Original Article

Prioritization of needs among students of University of Medical Sciences: A needs assessment

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Abstract:

INTRODUCTION: The need assessment is a fundamental part of any planning, and almost by neglecting it, the effectiveness of the programs is impossible. The purpose of this study was the prioritization of needs among students of the Iran University of Medical Sciences.

MATERIALS AND METHODS: The design study was conducted in two parts; in the first part, the design of the questionnaire was done by qualitative methods. The questionnaires were extracted by interviewing and obtained acceptable validity and reliability. Moreover, the second part created a questionnaire consisting of four categories: education, welfare, economic, and psychological and social. A simple random sampling method was used to select 363 people using the Cochran formula. Finally, 336 people (including 28 people excluded) completed the questionnaire. A questionnaire designed to collect sample data was used and analyzed using version 23 of SPSS.

RESULTS: A total of 336 students (26.77 ± 5.45 years) participated in the study. 123 (36.6%) were male and 213 (63.4%) were female. Psychological and social needs of students were prioritized, and educational priorities were ranked second. The findings showed that there was no significant statistical difference between the scores of welfares and psychosocial and educational needs and the gender of the research units ($P > 0.05$). However, in the mean of economic needs scores, there is a significant statistical difference between the marital status of the research units ($P < 0.05$).

CONCLUSION: The results of our study in the research units showed that the priority of psychosocial needs was more than other needs and the educational priority was the next. According to the results of this study, we suggest that, in future educational and educational planning, policymakers and planners should pay attention to psychological and social issues.

Keywords:

Economic, education, needs assessment, psychological and social, students, welfare

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Introduction

Various factors have an influence on the development and growth each the country, One of the most important is the highlighted role universities,[1] The roles depend on issues such as academic quality of teachers, welfare, and facilities[2] and improving teaching and educational roles,[3] also student motivation is an essential prerequisite for learning and success.[4] In addition, Scrambling to increase student satisfaction[5] and to create appropriate learning also for improving the social and educational aspects of educational centers and the improvement of the quality of services provided by the administrative staff are so importan.[6,7] In this regard, determining the needs and priorities among faculty members of the universities[8,9] to improve the educational and learning level and determining the needs of professors to learn them, and also research activities and learning methods and teaching techniques and planning, evaluation, guidance and

counseling, and so professional ethics and determining the need to learn new technologies, and undoubtedly, the results of these activities are Create educational effectiveness for students. And all these things in the field of education and development are necessary for the student future.[10-16]

The concept of need assessment is the identification and analysis of needs by a diagnostic process by finding the problem and the causes of it and by expressing the opinions of the stakeholders about the problem and solutions. Basically, the need assessment for a planner helps to compare the distance between what is (the current condition) and what it should be (favorable condition).[17-20] The need assessment allows for the correct adjustment of the objectives of the program, the allocation of necessary resources, and the provision of appropriate methods to solve problems.[18-22]

As the assessed needs increase the effectiveness and educational outcomes, the need assessment should be in a wider process of learning and related to practice and enhance learning in its own particular field. If the needs assessment is formally carried out, only a limited number of needs will be identified, so the breadth and flexibility of the assessment methods should be considered. Sometimes, the assessment of group needs can create a general picture but may not reflect real and individual needs.[23]

On the other hand, sometimes, in the process of identifying individual needs, some of the important needs of individuals cannot be shared, in which case we see inadequate analyses and inappropriate use of educational resources. As a result, individual and collective learning needs should be considered together and the balance between them should be considered.[23,24] Basically, various methods can be used to assess and measure needs.[23,25,26] In general, the needs assessment is aimed at improving the conditions for the university or the educational centers to have efficiency and effectiveness. The needs assessment should be done with the participation of students or learners and to be more realistic. The assessment environment should be friendly and provide feedback. Through the need assessment, appropriate opportunities can be identified for recognizing the need and creating specific skills or learning. Undoubtedly, the use of feedback information can help improve the educational process.[24,25,27-29]

Needs assessment is one of the effective strategies in the program of interventions, training programs, and empowerment of managers and experts,[30-32] which ultimately that lead to creating efficiency and effectiveness in the education sector[25,33-35] and improve student learning.[24,36-38]

Social Conditions of student life and the stress and requirements for new decisions for them, in addition, the challenges that they must be ready to take responsibility and can handle multiple needs tutoring, psychological, social, nutritional, and exercise.

On the other hand, most university students are young people who live far away from home and live independently, who must learn to be responsible for their physical and mental well-being.

