Journal of Research in Medical and Dental Science
2021, Volume 9, Issue 9, Page No: 200-205

Available Online at: www.jrmds.in
eISSN No.2347-2367: pISSN No.2347-2545

Comparison of Motivation of Medical students: During Covid-19 Pandemic-A Cross-Sectional Study

Syed Hussain Raza Zaidi[1], Nooria Naeem[2], Gul Muhammad Shaikh[3], Arifa Zafer[4], Ayesha Riaz[2], Saba Iqbal[5]*, Khadija Amjad[5]

[1]Department of Medical Education, University College of Medicine & Dentistry, UOL

[2]Department of Physiology, University College of Medicine & Dentistry, UOL

[3] Department of QEC, CMH Lahore Medical College and IOD, Pakistan

[4]Pak Red Crescent Medical & Dental College, Pakistan

[5]Department of Health Professions Education,CMH Lahore Medical College IOD, Pakistan

ABSTRACT

Objective: Motivation is one of the most integral components of learning. It is influenced by the student's personality, capabilities, talent, capacities, aptitudes, interests, behaviour, knacks, teachers' behaviors, and environment. In our current we checked the potential of students by using the Motivated Strategies for Learning Questionnaire (MSLQ) from online learning during the Covid-19 Pandemic.

Method: A modified pre-structured, valid, and reliable questionnaire MSLQ was used to access the intrinsic and extrinsic motivation, Task value, self-efficacy for learning and performance, test anxiety, rehearsal, elaboration, cognition, metacognition, different types of resources management, academic year, and gender. The Cronbach alpha of multiple strategies of MSLQ is, ranging from .52 to .93.

Results: This Descriptive Cross-sectional study was conducted at CMH Lahore Medical College from June 2021 to July 2021. Out of 121 students, 38.8% were male and 61.2% were female. First-year students were responded 55% and seniors' students 45%. MSLQ motivation items evidenced mean scores between 4.79 ± 1.39 and 5.47 ± 1.39, while MSLQ learning strategy items, mean scores ranged between 4.51 ± 1.66 and 5.45 ± 1.55.

Conclusion: These results are also dependent on intrinsic factors such as one's effort, as opposed to external factors such as the teacher.

Key words: Medical students, Motivation, Covid-19, MSLQ, Motivated strategies

HOW TO CITE THIS ARTICLE: Syed Hussain Raza Zaidi, Nooria Naeem, Gul Muhammad Shaikh, Arifa Zafer, Ayesha Riaz2, Saba Iqbal, Khadija Amjad,Comparison of Motivation of Medical students: During Covid-19 Pandemic-A Cross-Sectional Study , J Res Med Dent Sci, 2021, 9(9): 200-205

Corresponding author: Saba Iqbal
e-mail ✉ : dr_saba@cmhlahore.edu.pk
Received: 25/08/2021
Accepted: 13/09/2021

INTRODUCTION

Medical education has been traditionally content-cantered, student-cantered, hands-on, time-oriented, and focused on the development of critical thinking or problem-solving skills of the students [1]. Commonly, various pedagogical methodologies have shown efficacy in learning enhancement of medical education in many active learning domains like through classroom teaching, laboratory practical, dissection, small group discussions, bad side teaching, community visits, and flipped classroom. Although online education or training has not been a new concept to educators in general, from last year during the COVID-19 pandemic introduced an unprecedented and global need to explore online teaching/learning possibilities inside the entire spectrum of educational levels.

Online teaching requires the critical thinking, planning, training, design, and development of technological and human resources for the achievement of the desired learning outcomes [2]. However, as we all know the COVID -19 spread so quickly all over the world. So, in the current situation, there was no time for preparation and design of the software for teaching programs; the instructors had to act quickly and adapt to online teaching. In the process, they had support from their organizations (schools, colleges, and universities) in providing e-learning platforms and other digital learning management systems and communication tools [1]. In normal circumstances, students learning allows the teacher-student, patient-student, and student-student interactions, however, the uncertainty was COVID-19 spreading from more than a year and recommended social distancing as SOP

everywhere especially in educational institutes, it may develop anxiety, stress, tension, and depression in the students [2].

