Asesorías y Tutorías para la Investigación Científica en la Educación Puig-Salabarría S.C.
José María Pino Suárez 400-2 esq a Lerdo de Tejada. Toluca, Estado de México. 7223898475
RFC: ATI120618V12

Revista Dilemas Contemporáneos: Educación, Política y Valores.
http://www.dilemascontemporaneoseducacionpoliticayvalores.com/
Año: VI Número: Edición Especial Artículo no.:2 Período: Julio, 2019.

TÍTULO: Investigación de los factores motivacionales y de barrera del participante en los programas de educación continua de la comunidad médica de Mazandaran y sus agentes relacionados.

AUTORES:

1. Ph.D. Mostafa Ataei.
2. Máster. Maryam Javadian.
3. Ph.D. Mohammad Khodemloo.
4. Ph.D. Hasan Siamian.
5. Ph.D. Saeid Saffarian Hamedani.
6. Assoc. Prof. Farshideh Zameni.

RESUMEN: La educación continua es esencial para aumentar el nivel de conocimiento científico, técnico y práctico de nuevas técnicas y nuevas direcciones de los estudiantes. Este fue un estudio transversal. La población fue de 784 personas y con el uso de la fórmula de tamaño de muestra, se seleccionaron 338 personas. El instrumento de investigación incluyó una lista de verificación válida. Para el análisis de datos se utilizó el software SPSS. Los resultados mostraron que la motivación de aprendizaje tuvo el mayor nivel de significación en un 86.5%. De los cinco factores inhibidores, la única causa de retención de tiempo inapropiada de los programas obtuvo la mayor importancia de p=0.01; por lo que es esencial aumentar la motivación organizativa de los participantes de diferentes maneras.

PALABRAS CLAVES: personal de salud aliado, educación continua, motivación, médicos.

TITLE: Investigating the motivational and barrier factors of the participant in Continuing Education Programs of Mazandaran Medical Community and its related agents.

AUTHORS:

1. Ph.D. Mostafa Ataei.
2. Máster. Maryam Javadian.
3. Ph.D. Mohammad Khodemloo.
4. Ph.D. Hasan Siamian.
5. Ph.D. Saeid Saffarian Hamedani.
6. Assoc. Prof. Farshideh Zameni.

ABSTRACT: Continuing education is essential for all learners in order to increase their level of scientific, technical and practical knowledge of new techniques and new direction. This was a cross-sectional study. The population was 784 people. By using the sample size formula, 338 people were selected. The research instrument included a valid check list .For data analysis the SPSS software was used. Results showed that the apprising motivation had the highest level of significance about 86.5%. Out of the five inhibiting factors only cause of inappropriate time holding of the programs had obtained the highest significance of $p = 0.01$. In order to enhance the efficiency of such training, it is essential to increase the organizational motivation of participants in different ways.

KEY WORDS: Allied Health Personnel; Continuing Education; Motivation; Physicians

INTRODUCTION.

Continuing Education in medical community is one of the new strategies to promote the knowledge of the medical community and the health of the society. In the Islamic Republic of Iran, by approval

of the Law of Continuing Medical Education by the Islamic Consultative Assembly in 1375, continuing education has established its status and importance in the medical community of the country (Agah, 2008). Because, being professional up to date has always been considered as an ethical precondition for this group of employees (Nylenna & Aasland, 2007).

According to the statistical estimation, the number of participants has tripled from the beginning of the law enforcement to the present day. Total number of types of continuing education programs (Seminar, Conference, Congress, Short-Term Professional Congress, Workshop and Self-Study) has increased from 6 programs in 1991 to 9039 programs in 2012, which clearly indicates an increasing growth and ascending path in the coming years. In addition, according to article 1 of the Continuing Education Law, all graduates of medical sciences in the country including continuing education. The diversity of educational topics has resulted in creation of comprehensive and accurate planning whose management requires regular, precise and up-to-date information (Rahimnia, Monajemi, & Shams, 2003).

