

A Descriptive Study To Assess The Learning Methods Of Nursing Students: An Indian Perspective

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ABSTRACT

Background: Learning methods plays a major consideration in planning for effective and efficient instruction and learning as it is directly associated with academic performance. Understanding the learning method preferences of nursing students plays a major role in modifying the teaching learning experience thereby enhancing nursing education.

Objectives: The objectives of the study were to assess the learning methods used by nursing students and to associate the learning methods with selected sociodemographic variables of nursing students.

Methods: A quantitative approach was used to assess the learning methods used by students. A total of 210 undergraduate nursing students were selected were selected using systematic random sampling. A sociodemographic proforma, and the Visual, Aural, Read/Write, Kinesthetic (VARK) questionnaire were used to collect data in the quantitative phase. Data collection was done in separate classrooms where students filled the questionnaire. Descriptive and inferential statistics was used for quantitative data analysis

Results: Majority of the students had auditory methods of learning as their first preferred learning method (51%) and visual learning (42 %) as the second preferred learning method kinesthetic learning (40%) as the third preferred method. The study results also showed that that there is a statistically significant association between year of study and the type of learning method ($p=0.038$), and the program type ($p= 0.036$)

Conclusion: Nursing students use different learning styles for understanding and comprehending. Nurse teachers need to be dynamic in using a variety of teaching strategies to create an active learning environment for nursing students.

Keywords: Learning methods, nursing students, VARK questionnaire

Introduction

Learners use different learning methods to process the information presented in the classrooms. Some students learn better when information is presented through words known as verbal learners, whereas others learn better when it is presented through pictures known as visual learners. Students who learn by doing are known as kinaesthetic learners (Alharbi, Almutairi, Alhelih, & Alshehry, 2017). Studies done on students to identify the effect of different innovative teaching methods shows that students prefer classroom teaching methods which facilitated more of student involvement during the classes (Priyadarsini, et al, 2020). Nowadays students prefer teaching learning process to be more learner centered. Information about learning methods is crucial to identify the relationship between learning methods and the performance of students.

Learning styles' are favoured approaches to obtaining information and making determinations. Learners have their preferred ways of perceiving, organizing and retaining information. Consequently, individuals favor particular methods of interacting with, taking in, and processing stimuli and information when they learn (Li, Yu, Liu, Shieh, & Yang, 2014).

Some learners are active and prefer to work in a group, while others are reflective who prefer independent learning (Graf Viola, Leo, and Kinshuk, 2007; Felder and Spurlin, 2005). There is evidence that different learning methods have an impact on academic achievements. In Nursing education, when innovative and active learning methods are used in the classroom setting, it is evident that it enhances the quality of health

care services (Bvumbwe, 2016; Sezer, & Esenay, 2022). It also apparent that students may learn more rapidly and effectively if preferred learning methods were employed.

The concept of learning methods is actively developing among all levels of professional educators in many educational organization. (Alharbi, Almutairi, Alhelih, Alshehry & 2017). Using various modes of teaching/learning can help the students to enhance their understandings and improve their interpersonal skills towards deep learning which is very important in the nursing discipline (Nielsen, Hoban & Hyland, 2017). Students are sensitive and adaptable to their learning environments, and that the modification of the learning environment enhances students' deep learning approaches (Falk, Falk, & Ung, 2016).

Studies show that when teaching is modified according to the learning preferences of the nursing students it resulted in better academic performance (Al-Saud, 2013; Jayanthi, Balakrishnan, Ching, Latiff, & Nasirudeen, 2014). Nursing students react and respond in line with their experience of the learning environment and what they perceive is required of them by the learning institution (Asikainen et al., 2014). Learning styles have been widely believed to benefit both teachers and students, in that teachers wherein the teacher can modify the teaching style according to the student's learning style in order to achieve better goals. Being aware of their individual styles can help students find appropriate ways to learn and benefit from these styles in their educational journey (Zhu et al., 2018). It is important for nurse teachers to identify what influences and motivates students to learn better and knowing their preferred learning style to improve the teaching learning process which ultimately improves the quality of the nurse professional training and preparation for the current world of work in the health area (Costa, Medeiros, Coutinho, Mazzo, Araújo et al., 2019) In India not many studies have been reported on learning methods of nursing students. This study was undertaken to identify the preferred learning methods of nursing students.

