, and promote the health of patients and community; however, given the important role of these people in the health of the community, health managers and planners can promote the training performance of health workers to higher levels through more accurate planning. Due to the limited results of the studies as well as the discrepancies in the obtained results, there is a need for further studies in this area.

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