Original Article

Consultation Needs Assessment in Kermanshah University of Medical Sciences: Viewpoints of Medical Students

Cyrus Jalili Ph.D.¹, Farzad Jalilian Ph.D.², Maryam Molseghi M.D.¹, Mehdi Mirzaei-Alavijeh Ph.D.²

1. Fertility and Infertility Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran
2. Dept. of Public Health, School of Health, Kermanshah University of Medical Sciences, Kermanshah, Iran
•Address for Correspondence, Dept. of Public Health, School of Health, Kermanshah University of Medical Sciences,
Alongside Farabi Hospital, Isar Square, Kermanshah, Iran, Zip-code, 67198-51351, Tel(Fax), +988338263048,
Email, mehdimirzaiea@yahoo.com

(Received: 23 Oct 2017 Accepted: 27 Dec 2017)

Abstract

Introduction: Consultation can play an effective role in accommodating students to conditions and can be followed by academic achievement. This study was aimed to determine the consultation needs assessment among medical students in Kermanshah University of Medical Sciences (KUMS).

Methods: This cross-sectional study was conducted among 300 students from undergraduate basic sciences of medical faculty of KUMS during 2016. Two structured questionnaires were applied for collecting data: demographics and consultation needs assessment. Data were analyzed by SPSS version 16 using bivariate correlations, t-test, and ANOVA test.

Results: The age range of participants was 19 to 31 with the average of 22.78 ± 2.30 . Gender was associated significantly and statistically with the areas of individual growth and promotion needs, educational needs, employment needs and emotional needs; girls in these areas acquired a higher score compared to boys (P<0.05). Furthermore, the domain of individual growth and promotion needs acquired the highest score.

Conclusion: Our findings indicated that most of the students' needs were in the field of individual and educational growth and promotion. Furthermore, the average scores of guidance and consultation needs assessment of the female students was higher, with the necessity of paying more attention to the consultation problems among them.

Keywords: Needs assessment, Employment, Training, Emotional, Consultation

Citation, Jalili C, Jalilian F, Molseghi M, Mirzaei-Alavijeh M. Consultation needs assessment in Kermanshah University of Medical Sciences, Viewpoints of medical students. Educ Res Med Sci. 2017; 6(2), 91-97.

Introduction

mbarking on higher education is like entrance to a new environment with a clear educational difference from the previous training environments posing its new issues and problems (1). Since the improvement and development of students' academic

performance as the basis of success and progress is the most important goal of universities (2), academic guidance and consultation while training the correct ways to make decisions related to life's events leads to the solution of the internal conflicts and growth of

constructive relations with others (3), and eventually causes a more efficiency of educational system and reduction of lowering educational standards (4), facts which can be considered as potential outcomes of consultation needs assessment.

Consultation can play an effective role in accommodating student's conditions and be effective in solving problems of learners and their academic achievement (5). Consultation is a targeted and dynamic relationship; it is done in accordance with the needs of students and causes students' satisfaction with studying in college. It also encourages students to achieve educational transcendent goals and increase their hard work (6).

The inadequate academic consultation may cause despondency of students from school (7, 8). In addition, dealing with the problems of students is of great importance and failing to control them is liable to their lowering of educational standards (9). Consultation and guidance as a regular and organized activity was begun in Boston in 1908 by Frank Parsons, celebrated as the father of professional guidance; it entails a set of activities through which the individual is helped to overcome problems (10).

In Iran, some consultation service centers have been created since 1988 in universities and higher education institutions and since 1994 in the universities of medical sciences with the aim of helping clients for better self-understanding to improve intellectually and promote their competences (11). Also according to common processes in Iranian universities of medical sciences, at the start of each academic year, a number of accepted students are introduced to each faculty member to investigate their problems and difficulties and provide the necessary consultation and guidance with the hope that an appropriate space is prepared for their educational improvements (12).

Knowing of a variety of students' needs, prioritizing them, and determining their relationship with demographics and background variables can be useful in orienting the training programs and consultation to universities and ultimately solving the students' consultation problems. Therefore, determining the students' academic, personal, social and job needs will help successful planning in this field (13). Due to the importance of the subject and doing similar pieces of research at the universities of medical sciences and the observed gap in this regard at Kermanshah University of Medical Sciences (KUMS) and health services, the present study was carried out to determine the needs of guidance and consultation for students of medicine at KUMS in 2016.

