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

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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 welfare 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

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 facilities² 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 satisfaction⁵ 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 important.⁶⁻⁷ In this regard, determining the needs and priorities among faculty members of the universities⁸⁻⁹ 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

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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.\(^{20-24}\) 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 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 degree 68 (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 welfare, 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 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].
One-way ANOVA showed that there was no significant difference between 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...
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. [46] 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.

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**Conflicts of interest**

There are no conflicts of interest.

**References**

1. Fontana R, Geuna A, Matt M. Factor’s affecting university – Industry R and D projects: The importance of searching, screening and signalling. Res Policy 2006;35:309-23.
2. Lee M. What makes a difference between two schools? Teacher job satisfaction and educational outcomes. Int Educ J 2006;7:462-50.
3. Knight J. Coaching to improve teaching: Using the instructional coaching model. In: Coaching in Education. London: Routledge; 2018. p. 93-113.
4. Gibbens B. Measuring student motivation in an introductory biology class. Am Biol Teach 2019;81:20-6.
5. Holmes N. Engaging with assessment: Increasing student engagement through continuous assessment. Act Learn Higher Educ 2018;19:23-34.
6. Bailey D. The contribution of work-based supervision to interprofessional learning on a Master’s programme in community mental health. J Interprof Care 2004;5:263-78.
7. Wiers-Jenssen I, Stensaker BR, Gr-Gaard JB. Student satisfaction: Towards an empirical deconstruction of the concept. Q Higher Educ 2002;8:183-95.
8. Shafaei-Khanghah Y, Enteshari-Moghaddam A, Amani F, Ghobadi H, Farzaneh E. Educational needs assessment of faculty members in Ardabil University of medical sciences. Int J Community Med Public Health 2017;4:4042-8.
9. Livingstone N, Naismith N. Faculty and undergraduate student perceptions of an integrated mentoring approach. Act Learn Higher Educ 2018;19:77-92.
10. Khoshbaten M, Ghaffari R, Salek F, Amini A, Hassanzadeh S, Gholanbar P. Educational needs assessment of faculty members of Tabriz University of medical sciences, Tabriz Iran. Res Dev Med Educ 2014;3:15-23.
11. Baker A. What else do students need? A psychodynamic reflection on students’ need for support from staff at university. Act Learn Higher Educ 2006;7:171-83.
12. Geertshuis SA. Slaves to our emotions: Examining the predictive relationship between emotional well-being and academic outcomes. Act Learn Higher Educ 2019; 20 (2): 153-66.
13. Wass R, Timmermans J, Harland T, McLean A. Annoyance and frustration: Emotional responses to being assessed in higher education. Act Learn Higher Educ 2018;1 (1):10-11
14. Turki FJ, Jdaïtawi M, Sheta H. Fostering positive adjustment behaviour: Social connectedness, achievement motivation and emotional-social learning among male and female university students. Act Learn Higher Educ 2018;19:145-58.
15. Moradi E, Didehan H. Faculty members development in medical education: Programs, interventions and outcomes. J Urmia Nurs Midwifery Fac 2017;15:10-8.
16. Khoshahi E, Esmaeili Moghaddam M, Behrouz P, Mirzae Z, Moradi E. Evaluation of patients satisfaction with diseases of periodontics of teaching methods at the dental clinic and determination of the effects of age and sex on their learning. Urmia Med J 2017;28:111.
17. Monette ML. The concept of educational need: An analysis of selected literature. Adult Educ 1977;27:116-27.
18. Scissons EH. Needs assessment in adult education (Brackhaus, 1984): A reaction. Adult Educ Q 1984;35:105-8.
19. Brackhaus B. Needs assessment in adult education: Its problems and prospects. Adult Educ Q 1984;34:233-9.
20. Pennington FC. Needs assessment: Concepts, models, and characteristics. New Dir Adult Contin Educ 1980;1980:1-14.
21. Posavac EJ. Program Evaluation: Methods and Case Studies. Chicago: Routledge; 2015.
22. Kasser T, Ahuvia A. Materialistic values and well-being in business students. Eur J Soc Psychol 2002;32:137-46.
23. Grant J. Learning needs assessment: Assessing the need. BMJ 2002;324:156-9.
24. Simpson-Beck V. Assessing classroom assessment techniques. Act Learn Higher Educ 2011;12:125-32.
25. McDonald B. Improving learning through Meta assessment. Act Learn Higher Educ 2010;11:119-29.
26. Van Scoy IJ, Green MJ, Volpe R. Evaluating an advance care planning curriculum: A lecture, a game, a patient, and an essay. Med Sci Educ 2019;29:453–462.
27. Evans DJ, Zeun P, Stanier RA. Motivating student learning using a formative assessment journey. J Anat 2014;224:296-303.
28. Pereira MM, Artemiou E, McGonigle D, Köster L, Conan A, Sithole F. Second Life and classroom environments: Comparing small group teaching and learning in developing clinical
reasoning process skills. Med Sci Educ 2019;29: 431–437

