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## ASSESSMENT OF THE ACCEPTANCE AND EFFECTIVENESS OF PAL SESSION IN BIOCHEMISTRY 2<sup>ND</sup> YEAR MBBS STUDENTS.

M. Atif Ata<sup>1</sup>, Kashif Rasheed Shaikh<sup>2</sup>, Umair Ali Soomro<sup>3</sup>.

### Abstract:

**Introduction:** In early 90's in UK a system is generated for the student support was PAL and its variant  
**Objectives:** To assess the effectiveness and acceptance of PAL session in Biochemistry 2<sup>nd</sup> year MBBS students. **Methods:** The present study was conducted in Suleman Roshan Medical college tandoadam from March 2022 to September 2022, was conducted in first year MBBS student for Biochemistry subject. Students were divided into 10 groups and each group has to present PAL session, remaining students were allowed to ask questions after completion of session and finally comments on session by teachers as well as from students. After completion of academic year a LIKERT scale feedback was given to students for giving answer on them. **Result:** There were 60 participants who were filled the feedback form among 88 students, 83.33% participants were of the opinion that The PAL session was appropriately placed in weekly time table, whereas the 66.67% had considered the topic discuss in the PAL session were appropriately selected, results were considered significant when P value was <0.05. **Conclusion:** PAL Sessions had good impact on students for enhances their knowledge and academic results.

**Keywords:** Peer Assisted Learning, Biochemistry, MBBS

1. Head of Biochemistry Department, Suleman Roshan Medical College Tando Adam.
2. Head of Pharmacology Department, Suleman Roshan Medical College Tando Adam.
3. Associate Professor, Department of Hematology, Indus Medical College Tando Muhammad Khan.

**Corresponding Author,** Prof Dr M. Atif Ata, Head of Biochemistry Department, Suleman Roshan Medical College Tando Adam

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### INTRODUCTION:

In early 90's in UK a system is generated for the student support was PAL and its variant<sup>1</sup>. Trained third year and 2<sup>nd</sup> year students drive PAL session mostly supervised a small group of first year students, this was a classroom based learning formulate to enhancement of

institution. The main focus of the PAL session was an active learning and cooperative discussion of the formal structured course<sup>2</sup>. A portion of the finding and proposals of the Dearing report are pertinent to the idea of student centered learning. Knowles<sup>3</sup> (1972) recommends that individuals augment realizing when the

instruction interaction straightforwardly centers on what the student needs to advance rather than what the instructor needs to educate. Student centered learning empowers this cycle, permitting the person to assume a sense of ownership with learning and collection of information also, it is intriguing to take note of that the job of reflection inside the field of experiential advancing basically implies that the student acts and sums up standards for additional activity from the growth opportunity<sup>4,5</sup>. The most common method and gold standard of traditional teaching is Didactic lectures (DLs). It depends on transferring excessive knowledge and less absorption by the student and with less involvement of student, that type of teaching was totally teacher centered' it is very difficult for student to keep, memorizes the knowledge<sup>6</sup>. For purposeful teaching, teacher should adopt different teaching styles to facilitate development of tactics to a problem and address critical areas, either through feedback and discussion with the students about learning process and increases students' learning effects. The cutting edge patterns in clinical schooling require compelling upgrades in the techniques for educating to give a superior and comprehensive instructive structure<sup>7</sup>. The start of the Peer- Assisted Learning (PAL) was from the Ancient Greeks, they discuss their ideas and concerns in the presence of superior teacher<sup>8,9</sup>. Now a days PAL is demarcated as a Peer learners which a group of students obtain information and different skills from similar types of senior student but they are not professional teachers. Numerous theories explain that the PAL is an effective teaching method. It provide better understanding because both learners and Peer are at the same level and they are at ease to ask questions<sup>6</sup>, interacts with the ideas, concerns<sup>10</sup> and urge to perform tasks. One of the benefits of PAL is that it

decreases the load on teachers, so that they do attention on research and new innovations<sup>11</sup>. As compared to traditional teaching methodologies it is much economically feasible<sup>12</sup> and also useful for those medical colleges which have insufficient professional faculty. In developed countries for medical education, PAL shows knowledge and skills of medical students because of interactive teaching methods<sup>13</sup>. PAL not only beneficial for academics but it also enhances the confidence of student, better communication skills and encourage them to learn and support cooperatively from one another<sup>14</sup>. Peer assisted learning is a team based learning framework that helps in the development of knowledge based skill by motivated group of people helping each other in the learning process. The participants of PAL may be teachers, colleagues, students and some other people with the similar educational backgrounds. This system promises to confirm proper affiliation among experiential learning and collective teaching environment. Buddy is useful to both the mentor and the tutee to upgrade their insight and understanding. Mentor self-saw benefits include: abilities in offering viewpoints and improvement in grasping information. Planning to educate and advance all the while and giving criticism to peers have both better mental and non-mental advantages to the mentors. It greatly affects the evaluation scores of the tutees working on their general scholar execution.