Methods

This cross-sectional study was conducted on 300 students from undergraduate basic sciences of the School of Medicine at KUMS in 2016. For sampling, first the incoming students of basic sciences level were considered as a cluster; then, using simple random sampling with a probability proportional to the size on each of the stratum, the participants were selected and the standard self-report questionnaires in this regard were given to them and the required data was collected. Participants were briefed on the procedure for doing the study, the confidentiality of data, and also the aim of this study. All of them entered the study upon their volition. After eliminating the incomplete questionnaires, 295 questionnaires were analyzed (the response rate in this study was 98.3%).

The tool of collecting data consisted of two parts to collect data as students' self-report. The first part constituted the questionnaire of demographic information, including age (year), gender (male, female), marital status (single, married), residence in dormitory (yes, no), employment status (student only, student and employed), and parents' education (under diploma, diploma and university education).

The second part of the questionnaire dealt with students' guidance and consultation needs assessment; it has 35 items in five areas (score range 34-136). The area of individual growth and promotion needs (8 items, score range 8-32), for example "Learning how I can increase my concentration"; the family and marriage needs (7 items, score range 7-28), for example "Learning how I can confront with life problems"; the training needs (7 items, score range 7-28), for example "Learning how I can study correctly and use the study time optimally"; the employment needs for a job (6 items, score range 6-24), for example "Learning how I can be informed of my country's job opportunities"; the mental-emotional needs (6 items, score range 6-24), for example "Learning how I can confront with my life stresses". Answering to the items was done on a 4-optionLikckert spectrum (from I do not need to I need strongly, score range 1-4). This questionnaire has been used in several studies in Iran and its validity and reliability has also been approved (4). According to the pilot study among 30 students, we found that the reliability of questionnaire based on Cronbach's Coefficient Alpha in the present study was equal to 0.95.

The collected data were entered into the statistical software SPSS version 16 and analyzed by descriptive statistics including mean and standard deviation (SD) as well as the analytical statistics. In order to assess the relationship between the different areas of the questionnaire of guidance and consultation needs, the

Pearson correlation was used. For measuring the relation of gender, residence in dormitory, father's education, mother's education and employment status with various areas of the questionnaire of guidance and consultation needs, the t-test and ANOVA were used. Also in order to determine the relationship between the age with the different areas of the questionnaire of guidance and consultation needs, the Pearson correlation was used.

Results

The age range of participants was 19 to 31 and its average was 22.78±2.30 (Table 1). As the findings suggest, most participants in the study were female (66.4%), single (82%) and had parents with academic education (58.3% of fathers and 37.6% of mothers). Also, as reported, 78% of the students were only studying and 43.1% of the students were residing in dormitories.

Table 1. Status of the context and demographic variables among KUMS students

| Variable | | Number | Percentage |
|------------------------|--------------------|--------|------------|
| Gender | Female | 196 | 66.4 |
| Gender | Male | 99 | 33.6 |
| | Unmarried | 242 | 82 |
| Marital status | Married | 17 | 5.8 |
| | Without answer | 36 | 12.2 |
| | Student only | 230 | 78 |
| Job | Student & employee | 8 | 2.7 |
| | Without answer | 57 | 19.3 |
| | Under diploma | 31 | 10.5 |
| | Diploma | 72 | 24.4 |
| Father's education | Connoisseur | 124 | 42 |
| | Above connoisseur | 48 | 16.3 |
| | Without answer | 20 | 6.8 |
| | Under diploma | 62 | 21 |
| | Diploma | 97 | 32.9 |
| Mother's education | Connoisseur | 90 | 30.5 |
| | Above connoisseur | 21 | 7.1 |
| | Without answer | 25 | 8.5 |
| Desidence in dermitery | Yes | 127 | 43.1 |
| Residence in dormitory | No | 168 | 59.9 |
| Total | | 295 | 100.0 |

The mean, standard deviation, maximum score acquirable of 100%, as well as the correlation of the various areas of students' guidance and consultation needs were determined.

All the different areas of students' guidance and consultation needs represented a significant statistical correlation of 0.01 (Table 2). Also, the area of individual growth and promotion needs acquired the highest score.

