

STUDENT PERCEPTION OF PEER ASSISTED LEARNING IN A CLINICAL ENVIRONMENT: EXPERIENCE AT MELAKA MANIPAL MEDICAL COLLEGE, MALAYSIA

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ABSTRACT

Context and Purpose: Peer Assisted Learning (PAL) is gaining traction as a supplement to conventional teacher-led teaching. The advantages of PAL include a more informal learning environment making it easier for learners to ask questions and clarify concepts. However, PAL may be insufficient as a stand-alone method of content delivery as the learners may feel that time is being wasted or that a trained teacher would better identify learner's needs in knowledge and for examinations. This paper examines student perceptions of PAL in a clinical environment.

Setting: Melaka Manipal Medical College (MAHE), Melaka and Melaka General Hospital, Melaka, Malaysia

Methods: The study was conducted over one semester (six months). 129 students from the Final Year of the MBBS course acted as peer teachers to 120 students of the third year. The teaching was done in small groups of 10-12 students at a time. At the end of the semester, students were invited to answer a questionnaire regarding their perceptions.

Results: A majority of students in both the student and the peer teacher cohorts felt that PAL benefited them in various ways including improvement in communication skills, clinical skills, interpersonal relationships and better examination preparation.

Conclusions: PAL is a useful adjunct to teaching. It fosters team spirit and can fill in gaps in teaching or student needs which may occur by conventional teaching. However, caution should be exercised that PAL not replace a taught curriculum entirely as a student-led teaching session will necessarily be incomplete in terms of the breadth of the subject covered. We recommend PAL as part of a more comprehensive curriculum with regular feedback from both the student and the teacher cohorts to develop it further.

Key words: Alternative teaching–informal learning–peer-assisted learning–clinical skills–medical education–student perceptions

1 INTRODUCTION

Anyone who has ever taught knows that the best way to learn something is to have to teach it to someone else [1]. This fundamental principle underpins the concept of peer tutoring or PAL (Peer Assisted Learning) [1] which has been defined by Topping [2] as 'people from similar social group-

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ings who are not professional teachers helping each other to learn and learning themselves by teaching’.

Falchikov [3] defines four main categories of peer tutoring, namely:

- same-level peer tutoring, where participants within a cohort have equal status, e.g. in terms of their experience, skills and/or attainment levels;
- same-level peer tutoring, where unequal status is identified and introduced by the co-ordinator, e.g. students may be selected to assume the role of tutor on the basis of their higher level of skills and/or academic attainment;
- cross-level peer tutoring, involving a single institution, where unequal status derives from existing differences between student tutors and tutees (e.g. second- or third-year undergraduates tutoring first-year students).
- cross-level peer tutoring, involving two institutions.

The accepted advantages of peer teaching include reduction in teaching pressure for the faculty, providing education to students at their own cognitive level, creating a comfortable and safe educational environment, offering students alternative motivation and another study method, preparing doctors for their future role as educators, and sustaining medical education in settings with severe resource constraints among others. [4]

In a large multi-centric study [5] the majority of students agreed that peer teachers performed well in their teaching roles and were closer to the students than faculty and could better understand the problems and challenges that students face. However, the same study also noted that peer teachers tended to be more nervous when compared to faculty and sometimes lacked knowledge. In most places PAL has been developed as a parallel process to fill in lacunae in students’ understanding and comprehension of the more difficult areas of the curriculum. [6]

Here at the Melaka Manipal Medical College, (MMMC), Melaka, Malaysia, Cross-level peer tutoring was first introduced in 2012 into four clinical disciplines (i.e., Surgery, Obstetrics & Gynaecology, Paediatrics, and Community Medicine) keeping in view the potential benefits as outlined above. The program has since evolved over time, each department introducing changes as and when suitable. When the program was established, it was decided to obtain feedback from the students to identify how they perceived this new innovation in teaching and learning.

