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Research Article

**ATTITUDES OF MEDICAL STUDENTS TOWARDS
GROUP AND SELF-REGULATED LEARNING**¹Dr. Babar Naeem, ²Dr. Alia Haq, ³Dr. Maryam Ghazal, ⁴Dr. Mian Azizullah Khan¹Jinnah Hospital, Lahore²Wah Medical College, Wah Cantt³Sharif Medical and Dental College, Lahore⁴Sargodha Medical College, Sargodha**Abstract:**

Background and Objectives: In this study we are trying to assess attitudes of Medical Students towards Group and Self-regulated Learning. This study is conducted in 2nd and 4th year students of Allama Iqbal Medical College, Lahore. Data is collected from 300 subjects. Objective of study was to determine attitude and preferences of medical students towards discussion based group studies and individual self-regulated learning strategies.

Material and Methods: This is Cross sectional type of study conducted in 2nd and 4th year students of Allama Iqbal Medical College, Lahore during April – June, 2014 (03 months) with sample size of 300 students. Consecutive non-probability sampling technique was used to recruit the students.

Data Collection and Analysis: 300 subject those fulfilling the inclusion criteria were recruited for study from medical students of 2nd and 4th year of Allama Iqbal Medical College, Lahore. After approval from ethical committee and informed consent from subjects detail demographic information collected. All the information entered in a structured questionnaire. Data analyzed in SPSS Version: 17.0. Mean and standard deviation calculated for numerical variables like age, parity and gravidity. Frequency and percentages calculated for nominal variables.

Results: 79.3% respondents (234 out of 300) preferred to learn study contents by Self-learning and 22.1% respondents (66 out of 300) by Group Study. **Conclusions:** Self-learning is a preferred learning strategy than group learning among medical students. Then reason found is that Self-learning is more focused, effective and less stressful. Self-learner shows better academic performance than Group-learners.

Key words: self-regulated learning, group-learning, attitude of medical student

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INTRODUCTION:

Main objective of medical education is the development of professional skills [1,2]. in particular the readiness to engage in lifelong learning [3,4] and to participate in inter-professional education [7] which demands an “integration of knowledge, skills and attitudes” [8] and generates the ability to collaborate with other health care professionals[7] Beneficial teaching methods for these complex skills are “small group work and self-regulated learning, case-based approaches, and constructivist learning environments, like problem-based learning (PBL). In these approaches knowledge and skills are acquired in interactive and co-constructive processes [9-14] that demand students’ motivation to engage in group learning [15], and their ability to self-regulate their learning activities [14]. However, in beginning veterinary students were found to prefer individualistic learning over group work, and teacher-directed learning over self-directed studies [13]. Due to a lack of experience, they perceived group work and self-directed learning as complicated and overcharging study conditions, or did not understand the relevance for the medical practice [11,14]. Self-regulation is essential to the learning process⁷. It can help students create better learning habits and strengthen their study skills⁹, apply learning strategies to enhance academic outcomes [10], monitor their performance [15] and evaluate their academic progress [11]. Teachers thus should be familiar with the factors that influence a learner’s ability to self-regulate and the strategies they can use

to identify and promote self-regulated learning (SRL) in their classrooms. In addition to self-regulation, motivation can have a pivotal impact on students’ academic outcomes [15]. Without motivation, Self-Regulated Learning is much more difficult to achieve. This study aims at assessing preferences of medical students towards discussion based group studies and individual, self-regulated learning strategies.

MATERIAL AND METHODS:

This is Cross sectional type of study conducted in 2nd and 4th students of Allama Iqbal Medical College, Lahore during April – June, 2014 (03 months) with sample size of 300 students. Consecutive non-probability sampling technique was used to recruit the students.

Data Collection and Analysis: 300 subject those fulfilling the inclusion criteria were recruited for study from medical students of 2nd and 4th students of Allama Iqbal Medical College, Lahore. After approval from ethical committee and informed consent from subjects detail demographic information collected. All the information entered in a structured questionnaire. Data analyzed in SPSS Version: 17.0. Mean and standard deviation calculated for numerical variables like age, parity and gravidity. Frequency and percentages calculated for nominal variables.