Table 2. Mean, standard deviation and correlation of the various areas of KUMS students' guidance and consultation needs

| Guidance and consultation needs areas | Individual growth & promotion needs | Marriage & family needs | Training needs | Employment needs | Mean (SD) | Score range | Maximum score acquirable of 100% |
|---------------------------------------|---|-------------------------------|----------------|------------------|--------------|-------------|----------------------------------|
| Individual growth & promotion needs | 1 | | | | 20.76 (5.62) | 8-32 | 64.87% |
| Marriage & family needs | 0.716** | 1 | | | 16.53 (5.30) | 7-28 | 59.03% |
| Training needs | 0.739** | 0.586** | 1 | | 17.78 (5.18) | 7-28 | 63.50% |
| Employment needs | 0.625** | 0.630** | 0.574** | 1 | 14.36 (4.61) | 6-24 | 59.83% |
| Emotional needs | 0.818** | 0.689** | 0.692** | 0.619** | 14.23 (4.40) | 6-24 | 59.29% |

The relationship between demographic variables and the different areas of students' guidance and consultation needs was determined. As the results of emotional needs show, between the context variables, gender was associated significantly and statistically with the areas of individual growth and promotion needs, educational needs, employment needs and emotional needs; female in

these areas acquired a higher score compared to male. Also the students living in the dormitory acquired a score higher than other students in the area of family and marriage needs. There did not exist any significant statistical relationship between other demographic variables under study (student's job, marital status and parents' education) on the one hand and the different areas

of students' guidance and consultation needs on the other hand. The correlation of age with various areas of students' guidance and consultation needs was also examined, and the findings showed that no significant statistical difference existed between the age and the various areas of students' guidance and consultation needs (Table 3).

Table 3. Comparison of the context variables in different areas of KUMS students' guidance and consultation needs

| | riable/area Iean (SD) | Individual growth & promotion needs | Marriage & family needs | Training needs | Employment needs | Emotional needs |
|---------------------------------|--------------------------|---|-------------------------|----------------|------------------|-----------------|
| | Female | 21.59 (5.64) | 16.93 (5.48) | 18.63 (5.18) | 14.83 (4.83) | 14.66 (4.54) |
| Gender | Male | 19.11 (5.22) | 15.47 (4.58) | 16.36 (4.86) | 13.44 (3.99) | 13.38 (4.00) |
| Gender | Test statistic+ | 3.66 | 1.83 | 3.62 | 2.61 | 2.37 |
| | Significance | < 0.001 | 0.068 | < 0.001 | 0.009 | 0.018 |
| | Single | 20.98 (5.65) | 16.46 (5.26) | 17.92 (5.09) | 14.40 (4.60) | 14.28 (4.46) |
| Marriage | Married | 20.35 (5.84) | 16.05 (5.61) | 18.94 (5.47) | 13.47 (4.52) | 14.17 (4.44) |
| status | Test statistic+ | 0.444 | 0.304 | -0.791 | 0.806 | 0.097 |
| | Significance | 0.657 | 0.761 | 0.430 | 0.421 | 0.923 |
| | Student & employee | 18.62 (4.68) | 15.75 (4.16) | 18.75 (4.16) | 15.5 (4.50) 0 | 14.62 (3.96) |
| Student's job | Student only | 21.02 (5.74) | 16.55 (5.38) | 18.00 (5.17) | 14.40 (4.68) | 14.29 (4.55) |
| Student's Job | Test statistic+ | -1.16 | -0.416 | 0.405 | 0.648 | 0.202 |
| | Significance | 0.245 | 0.687 | 0.686 | 0.518 | 0.840 |
| | Yes | 20.94 (5.69) | 17.34 (5.43) | 17.74 (5.43) | 14.81 (4.78) | 14.25 (4.73) |
| Residence in | No | 20.62 (5.58) | 15.92 (5.13) | 17.97 (5.00) | 14.02 (4.46) | 14.21 (4.14) |
| dormitory | Test statistic+ | 0.483 | 2.291 | -0.377 | 1.469 | 0.088 |
| | Significance | 0.629 | 0.023 | 0.707 | 0.143 | 0.930 |
| | Under diploma | 21.45 (6.52) | 17.16 (5.90) | 17.16 (6.27) | 15.16 (5.08) | 14.29 (5.29) |
| | Diploma | 21.30 (5.07) | 16.25 (4.99) | 18.29 (4.70) | 14.29 (4.56) | 14.34 (4.17) |
| Father's | Conoisseur | 20.27 (5.59) | 16.95 (5.36) | 17.33 (5.15) | 14.50 (4.34) | 13.95 (4.38) |
| education | Above conoisseur | 20.20 (5.35) | 15.16 (4.34) | 18.52 (4.62) | 13.58 (4.21) | 14.08 (3.85) |
| | Test statistic++ | 0.846 | 1.697 | 1.043 | 0.866 | 0.138 |
| | Significance | 0.470 | 0.168 | 0.374 | 0.459 | 0.937 |
| | Under diploma | 21.08 (5.70) | 16.98 (5.36) | 18.03 (5.67) | 14.77 (4.87) | 14.14 (4.75) |
| | Diploma | 21.21 (5.25) | 16.89 (5.35) | 18.01 (4.65) | 14.43 (4.40) | 14.12 (4.25) |
| Mother's | Conoisseur | 20.17 (5.72) | 16.23 (5.03) | 17.50 (5.18) | 13.80 (4.36) | 14.14 (4.23) |
| education | Above conoisseur | 19.76 (4.48) | 14.90 (4.04) | 17.80 (4.45) | 14.66 (3.26) | 13.85 (3.39) |
| | Test statistic++ | 0.866 | 1.114 | 0.201 | 0.695 | 0.028 |
| | Significance | 0.459 | 0.344 | 0.896 | 0.566 | 0.994 |
| + t-student test, ++ ANOVA test | | | | | | |