Davis has studied about 100 research related to continuing education. He stated that programs are satisfactory for physicians or healthcare providers that has been designed to meet the needs, beliefs and opinions of the intended audience, to be attractive and responsive to their most important needs and can enhance their professional capabilities. The researches in Iran have shown that a part of the continuing education program, due to lack of attention to identification, precedency of educational needs did not respond to the real needs and problems of the target community, as a result, the prepared training has little value (Bassir Shabestari, Shirinbak, Nourian, Rastegar, & Sefidi, 2014; Rahimnia et al., 2003).

For a variety reasons, such as attitudes, values, beliefs, expectations and motivation for continuing education, professional qualifications, occupational factors and organizational policies, physicians involved in continuing education programs. Many studies have shown that educational sessions and

conferences are ineffective in changing physicians' behavior (Bero et al., 1998; O'Neil & Addrizzo-Harris, 2009).

More than fifty programs are being conducted every year in Mazandaran University of Medical Sciences and more than a thousand people present in these programs.

DEVELOPMENT.

The purpose of the study was to collect general practitioners' opinions as the largest group of continuing education participants in medical community. Despite the excessive spending to update physicians' information, volunteering and motivation of them to attend is low. It seems that the only reason for their participating is to obtain an educational privilege for the office license (Bassir Shabestari et al., 2014; Rahimnia et al., 2003).

The studies about physicians' motivation for continuing education are old throughout the country and there is no current study or new information about this topic. So far, few studies have been conducted on the motivation of physicians to participate in continuing education programs (Bassir Shabestari et al., 2014; Ebrahimi et al., 2012). So, due to the importance of motivation in physicians and being vital of the new medical information, the identification of inhibiting factors for solving problems and eliminating hindrances the continuing medical education programs is useful and effective. Therefore, the purpose of this study was to investigate the motivation and inhibiting factors of the participants in the continuing education programs of Mazandaran Medical Society and its related factors in 2016-2017.

Materials and methods.

This research is a descriptive cross-sectional study which was carried out in 2017 with the permission of the Deputy of Research and Technology and Continuing Education Secretary of Mazandaran University of Medical Sciences. The Population was all participants (nurse, midwife, doctor, dentist,

pharmacist, laboratory sciences, radiology, operating room, medical records, anesthetics, physiotherapy, nutrition and statistics) who take part provincial congresses from in August 31, 2016 to March 18, 2017. The reason for choosing this period of time was due to holding of the largest number of relevant courses of congress.

According to the university's 6-month continuing education training schedule, the researcher was present on the days when the conferences were held. The questionnaires with the consent form of the participants were delivered to them, when they were given the registration documents. We used the sample size formula to determine the right sample size.

For Estimating the Population Proportion based on the book of research methods by Delavar (Delavar, 1377=1998), in which (Z) with degree of freedom (783 (df = n-1 = and ¼ = 01.0) was obtained using Table 1.96 and p the size of the ratio is (50 and 50), and d is the error coefficient (0.025), thus the sample size was considered 338 people.

In order to validate the checklist, initially, the original version of check list by specifying the correspondence table, special questions and research variables were examined by several professors and relevant specialists to comment on it. After the corrections and approvals, final corrections were made and the checklist got ready for use. Pashandi et al. also used this questionnaire in their research(Pashandi, Khoshab, Rafiei, Abbaszadeh, & Borhani, 2015). The total score of Researcher-made questionnaire's reliability Obtained 0.89. To evaluate the reliability of this questionnaire, a test-retest method was used in a preliminary study among 20 people who were selected randomly from the population (These 20 people were not included in the final study). Between the first and second test score with interval of one week, the correlation coefficient of 0.87 was obtained.

For observing ethical considerations, at first, the consent form was delivered to the continuing education participants, if they completed satisfaction, the questionnaire will be presented to them. The subjects' information recorded remained confidential. The questionnaires are encoded for the

confidentiality of identifiable information of the population samples. All samples are assured that neither their names nor their identity would be used for printing, training or advertising. Meanwhile, honesty and trust in presenting the research results would be respected.