Social Conditions of student life with the stress and requirements are a big challenge for this period of their lives in addition, they must be ready to take responsibility and are able to handle multiple needs tutoring, psychological, social, nutritional, and exercise. Furthermore, they should be able to find the endurance needed to grow their own lives and to cope with the stresses of life and be able to have appropriate interpersonal and social relationships, which is one of the major concerns of experts, authorities, and university officials for generational education. It is healthy for the future,[39,40] thus making it very clear the necessity of conducting research in this field and identifying the needs of this aspect. Considering the importance of educational needs assessment and its numerous benefits, this study was conducted with the aim of identifying and prioritizing the needs of the students of Iran University of Medical Sciences. In this research, we cover all the needs of students. Other research has only covered research or education needs; our research is more comprehensive, which highlights the importance of our work.

Materials and Methods

Study design and study population

The design of the study was carried out in two stages. In the first part, interviews and extraction of questions were performed, and the second part was completed by filling in the questionnaires and analyzing the data as a cross-sectional study. According to the review of the texts and the initial follow-up of needs and brief interviews with 15 students at different levels of education, students expressed their opinion about their needs. All the points that were made by the students were recorded and carefully listed in the notebook, and interviews until the data saturation level continued, and finally, the data were saturated with 15 people.

In the next stage, all information was indexed in the form of items that refer to a similar concept or category, and finally divided into four areas: (a) education; (b) welfare; (c) economic; and (d) psychological and social. The initial checklist of the need assessment was categorized and compiled according to the relevant categories. The following items were deduced from the views and priorities of the students.

Then, to justify the appropriateness and logic of the questions, eight students who were similar to our target group discussed this issue. From the student's point of view, the needs were real and reasonable, and their views were corrected for some of the issues. In addition, for the validity and appropriateness of the initial checklist, three healthcare professionals and three medical education specialists were sent, and by applying their expert comments, we reached the final checklist. Finally, this checklist was completed with the addition of demographic data and used for the target group needs assessment.

Ethical approval and informed consent
The study protocol was approved by the Institutional Review Board and ethical approval was obtained. Written informed consent form was also obtained from all the participants.

Data collection and analysis
A sample of 364 people was selected using the Cochran formula (from 7000 students of Iran University of Medical Sciences). The sampling method was simple random. Before completing the questionnaire, the purpose of the study and the method of completing the questionnaire were explained to students, and the honesty of the questionnaire information and honest answer were emphasized. The presence of individuals was optional and the students responded to the questionnaire with satisfaction and agreement. The deadline for completing the questionnaire was a maximum of 2 days. The questionnaires that were incomplete were excluded from the study. A total of 28 people were eliminated and 336 of them completed the questionnaire. The final data were collected and statistically analyzed using the SPSS version 23 software (version 23.0, SPSS Inc., Chicago, IL, USA).

Results

A total of 336 students with an average age of 26.77 ± 5.45 years participated in the study. 123 (36.6%) were male and 213 (63.4%) were female. Most of the students (83.00%) were single. At the bachelor's degree 140 (41.7%) and master's degree68 (20.2%) and for PhD student were 128 (38.1%). School of Health, 89 students (26.5%), School of Nursing and Midwifery, 50 (14.9%), School of Medicine, 81 (24.1%), School of Paramedicine, 62 (18.5%), School of Behavioral Sciences and Mental Health, 18 (5.4%), School of the New Medical Technologies were 6 (1.8%), School of the Information Management was 30 (8.9%).

Table 1 shows that the psychological and social needs are the highest priority and educational needs are in the second order. Table 2 shows that there is no statistically significant difference in the mean scores of welfares, economic, psychosocial, and educational needs in both sexes of the research units ($P > 0.05$). Independent *t*-test showed [Table 3] that there is no statistically significant difference in the mean scores of welfare, psychosocial, and educational needs in both sexes of the research units ($P > 0.05$), but there is a significant difference in the mean. The economic needs scores are related to the marital status of the research units ($P < 0.05$).

One-way analysis of variance (ANOVA) showed that there was no significant difference between in the mean of welfare needs scores according to the colleges of the research units ($P > 0.05$) [Table 4]. One-way ANOVA showed that there was no significant difference between the average of economic needs scores according to the colleges in the research units ($P > 0.05$) [Table 5].