Methods

A Quantitative method was employed and a descriptive design was used. A total of 210 undergraduate nursing students were selected using systematic random sampling. Sample size calculation was done based on previous studies and was calculated as 180. The instruments used in this study included a sociodemographic proforma, and the Visual, Aural, Read/Write, Kinesthetic (VARK) questionnaire. The sociodemographic data questionnaire is an investigator prepared questionnaire including information of students such as age, gender, no. of hours spent in learning on a particular day, preferred study timings, and place. Visual, Aural, Read/Write, Kinesthetic (VARK) is a questionnaire that provides users with information about their learning preferences. VARK questionnaire has a total of 30 items. It is self-reported questionnaire with three options such as A, B, and C. The higher the number of A- then the students is to have visual learning style, Similarly B- Auditory and C- Kinesthetic. VARK questionnaire is found to be valid and reliable with Cronbach alpha of 0.82 (VARK, 2022).

Data collection was done by the principal investigator. Data collection was by the principal investigator in separate classrooms. Ethical approval was obtained from the Institutional Review Board. Written informed consent was obtained from the study participants. Confidentiality with the information was achieved by maintaining anonymity of the participants. Analysis of the collected data were done using the SPSS software 17.0 and descriptive and inferential statistics were used.

Results

The study was conducted nursing students between 17-25 years of age. Majority of students were females (96.5%) and mostly students preferred studying alone (57%) Table 1.

Table 1. Distribution of subjects based on demographic variables

Demographic variables	Frequency (n)	Percentage (%)
<i>Gender</i>		
Female	193	96.5
Male	7	3.5
<i>Hours spent in studying daily</i>		
1 hr	49	24.5
2 hr	60	30
3 hr	55	27.5
More than 4 hr	35	17.5
Nil	1	0.5
<i>Preferred study method</i>		
Alone	114	57
Group	86	43

<i>Year of study</i>		
First year	61	30.5
Second year	53	26.5
Third year	58	29
Fourth year	28	14
<i>Program</i>		
B.Sc	113	56.5
G.N.M	87	43.5

Majority of the students had auditory methods of learning as their first preferred learning method (51%) and visual learning (42 %) as the second preferred learning method kinesthetic learning (40%) as the third preferred method.

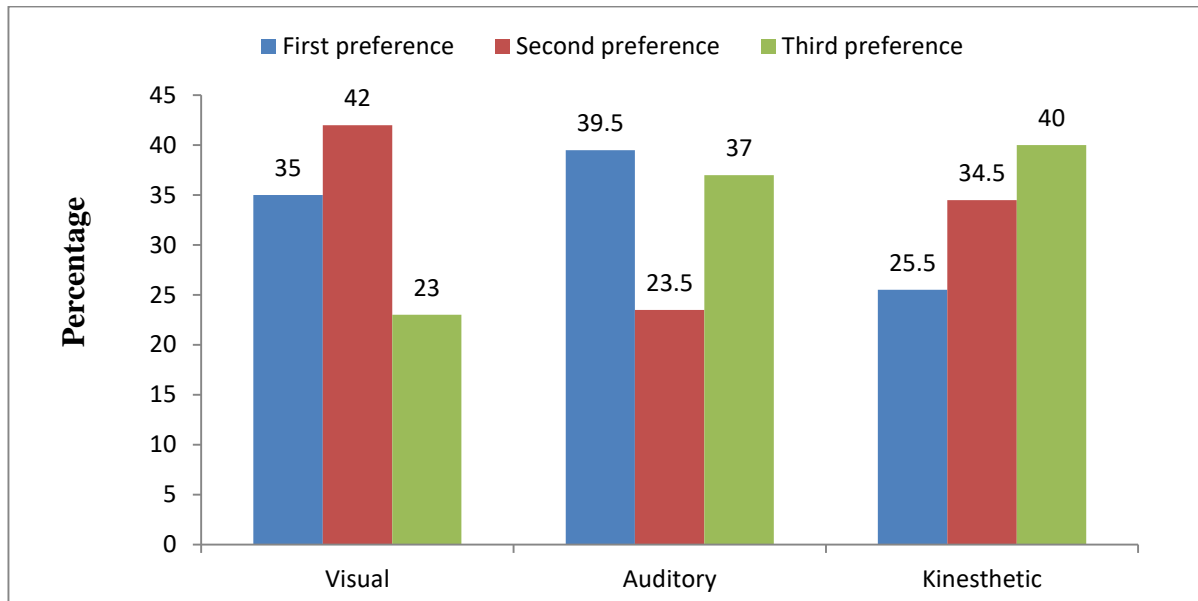


Figure 1. Preference of Learning methods according to VARK tool

In this study it was identified that 42 % of students had visual learning as their second preference, 39.5% had auditory as the first preference and 40 % kinaesthetic learning as the third preference.