The instrument used in this research was a two-part questionnaire. The first part consists of demographic information, the second part of the main questionnaire consisted of 21 questions, which are presented in 4 domains. The questions (7, 10, 11, 13, 14 and 15) relate to individual motivational factors, questions (6, 17, 19 and 20) for organizational motivational factors, questions (3, 4, 5, 8, 16 and 18) to measure the motivational factors for updating specialized knowledge and questions (1, 2, 9, 12 and 21) were used to measure the motivational factors for obtaining the educational qualifications of the continuing education participants of Mazandaran medical community.

To measure each item, a five-point scale (very low, low, moderate, high and very high) was used that each point has the score of 1, 2, 3, 4 and 5 respectively. Therefore, each questionnaire in this section has at least 21 to a maximum of 105 grades. Data analysis was done by using SPSS software. To describe the mean and standard deviation of the tests, the central tendency and distribution were used, and T- Test and chi-squared test were used for analytical goals.

Results.

A demographic survey was conducted on 338 participants, 44% of whom were male and 56% female. Among 338 People, 19.9% were single, 11.9% nurses, 19.7% midwives, 34.2% general practitioners, 8.1% pharmacists and 26.1% of the rest were other medical sciences.

As it is shown in table 1, increasing motivation has the highest rate of 86.5%, individual motivation is the second 74.8% and motivation to earn points is the third one with 74.2% among them organizational motivation was the least important with 73.2%.

Table 1: Distribution of Frequency Percentage of Motivational Factors						
Motivational factors	**High**		**Moderate**		**Low**	
	F	**%**	**F**	**%**	**F**	**%**
Individual	235	74.8	64	18.9	15	4.8
Organizational	224	73.2	63	20.6	19	6.2
updating	263	86.5	30	9.9	11	3.6
Earn points	221	74.2	69	23.2	8	2.7

By comparing the gender ratio P = 0.009, we found that female participations' rate was 61.1percent, so, female was more interested in attending in continuing education programs than men. In other words, there was a meaningful difference of interest between the females and males. However, comparing individual factors in terms of marital status, although married showed more interest their rate was 79.3%, but there was no significant difference between them in P=0.704. But the motivational factors were significant in terms of the job title P=0.000. Physicians, nurses and midwives had the higher degree of importance their rate was respectively 27.2% and 22.4% and Allied Health Personnel and pharmacists had the least motivation, their rate was 8.2% and 9.5%.

In the organizational motivational factors, by comparing the gender ratio of the participants' P=0.059, in terms of marital status P=0.806, in terms of their occupations P=0.890, as well as organizational motivational factors by comparing the job title P=0.068, in terms of their location of Service P = 0.236. Therefore, none of the components was meaningful.

The findings showed that increasing motivation for professional knowledge of the participants in continuing education programs of the medical community, gender factors were (P=0.08) and (physicians 28.8%) and P=0.00% and work location P=0.002 and the other components were not statistically significant.

The motivation of the subjects who participated in continuing education programs for acquiring educational point for general practitioners were the highest (27.29%) motivation and paramedical

staff with the least motivation (7.7%), and among all the examined components only Motivational factors were significant based on job title (P = 0.006).

