

Student perception of small group teaching in first year MBBS at King Saud University Medical College Saudi Arabia

Mona M. Soliman¹, Sami Abdulaziz Alnassar²

ABSTRACT

Objectives: To assess the students' perception of the small group teaching sessions in first year MBBS at King Saud University Medical College in Saudi Arabia. The study also evaluated the role of the tutors during the small group sessions.

Methodology: A cross sectional descriptive survey was conducted at the end of the cardiovascular block during 2009-2010 academic year among the first year medical students at the King Saud Medical College (168 male and 104 female). A 19-item questionnaire (in English language) that included closed-ended questions that addressed the issues of concern in the integrated curriculum in regards to small group sessions was administered on line.

Results: The overall response rate was 93%. The students were satisfied regarding the structure of the sessions (89.7%). The students thought that their role was made clear (90.3%) and were satisfied about the location and the facilities (71.6%). The students thought that the sessions were provoking (75.7%), helped them to be active learners (88.5%) and led them to be deep learners (87.2%). The learning needs were made clear (62.5%). The tutors were enthusiastic (81.2%) but offered plenty of information (61.2%). The sessions were useful, taught life-long learning (78.7%), improved the students' abilities to think and solve problems (83%), developed their skills to work as a team (43.6% strongly agreed) and improved their communication skills (89.1%).

Conclusion: The students are generally happy with the small group session's structure and process. Tutors are enthusiastic and helpful. However, the tutors offered plenty of information and need re training.

KEY WORDS: Small group, Teaching, Learning.

Pak J Med Sci October - December 2011 Vol. 27 No. 5 963-966

How to cite this article:

Soliman MM, Alnassar SA. Student perception of small group teaching in first year MBBS at King Saud University Medical College Saudi Arabia. Pak J Med Sci 2011;27(5):963-966

1. Dr. Mona M. Soliman, MBBS, MSc, PhD, Med Ed Diploma, Assistant Professor, Department of Physiology,
2. Dr. Sami Abdulaziz Alnassar, Assistant Professor, Head of Medical Education Department, Consultant Thoracic Surgery, Department of Surgery,
- 1, 2: College of Medicine, King Saud University, Riyadh, Saudi Arabia.

Correspondence:

Dr. Mona M. Soliman, MBBS, MSc, PhD, Med Ed Diploma, Assistant Professor, Department of Physiology, College of Medicine, King Saud University, P. O. Box 2925 (29), Riyadh 11461, Saudi Arabia.
E-mail: monaslm@yahoo.com

- * Received for Publication: May 9, 2011
- * Revision Received: October 12, 2011
- * Revision Accepted: October 14, 2011

INTRODUCTION

Over the past few decades, medical schools in many parts of the world have been introduced to integrated curricula.¹⁻³ In September 2010, King Saud University Medical College in Riyadh, Saudi Arabia adopted a new reformed system oriented curriculum that has multiple learning methods including lectures, laboratory sessions and small group teaching sessions (Figure-1).

The cardiovascular block included four cases to be discussed over a period of four weeks. The small group sessions include 10 students. The small group teaching sessions are based on clinical scenarios that match the theme topic of the week. The format

of the small group teaching sessions is that of problem based learning (PBL). Each week includes two small group teaching sessions of one and half hour duration. The first session begins with a brief history of the patient's chief complain. The students then discuss their ideas about the possible differential diagnosis and disease mechanisms. More information is then given regarding physical examination.

The same process is then applied regarding physical examination. The students utilize the information given regarding history and physical examination to determine which laboratory investigation should be performed. The interpretation of the laboratory results emerges through the discussion. During this process, the students identify their learning needs with the help of their tutor. These then become the learning issues for students to study and report in the subsequent session (Figure-2). Gifford⁴ showed in a review on medical colleges that the number of lectures has been reduced, replaced by more effective small-group, problem-solving seminars that made medical school a much more enjoyable experience.

The tutors are faculty staff members at the College of Medicine King Saud University from different departments. Tutors are facilitators of the discussion rather than resource experts in any area. The role of the tutors is to monitor the process of critical thinking.⁵ The tutors guide the students to the information resources, such as medical textbooks. An easily accessible library is available within the medical school, where students can make use of their free time. The College has a well stocked medical library equipped with latest medical reference and textbooks along with internet facility. Moreover, the library is located at the central place easily accessible to students and has sufficient seating capacity.

