

PERCEPTION OF BACCALAUREATE NURSING STUDENTS REGARDING DIFFERENT LEARNING STYLES

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ABSTRACT

BACKGROUND Learning is a complex cognitive process and its acquisition takes place in many ways. Among the models commonly used for learning styles is the visual, auditory and kinesthetic (VAK) model. Variations certainly are there in the preferred learning styles of learners and it depends on various factors.

AIM In this study the three modes of learning styles are assessed among Baccalaureate nursing students from different public and private nursing colleges in Peshawar (KPK).

METHODOLOGY The study was done at the 1Institute of Nursing Sciences, Khyber medical University Peshawar, Pakistan in 2014. A total of 100 final year students including males and females from Post RN BSN and Generic BS Nursing were selected in this cross-sectional study.

RESULTS Most of the students were found to prefer the visual style of learning i.e. (61%), whereas the response for auditory and kinesthetic styles was 33% and 6% respectively. In light of this study, visual style is the most preferred mode of learning for majority of the students.

CONCLUSION In translating nursing knowledge to standard nursing practices the importance of kinesthetic learning cannot be overlooked. All the three learning styles have their importance in its place depending upon the content to be taught and on context in which knowledge is imparted.

KEY WORDS Learning style, Kinesthetic learning, visual learning, auditory learning. BSN, Post RN BSN, KPK

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INTRODUCTION

Students perceive and process information in various ways according to their perceptual and sensory strengths. This combination of perceiving and processing forms their unique learning strategy. A learning strategy is a way in which a learner begins to concentrate on, process, and retain new and difficult information¹. Learning strategies are used by students to help them understand information and solve problems. A learning strategy is a person's approach to learning and using information. Students who do not know

or use good learning strategies often learn passively and ultimately fail in school. Learning strategy instruction focuses on making the students more active learners by teaching them how to learn and how to use what they have learned to solve problems and be successful.

The purpose of this study is to know the perception of nursing students regarding different learning strategies in order to outline recommendations that may help nurse educators to facilitate the teaching and learning process among their students in Pakistan.

Another research has shown² that Learning styles and preferred learning approaches are believed to have an influence on students' learning. Nurse educators need to be cognizant of their students' learning styles in order to adapt their particular mode of teaching to complement the learner group. The results of the study indicate that the majority of Jordanian nursing students perceive themselves as independent learners, although with some uncertainty expressed. Based on the results of the present study the following implications and recommendations are postulated: Nurse Educators should design learning experiences in which cooperative learning is encouraged and students are challenged and actively involved in learning. They should provide positive reinforcement of students'

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active involvement in the learning process, which will stimulate continued self-direction. Nurse educators also need to be aware of their own teaching styles, which are unlikely to match the learning styles of all students. Hence, they should develop skills, which are likely to enhance the learning to all students. Nurse educators should act as facilitators of learning and should ensure the availability of resources and opportunities for practice.

In context to higher education a study has linked the methodologies and strategies used in the teaching-learning process in the conduct of teachers in the use of material resources used in the classroom from technological innovations.³ Although many students have presented superficial knowledge about the term teaching methodology, significant part is partially or completely dissatisfied with those adopted in the institution they attend, saying that need to be improved. These trainees have suggested that certain traditional practices need to be associated with or even replaced by more active methodological proposals with the aim of providing improved quality of teaching-learning process.⁴

One of a researcher investigated the learning preferences of medical students at the United Arab Emirates University. Results showed that students prefer experiences dealing with concrete and applied task rather than abstract tasks.⁵

Moreover, a study investigated the differences in preference among two groups of baccalaureate nursing students; some beginning their first nursing course and some completing their last. The findings suggested that both groups prefer learning strategies that are traditional in nature, teacher-directed, denote students' passivity and are highly organized.⁶