Table (2): Distribution of scores of factors preventing participation in educational programs

	Gender			job title		
	Male (%)	Female (%)	Sig. (2-sided)	(%) Physicians	(%) paramedic	Sig. (2-sided)
Individual problems	71.7	75.7	0.41	74.6	73.2	0.7
Organizational hindrances	56.6	63.2	0.2	58.2	63.7	0.3
Problems of implementation	46.7	39.5	0.1	41.2	42.7	0.7
Inappropriate time holding	33.6	25.4	0.1	35	22.3	0.01
Inappropriate location holding	23	18.9	0.3	24.3	17.9	0.1

In examining the inhibiting factors for participating in educational programs, among the five hypotheses, only the inappropriate time factor for holding programs Sig. (2-sided) = 0.01 was significant. The results of this study on the basis of individual problems showed that the inhibiting factors based on the employment status for government employees was 50.2% and non-government 49.8% and P = 0.927, which was not significant. The most hindrances to attend in continuing 66.3 percent, for the evening education was for the people who worked in the morning shift, it was shift it was 9.3 percent, and night shift was 18.6 percent, and there were the least hindrances for circulating shift to attend, it was about 5.8 percent. P = 0.782, so there were not statistically significant differences. In organizational hindrances for government employees was 56.5% and for self-employees was 43.5% and P=%057, which was not significant. In work shift, the most hindrance for attending in continuing education was for the morning shifts, it was 71.0%, for the evening shift was 6.9%, and the night shift was 16%, and the least hindrance for attending was for the participants who had circulating work shift, it was 6.1% with P = 378%, so did not show significant differences. In organizational problems based on the place of work, for the center of the province were 42.7% and for the other cities were 53.3%, so P = 493%, it shows that there is not significant relationship between them. And individual problems based on the place of work, people who worked in the province capital it was 41.9 percent and the other cities were 58.1 percent, P=799% percent, it was not significant.

The findings of this research showed that some of the problems are due to the disproportion of the implementing procedures with the learning style of the participants, this problem for the employees was 45% and for the self-employees was 55%, P=%046, therefore it was not significant statistically. In work shift, the most hindrances for attending in continuing education was for the morning shifts, it was 70.4%, for the evening shift was 9.3%, and the night shift was 16.9%, and the least hindrance for attending was for the participants who had circulating work shift, it was 3.7% with P=%578, it shows that there were not significant differences. And based on the place of work, in the province capital it was 41.7% and the other cities were 58.3%, P=573% percent, it was not statistically significant.

The results of this study showed that the inappropriate place to hold medical continuing education programs for employees was 54.3% and self- employees 45.7% and 422% respectively, which was not significant. In work shift, the most hindrance for attending in continuing education was for the morning shifts was 71.0%, for the evening shift was 7.2%, and the night shift was 17.4%, and the least hindrance for attending was for the participants who had circulating work shift, it was 4.3% with P = 378%, so did not show significant differences statistically. In organizational problems based on the place of work, for the center of the province were 47.1% and for the other cities were 52.9%, so P = 0.214%, there was not significant relationship between them.

Discussion.

In this study, at first the motivational factors in the continuing education program were studied. The results showed that the main motivation for the most participants in retraining programs is the updating of their specialized knowledge (86.5%). Then individual factors were 74.8% and organizational factors were 73.2%, while the study of Pashandi et al. was contradicted with our study, because the main motivation was “credits earned” was the main motivation factor of participation in

continuing education programs(9). In a study that The study of General practitioners' views on the content of composed programs in Zahedan, the most important reason for participating in these programs was acquiring the points (Borji, Imani, & Moradi, 2002). In a review research the most important motivation was acquiring points (Ebadi, Vanaki, Nahrir, & Hekmatpou, 2008). Other studies have found that their result was inconsistent with this research and all of participants have mentioned that their reason for participating was acquiring point for promotion (Hossini, Moghimib, Karimic, Momenid, & Sadat, 2012). According to the results of previous studies that all of them obtained the acquiring point for job promotion, is in contradiction with the results of the present study which indicate that the main motivation for participating in continuing education programs is updating the knowledge. It can be said that with the help of similar researches and studies, the effectiveness of the programs has been provided and over time, the programs become more productive to be better match with the knowledge of the medical disciplines and attract the participants' satisfaction.