Table 3. Association between sociodemographic variables and learning methods

<i>Variables</i>	Visual (%)	Auditory(%)	Kinaesthetic(%)	Chi square
<i>Gender</i>				
Male	71.4	14.3	14.3	.118
Female	33.7	40.4	25.9	
<i>Hours spent in studying daily</i>				
1 hr	34.7	40.8	24.59	.571
2 hr	45	30	25	
3 hr	27.3	43.6	29.1	
More than 4 hrs	31.4	45.7	22.9	
Nil	0	100	0	
<i>Preferred Type of study Method Alone</i>				
Group	33.3	38.6	28.1	.621
Year of study	37.2	40.7	22.1	
First year	21.3	52.5	26.2	.038
Second year	32.1	35.8	32.1	
Third year	48.3	34.5	17.2	
Fourth year	42.9	28.6	28.6	
<i>Program</i>				
G.N.M	44.8	34.5	20.7	.036
B.Sc	27.4	43.4	29.2	

Table 3 shows that there is a statistically significant association between year of study and the type of learning method ($p=0.038$), and the program type ($p= 0.036$)

Discussion

In this study most of the students were females (96.5%) and spent around 3 hours in studying. In the current study 39.5% had auditory as the first preference, 42 % of students had visual learning as their second preference and 40 % kinaesthetic learning as the third preference. This could be attributed to the fact that students adapt to the teaching method and the preferred teaching method currently in use is lecture method. Contrarily in similar studies conducted among learning styles in medical students it was identified that students preferred kinaesthetic learning (Metgud, Coutinho, Crasto, & D'Souza, 2021). . Also in similar studies among nursing students it was identified that about 60% of multimodal students have the kinesthetic learning preference. This could be due to the fact nurses perform a lot of clinical work and a lot of learning takes place in the clinical environment.

Similar to the current study findings it was observed that students preferred multiple methods such as visual, auditor and kinaesthetic in combinations to achieve their educational goals (Janatolmakan, Rezaei Khatony, 2021.) The teaching-learning process can be improved and organised by being aware of students' preferred learning styles.

In the current study all students preferred the trimodal learning style. Visual learning was opted as the as first preference by 35 % students, 42 % as second preference and 23 % as their third preference. Auditory learning was opted as the as first preference by 39.5 % students, 23.5 % as second preference and 37 % as their third preference. Kinesthetic learning was opted as the as first preference by 25.5 % students, 34.5 % as second preference and 40 % as their third preference. Contrarily in a study conducted on physical therapy students using the VARK questionnaire it was identified that seven participants reported a kinesthetic unimodal learning style (24.1%).

This study shows a statistically significant association between year of study and the type of learning method ($p=0.038$), and the program type ($p= 0.036$). Similar studies conducted by Samraakoon et al (2013) among medical undergraduates and postgraduates in Sri Lanka showed that the majority of undergraduates had a multimodal learning style, while the majority postgraduate students shifted towards a unimodal learning style. Learning styles varies according to the level of maturity of the students and also with their level of understanding. Understanding the learning styles can guide faculty in their choice of presentation and assessment of students. Also it is important to note that graduate level and diploma programs are different in their ability to understand and comprehend topics. Advanced students may prefer concrete learning styles than first year students suggesting increasing concreteness with exposure to nursing education.

Conclusion

Every student is believed to acquire information in different ways, and no learning style is superior to others. Making every student take full advantage of their own learning style is key. Nursing students have varied learning styles. Using a variety of teaching strategies will help to create a match with the learning style of most students and thus increase learning outcomes.