RESULTS AND MAIN FINDINGS:

Graph: Residential Status of Respondents

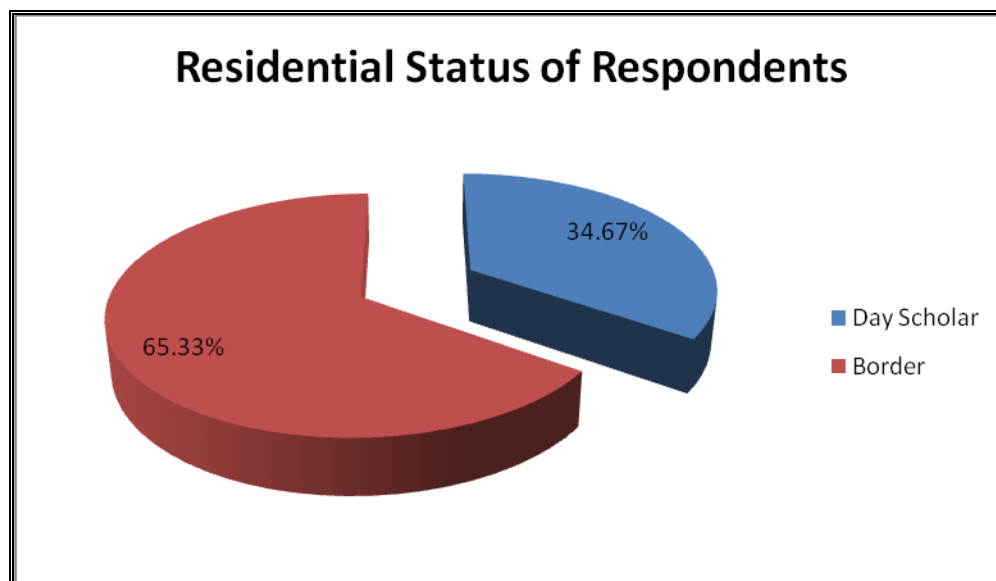


Table 1 : Experience with Small Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	47	15.7	15.7	15.7
	Always	41	13.7	13.7	29.3
	Sometimes	212	70.7	70.7	100.0
	Total	300	100.0	100.0	

Table No. 2: Experience with Self Study

Experience with Self Study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	259	86.3	86.3	86.3
	Sometimes	41	13.7	13.7	100.0
	Total	300	100.0	100.0	

Graph No. 3: Academic Performance of Respondents

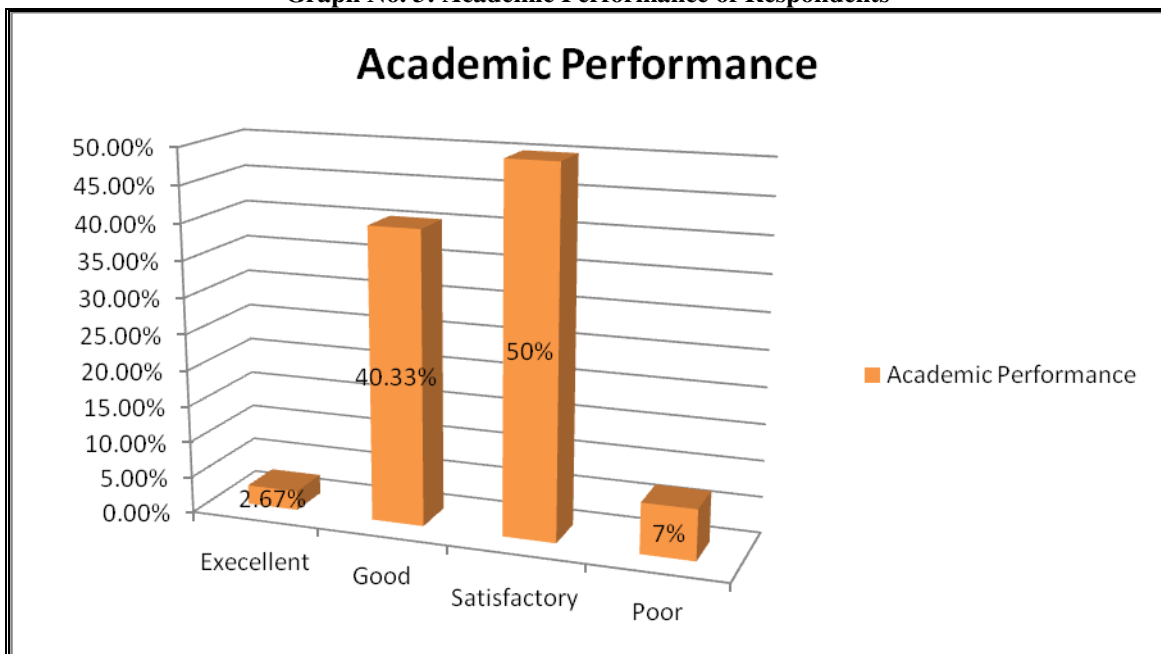


Table No. 4 A Self learning Frequencies

Self-learning Frequencies

		Responses		Percent of Cases
		N	Percent	
Self learning	Learn study contents by	234	21.4%	79.3%
	Effectiveness	167	15.3%	56.6%
	Stressfulness	153	14.0%	51.9%
	Motivation to learn by	136	12.5%	46.1%
	Better Memory	126	11.5%	42.7%
	Better Understanding	167	15.3%	56.6%
	Peer's Trend	108	9.9%	36.6%
Total		1091	100.0%	369.8%

a. Dichotomy group tabulated at value 2.