In the present study, the motivation of the participants for acquiring point had the lowest points after motivational factors. The group of allied Health Personnel had the least motivation for acquiring point (7.3%) than the other groups. It is corresponding with the research of Sorouri Zanjani et al. , which is about The Viewpoints of Medical Laboratories Employees toward Containing Education Programs 'Implementation Status and the participants' Motivation at Zanjan (Sorouri Zanjani, Jalilvand, Zabihian, & Ramazani, 2013). While in another study, Ebadi et al. concluded that in spite of positive points of the law, all participants evaluated the program performance method as moderate level. So, it is suggested that together with correct law application and executive instructions, periodical and continues need assessment, repeated evaluation by mechanisms like reaccrediting the licenses, developing e-Learning methods, expert lecturer training and measuring the effectiveness of programs

should be done through investigation on health indices, etc. in order to increase the effectiveness of these programs (Ebadi et al., 2008).

In study of Mehrparvar et al., the most important motivation to take part in continuing education programs was their holding place and updating of knowledge. Attention to motivations and barriers of participation in programs seems to be effective in planning for CME and it would be important in the management of presentation of programs (Mehrparvar et al., 2014). Rippin and Buckley concluded that here is a desire to keep knowledge up to date, but heavy workload and problems in scheduling prevent many from attending educational activities. If the Staff Grade is to be an attractive option in the long term, there needs to be some form of career progression for the doctors and dentists within it(Rippin & Buckley, 1996). Wolf et al concluded that: the most important reasons were maintaining competence, increasing knowledge and skills, staying up to date, and enhancing patient care. The least important reasons were financial gain and improving their professional image and work situation. Comparisons of physicians' reasons for continuing medical education with the desires of the public and legislative bodies revealed both similarities and differences. A principal components analysis of the Motivation for Continuing Medical Education items yielded six relatively independent underlying motivational dimensions accounting for 71% of the total variance: Competence and Patient Care. Collegial Interaction, Professional Enhancement, Efficiency, Respite from Practice, and Legal Concerns. It is suggested that these motivational dimensions may be helpful in the planning of continuing medical education programs (Wolf, Gruppen, van Voorhees, & Stross, 1986). which is congruent with our study. Therefore, the results of all these studies demonstrated the need for implementing the specialized programs in continuing education programs.

The results a study was conducted by Nouhi et al., about the evaluating of the matching needs and content of continuing education programs, indicated that with increasing the work experience, there was less adjustment between need and content. Therefore, it was not congruent with this study and

those with experience over twenty years had a greater motivation to participate in the continuing education program and updating motivational factors were the most important motivation for participating in this kind of programs. People less than 10 years' work experience had the least motivation to participate in the program, and acquiring points was the most important motivation for their participation (Nouhi, Reyhani, & Nakhaei, 2004).

Ebadi et.al stated that the mentioned issues in the retraining programs with the job requirements have low consistency and this is the main reason having no motivation to participate in these kinds of programs (Ebadi et al., 2008). Weller et al. found that continuing education programs, by themselves, could not fill the gap between the current practice of physicians and good health care (Weller & Woodward, 2004). Therefore, considering the results of the research and the above results, the cognition promotion and participants' awareness about the benefits of retraining program (their scientific and professional excellence), the perceptions of the learners towards its usefulness and effectiveness are to be corrected.

In another study, about 60.1% participants stated that the content of the continuing education program had new information for them. Some of them about 64.4% said that the program provides an opportunity for exchanging point views and experiences; some participants about 81.9% said the program reminds, corrects and reinforces the previous lessons they learned. Finally, 78.2% of people believed that the program was effective in updating of knowledge of physicians (Zahed Pasha & Kanhani, 2001). Therefore, the University authorities are required to provide needed equipment and necessary support actions.

The results of this study showed that updating the scientific level and increasing the professional and specialized knowledge was one of the priorities of the participants. The finding of this study is in congruent with the study by Mokhtari Zanjani and the Plagar et al. that was conducted in Madagascar, the most important motivation for participants in continuing education program was in improving the

scientific level. Therefore, content of high-quality design is required to motivate the learners (Mokhtari Zanjani, Emamgholi Khoushe Chin, & Shiri Gheidari, 2011; Plager & Razaonandrianina, 2009).