Staff development is identified as a top priority with the integrated curriculum. Workshop is held prior to the start of each block to help the faculty to adapt to their new role in the small group teaching sessions.

The present study describes students' evaluation of the small group sessions after the end of the cardiovascular block. The study elaborated on how students perceived and satisfied regarding the small group teaching sessions which is a well-established method of learning. The study also evaluated the role of the tutors as most of the tutors were involved with teaching the traditional curriculum and were instructed and trained to run the small group sessions.

METHODOLOGY

Study population: The Ethical Committee, at the College of Medicine, King Saud University, approved the study. It was conducted among 168 male and 104 female first year medical students at the end of the cardiovascular block during 2009-2010 academic years.

Data Collection: A cross sectional descriptive survey was conducted at the end of the cardiovascular block during 2009-2010 academic year among the first year medical students at the King Saud Medical College. We administered a 19-item questionnaire (in English language) that included closed-ended questions that addressed the issues of concern in the integrated curriculum in regards to small group sessions. A committee in the medical education department reviewed the questions for content validity. The questions were pilot tested before distribution to the students. Question domains assessed the structure of the small group learning sessions, the process of learning, the tutors, the usefulness of small group sessions and the overall satisfaction of the quality of the small group sessions. Students' responses were quantitatively measured in relation to statements on the questionnaire using a five point Likert scale ('strongly agree', 'agree', 'true sometimes', 'disagree' or 'strongly disagree'). The survey was sent to all the students by e-mail on the first day of the examination week. The students were given detailed instructions on how to complete the online survey. They were also informed of the objectives and importance of the survey. Students were given ample amount of time (17 days) to complete the online survey. Students were assured on confidentiality of the questionnaire and that no harm or legal consequences will arise regarding the results of the study.

Statistical Analysis: The data were collected by Microsoft Excel 2007 and analyzed by SPSS. Data were reported as percentage distribution. The reliability and validity of the 19-item questionnaire were statistically evaluated. Cronbach alpha

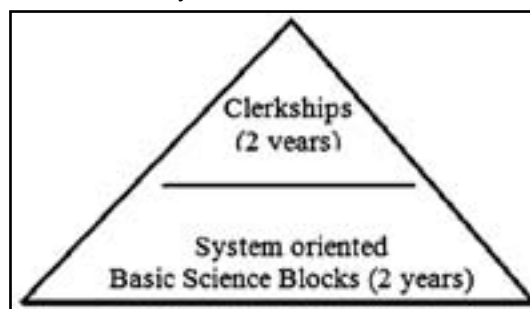


Figure-1:

coefficient was used to measure the internal consistency of the questionnaire.

RESULTS

The study includes 168 male and 104 female first year medical students at the end of the cardiovascular block during 2009-2010 academic years. However, the available e-mails were 152 male and 101 for females, a total number of 253. The overall response rate was 93%. The alpha coefficient for the 19 items was 0.927, suggesting that the items have significant internal consistency.

Structure of small group sessions: Table-I summarizes the findings on students' perception of the structure of small group sessions. In general, students were satisfied with the structure of the sessions in terms of the objectives and the students' role during the sessions was made clear to them. The students were generally satisfied about the location and the facilities of the small group sessions. However, 4.2% of students were strongly not satisfied about the location and the facilities.

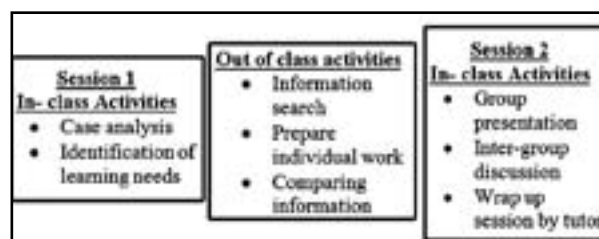


Figure-2:

Satisfaction of small group sessions' process: Table-I summarizes the students' degree of satisfaction in relation to the process of learning in the small group sessions. The majority of students thought that the sessions were provoking, helped students to be active and deep learners, and the learning needs were made clear.