#### **MATERIAL AND METHODS:**

The present study was conducted in Suleman Roshan Medical college tandoadam, PAL session was conducted in first year MBBS students for Biochemistry subject. Students of first Year MBBS were divided into 10 groups and each group has to be delivered the PAL session in its assigned slot, the topic was selected by the student

itself, presentation was made by them and this type of activity was done throughout the year. Only one group was present their presentation related with biochemistry subject, remaining students were making questions during presentation and question answer session was held after presentation, firstly some comments from the students regarding overall session and then from teaching faculty who attended at the time of PAL session. After completion of year a LIKERT SCALE is formulated for the feedback of PAL session, this Likert scale contains 11 questions and distributed to the 2<sup>nd</sup> year MBBS student who have completed their first year MBBS. Among 88 students of 2<sup>nd</sup> year MBBS 60 were participated in this activity.

### RESULTS:

Findings revealed that a total of n=60 students had participated in the responses related to assessment of the acceptance and effectiveness of PAL session in Biochemistry. A self-designed questionnaire comprising of 11 questions was made and a qualitative assessment was performed based

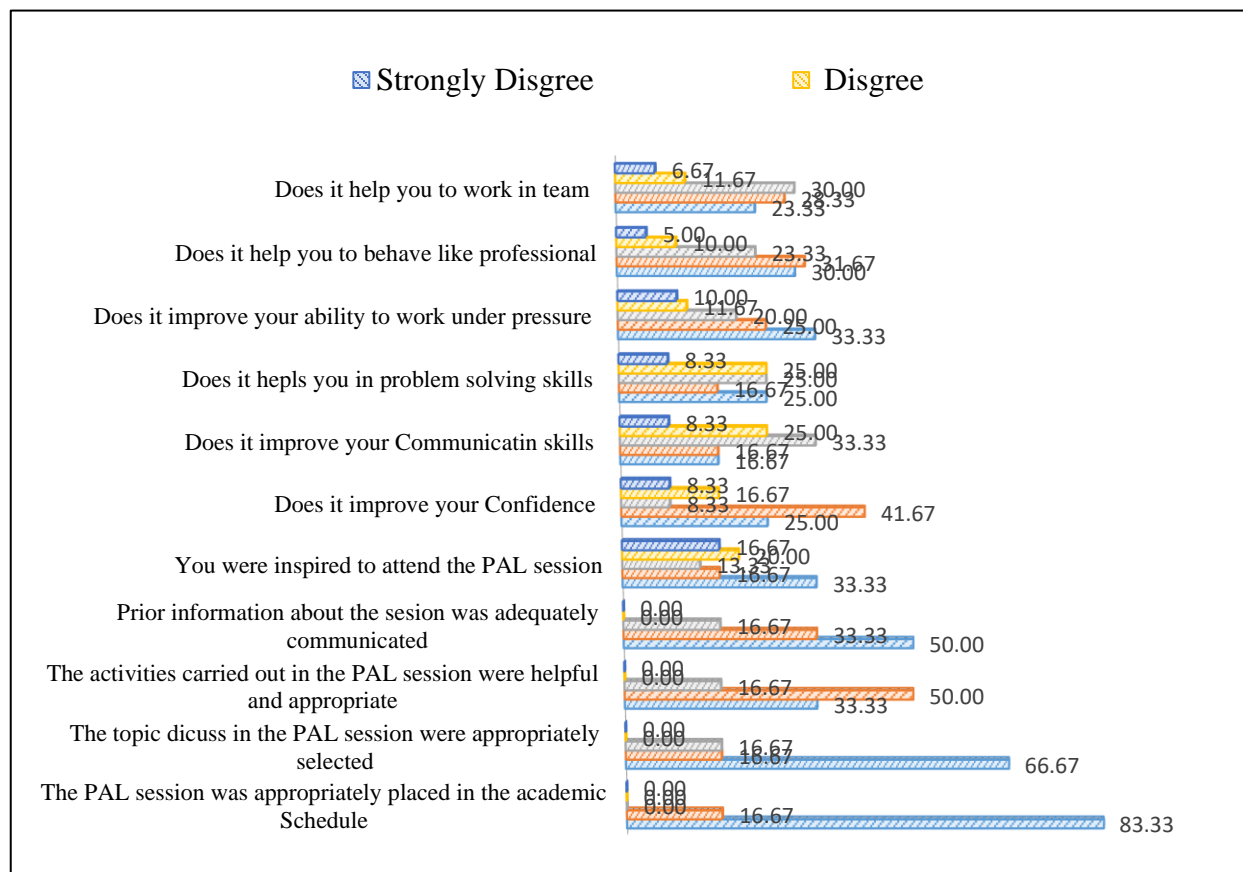
on five responses that were: Strongly Agree, Agree, and neither Agree nor disagree, Disagree and Strongly Disagree. Analysis of the findings had revealed that 83.33% of the participants were of the opinion that the PAL session was suitably placed in the weekly time table whereas 66.67% had considered the topic discuss in the PAL session were appropriately selected. The responses obtained from the participants in term of percentages were demonstrated in table 1 Further for crosstab analysis was performed to identify the assessment of the acceptance and effectiveness of PAL session in Biochemistry and the data had revealed that responses of the participants on first four questions were significantly  $p < 0.05$  favouring the program whereas on question 5 and 6 the responses were non-significant  $p > 0.05$  suggesting that responses were equally divided between those whom were favouring the program and those whom were not strongly supporting the program where as on last five question from number 7 to 11 mixed responses were obtained as shown in table 2

