Students' perception of the various teaching methods used in the primary health care course in the Abha College of Medicine

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ABSTRACT

Objectives: To describe students' perception of the various teaching methods used in the Primary Health Care (PHC) course concerning the scientific material presented, information processing as well as motivation and importance attached by the students to each method.

Methods: A self-administered anonymous questionnaire was filled by the students of the sixth year (n=51) at the end of the course. This was structured into 3 main parts: a general part addressing the objectives of the course, the suitability of the course contents, the references and the importance of the course for the future career. The second part dealt with the suitability of the used teaching methods and the last part was for students' scoring to items related to scientific material, information processing and motivation for each method. The study took place in the scholar year 2001- 2002.

Results: A high percentage of students (93.3%) agreed

with the importance of the course, the objectives were fully fulfilled for 72.1% of students while two thirds of students (66.7%) felt that there is a need to add or remove topics from the course. The practical sessions were suitable methods for 76.7% of students and clinical sessions for 73.3% of students. Seminars had the lowest scores for understanding the scientific material presented (mean score 5.8) as well as the lowest score for enhancing critical thinking (mean score 4.0). Lectures and problem solving exercises received fairly good attendance priority (mean scores 8.3 and 8.7).

Conclusion: The teaching methods for the PHC course need to be reviewed in the light of the present study. Students perceptions are to be studied regularly in order to tailor courses that meet the needs of the students and reach an acceptable standards.

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It has long been the custom of undergraduate teaching all over the world to have the classrooms and the hospital wards as the context for this "passive medical teaching".¹ Teachers used to transmit information through lectures with little, if any, active participation from students.² Further, it is reported that this type of teaching format does not encourage students to be self directed and critical thinkers, let alone the need of having life long learner graduates and independent practitioners.^{3,4} It is thought that these deficiencies will have direct impact on many curricula including the Primary Health Care (PHC) course. The

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PHC course in Abha Medical College, Abha, Kingdom of Saudi Arabia (KSA) is taught using various teaching methods as lectures, seminars, problem solving exercises, as well as practical and clinical sessions in the urban PHC centers of Abha region. In order to improve the teaching quality of this course, the students' evaluation of these methods concerning some higher cognitive skills such as understanding, analysis, critical thinking and synthesis incited by each method should be sought.^{5,6} The aim of this study is to expose the students' perception of the 5 used methods of teaching in the PHC course in relation to the scientific material presented, how student deal with information namely the processing of information delivered and the attached importance and motivation incited by each method.

Methods. The general objective of the PHC course is to prepare and enable the student to practice in a PHC setting after graduation. It includes clinical assessment and management of presenting cases as well as comprehensive and continuous family cares. Students of the sixth year are trained in Abha urban primary health care centers (PHCCs) to understand and practice the different preventive, curative and promotive services offered. The course duration is 5 weeks to cover 60 hours including various methods of teaching. Thus, 10 hours of lectures, 5 hours for seminars, 5 hours for problem solving presentations and the remaining 40 hours for the clinical and practical activities in the PHC centers. Lectures are meant to describe the principles, strategies and approaches of PHC, beside notes on consultation skills, well-baby care and growth monitoring, national immunization schedule and techniques, infant feeding and rehydration as well as primary maternal care together with notes on quality assurance in PHC. Seminars are prepared and presented by groups of students related to such topics as the national protocols for management of diabetes, hypertension and coronary heart diseases, asthma and respiratory infections, the impact of psychosocial problems and pilgrimage health hazards management in PHC. In order to enhance the problem solving skills and encourage the student self-learning abilities, problem-solving exercises are included in the teaching methods of that course. They tackle problems related to management of sore throat, pallor in children, patient with red eye, earaches, abdominal pain and similar subjects. The student must attend and participate in interviewing, examining and managing the patients presenting to the clinic alongside the examining physician as a part of the clinical activities required. They also shares in the health education and the recording of cases in the suitable registration system available. As their practical training, the immunization techniques and monitoring of children growth, educating the mothers on feeding and rehydration measures are undertaken. At the last

session of the course in the scholar year 2001-2002 and before the examination, a self-administered specially designed questionnaire was delivered to the whole student batch (51 students). After a short briefing explaining the aim of this questionnaire, the students were invited to complete it individually in 30 minutes without any self-identification. The questionnaire was divided into 3 main parts. A general part related to the importance attached to the course by the student, fulfillment of the objectives, suitability of course contents, whether its duration was suitable or not and if the course is considered useful for his future career. The second part was related to the teaching methods used and the references designated in the course description. Thus, the suitability of the 5 teaching methods used in this course was scored as most suitable, average or unsuitable. The last part of the questionnaire was concerned with the student's perception of the teaching methods in terms of the scientific material presented, the information acquired and the motivation stimulated by the method. In front of each statement, the student scores for every teaching method from one (least suitable) to 10 (most suitable). Means and standard deviation were calculated and the results were presented in tables.

