

LEARNING STYLES OF MEDICAL STUDENTS AT SHEIKH ZAYED MEDICAL COLLEGE RAHIM YAR KHAN

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ABSTRACT

Background: Medical education exposes wide range of curriculum and practical training to students. The students who got admission in medical institutes have a diverse range of learning experiences. **Objective:** To determine the learning styles of medical students at Sheikh Zayed Medical College, Rahim Yar Khan. **Methodology:** This cross-sectional study was conducted about the learning style preferences of medical students of Sheikh Zayed Medical College /Hospital Rahim Yar Khan. The modified VARK Questionnaire was used to categorize the learning/modes as visual (V), auditory (A), read (R) and kinesthetic (K). This study was conducted from 1st January to 28th February 2018. A total of 106 students selected randomly from all MBBS classes and who gave informed verbal consent were included in study. **Results:** Among 106 students who participated in the study, the females were 74 (69.8%) and the males were 32 (30.2%). The mean age of the students was 21±7 years. Majority of students 69(65.09%) expressed the sequential style (visual, auditory and writing) as their preferred style of learning, the rest 37(34.91%) were dependent on visual, auditory and kinesthetic individually. **Conclusion:** Most common method of learning was sequential style that included visual, auditory and writing. There were gross differences in the learning styles among males and females medical students.

Key Words: Learning Styles, Gender, Medical Students.

INTRODUCTION

The Students after enrolling in medical / institutes, have to come across a system of education that needs consistent study and application of this knowledge in practical life after the completion of the course, in a specified time period.¹ With the changing trends of life style and social contacts and to combat the new challenges of emerging and re-emerging diseases, the medical education curriculum and training have been changed over a period of time.² The methods and ways through which an individual acquires, retains and reproduces the knowledge makes its learning styles. Better understanding the learning styles of students makes the delivery of knowledge fruitful.³

The understanding of learning styles of students are being more focused in researches, so that the barriers in understanding could be minimized and input and output mechanism should be in equilibrium.² Each person has different ways of getting and retraining the knowledge. These way are called learning style of new information. Some students have better capability of learning through listening. Some need to write and they only need to see a picture learn better.³ The learning style which were classified by Fleming and Mills as visual auditory and kinesthetic.⁴ The visual learns better by seeing just like graphs, charts and diagrams.^{5,6} The other types of learners when they

learn through listening discussion are called auditory learners.⁷ They kinesthetic learners prefer to learn by doing a writing by themselves.⁸ It has been approved that education quality with understanding of learning styles make its effective to develop curricula. The different models of learning styles of students can be accessed for that maximize their learning. By knowing the learning styles of students, teachers can get benefits and can plan their instruction activities.⁴ It is very much important for a teacher, to know for implementing the courses that students belong to which category of learning style. If the method of presentation of knowledge is in consistent with the student mode of learning, it can be more helpful for them. But this goal can be achieved when the teacher have access the learning mode of student is either visual, auditory or kinesthetic. This study have been conducted among the medical students of Sheikh Zayed Medical College, for assessing the ways of learning styles.

METHODOLOGY

A cross sectional study was conducted on 106 randomly selected medical students of MBBS class who were enrolled at Sheikh Zayed Medical College /Hospital Rahim Yar Khan. The duration of study was from 1st January to 28th February 2018 The modified VARK Questionnaire was used to categorize the learning styles as Visual (V), Auditory (A), Read (R), and Kinesthetic (K) and sequential that include

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visual, auditory and kinesthetic.⁴ Regarding choices of study styles, the first preference was asked. Along with age, sex and residence, the students were asked to mention learning styles. The informed verbal consent was taken from students before including in study. The data was analyzed by using SPSS version 16.

RESULTS

In this study, a total of 106 medical students were questioned in order to determine their learning style. Among 106 students who participated in the study, the female students were 74 (69.8%) and the male students were 32 (30.2%). The mean age of the students was 21±74 years. Regarding residence 91 (85.84%) students belonged to urban area and 15 (14.16%) were belonging rural area.

