

# Impact of Learner -Centric Instructional Approach and Comprehensive Assessment for Professionalism Among Nursing Students

Mini Simon M<sup>1</sup>, Tripti K Srivastava<sup>2</sup>

<sup>1</sup>Assistant Professor, CON CHAF, Bangalore

<sup>2</sup>Professor, Dept of Health Profession Education, Jawaharlal Nehru Medical College, Sawangi(M), Wardha

## Abstract:

Nursing professionalism refers to the behaviour of individual professionals, revealed through the interactions with patients or clients. Nurses have the responsibility to exhibit high level of professional values woven with sound ethical principles as per the needs of the society. Inculcating professional values in nursing education is essential to ensure the professional behaviour of the future nursing professionals. As the global trend of pursuing the clinical competence in nursing professionals, Indian nursing education lack learner centric approach in teaching learning and evaluating their professional skills. This research aims to evaluate the impact of learner centric instructional approach and comprehensive assessment for professionalism.

**Methodology:** Quasi-experimental method, pre - test & post- test study will be conducted. Pre- test on cognitive and attitude (Professional behaviour ) assessment will be done, prior to the randomization of students in two groups using lottery method. There will be 50 students in each group (P1&P2). P1 will be taught by conventional method (lecture method and roleplaying). P2 will be taught by learner centric approach by “2 minute to win game” and brainstorming (using Kahoot! app). Post- test will be conducted within three days of the intervention. Comprehensive assessment-360degree evaluation will be conducted to both groups after three months of intervention.

**Expected Results:** There will be significant difference in the cognitive, affective and professional skills learners who undergone learner centric instruction, i.e. “2 minute to win game ” and brainstorming (using Kahoot! app) . The 360 degree assessment method will provide the data regarding the robust approach of teaching and assessment of professionalism among nursing students.

**Keywords:** Professionalism, Learner Centric Approach, Kahoot!,Gamification, 360 degree evaluation, comprehensive assessment, Multi Source Feedback, Mini-CEX.

## INTRODUCTION

Professionalism is an integral aspect of any profession. Professionalism is a complex, multi-dimensional construct that varies across historical time periods and cultural context.[1] Professional behaviour of competent nurses are appreciated all over the world. Nurse professionalism is associated with the educational preparation of nurses. As a nursing student learns professionalism, they continue to practice the attributes of professionalism in the real world. During this process, the student nurses acquire professional standards and develop their own professional identity [2]

Teaching professionalism is a responsible and thoughtful situation where faculty need to provide opportunities to learn critical thinking, decision making, effective strategies to handle ethical dilemmas effectively [3]. Multiple Teaching learning activities emphasised on core values of professionalism, augmented with comprehensive evaluation methods is imperative to avoid punitive action in relation to the unprofessional behaviour in future.

As professionalism has multi-dimensional constructs, the assessment also should be at individual, interpersonal and societal level [4]. Applying Miller's learning pyramid, all three domains of learning to be measured while teaching professionalism.

Assessment is a driving force behind teaching learning activities. Evaluation provides the learners a chance to gauge their level of learning. No single tool will be catering to assess the professionalism of nursing professionals as its embedded various core values such as integrity, honesty, trust worthiness, morality & ethics, responsibility to society & profession, teamwork, competence, caring, compassion, insightful & self-aware, commitment, confidentiality, & Altruism [5]. 360 degree assessment or Multisource Feedback gives the opportunity to get the feedback to the students for formative evaluation. Multi Source Feedback is recommended to gauge the professional behaviour of nursing students in Indonesia, as it involves multiple assessor and provides feedbacks. [6]

An educational game is defined as an instructional method that requires the learner to participate in a competitive activity with pre-set rules. Gamification enhances the learning and improves long term retention of information [7]. Gamification approach in nursing education includes concepts and principles of adult learning, which motivate the learners to promote learning in edutainment. It was found In Iran, educational games is an useful approach to develop moral sensitivity in their professional environments. [8]

### **Operational definitions:**

**“Professionalism:** is the set of attitudes and behaviours that are believed to be appropriate to a particular occupation”

**Professionalism in nursing:** Professionalism is related to the quality of practice. According to Registered Nurses Association, Ontario [9], the attributes of nursing professionalism include “knowledge, spirit of inquiry, accountability, autonomy, advocacy, innovation and visionary, collaboration and collegiality and ethics.”