Based on the results of the study, more than half (55.2%) of nursing student perceive themselves as independent learners. A statistical significant difference was found between

learning style and the age of nursing students and the students at the senior levels "third, fourth and internship" seem to prefer independent style of learning compared to the junior students "first and second".⁷

Findings from another study provide empirical support for or confirmation of a number of related theoretical propositions. Perceptions of heavy workload and inappropriate assessment influence students towards surface approaches to study, but perceptions of workload have no systematic relationship to students' use of deep approaches to studying. Perceptions of a good teaching environment influence students towards deep approaches to studying, and conversely, students' perceptions of a bad teaching environment influence them towards surface approaches to studying. The strongest predictors of students using a deep approach to studying are their perceptions of the quality of the teaching and the appropriateness of the assessment. Perceptions of teaching environments influence learning outcomes both directly and indirectly.⁸

A research study has also investigated the influence of the educational context on student nurses' conceptions of learning and approaches to learning. The findings showed that conceptions and approaches are to some extent contextually dependent.⁹

Recently many researchers accepted learning styles as an important construct in education. This had led to numerous individual studies and subsequent meta-analyses that found significant correlation between learning styles and learning outcomes. A learning style is generally described as an attribute or quality of an individual which reflects a pattern of information-processing behaviors used to acquire knowledge or skills and prepare for an anticipated test of memory.¹⁰

Several theoretical models have been proposed to explain learning style preferences and several instruments have been developed to

diagnose these preferences.¹¹ Some of which are the Kolb experimental model, Canfield model, and Witkin's field independence to dependence model.¹² Kolb developed a model of experiential learning and a learning style inventory based on the preferred learning mode. Reliance on a particular mode of learning results in a certain style. Witkin's model identified two learning styles based on people's ability to distinguish between the significant and the contextual. Very little information from the vast amount of research performed on learning styles has been applied to nursing education.¹³ A researcher also examined some teaching and learning perspectives and concluded that nurse educators should strive for matching teaching to learning styles. Nurse educators and researchers are becoming more interested in understanding and integrating students' learning styles into nursing curricula to promote satisfying learning experiences resulting in the formulation of criteria for academic excellence and to increase productivity in the work place.¹²

Changes in teaching environments may have an impact on students' learning outcomes without necessarily affecting their learning approaches. Positive perceptions of the teaching environment not only directly influence academic achievement but also, importantly, qualitative learning outcomes. a student's school achievement is a positive (but weak) predictor of their university achievement (GPA), how they perceive their current learning environment is a stronger contributor to all types of learning outcomes at university. Thus, perceptions of university learning environments make a clear contribution to academic outcomes above the prior academic success of a student. Prior academic achievement has no significant influence on how students evaluate their learning environment. The above patterns are evident not only at the general level of the individual student, but

also in three contrasting disciplinary contexts.¹⁴

METHODS

It was a Descriptive Cross-sectional study. This research was conducted in different nursing institutes of both public and private institutions at baccalaureate level in Peshawar Khyber Pakhtunkhwa, Pakistan.

The objective of this research study was to assess the learning styles of nursing students at baccalaureate level. The aim of the study is to improve the nursing education by understanding the student perception regarding teaching and learning strategies used at various nursing institutions, thus improving the teaching and learning process at the nursing institutions.

Simple Random Sampling technique was used in the study. The study population consisted of all nursing students at baccalaureate level in Peshawar Khyber Pakhtunkhwa, Pakistan. All the nursing students studying at baccalaureate level in different nursing institutes including public and private institutes. The eligible candidates were nursing students at baccalaureate level, whereas those nursing students excluded from the study who are studying at lower level i.e. diploma level or higher than baccalaureate level.

A total of hundred (n=100) sample size were selected from different institutes of nursing at baccalaureate level in KPK, Pakistan. An online sampling calculator Openepi 2.3.1 version is used for statistical calculation of sample size.

The ethical consideration was given priority to maintain the privacy and confidentiality of the participants. An informed consent was obtained from the participants to participate in the study.