Table I: Learning styles among medical students

| Learning styles | Male | Female | Total |
|--------------------------------|-----------------|-----------------|------------------|
| | No (%) | No (%) | No (%) |
| Visual | 5 (15.62) | 6 (8.10) | 11 (10.37) |
| Auditory | 4 (12.50) | 3 (4.05) | 7 (6.60) |
| Reading & writing(Kinesthetic) | 7 (21.87) | 8 (10.81) | 15 (14.15) |
| Kinesthetic(writing) | 5 (15.62) | 7 (9.48) | 12 (11.32) |
| Visual Auditory Kinesthetic | 11 (34.39) | 50 (67.56) | 61 (57.56) |
| Total | 32 (100) | 74 (100) | 106 (100) |

Majority of students 61 (57.56%) expressed the sequential style (visual, auditory and writing) as their preferred style of learning, the rest 45 (42.44%) were dependent on visual, auditory and kinesthetic individually, visual style 11 (10.37%), auditory style 7 (6.60%) and kinesthetic style was preferred by 12 (11.32%), reading and writing 15(14.15%).Regarding study styles, the visual method was opted by females 6(8.10%) and by males 5(15.62%).The auditory style by females 3(4.05%) and by males 4(12.50%).The reading and writing style by females 8(10.81%) and by males 7(21.87%).The kinesthetic styles by females 7 (9.48%) and by males 5 (15.62%).The sequential style by females 50 (67.56%) and by males 11 (34.39%). (Table I)

DISCUSSION

The medical students have to cope with the changing trends of Medical education curriculum and training. They have to opt a learning style that enables them to understand, and reproduce the knowledge at the time of application. The medical

students are dependents on teachers to acquire the knowledge and skills. Among the different styles of learning; visual, auditory and kinesthetic the sequential are multimodal styles is usually preferred by the students in which they opt the mix more than one learning style for learning the knowledge. The teacher should be also flexible in presenting the knowledge with tonal fluctuation. A well designed course is that keeps the balance between the channels of communication.

This study among medical students for knowing their learning style has revealed that visual style is preferred by 10.37%, auditory style by 6% and sequential style by 57%.The Medical education involves a large number of practical skills. The mode of information presentation should be preferred with the acceptance of the students. These results are coherent with study where, among the students 5.4% preferred visual learning style and 4.8% preferred auditory learning style. Among these students, 7.8% preferred learning from reading and writing while 18.1% preferred using all their Senses.⁶These results were also coherent with the study conducted at Romania among medical students.⁷

The majority of students 61 (57%) in our study expressed the multimodal, sequential style that included visual auditory and kinesthetic style of learning. These results were coherent with another study conducted for learning styles and approaches to learning among medical undergraduates of the University of Colombo , where the majority (69.9%) of first year students and the majority (67.5%) of final year students, had multimodal learning styles.⁸ In our study, regarding gender differences in learning styles, it was found that, the visual method was opted by females 6 (8.12%) and by males 5(15.63%).The auditory style by females 3 (4%) and by males 4 (12%). The kinesthetic styles by females 7 (9%) and by males 5 (15%).

The multimodal/sequential style by females 50 (67%) and by males 11 (34%).The results were in congruent to a study conducted at Michigan State University among medical students.⁹In that study the responses of students were assessed for gender difference in learning style; most of females and only few of males preferred a single mode of learning style. Amongthe female students, 4.2% preferred Visual, 16.7% Preferred printed words (reading), and 33.3% preferred using all their senses. In contrast, among male students there was no specific preference. The multiple learning style were preferred by 45.8% of female and 87.5% of male.⁹

CONCLUSION

Most common method of learning was sequential style that included visual, auditory and writing. There were gross differences in the learning styles among males and females medical students.

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