Assessment of tutors: The majority of students thought that the tutors were enthusiastic about the process of small group teaching. However, the students thought that the tutors offered them plenty of information, which is not the proper role of a tutor in the small group teaching sessions. It should be

Table-I: Students' perception of the small group sessions in the King Saud Medical School reformed curriculum (n=253).

Items	Strongly agree	Agree	True sometimes	Disagree	Strongly disagree
Structure of small group sessions					
1. The SGL session objectives were made clear to me	80 (48.5%)	68 (41.2%)	12 (7.3%)	5 (3.0%)	-
2. My role was made clear to me in the SGL session	80 (48.5%)	69 (41.8%)	14 (8.5%)	2 (1.2%)	-
3. The location and facilities were suitable for the conduction of SGL sessions	58 (35.2%)	60 (36.4%)	33 (20.0%)	7 (4.2%)	7 (4.2%)
Satisfaction of small group sessions' process					
4. The sessions were thought provoking	53 (32.1%)	72 (43.6%)	35 (21.2%)	3 (1.8%)	2 (1.2%)
5. The sessions led me to active learning	76 (46.1%)	70 (42.4%)	16 (9.7%)	1 (0.6%)	2 (1.2%)
6. The sessions led me to deep learning process	69 (41.8%)	60 (36.4%)	26 (15.8%)	7 (4.2%)	3 (1.8%)
7. The sessions led me to identify my learning needs	73 (44.2%)	71 (43.0%)	17 (10.3%)	4 (2.4%)	-
8. It was easy to look for the learning needs	44 (26.7%)	59 (35.8%)	57 (34.5%)	3 (1.8%)	2 (1.2%)
Assessment of tutors					
9. SGL facilitators were enthusiastic about the process	74 (44.8%)	60 (36.4%)	24 (14.5%)	5 (3.0%)	2 (1.2%)
10. The tutors provided us lots of information	56 (33.9%)	45 (27.3%)	35 (21.2%)	21 (12.7%)	8 (4.8%)
11. The tutors gave us a mini-lecture	23 (13.9%)	29 (17.6%)	46 (27.9%)	51 (30.9%)	16 (9.7%)
12. The tutors were talking a lot in some of the sessions	22 (13.3%)	24 (14.5%)	32 (19.4%)	57 (34.5%)	30 (18.2%)
Satisfaction or benefits from small group sessions					
13. The activities taught me life-long learning	57 (34.5%)	73 (44.2%)	29 (17.6%)	3 (1.8%)	3 (1.8%)
14. What I learned in these sessions was important and will be of use to me in the future	73 (44.2%)	71 (43.0%)	17 (10.3%)	1 (0.6%)	3 (1.8%)
15. These activities helped me improve my ability to think and solve problems rather than just memorizing information	73 (44.2%)	64 (38.8%)	21 (12.7%)	3 (1.8%)	4 (2.4%)
16. These activities help me to develop skills in working as a member of a team	72 (43.6%)	73 (44.2%)	16 (9.7%)	2 (1.2%)	2 (1.2%)
17. These activities improved my ability to communicate effectively	67 (40.6%)	80 (48.5%)	17 (10.3%)	-	1 (0.6%)
18. These sessions improve my leadership skills	60 (36.4%)	75 (45.5%)	25 (15.2%)	4 (2.4%)	1(0.6%)
19. Overall, I was satisfied with the quality of these sessions	80 (48.5%)	78 (47.3%)	7 (4.2%)	-	-
Mean number \pm SD	62.6 \pm 17.4	63.2 \pm 15.3	25.2 \pm 12.4	9.4 \pm 16.4	4.5 \pm 7.2
Mean percentages \pm SD	37.9 \pm 10.5	38.3 \pm 9.3	15.3 \pm 7.5	5.7 \pm 9.9	2.7 \pm 4.4

expected that tutors only act as facilitators and not as lecturers. The tendency for the tutors to lecture during the small group sessions was high. Students also felt that the tutors were talking a lot in the sessions. The tutors' role should be to guide the students to run the discussion by themselves and to be passive as much as possible.