According to the behavioural sciences "Motivation is the process that stimulates, manages, guide, and maintains goal-oriented behaviors" [3]. Motivation is important in almost all aspects of human behaviour. If students are motivated, they learn better and remember more of what they were learned [4]. Failure is seen when the mismatch between the requirements and demands of the learners and the person's real or perceived ability to meet these demands. The accomplishment of Tasks can also boost energy and motivation, but in the current situation, medical students are unclear about expectations by their medical teachers and other circumstances. Task ambiguity can also result in demotivation, such as when students are presented with inadequate or unclear information and environment about their tasks [5]. They are uncertain about what they are expected to do, and these conflicts lead to reduced work satisfaction and hurt individual motivation [6].

Types of motivation

Different types of motivation are frequently described as being either extrinsic or intrinsic:

Extrinsic motivations are those that arise from outside of the individual and often involve rewards such as Grads, Medals, Promotions, or praise.

Intrinsic motivations are those that arise from within the individual, such as doing a complicated crossword puzzle purely for the personal gratification of solving a problem [7].

The current study aimed was to examine the association between online learning and motivation. Considering the literature, it is hypothesized that:

"Medical freshmen report higher strength and autonomous motivation after online learning than students who were study the same course more than 1year".

Objectives

- What was college students' overall motivation during COVID-19?
- What was the impact of COVID-19 on college students' motivational and learning strategies?
- Does the freshman, differ from senior students in terms of strength and type of motivation after online learning?

MATERIALS AND METHODS

This cross-sectional study was conducted amongst undergraduate freshman and old medical students from June 2021 to July 2021, posted in the Google form after taking their informed consent. A pre-designed, pre-tested, semi-structured questionnaire was used, consisting of the following two parts:

Part 1: Socio-demographic characteristics like the academic year, gender, course status, etc.

Part 2: Motivated Strategies for Learning Questionnaire (MSLQ) a self-report instrument designed to measure student motivational beliefs and strategy-use.

Motivated strategies for learning questionnaire (MSLQ)

We use the MSLQ questionnaire which was developed in 1991 [8] and validated in different countries [9,10].

The students average time for answering the questionnaire was 25 min to responded to the nine scales of the MSLQ self-report questionnaire [11] consist of questions related to Task Value, Self-Efficacy for Learning and Performance, Anxiety, thinking, Repetition, Elaboration, Organization, Metacognition, Stage and Learning Environment Management, and Effort Regulation [12].

A common instrument is often used to assess fifteen different scales related to components of motivation and self-regulated learning strategy use.

The Cronbach alpha of multiple strategies is good, ranging from 0.52 to 0.93.

This included items concerning student motivation, use of cognitive strategies, use of metacognitive strategies, and use and management of the effort.

Each item was assessed on a 7-point score (1='not at all true of me' to 7= 'very true of me') (Table 1).

Table 1: Scales and subscales of the MSLQ [13].

Scale	Component	Sub-scales	Items
Motivational aspects	Value	Intrinsic goals	1,6,22,24
		Extrinsic goals	7,11,13,30
		Task value	4,10,17,23,26,27
	Expectancy	Control of learning beliefs	2,9,18,25
		Self-efficacy for learning and performance	5,6,12,1,20,21,29,31
	Affect	Anxiety	3, 8,14, 19,28
Learning strategies	Cognitive	Rehearsal	39, 46, 59, 72

	Organization of ideas	32, 42, 49, 63
	Elaboration of ideas	53, 62, 64, 67, 69, 81
Metacognition	Critical thinking	38, 47, 51, 66, 71
	Metacognition	33, 36, 41, 44, 54, 55, 56, 57, 61, 76, 78, 79
Resources management	Time and study environment management	35, 43, 52, 65, 70, 73, 77, 80
	Effort regulation	37, 48, 60, 74
	Peer learning	34, 45, 50
	Help-seeking	40, 58, 68, 75

Data analysis

The data for the present study consisted of quantitative data gathered from the questions. Quantitative data in the second part were analyzed by calculating frequencies, means, standard deviation, and percentages by SPSS version 28.0. Continuous variables are shown as means and standard deviations, while categorical variables as the number of cases and percentages.