References

1. Alharbi, H. A., Almutairi, A. F., Alhelih, E. M., & Alshehry, A. S. (2017). The learning preferences among nursing students in the King Saud University in Saudi Arabia: a cross-sectional survey. *Nursing research and practice*, 2017.
2. Al-Saud, L. M. S. (2013). Learning Style Preferences of First-Year Dental Students at King Saud University in Riyadh, Saudi Arabia: Influence of Gender and GPA. *Journal of dental education*, 77(10), 1371-1378.
3. Asikainen et al., 2014, H. Asikainen, A. Parpala, S. Lindblom-Ylänne, The development of approaches to learning and perceptions of the teaching-learning environment during Bachelor level studies and their relation to study success, High. Educ. Stud., Vol. 4, Iss. 4, 2014, 24-32
4. Bvumbwe, T. (2016). Enhancing nursing education via academic-clinical partnership: an integrative review. *International journal of nursing sciences*, 3(3), 314-322.
5. Costa RR, Medeiros SM, Coutinho VR, Mazzo A, Araújo MS. Satisfaction and self-confidence in the learning of nursing students: randomized clinical trial. *Escola Anna Nery*. 2019 Dec 13;24
6. Falk, K., Falk, H., & Ung, E. J. (2016). When practice precedes theory—a mixed methods evaluation of students' learning experiences in an undergraduate study program in nursing. *Nurse education in practice*, 16(1), 14-19.

7. Felder, R. M., & Spurlin, J. (2005). Applications, reliability and validity of the index of learning methods. *International journal of engineering education*, 21(1), 103-112.
8. Graf, S., Viola, S. R., Leo, T., & Kinshuk. (2007). In-depth analysis of the Felder-Silverman learning style dimensions. *Journal of Research on Technology in Education*, 40(1), 79-93.
9. Jayanthi S. V., Balakrishnan S., Ching A. L. S., Latiff N. A. A., & Nasirudeen A. M. A. (2014). Factors contributing to academic performance of students in a tertiary institution in Singapore. *American Journal of Educational Research*, 2(9), 752–758. 10.12691/education-2-9-8
10. Janatolmakan M, Rezaei M, Khatony A. Relationship between learning styles and academic performance among virtual nursing students: A cross-sectional study. *Education Research International*. 2021 Sep 15;2021
11. Li, Y., Yu, W., Liu, C., Shieh, S., & Yang, B. (2014). An exploratory study of the relationship between learning styles and academic performance among students in different nursing programs. *Contemporary Nurse : A Journal for the Australian Nursing Profession*, 48(2), 229-239. Retrieved from <https://www.proquest.com/scholarly-journals/exploratory-study-relationship-between-learning/docview/1641647027/se-2>
12. Metgud, D., Coutinho, S. L., Crasto, R., & D'Souza, C. E. (2021). Learning styles of 1st-year students studying in health science university in India: A cross-sectional study. *Indian Journal of Physical Therapy and Research*, 3(1), 30.
13. Nielsen, W., Hoban, G., & Hyland, C. J. (2017). Pharmacology students' perceptions of creating multimodal digital explanations. *Chemistry Education Research and Practice*, 18(2), 329-339.
14. Priyadarsini, I. S., Ravindran, V., Sadan, V., Nayak, R., Chander, V., Kumar, D., & Belavendra, A. (2020). Effectiveness of Innovative use of Technology in Classroom Teaching on Academic Achievements and Overall Satisfaction of Nursing Students. *IOSR Journal of Nursing and Health Science*, 9(5), 1-10
15. Samarakoon, L., Fernando, T., Rodrigo, C., & Rajapakse, S. (2013). Learning styles and approaches to learning among medical undergraduates and postgraduates. *BMC medical education*, 13(1), 1-6
16. Sezer, T. A., & Esenay, F. I. (2022). Impact of flipped classroom approach on undergraduate nursing student's critical thinking skills. *Journal of Professional Nursing*, 42, 201-208.
17. VARK. (2022). Vark Learning Tool. Retrieved from <https://vark-learn.com/VARK>
18. Zhu HR, Zeng H, Zhang H, Zhang HY, Wan FJ, Guo HH, Zhang CH. The preferred learning styles utilizing VARK among nursing students with bachelor degrees and associate degrees in China. *Acta Paulista de Enfermagem*. 2018 Jul 6;31:162-9