Among the five hypotheses of the present research, the determination of inhibiting factors, and the hypothesis of personal and organizational factors were the most important factors preventing participation in continuing education programs, which was consistent with the research by Pashandi et al. (Pashandi et al., 2015) and Jalali (Jalali, Abdul-Maleki, & Kahrizi, 2006). And also many researches are congruent with the present study that the main inhibiting factor is the organizational factor (Seydafkan, 1995; Vahidshahi, Mahmoudi, Shahbaznezhad, & Ghafari Saravi, 2007). Therefore, the prediction of the hindrances for participation can be an important step forward in managing the presentation of these programs (Martin & Mazmanian, 1991).

The results of this study showed that the problems and hindrances related to the holding time and place of continuing education programs were the least important for the participants. While some studies inappropriate time schedules were the main hindrances for the presence of general practitioners in programs. In some studies, the conditions of the holding time and place of the program create some interference and difficulty. And in another study, physicians said that spending much time to reach to the location of holding the program was the most important hindrance (Goodyear-Smith, Whitehorn, & McCormick, 2003; Mehrparvar et al., 2014).

In the present study, the problems associated with the implementation of the continuing education programs and the proportion of program content with the professional needs of the participants in the continuing education programs of medical community for physicians were 41% and for Allied Health Personnel were 42%. But in Navabie et al., the failure to match of the contents of a series of pre-announced programs was that they believed they would discourage participants and the designers

should avoid them (Navabie & Nazarian, 2010). In the study by Bauer et al., from the dentist point of view the "topic of the program" was the most important (81%) (Bauer & Bush, 1978).

Regarding the effectiveness of continuing education programs, 33% of the participants of these programs have not been satisfied with it. The reason for their dissatisfaction was the failure to provide the proper subject materials consistent with local and regional diseases. In another study, general practitioners have declared that the content of the programs was inadequate and disproportionate and demanded the presentation of the seasonal and regional content (Safa, Kheyr, Zare, Asghari, & Safa, 2006).

CONCLUSIONS.

Results showed that the most important barring factor for participation in continuing education programs has been organizational factor for the paramedical staff, while for physicians inhibiting factor was the business and individual problems. And vice versa, the motivation of the Allied Health Personnel for participation in the continuing education programs was the organizational factor, while for physicians the motivational factor for participation was their knowledge promotion and updating. Therefore, it is necessary to plan the programs by the implementation of precise needs-metrics the continuing education programs implement based on it to improve the effectiveness and quality improvement of the programs. As well as using the latest educational contents and the latest research papers and magazines and ... to design and implement a qualitative and effective training course.

Acknowledgment. We appreciate Deputy of Research and Technology of Mazandaran University of Medical Sciences for financial support 94-6. It is approved by National Committee for Ethics in Biomedical Research by code: IR.MAZUMS.AC.IRREC. 1397.H 107 Finally, we thank all the respectable participants of this study that without their assistance performing this study would be impossible.

Authors' contributions. Mostafa Ataei, Maryam Javadian, Mohammad Khodemloo and Hasan Siamian considered and aimed, the study and drafted the articled in the style of the journal. All authors' read and approved of the final manuscript.

Conflict of interest. The authors have no conflict of interest to declare.

BIBLIOGRAPHIC REFERENCES.

