Opinions of physicians about the content relevance of M.D curriculum and their professional needs

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Abstract

Background and purpose: *Medical education is a complex process that intends to train the students in situation like they should work in future such as hospital, clinics, health care center and theire oficess. So, first, it should be clear that, how much the curriculum of medical education meets the professional needs.*

Method: *Questionnaires were designed and distributed among 125 physicians (GP) with one to tow years experience. The questionnaire scaled from 1 to 10 (at least relevance to the most relevance).*

Results: *General practitioners graded the relevancy of content of medical curriculum to professional needs as 7.03±1.56 . They mentioned that the ratio of ambulatory medical education to bedside one was nearly 2.5 to 1 . Approximately 73% of them pointed that their needs to ambulatory education were fulfilled: low and very low. Whereas 71% of them mentioned that the amount of fulfillment of bed side education were: enough and very enough.*

Conclusion: *This study showed that the contents of medical curriculum are not completely relevant to GP needs, especialy in basic science. The recommendation is that there needs to be a shift in the emphasis from hospital to the community, and particularly to ambulatory centers.*

Keywords: *MEDICAL EDUCATION, PROFESSIONAL NEEDS, CURRICULUM, OPINION.*

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Introduction

The social, economic and political changes have influenced higher education which subjects medical education to many changes (1). The changes include introduction of outcome-based education and social accountability instead of education for education. For responding to these changes, medical education has to revise its programs and answer these questions: Are university graduates capable of responding to community needs? Are work-force training is based on the specified outcomes?(2,3)

Today in Iran, many medical schools don't have a well-defined program. The curriculum has been rarely revised (4). The medical mission has been changed from patient treatment toward a provision of comprehensive care for community, patient care emphsizing preventive services such as screening, and promotion of healthy life style. Therefore it is necessary for medical student to gain new capabilities to provide these services. They must be responsible for what they have learned. They also should be competent in communicating with patients, working with group, applying ethical

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principles and life long learning (5). In fact the students must gain knowledge, attitudes and skills for doing their duties (6).

To have doctors who meets this expectation, we have to identify how much of the medical curriculum offered is relevant to this outcome. We investigated the general physicians opinion on this central question that how relevant they thought was the medical curriculum to the tasks expected from them as general practitioners (GP).

Method

This research was a cross sectional study. This survey was conducted to determine the relevance of the medical curriculum offered in Iran medical schools and professional needs of GPs who had 1 to 2 years work experience. Of all GPs who practiced in Khorasan province at north of Iran 125 were randomly chosen to participate in this survey. Sample size was calculated based on an α of 0.05, and a P of 50%. The questionnaire was used for data gathering. The main issues were the importance of GP curriculum contents, satisfaction from evaluation, out patient education rate to bedside teaching, and the extent to which the courses met their needs.

The importance of courses and relevance of them to GPs' needs were assessed by 10-point visual scale where 0 showed unimportance and 10 showed most importance. Data were analyzed using SPSS software.

Result

Eighty seven percent(N=107) usable questionnaires were returned. With considering 15% sample loss, we obtained all 100% subjects that were calculated. Of all respondents 41.1% were male, 58.9% were female, 22.9% were single and 77.1% were married. Mean age of respondents were 28.9±4.9. Respondents had 16.3±5.8 months of work experience in health care centers and clinics. Of all respondent, 91.4% were interested study in an specialty postgraduate