Participants

We converted the MSLQ questionnaire into a Google (Survey) form. Before taking part in the study, informed consent was taken to all respondents only willing participants were proceed further. Total 121 students give the response out of 750 students from the first year to final year MBBS students, so the response rate was 16.13%. All 121 students fill the complete form in which 38.8% were male and 61.2% were female. At the time of the study, all the participants were home due to COVID-19 Pandemic and had already taken online classes. The average age of participants was 21.01 years 9 (Figures 1 and Figure 2).

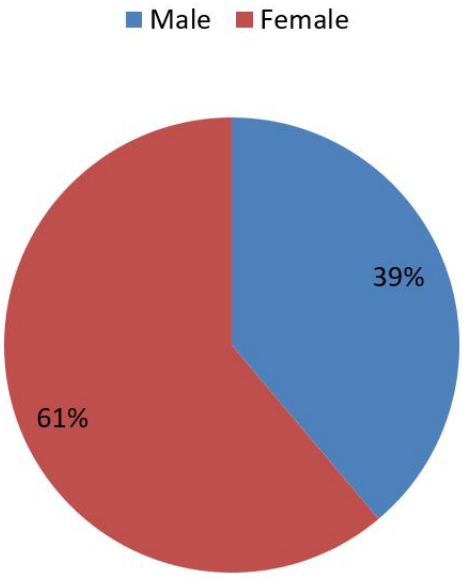

Figure 1: Gender distribution.

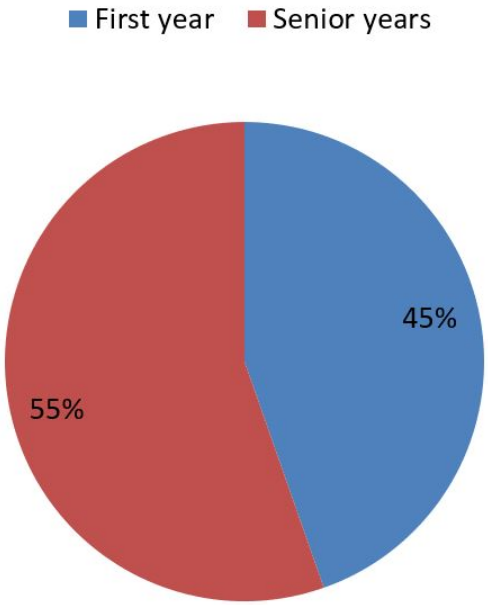

Figure 2: Students distribution.

RESULTS

MSLQ manual is divided into two main categories so, We also described the results maintaining the same distinction between sections of Cognitive Learning Strategies and Motivation Strategies, by analysing the sub-scale scores according to the grouping of scales proposed by the authors [12].

Descriptive analysis of MSLQ

Participant responses to each of the MSLQ items are presented in Tables 2 and 3. Table 2 demonstrates that the 31 MSLQ motivation items evidenced mean scores between 4.79 and 5.47, with standard deviations 1.39 and 1.39 respectively. Additionally, when examining the 50 MSLQ learning strategy items, mean scores ranged between 4.51 and 5.45, with standard deviations between 1.66 and 1.55. When considering the six categories of MSLQ Motivation scale, intrinsic goal orientation, and external goal orientation, mean 4.96(1.478 SD) and 4.96 (1.478 SD) respectively.

Task value and control learning beliefs were evidenced the most by the CMH Medical college students mean of 5.12 and 4.79 with 1.48 and 1.39 SD respectively. While Self-efficacy for learning & Performance and Test anxiety was evidenced the least (mean of 5.47 and 5.27 respectively with standard deviation 1.39 and 1.41).

Table 2: Descriptive statistics of motivational strategies for learning questionnaire (MSLQ) for students.