In this paper, we present the results of the analysis of this feedback and thus present the advantages and disadvantages of PAL at a clinical level as perceived by the students themselves at our Institute.

2 METHODOLOGY

2.1 Sample population and Sample Size

The present paper was a cross sectional study conducted among all Third Year medical students who served as

the tutored group and Final Year medical students who served as the Peer tutors. The study was conducted at the Melaka Manipal Medical College, Melaka, Malaysia over one semester (six months). There were 129 students from the Final Year and 120 students from the Third Year.

2.2 Data collection tool and method

Data was collected in the form of pre-tested self-administered questionnaires. Each questionnaire consisted of three sections. Section (A) - concerning socio-demographic character, Section (B) - concerning perception on peer assisted learning (C) – usefulness of peer assisted learning. In order to standardize the questionnaires, a pilot study was carried out among the third year medical students and content validity was examined. The pre-tested structured closed ended questionnaires was distributed to all the students. The purpose of the study was explained and informed written consent was obtained from the participants of the study.

2.3 Delivery of Peer Learning

The M.B.B.S curriculum in Melaka Manipal Medical College is of five years’ duration with 10 semesters of six months each. The clinical postings start in the sixth semester and continue till the tenth semester. Therefore, in each clinical posting, we have two cohorts of students—one from the junior semesters and one from the senior semesters. In this study PAL sessions were conducted in two clinical postings mainly in obstetrics and gynaecology and some sessions in surgery. The junior semester (third year) students served as the students and the senior semester (final year) served as the peer teachers. All PAL sessions were carried out in the ward throughout the semester depending upon the schedule of clinical department. Usually 1-2 peer learners were assigned to every peer tutor. The teaching sessions varied between demonstration of clinical signs, case based discussions, Direct Observed Procedural Skills (DOPS) or history taking. At the end of the semester, all students were requested to take part in the survey which consisted of sets of questions based on 3 parts namely implementation of PAL sessions in college, perception of students on PAL sessions and its usefulness as outlined above.

3 RESULTS

3.1 Responses from the peer tutor group (final year)

There were a total of 129 students in the final year. Among them 92 students agreed to participate in this study which gave a response rate of (71) %. Regarding socio-demographic character of students, age distribution of student was 23-28-year-old with mean age of 24. There were total 24 (26.1) % male students and 68 (73.9) % female students participated in the study.

Regarding the question based on their opinion on implementation of PAL session in College, 65 (70.7%) of the

respondents want to implement in the college but 27(29.3%) answered negatively.

Regarding the perception on PAL session, most of the students (65.3%) had positive attitude upon the statements; “PAL sessions give more confidence in clinical presentation” and an uncertain response was recorded in 20.7%. In a statement “PAL sessions improve my demonstration skills significantly” 69.5% gave positive perception. Their results on each statements were shown in Table 1.

3.2 Responses from the tutored group (3rd year)

There were total of 120 students in the third year. Among them 86 respondents participated in this study which gave a response rate of (72) %. Regarding socio-demographic character of students age of the respondents were 21-28 year with mean age of 23 years. Regarding the question based on their opinion on implementation of PAL session in College, 77 (89.5%) of the respondents want to implement in the college but 9 (10.5%) answered negatively.

Regarding the perception on PAL session, (49.1%) the students had positive attitude upon the statements; “The seniors explain clearer than lecturer” ‘but uncertain response was 39.5%. In a statement “The way the seniors explain is easier to understand” 75.5% gave positive perception. Their results on each statement were shown in Table 2.

4 DISCUSSION

Peer tutoring involves a system of instruction in which peer helpers assist in the process of learning and helping other peers to learn by teaching. [7] It is relatively common in US universities since 1970’s and when first introduced it was known as Supplementary Instructions. [8] Peer assisted learning (PAL) had been highly accepted among the tutors and learners [9] and has been found to provide learners with a with a more informal, relaxed environment which facilitated learning and encouraged questions on less understood topics as opposed to environments with didactic lectures [1] The benefits of being a peer tutor have been recognized not only in children but also in adult [10–12] It is also apparent that PAL is useful in diverse ranges of students regardless of their ability. Studies had been reported on benefits of PAL in low achieving students [13] as well as in those with special needs such as hearing disabilities [14] or reading disabilities [15].