RESULTS

The present study investigated baccalaureate nursing students' perception of their learning styles in four nursing colleges of Peshawar,

Khyber Pukhtunkhawa that included as two institutes (INS and PGCN) from the public sector whereas two institutes (RMI-SON and RNC) from private sector. A structured questionnaire of the VAK Model¹⁵ (visual, Auditory and Kinesthetic/Tactile) was used to explore the students learning styles. Student's response to questionnaire was recorded and further analysis was done to assess their learning styles.

Total 100 baccalaureate nursing students (n=100) participated in this study in which 45% were males and 55% were females. The age of the participants varies between 20 to 40 years in which 45% of the participants were of the ages between 20 to 25 years, 26% between 25 to 30 years, whereas the rest of participants had their ages above 30 years. The learning style of baccalaureate nursing students 61% are visual learners while 33% are auditory learners and the remaining 06% have tactile learning style.

The analysis of various age categories were also made in order to assess whether there is any difference in the age categories and the analysis were made. The learning style of baccalaureate nursing students from age (20–25)44.40% are visual learners46.60% are auditory learners, 8.80% have tactile learning style. Age (25–30) 65.30% are visual learners27% are auditory learners, 7.60% have tactile learning style. Age (30–

35) 77% are visual learners23% are auditory learners, 0% have tactile learning style and students of age (35–40) 87% are visual learners13% are auditory learners, 0% have tactile learning style.

Students of baccalaureate nursing Program in institute of nursing sciences (INS) at Khyber medical university were further analyzed regarding the learning styles and showed as 57.55% are visual learner, 30% are auditory and 12.50% are tactile learners. Students of baccalaureate nursing Program studying at Rufaida College of nursing were 64.0% as visual learner 29.0% as being auditory whereas 7.0% were found to be tactile learners. Students of baccalaureate nursing Program studying at Rehman Medical Institute School of Nursing (RMI-SON) were found to be 62% visual learners, 33.30% were auditory whereas 4.70% were tactile learners. Students of baccalaureate nursing Program at one of another public sector institutions called Post Graduate Nursing College (PGCN) were found to be 86.30% as visual learner, 13.70% as being auditory learners and there was no one to be tactile learners.

DISCUSSION

Majority of the students that is 61% are having visual learning style, students who prefer visual modes of information Presentation. Along with diagrams, symbols and images

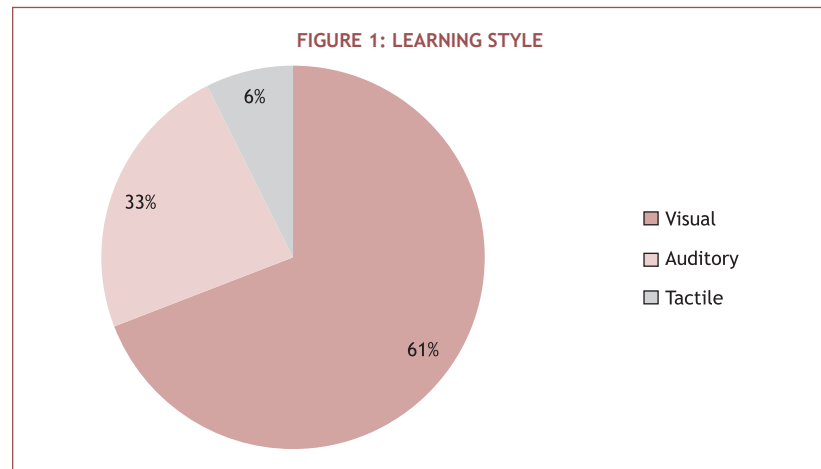


TABLE 1: LEARNING STYLE IN RELATIONSHIP TO AGE

Age	Visual	Auditory	Tactile
20-25 years	44.40%	46.60%	8.80%
25-30 years	65.30%	27%	7.60%
30-35 years	77%	23%	0%
35-40 years	87.00%	13.00%	0%