Scales	Sub-Scales	Mean	SD
Motivation Scale	Intrinsic Goal Orientation	4.96	1.47
	Extrinsic Goal Orientation	4.96	1.47
	Task value	5.12	1.48
	Control of Learning Beliefs	4.79	1.39
	Self-efficacy for learning & Performance	5.47	1.39
	Test Anxiety	5.27	1.41

Finally, as table no 03 shows, among the seven categories of MSLQ Learning strategies scale, Rehearsal, Elaboration, and Organization were utilized the most by the CMH Lahore Medical college students means of 5.10 ± 1.68 SD, 5.45 ± 1.55 SD, and 4.93 ± 1.73 SD, and on the other side Cognitive and Metacognitive Strategies: Critical Thinking (mean of 4.83 ± 1.57 SD). While in resource management strategies like time and study environment mean 5.64 ± 1.342 SD, effort regulation and self-regulation 4.51 ± 1.66 SD and help-seeking another 5.25 ± 1.54 SD.

Table 3: Descriptive statistics of Learning strategies for learning questionnaire (MSLQ) for students.

Scales	Sub-Scales	Mean	SD
Learning Strategy scale	Rehearsal	5.1	1.68
	Elaboration	5.45	1.55
	Strategies: Organization Cognitive and Metacognitive	4.93	1.73
	Cognitive and Metacognitive Strategies: Critical Thinking	4.83	1.57
	Resource Management Strategies: Time and Study Environment	5.64	1.34
	Resource Management Strategies: Effort Regulation Self-regulation	4.51	1.66
	Resource Management: Help-Seeking Another	5.25	1.54

The curriculum of educational institutions, teacher preparation, intervention strategies, and Current policies are all influenced by our theoretical perspectives of the learning process.

DISCUSSION

The study sought to characterize the motivational and cognitive learning strategies during the COVID-19 Pandemic, of first year MBBS students and senior MBBS students from the CMH Lahore Medical College, Pakistan. As seen through those who take online classes. They were a group of students who are first-year MBBS Students means the student who enrols a professional degree program but doesn't know how much peer studies are important in the professional degree course and the group of MBBS students who at least passed one professional exam after attending physical on-campus learning with their peers. The MSLQ scales are used to measure students' learning motivation and learning strategies studying in first-year professional class and senior year MBBS professional classes [8], this questionnaire has, the scales were with high internal consistency, reliability, and validity [14]. The primary goal of this study was to examine the relationship between motivation strategies and the learning process during COVID-19 online classes in medical students of CMH. As our results show almost the same as shown in other studies that were done previously when the students learn knowledge, skill, and attitude on campus [15] or slightly high scores [3].

Pintrich, et al. found that the motivational components were linked significantly to students' cognitive engagement and academic achievements in or outside the classroom. The intrinsic value was strongly related to the use of cognitive and self-regulatory strategies, and regardless of the initial performance levels, self-efficacy, and anxiety of the test. Students must have both

'willingness' and 'competence' to be succeeded in academic tasks or performance [16].

During the COVID-19 pandemic, our mostly students were not ready for online learning like they did not have access to a reliable internet connection, and gadgets. These were major factors affecting the learning motivation for students with COVID-19 and the abrupt transition to online teaching [17]. As our result supports that the learning and motivational mean scores are not as high as in other studies previously. To address this issue, the institution can provide Wi-Fi access on campus's open areas, well-ventilated buildings, and 50% class strength while monitoring for social distancing and sanitizing the surfaces frequently [18].

An analysis of the Motivation and Learning strategies used by the students produced several interesting results [19]. The high level of Control of learning belief reflects the expectation of the students that an effort to learn will produce good results [6]. These results are also more dependent on intrinsic factors such as one's effort, as opposed to external factors such as the teacher [14]. Relatedly, Task value (the perception of the course material in terms of interest and importance) was also scored high by the 1.75 students reflecting the very practical, applied nature of their motivation. This is also reflected in the high Metacognitive self-regulation and Time management and study environment ratings produced in the Learning strategies section of the MSLQ [13].