In our study, peer tutors expressed that they gained highly valuable experiences in terms of building confidence in clinical presentations (64.5%) and improving their clinical skills (69.5%) as well as communication skills (72.8%). Nearly half of them thought PAL developed assertiveness (48.7%) and group study habits (46.8%). Majority of peer tutors (51.1%) responded that they studied and prepared as they wanted to be role models for juniors.

Being a tutor, students become actively motivated and learn with the expectation to teach others. Benware [16] reported that someone who learned to teach was more intrinsically motivated and more actively engaged with the

environment compared with those who learned to be tested. In fact, tutors benefit more than learners as they need to rehearse the context and skills for the particular topic to teach which in turn helping them to revise the lessons for the final exam and improving their communication skills. [16] When comparing between peer groups, tutoring results in significantly greater content-specific and cognitive gains than being tutored [11].

A significant portion of the peer tutors group in our study found that PAL sessions helped to improve the relationship between seniors and juniors (85.9%). Approximately two-third of the study group noticed that PAL session enhanced team spirit (63%) and group learning (66.3%). Peer learners gained various experiences from peer assisted learning. They generally agreed with their counterparts in several statements such as improvement in group learning, group study habits, revision of lessons and building team spirits. Peer assisted learning is well known as cooperative learning which is associated with higher academic achievements compare to individual effort. When the peer groups are assigned together the peer interaction had built among them. This interaction involves team members helping each other to reach a group’s goals. Being involved in a group of peers it enhances team-based learning and engaged each other in positive ways.

Approximately three quarter of peer learners from this study felt that the way seniors explained material was easier to understand (75.5%) and more exam orientated than the lecturers (69.7%) due to the seniors pointing out common mistakes in the examinations and guiding them with the appropriate study methods. (77.9%). Almost 60% felt more comfortable clarifying their doubts from seniors than lecturers. There were studies reporting that in the setting of PAL, students engaged in the atmosphere of safe learning environment which they felt as non-threatening and feel free to ask questions each other [1] Escovitz [17] pointed out that students’ confidence and performance were inversely affected in the presence of faculty member regardless of the reasons for faculty’s presence.

Peer competence has been an issue in most of PAL setting and it should be remembered that student teachers are not qualified teachers to replace the role of faculty staffs. It is better to make a clear distinction in PAL that role of Peer Teachers should be of facilitating rather than of teaching [9]. Even though PAL had been appreciated by various levels of students, it is obvious that it is not applicable in all professional groups. Morris and Turnbull [18] for example, reported in 2004 that student nurses were uncomfortable to be tutors and often questioned the value of this approach as a developmental tool. This implies that PAL must be implemented carefully and it is not a given that it will be a success for both peer tutors and learners, though studies are certainly promising.

46.8% of tutors and 23.2% learners responded that PAL sessions disturbed the clinical posting. There are multiple factors playing important role for successful PAL. One integral component is students’ willingness to involve in the process [1]. Academic ability, enthusiasm, motivation and