clinical program. The specialties that win highest rates of GPs' interest for postgraduate study were dermatology (21.7%), radiology (17.4%) and cardiology (9.8%) with immunology and oncology at the end of the list.The importance and relevance of courses based on professional needs in basic sciences were 7.6 points for anatomy, 8.09 points for epidemiology, 7.38 points for physiology. The biochemistry and biophysics were expressed as the least important of all basic science courses (3.47 and 2.89 points respectively)(fig.1). At physiopathology phase the scores were 8.64 points for gastrointestinal disorders, 8.4 points for respiratory disorders, 8.09 points for pharmacology and 3.64 points for biostatic (fig.2). At the externship phase internal medicine with a mean of 8.97 points, pediatrics with a mean of 8.88 points and cardiology with a mean of 8.2 points were at the top of the list based on importance expressed by respondents but ophthalmology with a mean of 6.33 points and orthopedic with a mean of 6.22 points were at the bottom of the list (fig.3). At the internship phase, education in the pediatric ward with a mean of 9.19 points, internal medicine ward with a mean of 9.8 points were considered most importance. At this phase community medicine and health with a mean of 6.33 points was considered the least important from point of view of respondents(fig.3).

The ideal proportion of ambulatory training in clinical education was 70.2%, but most of respondents(65.2%) believed that the outpatient clinical education was offered in small proportion and 17.1% of respondents believed that this was offered in very small proportion of the program. Nineteen percent of respondents believed that ambulatory education is sufficient. Regarding bedside teaching, 4.1% of respondents believed that this was offered sufficiently, while 3.4% indicated that it was offered more than needed 92.5% believed that it was offered much more than needed.

Figur 1: Courses with professional needs in importance and relevance of basic sciences phase
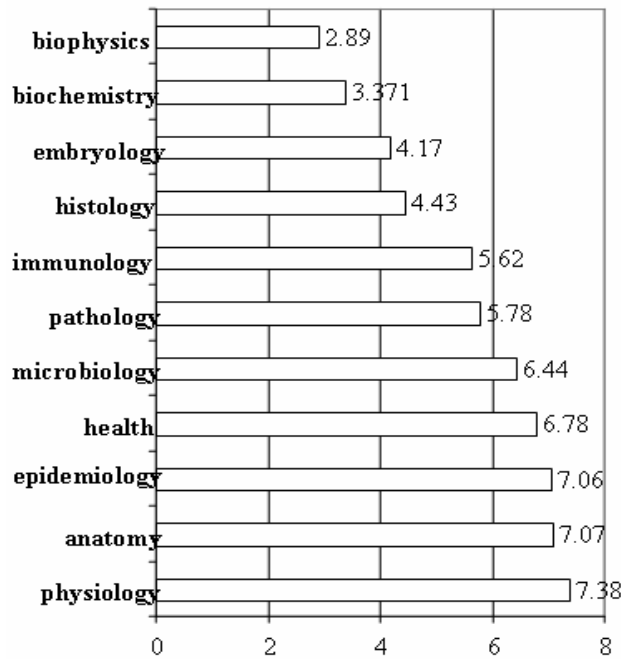