Table 1: Frequency distribution of research units according to educational, welfare, economic, and psychological and social needs

Indicators	*n*	Minimum	Maximum	Mean±SD
Educational needs	336	8.00	40.00	19.2887±3.34708
Welfare needs	336	3.00	32.00	10.0923±2.40655
Economic needs	336	5.00	33.00	11.3720±2.29763
Psychological and social needs	336	7.00	45.00	21.5417±3.82974

SD=Standard deviation

Table 2: Comparison of the average score of needs (welfare, economic, psychosocial, and educational) in male and female

Variable	Sex	Mean±SD	Independent samples test (*P*)
Welfare needs	Male	10.1301±2.70082	0.836
	Female	10.0704±2.22544	
Economic needs	Male	11.3252±2.06650	0.768
	Female	11.3991±2.42538	
Psychological and social needs	Male	21.7805±3.42971	0.386
	Female	21.4038±4.04414	
Educational needs	Male	19.2033±3.62360	0.723
	Female	19.3380±3.18432	

SD=Standard deviation

Table 3: Comparison of the average score of needs (welfare, economic, psychosocial, and educational) in single and married

Variable	Marital status	Mean±SD	Independent samples test (*P*)
Welfare needs	Single	9.9211±1.77540	0.084
	Married	10.9298±4.25885	
Economic needs	Single	11.2043±1.95944	0.768
	Married	12.1930±3.41968	
Psychological and social needs	Single	21.4373±3.97141	0.270
	Married	22.0526±3.02029	
Educational needs	Single	19.1541±3.17951	0.103
	Married	19.9474±4.03742	

SD=Standard deviation

One-way ANOVA showed that there was no significant difference between in the mean of psychosocial needs scores and the faculties of the research units ($P > 0.05$) [Table 6]. One-way ANOVA showed that there is no significant difference between the mean of educational needs scores and the faculties of the research units ($P > 0.05$) [Table 7]. Pearson correlation test showed that there is a positive linear and significant relationship between age and economic and educational needs ($P < 0.05$) [Table 8].

Table 9 presents the estimation of the standardized coefficients of each of the independent variables along with its P value and coefficient of determination for each model. Marital status, college, education, welfare, economic, and social psychopathological variables were significant in the model. In the Multiple Regression Model, the three variables of gender, education, welfare, and social-psychological were significant also the four variables of school, education, welfare, and economics were significant in the Multiple Regression Model.

Discussion

The purpose of this study was the prioritization of needs among students of the Iran University of Medical

Table 4: Comparison of the mean score of needs (welfare) in all colleges

Needs	Schools	Mean±SD	ANOVA (*P*)
Welfare needs	School of Health	10.2247±2.87526	0.784
	School of Nursing and Midwifery	10.2600±1.63894	
	School of Medicine	10.2963±2.94722	
	School of Paramedicine	9.7258±1.78490	
	School of Behavioral Sciences and Mental Health	9.8889±1.49071	
	School of the New Medical Technologies	10.00±2.00	
	School of the Information Management	9.7667±1.99453	

SD=Standard deviation

Table 5: Comparison of the mean score of needs (economic) in all colleges

Needs	Schools	Mean±SD	ANOVA (*P*)
Economic needs	School of Health	11.8090±1.99361	0.105
	School of Nursing and Midwifery	10.8400±1.92046	
	School of Medicine	11.0617±2.05150	
	School of Paramedicine	11.1613±1.82149	
	School of Behavioral Sciences and Mental Health	12.0000±5.63602	
	School of the New Medical Technologies	11.5000±1.76068	
	School of the Information Management	11.8333±1.74363	

SD=Standard deviation

Table 6: Comparison of the mean score of needs (psychological and social needs) in all colleges

Needs	Schools	Mean±SD	ANOVA (*P*)
Psychological and social needs	School of Health	22.0787±4.29382	0.534
	School of Nursing and Midwifery	20.8200±3.32394	
	School of Medicine	21.1975±3.58964	
	School of Paramedicine	21.6290±4.16950	
	School of Behavioral Sciences and Mental Health	21.6667±3.85013	
	School of the New Medical Technologies	23.0000±3.22490	
	School of the Information Management	21.5333±3.10432	

SD=Standard deviation

Table 7: Comparison of the mean score of needs (educational needs) in all colleges

Needs	Schools	Mean±SD	ANOVA (*P*)
Educational needs	School of Health	19.1685±2.92029	0.613
	School of Nursing and Midwifery	18.8800±2.94605	
	School of Medicine	19.5556±2.99166	
	School of Paramedicine	19.4194±4.70977	
	School of Behavioral Sciences and Mental Health	19.0556±3.09596	
	School of the New Medical Technologies	17.3333±2.94392	
	School of the Information Management	19.8667±2.94470	

