

Faculty Perception about Active Learning Strategies: A Cross Sectional Survey

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ABSTRACT

BACKGROUND: Nursing education in Pakistan has evolved over the last two decades, and it has shifted from the traditional three-year diploma program to the baccalaureate degree program. However, still traditional learning strategies are used in teachings ineffective in producing quality graduates; hence these graduates lack the necessary skills to face the challenges, diversity, and the dynamics of complex nursing care in Pakistan.

PURPOSE: The purpose of this study was to determine the perception of faculty members and barriers in the utilization of Active Learning (AL) strategies at undergraduate nursing degree programs in Khyber Pakhtunkhwa (KPK) province Pakistan.

METHODS: Cross Sectional design was used to conduct the research study. Consecutive sampling techniques were used to recruit participants in the study. Faculty Perceptions were measured on likert scale. Mean and standard deviation were calculated for continues data, frequency and percentages were calculated for categorical and nominal data. Logistic regression was for possible relationship between utilization of AL, and different barriers.

RESULTS: Fifty two percent of the faculty members stated that AL strategies help in development of students' concepts and increase students' engagement in classes. Moreover, 67.6% faculty members have positive perception for utilization of AL strategies in classes. Interestingly 52.4% of faculty members have negative perceptions for traditional learning strategies. Faculty members perceived different barriers in utilization of AL: insufficient time (60%), difficulty to perform in large class room (38.1%), Lack of support (35.7%) and habitual to didactic learning (28.6%).

CONCLUSION: In conclusion, faculty members have positive perception for AL strategies, and prefer it on didactic learning: However, different barriers were identified by faculty members in utilization of AL strategies. Further, researches are needed to conduct, to design strategies to overcome these barriers.

KEY WORDS: Active Learning, Engagement, Faculty

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INTRODUCTION

Nursing education in Pakistan has evolved over the last two decades, and it has shifted from the traditional three-year diploma program to the baccalaureate degree program. Currently, several institutions in Pakistan have started the baccalaureate nursing degree programs; however, the resources in most of the institutes are not attuned to the standards set by the Pakistan Nursing Council (PNC) and the Higher Education Commission (HEC). Only a few institutions have qualified faculty who can engage students in learning activities and enhance their critical thinking (CT) skills¹. Moreover, mostly the traditional learning strategies are used in the classes which are ineffective in producing quality graduates; hence these graduates lack the necessary skills to face the challenges, diversity, and the dynamics of complex

nursing care in Pakistan¹.

An extensive body of research has concluded that AL strategies enhance CT skills more, as compared to the didactic learning strategies². Hence, Higher education has transformed from didactic learning strategies to AL³. AL strategies are practiced and utilized both in clinical as well in class room teaching⁶. The shift in the teaching paradigm, from teacher centeredness to student centeredness, is essential for the incorporation of AL strategies; this shift enhances students' achievement, engagement and critical thinking⁴. Group work and problem-based learning (PBL) have proved to be effective learning strategies in nursing education^{5,6}. In contrast to the developed world, didactic learning and lectures are still the predominant ways of teaching in higher education in Pakistan^{1,7}.

The integration of AL in the traditional education

system is challenging for educators, as they face certain barriers in implementing these time tested strategies. Several factors related to educators, students and learning strategies influence the utilization of AL in the class room. According to Michael class time, faculty knowledge, and delivery of content are possible constraints from the faculty side in the implementation of AL⁸. Traditional faculty members emphasize more on imparting knowledge; conversely, active instructors perceive that facilitation, guidance, and enhancement of critical thinking are of utmost importance for faculty¹¹. There are significant differences between the attitudes of active instructors, passive instructors in six domains: size of classes, students' involvement, independent learning, and development of knowledge, quantity versus understanding, and function of instructor¹². Lack of training, lack of administrative support, limited class time and insufficient time for preparation are considered barriers in the utilization of AL^{9, 10}.