Table 1. Perception of senior students on Peer Assisted Learning

Sr.	Statement	Strongly disagree and disagree(%)	Uncertain (%)	Strongly agree and agree (%)
1		14.8	20.7	64.5
2	PAL sessions improve my demonstration skills significantly	7.7	22.8	69.5
3	PAL sessions improve my communication skills significantly	10.9	16.3	72.8
4	Because of PAL session, I can manage time effectively	37	45.7	17.3
5	PAL sessions disturb the clinical posting	27.1	26.1	46.8
6	I study more precisely because I want to be the role model for juniors	13	35.9	51.1
7	PAL sessions are not useful for me	47.9	28.3	23.8
8	Sometimes Juniors are smarter than seniors	16.3	20.7	63
9	Juniors do not respect to the seniors	51.1	25	23.9
10	PAL sessions improve relationship between seniors and juniors	6.5	7.6	85.9
11	PAL sessions improve group learning	8.7	25	66.3
12	PAL sessions develop group study habit	17.3	35.9	46.8
13	PAL sessions develop assertiveness	10.7	40.2	48.7
14	PAL sessions help develop team spirit	10.9	26.1	63
15	PAL sessions help students in revising lesson	5.5	12	82.5

Table 2. Perception of junior students on Peer Assisted Learning

Sr.	Statement	Strongly disagree & Disagree (%)	Uncertain(%)	Strongly agree and agree(%)
1	The seniors explain clearer than lecturer	18.6	39.5	41.9
2	The way the seniors explain is easier to understand	4.7	19.8	75.5
3	Their explanation is more exam oriented than the lecturer	11.7	18.6	69.7
4	Senior can point out the common mistake that can happen during college examination	3.5	18.6	77.9
5	They guide us how to study for the exam	7	15.1	77.9
6	I am more comfortable in clarify my doubts from my seniors than lecturers	16.3	24.4	59.3
7	PAL sessions are not useful	52.8	20.9	16.3
8	Senior can explain well but not completely	8.1	19.8	72.1
9	Sometime I know more than my senior	33.8	44.2	22.1
10	PAL sessions disturb the clinical posting	53.4	23.3	23.2
11	PAL sessions improve group learning	14	26.7	59.3
12	PAL sessions develop group study habit	16.3	34.9	48.8
13	Because of PAL session, we can manage time effectively	22.1	53.5	24.4
14	PAL sessions develop assertiveness	8.1	54.7	37.2
15	PAL sessions help in presentation	16.3	33.7	50
16	PAL sessions helps develop team spirit	15.1	37.2	47.6
17	PAL sessions helps students in revising lesson	4.7	26.7	68.6

commitment are also considered as equal importance [1, 19]. PAL is a form of cooperative learning in which students interact each other in a constructive manner but in reality it may not always be as expected. In some peer pairing lack of cooperation in PAL sessions may be related with higher expectation among each other which may lead to tensions, difficulties and disappointments within the group.

There were also some negative feelings by the peer tutor. Almost 24% of respondents felt that juniors do not pay respect to seniors and PAL sessions were not useful for them. One of the important pillars of peer assisted learning is selection of the participants and matching them in groups based on the need and personality [20]. In this study pairing of the peer tutors and learners was done based on the allotment of clinical posting when they are posted in the same clinical discipline. Some students from the junior (taught) batch were older in age than the students in the senior (tu-

tor) batch. Owing to cultural etiquettes especially in Asia where younger people are expected to pay respect to elders in different social settings, it is possible that older students felt a lack of respect towards them, or students in the senior batch felt so from the junior students. This may lead to a limitation in interaction and hence the effect of Peer Learning.

5 STUDY LIMITATIONS

There were some limitations in our study. This study focused on perception of students towards PAL to consider implementation of regular PAL sessions in curriculum. The PAL sessions conducted varied according to the schedule of the departments and was not a scheduled part of the curriculum. Furthermore, peer tutor selection was not solely

on voluntary basis, as tutors were selected by faculty based on a perception of them being good at imparting concepts and knowledge. However, this may reflect upon cooperation and willingness of peer tutors which in turn will effect perceptions towards PAL.

6 CONCLUSION

PAL is highly appreciated by both seniors and juniors at the Melaka Manipal Medical College. However, some issues related to peer tutors’ competency and willingness as well as cooperation from both parties should be addressed in PAL setting. We would like to recommend further studies with appropriate research design for its effectiveness and evaluation before implementing this in college curriculum.

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9 CONFLICT OF INTEREST

No authors report any conflict of interest

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