SD=Standard deviation

Table 8: Relationship between age and economic and educational needs (Pearson correlation test)

Age	Welfare needs	Economic needs	Psychological and social needs	Educational needs
Pearson correlation coefficient	0.097	0.114*	0.073	0.148**
P	0.077	0.036	0.183	0.007

*Correlation is significant at the 0.05 level (two-tailed), **Correlation is significant at the 0.01 level (two-tailed)

Table 9: Determination of factors affecting the components based on multiple linear regression by backward method

Model	Dependent variable	Predictors	Standardized coefficients (β)	P	R^2 (%)
1	Educational needs	Course	0.137	0.004	27.9
		Field	−0.083	0.079	
		Welfare needs	0.284	<0.0001	
		Economic needs	0.126	0.015	
		Psychological and social needs	0.225	<0.0001	
2	Welfare needs	Marital status	−0.132	0.005	28.1
		Schools	−0.163	0.001	
		Economic needs	0.181	<0.0001	
		Psychological and social needs	0.143	0.008	
		Educational needs	0.251	<0.0001	
3	Economic needs	Age	0.093	0.064	20.6
		Sex	0.114	0.021	
		Psychological and social needs	0.209	<0.0001	
		Educational needs	0.144	0.012	
		Welfare needs	0.192	0.001	
4	Psychological and social needs	Schools	−0.133	0.007	24.9
		Educational needs	0.234	<0.0001	
		Welfare needs	0.158	0.004	
		Economic needs	0.210	<0.0001	

Sciences, which indicated psychosocial needs are in the first priority and also educational needs are in the second priority And economic and welfare needs respectively.

The purpose of this study was the prioritization of needs among students of the Iran University of Medical Sciences, which indicated psychosocial needs were in the first priority, educational needs are in the second priority also economic and welfare needs were in the next, respectively [Table 1]. The results of the study by Koster *et al.*, which focused on social needs, emphasizing the need for community participation, which included four key elements of social perception, classroom acceptance, friendship, relationships, and communication and interaction, are consistent with our study results.[41] In a study done on 247 Hong Kong University students about the psychological, social, and welfare needs of students, there was no significant difference between the gender and the special psychological needs that were consistent with our study. In the study, there were 22 items including categories, mental development of interpersonal relationships, and stress management. There was also no significant gender difference in this study, which was consistent with the results of our study.[10]

A study of 138 students at the University of Helsinki, Finland, emphasized the importance of psychological

and social needs and welfare, which was consistent with the results of our study.[42] Further, Previous research has shown that psychological needs of adolescents are important which are similar to our results.[43] A study by Yang *et al.*, conducted on 131 international students in the United States, examined psychological needs, which is similar to the results of our study.[44] In a study by Agron *et al.* in Columbia, research units need to provide education and resources to areas in health issues, especially physical education, activities, school-based health programs, and strategies for implementing and monitoring, and the health policy assessment was different from our study.[45] In a study conducted by Kasser and Ahuvia between 92 international students in Singapore, They were believed that money and the position and popularity of a need were vital, and the psychosocial issues such as happiness or worry or stress It was in the next priorities that differed from our study results.[22] In a qualitative study done by Farrer *et al.*, which was conducted by focus group on 19 participants, participants' needs included information on general well-being, mental symptoms of disorders, how to help friends, and specific topics related to university students, such as grief and learning stress as well as work–life balance, time and stress management, and coping skills and anxiety. In this study, the psychosocial needs expressed to some extent are similar to ours; however,

according to the prioritization of needs, our study results differed.[46] The reason for this can be due to the cultural differences between different communities. Our study provides valuable information to prioritize needs. Undoubtedly, educational authorities and university administrators can use these data for purposeful planning based on future needs to improve the educational, welfare, psychological, and social process.

Since the priority of psychosocial needs was more important than other priorities and educational priorities were at a later stage, one can understand that it is necessary to pay particular attention to students' psychological and social needs for future planning and effectiveness of programs. We should look for new strategies to improve the mental and social health of the students to have a healthy and capable generation for the future.

Conclusion

The results of our study indicated psychosocial needs were in the first priority, educational needs are in the second priority also economic and welfare needs were in the next, respectively. Our findings can be used by university administrators to design educational materials or curriculums and also to design and develop educational programs and student psychosocial support. One of the limitations of the present study is the low statistical population, which can be obtained better results by studying a larger statistical population. The other limitations, the generalizability of this study to other universities, are some difficulty.

Conflicts of interest
There are no conflicts of interest.

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