Traditional learning strategies or didactic learning, are unable to respond to the needs of the current information age and the emerging challenges in the health care systems. This requires a paradigm shift in nursing education, from passive learning to AL¹³. Extensive body of research has investigated different aspect of AL; however, in Pakistan most of the studies are limited to perception of students regarding AL strategies. The findings from this study could be utilized to develop faculty development program. Moreover, this study will provide a base for further researches in the field of teaching and learning. The purpose of this study was to determine the perception of faculty regarding AL, and the barriers in the utilization of AL strategies in undergraduate nursing degree programs at Khyber Pakhtunkhwa (KPK), province Pakistan.

METHODOLOGY

Analytical cross-sectional design was used to address the purpose of the study. Data was collected from faculty members in different undergraduate nursing educational institutes at Khyber Pukhtunkhwa (KPK) from February to October 2015. These faculty members were teaching in Bachelor of Sciences in Nursing (BScN) program. Sample size was calculated using (n=42) WHO sample size software for one proportion. Consecutive sampling techniques were used to enroll participants in the study meeting inclusion criteria. All nursing institutes offering degree programs were included in the study. Faculty with bachelor's degree, currently involved in the teaching and having at least six month of teaching experience were included in the study.

A validated data collection tool was used to collect the data. The tool was developed to measure the

perceptions of faculty members regarding active learning and barriers in the utilization of active learning. The tool for measuring perceptions were consist of 18 items of the five-point Likert type scale, there were a mix of negative and positive worded statements to decrease response bias. Barriers were measured using different statements and faculty were asked either they faced these barriers or not. Cronbach Alpha of the tool in current study was 0.78. Content and face validity of the toll were calculated, and pilot tested for clarity and relevancy on 10% of the sample. For pilot testing participants working as faculty in these institutes were approached, and they were not included as participant in the study. Data were analyzed using descriptive as well inferential statistics. Mean score was calculated for different constructs i.e. development of knowledge, engagement of students, utilization of active learning strategies and traditional learning strategies. The mean score was considered reference score, and percentage of faculty members were calculated above and below the mean score. Association between barriers and utilization of active learning were determined using logistic regression.

Ethical Consideration

This study was approved by the Aga Khan University ethical review committee. Permission was taken from institutional heads. The participants were informed about the purpose, process, potential benefits, and outcome of the research. Written informed consent was taken from all the participants. The participants' confidentiality was ensured throughout the study by assigning codes 1, 2, 3 to their questionnaires. All the written data were kept under lock and key and only accessible to the primary investigator and the thesis committee; while soft data were secured in the personal computer locked with a password.

RESULTS

Forty-two faculty members participated in the study, of which half were male (50%). The Mean age of faculty members was 31.78, with 6.31 standard deviation. Most of the faculty members were Instructors (73.8%), some were Senior Instructors (16.7%) and a few (9.5%) were Assistant Professors. The mean teaching experience of faculty members was 4.7; similarly, the mean clinical experience of faculty members was 5.2. As shown in Table I, Faculty members' perceptions were measured on a likert scale for four constructs. These constructs were: development of knowledge, 'engagement of the students in the classes, utilization of AL strategies in the classes, and traditional learning strategies. With regard to the development of knowledge, 52% of the faculty stated that AL strategies help in development of students' concepts

and increase students' engagement in classes. Thus they have positive perceptions for AL strategies. Moreover, 54.8% of the faculty members have positive perception for utilization of AL strategies in classes. Interestingly 52.4% of faculty members have negative perceptions for traditional learning strategies.

As shown in Table II, insufficient class time (57%), impractical in large class room (38.1%), lack of support (35.7%), lack of training (26%), and habitual to didactic learning (28.6%) were identified as major barriers in the utilization of AL strategies. Keeping the utilization of AL strategies as dependent variables and barriers as independent variables, unadjusted Odds Ratio (OR) was calculated, using logistic regression. However, none of the unadjusted OR was significant. Interestingly, faculty habitual to didactic learning, and having insufficient time to develop lecture were facing 2.8 times more barriers to practice active learning strategies. Similarly, faculty experiences, lack of support from administration are facing 1.92 times more barriers to utilization active learning strategies in class.