1. Agah, S. (2008). Roles of CME programms in Iran. J Med Educ, 6(1), 18-24 (Persian).
2. Bassir Shabestari, S., Shirinbak, I., Nourian, A. A., Rastegar, M., & Sefidi, F. (2014). Evaluation of the Zanjan General dentists attitudes regarding quantative and qualitative administration of continuing medical education(CME) programs. J Med Educ Dev., 7(15), 22-29 (Persian).
3. Bauer, J. C., & Bush, R. G. (1978). Dentists' attitudes toward continuing dental education: nontopic factors of demand for courses. J Dent Edu .623-626 ,(11)42 ,
4. Bero, L. A., Grilli, R., Grimshaw, J. M., Harvey, E., Oxman, A. D., & Thomson, M. A. (1998). Closing the gap between research and practice: an overview of systematic reviews of interventions to promote the implementation of research findings. The Cochrane Effective Practice and Organization of Care Review Group. BMJ, 317(7156), 465-468.
5. Borji, A., Imani, M., & Moradi, A. (2002). The study of General practitioners' views on the content of composed programs in Zahedan. Iran J Med Educ,) 20-20 ,(0)2Persian).
6. Delavar, A. (1377=1998). Research Method in Psychology and Educational Science (Persian). Tehran: Nashr Virayesh institute.
7. Ebadi, A., Vanaki, Z., Nahrir, B., & Hekmatpou, D. (2008). Pathology of Continuing Educational Programs in Iran Medical Society. Strides Dev Med Educ, 4(2), 140-145(Persian).

8. Ebrahimi, H., Mohammadi Hosseini, F., Amirnia, M., Mehraee, A., Jamali, V., & Hejazi, S. A. (2012). Factors Influencing Nurses' Participation in Continuing Education Programs in Tabriz University of Medical Sciences. Iran J Med Educ, 12(7), 518-526 (Persian).
9. Goodyear-Smith, F., Whitehorn, M., & McCormick, R. (2003). General practitioners' perceptions of continuing medical education's role in changing behaviour. Educ Health (Abingdon), .328-338 ,(3)16doi:10.1080/13576280310001607659.
10. Hossini, S., Moghimib, M., Karimic, Z., Momenid, E., & Sadat, S. (2012). Perspective of nurses working in medical-training hospitals in Kohkiloyeh and Boyer-Ahmad province towards continuing education. Hormozgan Med J, 16(1), 73-78 (Persian).
11. Jalali, R., Abdul-Maleki, P., & Kahrizi, M. (2006). Continuous nursing education from nurses' point of view. J Kermanshah Univ Med Sci, 10(1), 67-75 (Persian).
12. Martin, K. O. K., & Mazmanian, P. E. (1991). Anticipated and encountered barriers to change in CME: tools for planning and evaluation. J Contin Educ Health Prof, 11(4), 301-318.
13. Mehrparvar, A., Davari, M., Bahaloo, M., Mirzaei, M., Cheraghi, M., & Esmaeili, H. (2014). Continuous Medical Education (CME): Motivations and Barriers to Participation. Educational Developement of Jundishapur, 5(3), 288-293 (Persian).
14. Mokhtari Zanjani, P., Emamgholi Khoushe Chin, T., & Shiri Gheidari, p. (2011). The Viewpoints of Midwives Employed in Zanjan University of Medical Sciences towards Continuing Education Programs. Journal of Medical Education Development, 3(5), 42-48 (Persian).
15. Navabie, N, & Nazarian, M. (2010). General Dental Practitioners' and Faculty Members' Opinions about Continuing Dental Education Program in Kerman. Journal of Babol University Of Medical Sciences, 12(5), 34-39 (Persian).