Table No.4 B Group Learning Frequencies

Group Learning Frequencies

		Responses		Percent of Cases
		N	Percent	
Group Learning	Learn study contents by	66	6.5%	22.1%
	Effectiveness	133	13.2%	44.5%
	Stressfulness	147	14.6%	49.2%
	Motivation to learn by	164	16.3%	54.8%
	Better Memory	174	17.2%	58.2%
	Better Understanding	133	13.2%	44.5%
	Peer's Trend	192	19.0%	64.2%
Total		1009	100.0%	337.5%

a. Dichotomy group tabulated at value 1.

Table No. 5 A
Group-Learning Class Cross Tabulation

			Class		Total
			Second year	Fourth year	
Group Learning	Learn study contents by	Count	36	30	66
		% within class	24.2%	20.0%	
	Effectiveness	Count	70	63	133
		% within class	47.0%	42.0%	
	Stressfulness	Count	72	75	147
		% within class	48.3%	50.0%	
	Motivation to Learn by	Count	82	82	164
		% within class	55.0%	54.7%	
	Better Memory	Count	91	83	174
		% within class	61.1%	55.3%	
	Better Understanding	Count	67	66	133
		% within class	45.0%	44.0%	
	Peer's Trend	Count	96	96	192
		% within class	64.4%	64.0%	
Total		Count	149	150	299

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Table No. 5 B Self- learning*class Cross tabulation

Self learning*class Cross tabulation

			Class		Total
			Second year	Fourth year	
Self learning	Learn study contents by	Count	114	120	234
		% within class	78.1%	80.5%	
	Effectiveness	Count	80	87	167
		% within class	54.8%	58.4%	
	Stressfulness	Count	78	75	153
		% within class	53.4%	50.3%	
	Motivation to learn by	Count	68	68	136
		% within class	46.6%	45.6%	
	Better Memory	Count	59	67	126
		% within class	40.4%	45.0%	
	Better Understanding	Count	83	84	167
		% within class	56.8%	56.4%	
	Peer's Trend	Count	54	54	108
		% within class	37.0%	36.2%	
Total		Count	146	149	295

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 2.

Table No.6 A Group Learning –Gender Cross Tabulation

			Gender		Total
			Male	Female	
Group Learning	Learn study contents by	Count	31	35	66
		% within gender	23.7%	20.8%	
	Effectiveness	Count	71	62	133
		% within gender	54.2%	36.9%	
	Stressfulness	Count	67	80	147
		% within gender	51.1%	47.6%	
	Motivation to learn by	Count	61	103	164
		% within gender	46.6%	61.3%	
Better Memory	Count	68	106	174	
	% within gender	51.9%	63.1%		
Better Understanding	Count	54	79	133	
	% within gender	41.2%	47.0%		
Peer's Trend	Count	90	102	192	
	% within gender	68.7%	60.7%		
Total	Count	131	168	299	

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Table No. 6 B Self Learning Gender- Cross Tabulation

			Gender		Total
			Male	Female	
Self-learning	Learn study contents by	Count	101	133	234
		% within gender	78.3%	80.1%	
	Effectiveness	Count	61	106	167
		% within gender	47.3%	63.9%	
	Stressfulness	Count	65	88	153
		% within gender	50.4%	53.0%	
	Motivation to learn by	Count	71	65	136
		% within gender	55.0%	39.2%	
Better Memory	Count	64	62	126	
	% within gender	49.6%	37.3%		
Better Understanding	Count	78	89	167	
	% within gender	60.5%	53.6%		
Peer's Trend	Count	42	66	108	
	% within gender	32.6%	39.8%		
Total	Count	129	166	295	

Percentages and totals are based on respondents.

			Gender		Total
			Male	Female	
Self-learning	Learn study contents by	Count	101	133	234
		% within gender	78.3%	80.1%	
	Effectiveness	Count	61	106	167
		% within gender	47.3%	63.9%	
	Stressfulness	Count	65	88	153
		% within gender	50.4%	53.0%	
	Motivation to learn by	Count	71	65	136
		% within gender	55.0%	39.2%	
Better Memory	Count	64	62	126	
	% within gender	49.6%	37.3%		
Better Understanding	Count	78	89	167	
	% within gender	60.5%	53.6%		
Peer's Trend	Count	42	66	108	
	% within gender	32.6%	39.8%		
Total	Count	129	166	295	

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 2.