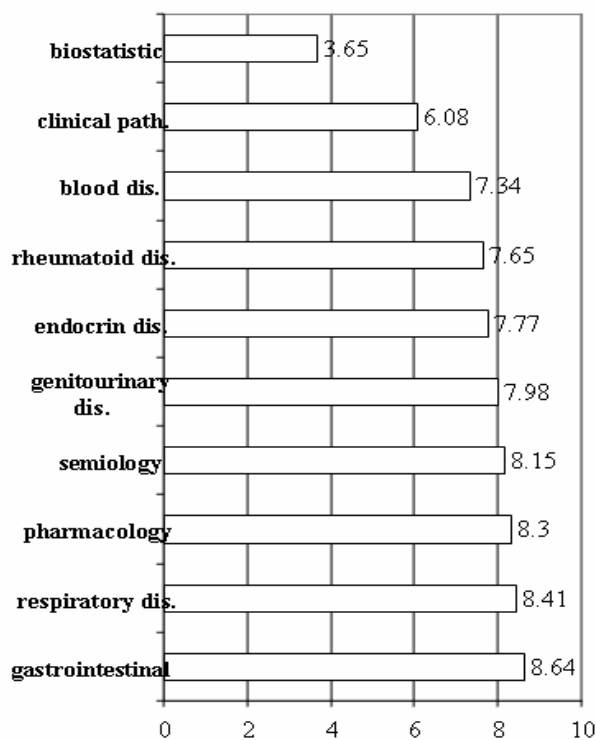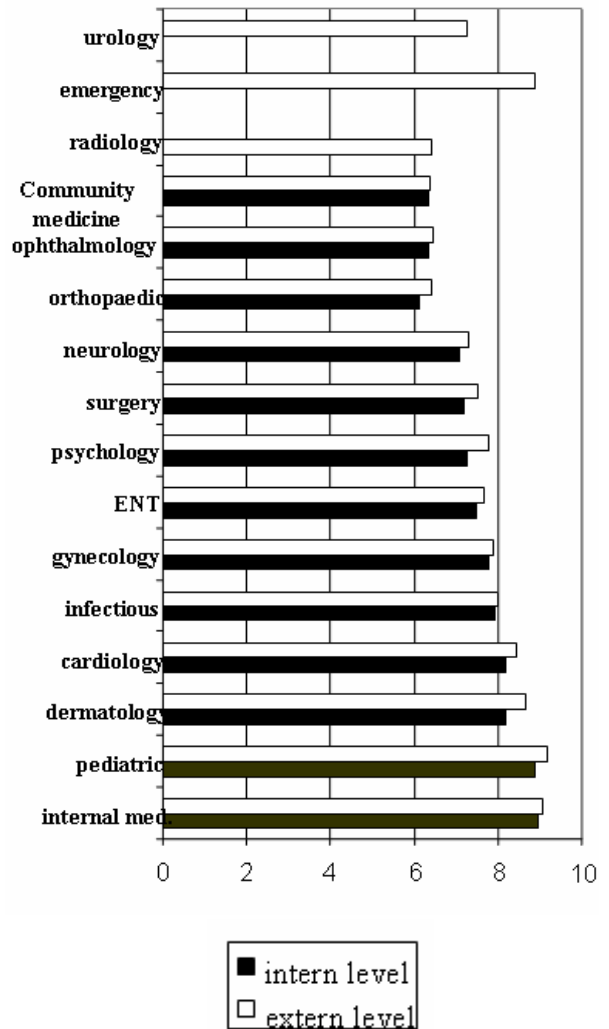**Figure 3:** Importance and relevance of courses based on professional needs of externs and interns

Figure 2: Importance and relevance of courses with professional needs in path physiology phase

Discussion

Most respondents (91.4%) intended to study for post-graduate degree, with no significant difference between male and female. This high interest may have multiple reasons. Dissatisfaction with GPs job or social status and income may influence GPs choice.

A study by Changiz and colleagues showed that medical students' satisfaction with being a doctor had been deteriorated during their course. This was significant at end of course. The reason for a large proportion of this negative view to their profession is related to the worries about future (7). It seems that this

dissatisfaction with working is an important factor which makes residency programs so appealing.

The relevance of basic science courses to professional needs was 5.54±2.24 points. Physiology, anatomy and epidemiology had the highest scores. In his study, Vaghary assessed the extent to which basic science contributed to understanding clinical courses. His reported scores was lower than ours. This may be due to differences in questioners of the 2 studies (8). At physiopathology phase the mean scores of courses were 7.39±1.2 points which was higher than those of basic science courses. Our results are different from those of Kotter et al study. In the study by Kotter et al physical examination (7.9) and pharmacology (5.9) had the highest scores but clinical biochemistry (0.8) and biomathematics (0.2) had the lowest scores. The subjects of the study included last year medical students (9).

Respondents in our study were satisfied with clinical courses in comparison with the basic science courses, since clinical courses were more relevant to professional needs.

Finally this study showed that even in clinical courses where a balance between various settings is needed for adequate training, ambulatory settings did not have their due share. Considering these findings in modification of medical curriculum will help students to gain the competencies they need for future practice.

Acknowledgment

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