Results. A high percentage (93.3%) of students agrees with the importance of the course currently and for their future career. The course objectives were fully fulfilled for 72.1% of students, while some of them felt that they were partly (20%) or not fulfilled (8%) at all. The course contents were suitable for two thirds of the students (66.7%) and topics are needed to be added or removed from the course for 60% of them. The duration of the course (5 weeks) was judged suitable for 46.7% or short for 43.3% of the students. The majority (76.7%) of students evaluated the teaching methods generally as suitable. However, approximately 23.3% of them were qualified as unsuitable. As for the suitability of each method, the practical sessions were seen suitable for 76.7% of students and clinical sessions for 73.3% of students. The least suitable teaching method was the seminar as only 23.3% of students thought it was suitable while the majority of them (56.7%) evaluated it as average or unsuitable (20%). As for the suggested course references, the majority of students (53.3%) consider them as unsuitable. Table 1 shows the mean students' scoring for the scientific material, information processing and motivation stimulated by the various teaching methods.

Discussion. The health care system in many countries of the world is undergoing radical changes in the delivery and management of care through the primary care approach.⁷ This requires an educational system that extends well beyond the familiar knowledge, skills and attitudes acquired in traditional

general practice.8 It is claimed that the division between clinical and preclinical education is known to have led many students to experience a gap between theoretical knowledge and the application of this knowledge in practice.⁹ It was decided therefore, to carry out this study to probe the students' evaluation of the various teaching methods in the PHC course which exposes the students to the real life practice in the community. Within the system of higher education in the KSA lectures continue to be a dominant feature of many courses.¹⁰ In the present study, 60% of students found it a suitable method (among other methods) for teaching in that course. The scientific material presented in it was generally quite appreciated by students. A good concordance is seen between the different items of the scientific material and the logical sequence of the information (mean score 8.3) delivered in lecturing as this has an impact on understanding (mean score 7.2) where information fits in categories related to past learning.¹¹ The main disadvantages perceived by students is in the recall of information (mean score 5.2) and enhancement of critical thinking (mean score 5.3). The student as an information processor needs to categorize information, store it and recall it when necessary. As the recall of information here was low, the teachers' role is supposed to be in categorizing information as examples of concepts and in facilitating storage and retrieval of information by reinforcing important points.¹² Moreover, the reaction and participation of students during lectures will thus probably improve. Seminars on the other hand, showed many low scores except for matching the students' scientific level (mean score 8.0) which is expected, as they are the ones preparing it. Nevertheless, it showed several defects especially in information processing items and the motivation items. Presenting students are lacking the ability to transmit information properly thus hindering the recall of information by listeners (mean score 1.3), the logical sequence (mean score

5.2) and the critical thinking (mean score 4.0). Consequently, this was associated with the low reaction and participation mean score (1.0) as well as the attention and concentration of other colleagues (mean score 3.2). Thus seminars, as revealed by this study, need more involvement of teachers in guiding the students to master communication skills besides acting more efficiently as information resources. Problem solving exercises received good scoring for most scientific material aspects, they were fairly well understood (mean score 7.7) and encouraged critical thinking ability for most of the students (mean score 7.8). It is thought that the good participation and reaction (mean score 8.3), attention and concentration (mean score 7.7) as well as attendance priority (mean score 8.7) are probably due to the fact that these exercises are tackling problems encountered by students in their PHC practice. The lowest score for problem solving exercises was given to the recall of information (mean score 6.3). There is some need here from the part of the tutor, to help students in this respect by selecting relevant information and focus attention on it beside grouping and recognizing it as a part of a broad class of facts that fits in relation to past learning.¹³ Practical and clinical sessions were most appreciated by the students in respect to all items of the study. As the course is mainly a practical and clinical course, these results can be considered as a credit to this course. Moreover, it seems that the direct relation with the working physicians in the PHC centers and the guidance of the staff tutors gave good collaboration results and the students stepped in the real life clinic with success and enthusiasm. It is concluded that in the PHC course the practical and clinical sessions are greatly appreciated by the students. Seminars are the least appreciated methods of teaching and need to be revised and ameliorated to enhance the information processing phase. The teachers' role in facilitating the logical sequence of

Table 1 - Students' scoring (1-10) for scientific material, information, processing, and motivation by various methods (mean
score \pm SD).

Evaluated item	Lecture	Seminar	Problem solving	Practical	Clinical
<i>Scientific material</i> Matching your level Up to date Understanding	9.4±0.8 8.3±1.0 7.2±0.7	8.0±1.9 6.9±1.5 5.8±0.8	8.3±1.1 8.0±0.5 7.7±0.9	10.0±0 10.0±0 10.0±0	9.7±0.25 10.0±0 9.7±0.6
<i>Information processing</i> Logical sequence Enhancing critical thinking Recall of information	8.3±0.1 5.3±1.9 5.2±1.3	5.2±1.5 4.0±0.8 1.3±0.2	8.0±0.6 7.8±0.3 6.3±0.9	8.3±0.55 8.7±0.3 10.0±0	8.4±0.6 8.4±0.6 9.7±0.2
<i>Motivation</i> Reaction and participation Attention and concentration Attendance priority	5.7±1.3 7.0±2.2 8.3±1.0	1.0±0.5 3.2±0.7 5.3±1.1	8.3±0.3 7.7±0.6 8.7±0.9	10.0±0 10.0±0 10.0±0	8.8±0.7 9.5±0.2 9.7±0.1

presented material and the critical thinking abilities of students is stressed. This type of students' evaluation of courses is to be encouraged and regularly performed.

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