16. Nouhi, E., Reyhani, H., & Nakhaei, N. (2004). Investigation of correspondence between learning needs and the content of psychiatry & pediatric retraining programs from the participants'point of view. Strides Dev Med Educ, 1(1), 6-10 (Persian).
17. Nylenna, M., & Aasland, O. G. (2007). Doctors' learning habits: CME activities among Norwegian physicians over the last decade. BMC medical education, 7(1), 1-6.
18. O'Neil, K. M., & Addrizzo-Harris, D. J. (2009). Continuing medical education effect on physician knowledge application and psychomotor skills: effectiveness of continuing medical education: American College of Chest Physicians Evidence-Based Educational Guidelines. Chest, 135(3 Suppl), 37s-41s. doi:10.1378/chest.08-2516.
19. Pashandi, S., Khoshab, H., Rafiei, H., Abbaszadeh, A., & Borhani, F. (2015). Facilitating and inhibiting factors in health care personnel participation in in-service education programs. JNE, 3(4), 37-47 (Persian)
20. Plager, K. A., & Razaonandrianina, J. O. (2009). Madagascar nursing needs assessment: education and development of the profession. Int Nurs Rev, 56(1), 58-64. doi:10.1111/j.1466-7657.2008.00696.x
21. Rahimnia, A., Monajemi, F., & Shams, M. (2003). Survey of participants of continuing medical education law about “integrated system of continuing education. Teb Tazkiyeh, 22(22), 61-70 (Persian).
22. Rippin, H., & Buckley, E. G. (1996). The educational needs of staff grade doctors and dentists in Scotland. Health Bull (Edinb), 54(4), 318-331.
23. Safa, I. A., Kheyr, A. M., Zare, S., Asghari, N., & Safa, H. (2006). Viewpoints of Bandar Abbas general practitioners on continuing medical education (CME) programs. Hormozgan Med J, 10(2), 173-177 (Persian).

24. Seydafkan, A .(1995) .Study of factors affecting the motivation of nurses to participate in the in-service training programs of hospitals affiliated to the Treatment Deputy of Social Security Organization in Tehran (Persian). (MSc), Tabriz University of Medical Sciences, Faculty of Nursing and Midwifery, Tabriz.
25. Sorouri Zanjani, R., Jalilvand, A., Zabihian, A., & Ramazani, A. (2013). The Viewpoints of Medical Laboratories Employees toward Containing Education Programs 'Implementation Status and the participants ' Motivation at Zanjan 2008. J Med Educ Dev., 6(11), 24-29 (Persian).
26. Vahidshahi, K., Mahmoudi, M., Shahbaznezhad, L., & Ghafari Saravi, V. (2007). The Viewpoints of General Physicians toward Continuing Medical Education Programs' Implementation Status and the Participants' Motivation. Iran J Med Educ, 7(1), 161-167 (Persian).
27. Weller, J., & Woodward, A. (2004). Continuing Medical Education: What for? How? And how much is it worth? N Z Med J, 117(1193), 1-6.
28. Wolf, F. M., Gruppen, L. D., van Voorhees, C., & Stross, J. K. (1986). Dimensions of motivation for continuing medical education of primary care physicians. Eval. Health Prof, 9(3), 305-316.
29. Zahed Pasha, Y., & Kanhani, J. G. (2001). A survey on the opinions of participators about CME in Babol University of Medical Sciences 2000. Teb va Tazkiyeh, 10(3), 18-10 (Persian).

DATA OF THE AUTHORS.

1. Mostafa Ataei. Ph.D, Research Administrator Mazandaran University of Medical Sciences, Sari, Iran. E-mail: mataei1388@yahoo.com
2. Maryam Javadian. Msc, Research Administrator Mazandaran University of Medical Sciences, Sari, Iran. Corresponding author: faribajk2003@yahoo.com

3. Mohammad Khodemloo. Ph.D., Associate Professor, Department of Community Medicine, Mazandaran University of Medical Sciences, Sari, Iran. E-mail: m_khademloo@yahoo.com.
4. Hasan Siamian. Ph.D, Associate Professor, Department of Health Information Technology, Mazandaran University of Medical Sciences, Health Sciences Research Center, Addiction Institute, Sari, Iran. E-mail: siamian46@gmail.com
5. Saeid Saffarian Hamedani. Ph.D, Assistant Professor, Department of Educational Management, Sari Branch, Islamic Azad University, Sari, Iran. Email: Snhrm3000@yahoo.com
6. Farshideh Zameni. Associate Professor, Department of Educational Management, Sari Branch, Islamic Azad University, Sari, Iran.

RECIBIDO: 3 de junio del 2019. **APROBADO:** 12 de junio del 2019.