29. Gipps C. Beyond Testing (Classic Edition): Towards a Theory of Educational Assessment. London AND New York: Routledge; 2011.

30. Lacerenza CN, Marlow SL, Tannenbaum SI, Salas E. Team development interventions: Evidence-based approaches for improving teamwork. Am Psychol 2018;73:517-31.

31. Eldredge LK, Markham CM, Ruiter RA, Kok G, Fernandez ME, Parcel GS. Planning Health Promotion Programs: An Intervention Mapping Approach. United States: John Wiley and Sons; 2016.

32. Rust C. The impact of assessment on student learning: How can the research literature practically help to inform the development of departmental assessment strategies and learner-centred assessment practices? Act Learn Higher Educ 2002;3:145-58.

33. Tones K. Empowerment and the promotion of health. J Inst Health Educ 1992;30:133-7.

34. Houseknecht VE, Roman B, Stolfi A, Borges NJ. A longitudinal assessment of professional identity, wellness, imposter phenomenon, and calling to medicine among medical students. Med Sci Educ 2019; 29 (6):1-5.

35. Shilan A, Kasmaei P, Farmanbar R, Shakiba M, Mahdavirooushan M, Zareban I, et al. Factors predicting nutritional behaviors related to gastric cancer: A model-guided study. Drug Invent Today 2018;10:936-41.

36. Schmoker M. Focus: Elevating the Essentials to Radically Improve Student Learning. Virginia: ASCD; 2018.

37. Anderson MC, Love LM, Haggar FL. Looking beyond the physician educator: The evolving roles of instructional designers in medical education. Med Sci Edu 2019;29 (2) 507–513.

38. Ashrafi E, Kasmaei P, Mehrabian F, Omidi S, Zareban I, Haryalechi K. Predictive factors of behavioral intention in aids prevention in nursing and midwifery students at Guilan University of medical sciences. Drug Invent Today 2019;12:239-42.

39. Lee RL, Loke AJ. Health-promoting behaviors and psychosocial well-being of university students in Hong Kong. Public Health Nurs 2005;22:209-20.

40. Kavousi E, Khazaei Z, Amini A, Fattahi E, Pnahi A, Sohrabivafa M, et al. Promoting behaviors of healthiness in two domains of physical activity and nutrition statue in high school students. Int J Pediatr 2017;5:4839-47.

41. Koster M, Pijl SJ, Nakken H, Van Houten E. Social participation of students with special needs in regular primary education in the Netherlands. Int J Disabil Dev Educ 2010;57:59-75.

42. Myyry L, Helkama K. University students’ value priorities and emotional empathy. Educ Psychol 2001;21:25-40.

43. Shek DT, Lee TY. Helping adolescents with greater psychosocial needs: Subjective outcome evaluation based on different cohorts. ScientificWorldJournal 2012;2012:694018.

44. Yang Y, Zhang Y, Sheldon KM. Self-determined motivation for studying abroad predicts lower culture shock and greater well-being among international students: The mediating role of basic psychological needs satisfaction. Int J Intercult Relat 2018;63:95-104.

45. Agron P, Berends V, Ellis K, Gonzalez M. School wellness policies: Perceptions, barriers, and needs among school leaders and wellness advocates. J Sch Health 2010;80:527-35.

46. Farrer L, Gulliver A, Chan JK, Bennett K, Griffiths KM. A virtual mental health clinic for university students: A qualitative study of end-user service needs and priorities. JMIR Ment Health 2015;2:e2.