Learning the methods of promoting concentration, learning confrontation with problems of life, learning the correct method of study and optimum use of the study time, being informed of the job opportunities in the coun

try, and learning methods of coping with the stresses of life acquired the highest score among the different items of individual growth and promotion needs, educational needs, employment needs and emotional needs (Table 4).

Table 4. Mean and standard deviation of various areas of KUMS students' guidance and consultation needs

| | Item | Mean | Standard deviation |
|-------------------------------------|--|------|--------------------|
| | Learning how I can increase my self-confidence | 2.64 | 1.06 |
| Individual growth & promotion needs | Learning how I can increase my concentration | 2.91 | 0.779 |
| | Learning how I can remove my indecision and doubt | 2.61 | 0.369 |
| | Learning how I can communicate correctly with others | 2.43 | 0.779 |
| | Learning how I can think morally | 2.55 | 0.179 |
| | Learning how I can tolerate critiques | 2.73 | 0.439 |
| | Learning how I can defend my own right | 2.25 | 1.560 |
| Marriage & family needs | Learning how I can struggle with disturbing thoughts | 2.28 | 1.540 |
| | Learning how I can confront with life problems | 2.96 | 0.429 |
| | Learning how I can correctly act after marriage | 2.63 | 1.340 |
| | Learning how I can correctly act during nomination | 2.43 | 1.590 |
| | Learning how I can help my family members | 2.03 | 0.689 |

| | Learning how I can educate my children | 2.03 | 1.620 |
|---------------------------|---|------|-------|
| | Learning how I can create harmony between my spouse and parent | 2.32 | 1.130 |
| Training needs | Learning how I can interact with opposite sex | 2.23 | 1.670 |
| | Learning how I can strengthen my skills of taking examination | 2.25 | 0.289 |
| | Learning how I can study correctly and use optimally the study time | 2.67 | 1.210 |
| | Learning how I can motivate myself for studying | 2.95 | 1.690 |
| | Learning how I can manage my time | 2.37 | 1.310 |
| | Learning how I can set up my instructional program | 2.46 | 1.430 |
| | Learning how I can get acquainted with educational rules | 2.33 | 0.179 |
| | Learning how I can reduce my examination stress | 2.03 | 1.620 |
| | Learning how I can be informed of my country's job opportunities | 2.46 | 1.330 |
| | Learning how I can find a job in my society | 2.44 | 1.001 |
| Employment needs | Learning how I can know my job interests | 2.82 | 1.410 |
| | Learning how I can adapt with a job | 2.72 | 0.069 |
| | Learning how I can be an entrepreneur | 2.24 | 0.169 |
| Mental-emotional needs | Learning how I can be aware of the existing jobs | 2.03 | 1.700 |
| | Learning how I can live my life joyfully | 2.25 | 1.570 |
| | Learning how I can confront depression | 2.74 | 1.180 |
| | Learning how I can confront my life stresses | 2.85 | 0.559 |
| | Learning how I can confront my aggressiveness | 2.54 | 1.500 |
| | Learning how I can resolve my suspicion and pessimism | 2.11 | 0.599 |
| | Learning how I can adapt with new environment of university | 2.01 | 1.810 |