TABLE 2: LEARNING STYLES IN RELATIONSHIP TO INSTITUTIONS

Institution	Visual	Auditory	Tactile
INS	57.55%	30%	12.50%
RNC	64%	29%	7%
RMI SON	62%	33.30%	4.70%
PGCN	86.30%	13.70%	00%

rich power point presentations, the artful lecturer will, during a performance, excite the learning modes of visual students. They best learn and remember by visual aids, graph, maps, movies, etc. According to a research study second and third year students of university may develop or mature in their learning to prefer visual, modes as they tackle more challenging manual skills projects in clinical placements. Thus it can be concluded that student who are more mature learns better by visual means of learning.¹

This study showed that 33% of nursing students are auditory learners and they best learn and remember by listening to a lecture, listening to audio tapes, reading aloud, Storytelling and other auditory aids. It is perhaps surprising that a very small percentage of students preferred auditory modes of information presentation an example of this mode is the classic lecture. The literature from other research also shows that students have different learning styles and understanding the different styles, encourages lecturers to reflect on the effectiveness of lecture methods and prompts academics to consider adopting different teaching approaches to accommodate differing learning preferences as a means of enhancing student learning. The auditory style

of learning has been seen to be less than those learn through visual or mixed learning styles.²

Apart from this, only 6% of student's respondent often to question that showed there learning styles as tactile i.e. that they best learn and remember by doing things, role playing and demonstrations. In contrast to the finding of this study a research has shown that the majority of first year students enrolled in Nursing at this university prefer kinesthetic modes of information presentation. Kinesthetic learners prefer the hands on approach to learning, or learn by doing. Students with this learning preference take in information best through practical sessions, case studies or computer simulations. They then process the information by recalling their experiences, whether real or case studies, using lots of examples, including keynote questions that prompt them to do activities related to the work rather than read or listen. This type of learner needs to do things before they can fully appreciate and understand the concepts.³ Learning is a more complex process and different modes of teaching by the instructors need to be applied keeping in view the content and context of the students learning. The visual mode may work best in classroom environment and is evident from the findings of

this study; but if the context is to learn skills; then only visual learning will not be effective.⁴ Rather in teaching or learning skills acquisition content; the students might need to perform the activity again and again to get automation of the skills to be in a better position to translate that theory into practice. Nursing is an art, and nurses being artists needs fine hands and skills to be more scientific. Automation in skills performance is hallmark of every practical profession and practice in turn is the one way to get that automation. More studies need to be done to analyze the preference of students learning in different contexts. The practical experiments are clearly outlined in a practical manual, with exact detail and easy to follow instructions. In the current economic climate, practical sessions are increasingly becoming more of a financial burden but the benefits of these sessions to encourage active learning and critical thinking needs to be taken into consideration.

CONCLUSION

This study showed that nursing students have diverse perceptions regarding the learning styles. There is no single right way to present material but by providing a variety of different approaches keeping in view the different learning styles of students can be accommodated. The results of the study highlight that majority of the nursing students have visual learning style. Despite the fact that students learn mostly through visual mode; if the findings of this study are applied to laboratory or skills learning and acquisition; then it might not be applicable. As mentioned in discussion some research studies also suggest that students learn mostly through kinesthetic mode; and we do agree to these findings especially in skills learning context.

More research studies are to be done to validate the results of the study in various context of learning and the mode of learning; then in-

structors will be in a better position to tailor their teaching styles according to the unique needs of the students as well as the content to be taught.

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NOTES ON CONTRIBUTORS

All authors were involved in every part of the analysis, idea's development, write-up, and editing the final draft.

CONFLICT OF INTEREST

Authors declare no conflict of interest.

ETHICS APPROVAL

The approval/permission was obtained from Khyber Medical University Research and Ethics Board.

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