Table 1 Responses represented in percentages					
Questions	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
The PAL session was suitably placed in the weekly time table	83.33%	16.67%	0.00	0.00	0.00
The topic discuss in the PAL session were appropriately selected	66.67%	16.67%	16.67%	0.00	0.00
The activities during PAL session were appropriate and helpful	33.33%	50.00%	16.67%	0.00	0.00
Previous information about the session was adequately communicated	50.00%	33.33%	16.67%	0.00	0.00
You were inspired to attend the PAL session	33.33%	16.67%	13.33%	20.00%	16.67%
Does it improve your Confidence	25.00%	41.67%	8.33%	16.67%	8.33%
Does it improve your communication skills	16.67%	16.67%	33.33%	25.00%	8.33%
Does it helps you in problem solving skills	25.00%	16.67%	25.00%	25.00%	8.33%
Does it improve your ability to work under pressure	33.33%	25.00%	20.00%	11.67%	10.00%
Does it help you to behave like professional	30.00%	31.67%	23.33%	10.00%	5.00%
Does it help you to work in team	23.33%	28.33%	30.00%	11.67%	6.67%

Table 2 Cross tab Analysis performed on the responses of participants

Question	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree	p-value
The PAL session was suitably placed in the weekly time table	50	10	0	0	0	<0.05
The topic discuss in the PAL session were appropriately selected	40	10	10	0	0	<0.05
The activities during PAL session were appropriate and helpful	20	30	10	0	0	<0.05
Previous information about the session was adequately communicated	30	20	10	0	0	<0.05
You were inspired to attend the PAL session	20	10	8	12	10	>0.05
Does it improve your Confidence	15	25	5	10	5	>0.05
Does it improve your communication skills	10	10	20	15	5	0.08
Does it helps you in problem solving skills	15	10	15	15	5	0.07
Does it improve your ability to work under pressure	20	15	12	7	6	0.06
Does it help you to behave like professional	18	19	14	6	3	0.04
Does it help you to work in team	14	17	18	7	4	0.05

**Graphical Illustration was demonstrated in figure 1**



In comparison with other studies, the Current study also found PAL session to be useful and helpful to teach different topics more efficiently as compare to the large group format class lectures, but in contrast with the Manzoor I and Bene KL et al, have no noteworthy upgrading<sup>16,17</sup>. PAL assists students with offering their viewpoints and offers their insight to foster comprehension. Observational learning considers prompt criticism and improves execution of operations which are quite often an everyday daily practice of doctors. Current procedures of advancing likewise give opportunity to investigate information and offer a chance for appearance in a controlled climate, so PAL session may improves their skills and knowledge also favours by another literature<sup>15,16</sup>. For the development of personality and academics PAL helps student, it increase their knowledge and give new innovations to modifies their previous knowledge<sup>17</sup>, it also enhances the communication skills of peer learners (Students) and professional life of practicing physicians<sup>18</sup>. The specialty of showing must be taught in clinical students during their student years to best prepare them for what's to come. PAL have likewise distinguished student as a solid approach to inspiring initiative and collaboration abilities inside student. The ongoing concentrate likewise had comparable outcomes with students detailing that their authority and the board abilities had profited from PAL sessions<sup>19</sup>.

### CONCLUSION

In this study there is a Fruitful execution of students PAL session is persuading students for dynamic interest at various levels. It is critical to routinely prepare the students as well as give them practice meetings including direction and help. Peer coaches have to foster compelling relational abilities and adequate certainty to guarantee its success. Evaluation, input, perceptions and intelligent logging, can be utilized to screen

both mentor and tutee progress. Educators can help, adjust or give an elective learning procedure to address the student scholarly requirements provided that a normal result isn't accomplished. Overall it was a great activity that clarifies many pitfalls for me as a teacher that I have to rectify in new PAL sessions, In my opinion I think it should be done in all years and their should be feedback from students. There were some problems which I have faced during PAL sessions firstly most of the students were not well prepared either because of test, Preprofs and midterms, or by some students have lack of interest; some have fear of stage, lack of confidence, language barrier, so these are different issues which I have faced during PAL sessions. Secondly this activity should be done by all departments so that we will find a proper deficiency and remove that problem, because it enhances students motivations, confidences, knowledge, disciplines, professional behavior and so many things and this was also found in other literatures (Burges et al, 2016 & Durning et al 2007)<sup>20,21</sup>.

### RECOMMENDATIONS:

This type of activity like PAL session should be followed by other departments and colleges /universities to improve students performances.

**Ethics Approval:** The ERC gave ethical review approval

**Consent To Participate:** written and verbal consent was taken from subjects and next of kin

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**Conflict Of Interest:** No competing interest declared.

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