Discussion

The findings of this study showed that two fields of needs, i.e. the individual and educational growth and promotion, received the highest score from the students at KUMS. These findings are consistent with other studies on this subject; several studies have expressed the students' most important consultation needs as mental and individual difficulties, educational issues, and family problems (14-18). For example, in their study Rabiei et al. reported that most of difficulties of students included educational needs, marriage, and problems related to choosing a job (14). The findings of Dogan's study on the reasons of Turkish student's reference to consultation centers showed that educational problems, individual difficulties, and mental-emotional issues were among the most important consulting needs of students (15). In another study in British universities, mental-emotional difficulties and individual-communicational difficulties were the most important causes of students' reference to counseling centers (16). In a study by Karimi et al., job, educational, and individual needs and life skills were introduced as the most important priority of students' consultation in Kenya (17). Some of these differences may be due to differences in the environment under study, characteristic of students, and cultural conditions at KUMS. Just as the findings showed, most of the students' needs were related to individual growth and promotion needs; this shows that the authorities must pay more attention to this priority in the educational planning; in this area, increasing concentration, dealing with disturbing thoughts, and the self-confidence were of higher priority.

According to the findings of the present study, training needs was the second area with the highest average score among students at KUMS; consistent with our findings, several studies have also reported the educational needs among students' three most important counseling priorities (19, 20). The findings showed that, except for the area of family and marriage needs, in the other areas the average scores of females have been significantly more than males among students at KUMS; these results are consistent with other studies in the field (11, 12). It seems that female students are exposed more than others to issues and problems of studentship (11). Of course, some studies have revealed this fact that girls' desires to express their problems as well as their more positive attitude to the use of consulting services compared to boys (it was considered as a sign of weakness) were the major cause of their reference to counseling centers (21, 22). According to the findings of the present study, there was no significant statistical relationship between marital status and different areas of consultation and guidance needs among students at KUMS. In this field, some studies have reported that mental-emotional problems were great among unmarried students (23). Our findings also showed that between the various areas of consultation and guidance needs and parents' education there did not exist any statistically significant relationship.

Other findings showed the average score for the family and marriage needs to be higher among students living in dormitories. In this field, Shakurnia et al. showed that although there did not exist significant statistical differences between living in dormitory and consultation and guidance needs, in general more than two-thirds of

those referring to counseling centers were students living in dormitories and the causes were mostly individual psychological difficulties (11). Due to the multiplicity of problems of students living in dormitories, it is recommended that a wider planning be provided in order to procure amenities for fixing them. One strength of this study can be students' high response rate to the questionnaire; some limitations of this study can also be the collection of information through questionnaires (in which lack of truthful cooperation is possible) and doing monopoly among medical students (with generalizations to be made cautiously). In addition, with regard to the importance of need assessment in academic centers among teachers and students, particularly in relation to the educational issues (24), it is recommended that similar studies be carried out in this regard among university professors in order to achieve comprehensive results for facilitating appropriate decisions.

Conclusion

The findings of this study demonstrate that students' most perceived need was in the field of individual and educational growth and promotion needs; this means that the authorities must pay more attention to this priority in the educational planning. Also, the average scores of guidance and consultation needs of the female students were higher; this indicates the necessity of paying more attention to the consultation problems among them.

Acknowledgments

This study is a part of the results of the M.D. thesis of general medicine in KUMS. Hereby we express our appreciation for participation of all the students in this study. There is no conflict of interests in this study.

References

- 1. Asadollahi P, Abdolhussein S, Elhampour H. The attitudes of faculty members of Ahwaz Jondishapour University of Medical Sciences toward student advising and counseling. Kerman Univ Med Sci J. 2011; 8(1): 58-66. [Persian]
- 2. Mirzaei-Alavijeh M, KaramiMatin B, Hosseini SN, Jalilian F. Study habits and associated demographic determinants among students of Kermanshah University of Medical Sciences. Educ Res Med Sci. 2017; 6(1): 19-24. [Persian]
- 3. Hosseini SN, Mirzaei-Alavijeh M, KaramiMatin B, Hamzeh B, Ashtarian H, Jalilian F. Locus of control or self-esteem; which one is the best predictor of academic achievement in Iranian college students. Iranian Journal