Table No.7
Academic Performance * Learning study contents by Cross Tabulation Count

		Learn study contents by		Total
		Group Learning	Self regulated learning	
Academic Performance	Excellent	1	7	8
	Good	26	95	121
	Satisfactory	37	113	150
	Poor	2	19	21
Total		66(22%)	234(78%)	300

RESULTS:

In our analysis, 55.33% (166 out of 300) respondents were in age group of 21-25 years. 44.67% (134 out of 300) subjects were in 15-20 years. 56% (168 out of 300) Subjects were Female and 44% (132 out of 300) were MALE. 50% (150 out 300) were from 4th year and 50% (150 out of 300) were from 2nd year. 65.33% (196 out of 300) were Borders and 34.67 (104 out of 300) were day scholars. 70.7 % (212 out of 300) subjects were used to study in groups sometimes; 15.7% (47 out of 300) had never experienced Group Learning; 13.7% (41 out of 300) were always group learners. (Table No.1)

86.3% (259 out of 300) were always Self-Learners; 13.7% (41 out of 300) were sometimes Self-Learners. {Table No.2} 80% (240 out of 300) never appeared in any supplementary exam and 20% (60 out of 300) were supply Holder. 50% (150 out of 300) showed satisfactory performance, 40.33% (121 out of 300) showed Good academic performance, 7%(21 out of 300) poor and 2.67%(8 out of 300) excellent academic performance.

79.3% (234 out of 300) preferred to learn study contents by Self-learning and 22.1% (66 out of 300) by Group Study; 56.6%(167 out of 300) considered self-learning(SL) Effective and 44.5%(133 out of 300) group learning(GL); 51.9%(153 out of 300)

considered SL and 49.2% (147 out of 300) GL stressful. 46.1% (136 out of 300) and 54.8% (164 out of 300) felt motivated by SL and GL respectively; 42.7% (126 out of 300) and 58.2% (174 out of 300) recalled better by SL and GL respectively. 56.6% (167 out of 300) got better understanding by SL and 44.5% (133 out of 300) by GL; 36.6% (109 out of 300) subject's peers were SL and 64.2% (192 out of 300) GL.

24.3% of the 2nd year students preferred Group learning for their studies and the Rest Self Learning; 20% students of 4th year were inclined to study by group learning while 80% were Self-Learners. (Table No. 4 a & b). 23.3% of the age group 15-20 years were group learners while 76.7% were self-learners; On the other hand 21.1% of the age group 21-25 were group-learner and 78.9% were self-learners. (Table No. 5 a & b). 23.7% of the males and 20.8% of females were group learners whereas 76.3% of males and 79.2% of females preferred self-learning. (Table No. 6 a & b)

DISCUSSION:

The Topic of our study was to find out attitude of medical students of 4th year and 2nd year of AIMC towards discussion based group study and individual self-study and to determine the reasons for such attitudes. 300 students were included in our study including both males and females of different age groups. The results showed that majority (78%) of the students were purely self-learners while only 22% were purely group learner. Among both these groups some students had experienced both group learning and self-learning occasionally. Of the students, whose attitude was group learning, 13.2% adopted this because it was more effective than SL, and 14.6% adopted this because SL was stressful. 16.3% got motivated by GL, 17.2% because it improved their memory, 13.2% because of better understanding. Of the self-learners 15.3% considered it effective, 12.5% got motivated, 11% improved memory and 15.3% had better understanding.

Regarding academic performance 39 % (26 out of 66) group learners had good, 1.5% excellent, 56% satisfactory and only 3% had poor academic performance. On the other hand 40% of the self learner had good, 3% excellent, 48% satisfactory and 8% had poor performance. A Similar research was conducted at Linkoping University, Sweden by Antje Lumma-Sellenthin. The results showed that 61% of the students were Group-learners and 29% were self-learners. 78% of the group learners were Males and 22% were females. While majority of the self-learners were females (69%). The

ones who were group learners, majority adopted this because of better understanding (21.8%) & better memory (15.4%) of the contents. While the rest adopted this because self-learning was stressful (16%).

Similarly of the students who preferred self-learning, majority thought that GL was stressful (35%), while others were self-learners because it improved their memory (23%), They better understood the contents (20%). And the rest because of miscellaneous causes.

So in contrast to the study mentioned above, the majority of the respondents of our research were self-learners, and this was due to deep understanding, better memory and less stress.

CONCLUSION:

Self-learning is a preferred learning strategy than group learning among medical students. Then reason found is that Self-learning is more focused, effective and less stressful. Self-learner shows better academic performance than Group-learners.

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