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TABLE I: FACULTY PERCEPTION REGARDING AL STRATEGIES: DEVELOPMENT OF KNOWLEDGE, ENGAGEMENT OF STUDENTS, UTILIZATION OF AL, AND TLS

Faculty: n=42			
Strategies	Faculty Perceptions		
	Mean	Score >μ	Score <μ
Constructs			
Development of Knowledge	25.52	22 (52.4)	20 (47.6)
Engagement of Students	16.32	22 (52.4)	20 (47.6)
Utilization of AL	16.44	23 (54.8)	19 (45.2)
Traditional Learning Strategies	13.18	20 (47.6)	22 (52.4)

TABLE II: UNIVARIATE LOGISTIC REGRESSION OF BARRIERS AND UTILIZATION OF AL (FACULTY =42)

Barriers to Active learning	No	%	Unadjusted Odds Ratio (CI)	p-Value
Insufficient class time	24	*57.1	Violated assump	----
Lack of resources	22	52.4	1.11(0.142-8.725)	0.920
Large class size	16	38.1	1.957(0.186-20.614)	0.576
Lack of support from administration	15	35.7	1.92 (0.24-15.26)	0.54
Habitual to didactic learning	12	28.6	2.800(0.347-22.609)	0.334
Insufficient time to prepare for class	12	28.6	2.800(0.347-22.609)	0.334
Lacking of training	11	26.2	1.071(0.100-11.525)	0.955

DISCUSSION

Mostly faculty member has positive perceptions for active learning strategies, and they think active learning helps students in the development of knowledge, retention of content, and increase engagement of students. This could be because that active learning enhances learning by participating in the learning process. Interestingly, most of the faculty members were having negative perceptions for traditional learning strategies. However, despite negative perceptions majority of the educators are using traditional learning strategies. These results were congruent with the findings of the studies conducted in the United States of America (USA) and India¹⁴. Faculty members consider AL a positive addition to the class room teaching^{9,15}, as it helps in the memorization and comprehension of the course contents¹⁶. Smith and Cardaciotto, showed that AL strategies increase students' engagement in the class and they learn more with two way communication^{16, 17, 18}. Active learning strategies enrich students' learning through different activities, which enhance critical thinking and communication skills^{19, 20} of the students. Lack of resources, lack of administrative support, insufficient class timing, large class room teaching, and lack of faculty training were identified major barriers in the practice of active learning. Most of the nursing institutes in the country are established in the last ten years, and they are in developmental phase. There is no proper system for faculty training and development, and usually after graduation nurses join nursing colleges as instructor without any specific training in teaching and learning. The findings are congruent with other studies, faculty members faced hurdles in the incorporation of AL strategies; these hurdles are: lack of sufficient class time, accustomed to traditional learning strategies, less control over the class, students' expectation about learning, and insufficient time to develop content^{8,9,19}. Contrary to

current study, faculty anxiety was also identified as barrier in the utilization of AL strategies²⁰. The findings from the current study could be helpful to design different strategies for faculty development programs. Pakistan Nursing Council could utilize these findings to develop conducive environment for teaching and learning. Further researches need to be conducted to identify why faculty faces these barriers, and why they are not utilizing active learning strategies beside, positive perception for active learning. The study is only limited to one province of Pakistan; hence the findings cannot be generalized. However, the study can be replicated in other provinces of the country.

CONCLUSION

In conclusion, faculty members have positive perception for AL strategies beside different perceived barriers. AL strategies enhance development of knowledge and increase interactions and engagements of students. Different barriers including lack of support from administration, availability of resources and lack of faculty training were identified perceived barriers in utilization of AL strategies. Faculty members should be provided with essential training to increase the practices of different types of AL strategies.

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