- of Psychiatry and Behavioral Sciences. 2016; 10(1): e2602.
- 4. Shakurnia A, Borvayeh H, Elhampour H. Guidance and counseling needs of students in Ahvaz Jundishapur University of Medical Sciences. Iranian Journal of Medical Education. 2015; 14(11): 922-932. [Persian]
- 5. Lapan RT, Poynton T, Marcotte A, Marland J, Milam CM. College and career readiness counseling support scales. Journal of Counseling & Development. 2017; 95(1):77-86.
- 6. Enachescu VA, Rosca V. Educational counseling approach for the Romanian educational system. Revista de Management Comparat International. 2014; 15(3): 321.
- 7. Vehvilainen S. Evaluative advice in educational counseling: The use of disagreement in the "stepwise entry" to advice. Research on Language and Social Interaction. 2001; 34(3): 371-398.
- 8. Ch AH. Effect of guidance services on study attitudes, study habits and academic achievement of secondary school students. Bulletin of Education & Research. 2006; 28(1): 35-45.
- 9. DibaVajari M, Ghaedi Y, Hosseinian S. A study on guidance needs of Tehran high school students. Quarterly Journal of Educational Innovations. 2012; 10(40): 131-148.
- 10. Tabari F, Fadaee F, Fadaee B, Kamkari K. Investigating the attitudes of students towards educational counseling centers. Iranian Journal of Nursing Research (IJNR). 2017; 12(3): 36-43. [Persian]
- 11. Shakurnia A, Mohtadi H, Elhampour H. Students' problems presented upon attending in the university counseling centers of Ahvaz Jundishapur University of Medical Sciences. Iranian Journal of Medical Education. 2013; 13(5): 424-434. [Persian]
- 12. Sam Sh, Seyfi S, Ehsani M, Pourghasem M. Academic counselors' attitude toward university counseling and counselors duties; Babol dental school. Education Strategies in Medical Sciences. 2012; 5(2): 83-88.
- 13. Prajapati SH, Kahn RF, Stecker T, Pulley L. Curriculum planning: A needs assessment for complementary and alternative medicine education in residency. Family Medicine-Kansas City. 2007; 39(3): 190.

- 14. Rabiei M, Salehi Najafabadi R, Siadat SA. Counseling and guidance needs of the students of Shahrekord' Azad University. Counseling Research and Development. 2007; 6(22): 89-106. [Persian]
- 15. Dogan T. A long-term study of the counseling needs of Turkish university students. Journal of Counseling & Development. 2012; 90(1): 91-96.
- 16. Connell J, Barkham M, Mellor-Clark J. CORE-OM mental health norms of students attending university counselling services benchmarked against an age-matched primary care sample. British Journal of Guidance & Counselling. 2007; 35(1): 41-57.
- 17. Karimi J, Muthaa G, Bururia D, Karimi V, Beatrice Mburugu B. Assessment of counseling needs among students in Kenyan universities. Journal of Education and Practice. 2014; 5(12): 36-44.
- 18. Giovazolias T, Leontopoulou S, Triliva S. Assessment of Greek university students' counselling needs and attitudes: An exploratory study. International Journal for the Advancement of Counseling. 2010; 32(2):101-116.
- 19. Atik G, Yalçın İ. Counseling needs of educational sciences students at the Ankara University. Procedia-Social and Behavioral Sciences. 2010; 2(2):1520-1526.
- 20. Shahrabadi E, Rezaeian M, Haghdoost A. The relationship of study and learning approaches with students' academic achievement in Rafsanjan University of Medical Sciences. Iranian Journal of Medical Education. 2014; 13(10): 860-868. [Persian]
- 21. Benton SA, Robertson JM, Tseng WC, Newton FB, Benton SL. Changes in counseling center client problems across 13 years. Professional Psychology: Research and Practice. 2003; 34(1): 66-72.
- 22. Hoeppner BB, Hoeppner SS, Campbell JF. Examining trends in intake rates, client symptoms, hopelessness, and sociality in a university counseling center over 12 years. Journal of College Student Development. 2009; 50(5): 539-550.
- 23. Ferdowsi T. Psychological disorders and problems of students visiting Tehran state universities' consulting centers. Journal of Humanities. 2002: 69-95.
- 24. Mazloomy-Mahmoodabad SS, Norouzi S, Norouzi A, Mirzaei-Alavijeh M. Educational needs of faculty members of Shahid Sadoughi University of Medical Sciences in 2011. The Journal of Medical Education and Development. 2012; 7(3): 79-92. [Persian]