Satisfaction or benefits from small group sessions:

In general students felt that the small group sessions were useful, taught them life-long learning, improved their abilities to think and solve problems, developed their skills to work as a team and improved their communication skills.

DISCUSSION

This study describes the students' perception of introducing small group learning sessions in the King Saud Medical College integrated curriculum. Students are a reliable source of information and have been often used to evaluate the curriculum and the tutors.

This study showed that King Saud Medical School students are generally happy with the small group teaching sessions in the integrated curriculum. This is in consistent with the results of other studies, as PBL provides potentially challenging, more motivating, and enjoyable approach to medical education, and may promote life-long habits of self-directed learning⁷. The overall structure of the sessions, as well as the process of learning is satisfactory. Some students find difficulties to be active and critical thinkers. The tutors should guide the students to develop their learning skills and decision-making. The tutor should be a motivator for the students to learn.

The level of enthusiasm among the tutors is high. However, there are challenges facing the tutors: how to minimize teaching in the small group sessions. Staff development program and small group workshops run before the beginning of each block to train staff on their role during the sessions. The transition from a lecture-based curriculum to an integrated curriculum that includes small group sessions has not been easy. The tutors are more familiar with lectures. However, the training workshops have been useful and the tutors showed high enthusiasm in adapting to their new role. The critical issue of the level of faculty expertise had been addressed in other universities adopting the integrated curriculum⁸. Students had described expert mentors as being more able to identify relevant learning issues and gaps in knowledge and adhering to the guidelines of the problem-based learning task within the time scheduled.

Course directors are challenged to address the issue of faculty development as regards running small group sessions. The tutors are requested to participate in a workshop on 'facilitating small group sessions' prior to the start of every system or block. This issue was addressed by recent reviews of literature such as those by Azer⁹ that suggest a list of recommendation strategies to overcome the adjustment of staff to the new strategy of teaching.

Despite the general student satisfaction with the small group sessions in our study, other studies have indicated that while students favor problem-based curriculum, they also express dissatisfaction about a lack of a structure or direction. McMaster students identified lack of definition of core material as a weakness in student-directed problem based learning.⁶ The reformed curriculum at King Saud University tried to overcome this issue by including lectures delivered by faculty members in addition to the small group teaching sessions.

CONCLUSION

Students are generally happy with the small group sessions introduced in the King Saud Medical School integrated curriculum. The negative perception of the students appeared to be the role of the tutors during the sessions as they provide more information due to lack of training. The tutors should be trained to provide less information during the small group sessions. However, the training workshops have been useful and the tutors showed high enthusiasm in adapting to their new role. Further studies are needed to assess the students' perception of the integrated curriculum across MBBS years, and institutions in Saudi Arabia and elsewhere.

REFERENCES

1. Williams G, Lau A. Reform of undergraduate medical teaching in the United Kingdom: a triumph of evangelism over common sense. *BMJ*. 2004;329(7457):92-94.
2. Muller JH, Jain S, Loeser H, Irby DM. Lessons learned about integrating a medical school curriculum: perceptions of students, faculty and curriculum leaders. *Med Educ*. 2008;42(8):778-785.
3. Schmidt HG. The development of diagnostic competence: comparison of a problem-based, an integrated, and a conventional medical curriculum. *Acad Med*. 1996;71(6):658-664.
4. Gifford RH. Medical education: progress and retreat. *Conn Med*. 2010;74(9):533-537.
5. Colliver JA. Effectiveness of problem-based learning curricula: research and theory. *Acad Med*. 2000;75(3):259-266.
6. Norman GR. The glass is a little full - of something; revisiting the issue of content specificity of problem solving. *Med Educ*. 2008;42(6):549-551.
7. Albanese MA, Mitchell S. Problem-based learning: A review of literature on its outcomes and implementation issues. *Acad Med*. 1993; 68: 52-81
8. Trappler B. Integrated problem-based learning in the neuroscience curriculum--the SUNY Downstate experience. *BMC Med Educ*. 2006; 6: 47-54.
9. Azer SA. Challenges facing PBL tutors: 12 tips for successful group facilitation. *Med Teach*. 2005;27(8):676-681.