LIMITATION

Some important limitations should be considered when interpreting the results from this study. The most important limitation is that this is not longitudinal, but a cross-sectional study. To study the effect of selection on motivation, a longitudinal study would be most desirable. Finally, the study was conducted at one single university in the Pakistan, limiting the generalizability of the findings. More studies on the association between selection and motivation, in different universities and settings, are recommended.

ACKNOWLEDGEMENTS

The authors would like to acknowledge CMH Lahore Medical College, Pakistan, and all medical students.

CONFLICT OF INTEREST

Authors declare no conflict of interest.

REFERENCES

1. Klein P, Ivanjek L, Dahlkemper MN, et al. Studying physics during the COVID-19 pandemic: Student assessments of learning achievement, perceived effectiveness of online recitations, and online laboratories. Phys Rev Phys Educ Res 2021; 17:1–11.
2. Zhou J, Zhang Q. Education sciences A survey study on US college students learning experience in COVID-19. Educ Sci 2021; 11.
3. Wouters A, Croiset G, Galindo-Garre F, et al. Motivation of medical students: Selection by motivation or motivation by selection Assessment and evaluation of admissions, knowledge, skills and attitudes. BMC Med Educ 2016; 16:1–9.
4. James BO, Thomas IF, Omoaregba JO, et al. Psychosocial correlates of perceived stress among undergraduate medical students in Nigeria. Int J Med Educ 2017; 8:382–388.
5. Patil SP, Sadhanala S, Srivastav MU, et al. Study of stressors among undergraduate medical students of a teaching medical institution. Int J Community Med Public Heal 2017; 4:3151.
6. Kruglanski AW, Chernikova M, Kopetz C. Motivation science. Emerg Trends Soc Behav Sci 2015; 1–16.
7. Gopalan V, Bakar JAA, Zulkifli AN, et al. A review of the motivation theories in learning. AIP Conf Proc 2017; 1891.
8. Pintrich P, Smith D, García T, et al. Manual for use of the motivated strategies for learning questionnaire. NCRIPTAL 2002; 1–75.
9. Avila EC, Genio AM. Motivation and learning strategies of education students in online learning during pandemic. Psychol Educ J 2020; 57:1608-14.
10. Zhi Feng E, Hung C. The survey study of mathematics motivated strategies for learning questionnaire (MMSLQ) for grade 10-12 Taiwanese students. Turkish Online J Educ Technol 2010; 9:221–233.
11. Yusoff MBS. The medical student stressor questionnaire (MSSQ) manual an explanatory guide on stress and stressors in medical study to help you. KKMED Publ 2010.
12. Duncan T, Mckeachie WJ. Motivated strategies for learning questionnaire (MSLQ) Manual 2015.
13. Ramirez-Echeverry JJ, Garcia-Carrillo A, Dussan FAO. Adaptation and validation of the motivated strategies for learning questionnaire-MSLQ-in engineering students in Colombia. Int J Eng Educ 2016; 32:1774–1787.
14. Taylor RT. Review of the motivated strategies for learning questionnaire (MSLQ) using reliability generalization techniques to assess scale reliability. Diss Submitt Grad Fac Auburn Univ 2012; 1–166.
15. Stoffa R, Kush JC, Heo M. Using the motivated strategies for learning questionnaire and the strategy inventory for language learning in assessing motivation and learning strategies of generation 1.5 Korean immigrant students. Educ Res Int 2011; 2011.
16. Pintrich PR, Groot EV De. Motivational and self-regulated learning components of classroom. J Educ Psychol 1990; 82:33–40.
17. Asgari S, Trajkovic J, Rahmani M, et al. An observational study of engineering online education during the COVID-19 pandemic. PLoS One 2021; 16:1–17.

18. Department of health. The guidelines for reopening education institutions during COVID 19-Pandemic. Dep Heal 2020; 1–10.
19. Kivinen K. Assessing motivation and the use of learning strategies by secondary school students in three international schools. Tampere University Press 2003; 1–227.