## **RESEARCH DESIGN**

### **Research Question**

Is a learner centric approach (two minute to win game and brainstorming) effective in teaching and assesment of nursing professionalism?

### **Assumption:**

1. There will be significant change in knowledge of students on professionalism through learner centric approach using minute to win game and brainstorming
2. 360 degree evaluation by different evaluators can be used as method of evaluation of professionalism

### **Hypothesis:**

**H1:** There is a significant correlation between knowledge on professionalism and professional behavior of students.

**H2:** There is a significant difference in knowledge of students on professionalism of students between

conventional and learner centric approach group

**H3:** There is a significant difference in professional skills of students between conventional and learner centric approach group

**H4:** There is a significant difference in evaluation of professional skills of students between conventional method (faculty evaluation) and 360 degree evaluation methods.

**H5:** There is a significant association between knowledge on professionalism with selected demographic variables.

**H6:** There is a significant association between professional behavior with selected demographic variables

**H7:** There is a significant association between professional skills with selected demographic variables

### **Aim**

The study aims to determine the effectiveness of a learner centric approach for teaching and comprehensive assessment method of professionalism among nursing students.

### **Objectives of the study are:**

1. To assess the knowledge on professionalism and professional behaviour of students.
2. To determine the correlation between the knowledge on professionalism and professional behaviour of students
3. To study the effectiveness of teaching programme on the knowledge of students.
4. To study the effectiveness of teaching programme by conventional method and learner centric method of teaching on the knowledge on professionalism.
5. To study the effectiveness of teaching programme by conventional method and learner centric method of teaching on the professional skills of students.
6. To determine the association of knowledge with selected demographic variables
7. To determine the association of professional behaviour with selected demographic variables
8. To determine the association of professional skills with selected demographic variables

### **Research Approach**

This research is to study the effectiveness of learner centric approach with conventional method of teaching.. The effectiveness of these interventions on other variables like knowledge on professionalism, professional behavior, professional skills will be assessed among the first year BSc nursing students.

### **The Research Design:**

It's a quasi -experimental pre-test post-test design. The first semester BSc (N) students of the college will be selected as P1=50 (conventional approach) and P2 =50(learner centric approach, ie two minute to win game and brainstorming ) as lottery method. A written informed consent will be obtained prior to the pre-test on professionalism. After pre-test knowledge on professionalism, and assessment of professional behaviour of both groups, the P1 group will be taught professionalism by conventional approach (lecture and role-play) for 10 hrs, the P2 group will be taught by learner centric approach (minute to win game and brainstorming) 10 hrs . Post-test on knowledge on professionalism will be conducted to both groups within 3 days of intervention. After 3 months of self-study and practice in clinical area, both groups will be undergoing 360 degree evaluation by Self-Evaluation, Peer Evaluation, Faculty Evaluation, Staff Evaluation, and Patient Evaluation.

### **Variables**

The following variables of study are:

1. **Independent Variable:** learner centric teaching approach , evaluation method

**2. Dependent Variables:** knowledge, professional behavior, professional skills.

**Population;** I<sup>st</sup> year Bsc (Nursing) students who are enrolled for 2021 will be recruited for the study.

**sampling technique**

**Probability sampling method-simple random method(lottery method ) was taken in this study to choose the control and intervention group.**

**Sample Size**

*Sample size will be calculated after estimating the effect size based on the pilot study based on the sample size equation for two-way repeated measures ANOVA as given below,*

$$n = \frac{2 \left( Z_{1-\alpha/2} + Z_{1-\beta} \right)^2 \sigma^2 [1 + (m - 1)\rho]}{m(d)^2}$$

Here,

$Z_{1-\alpha/2} = 1.96$  [at 5 % alpha]

$Z_{1-\beta} = 0.84$  [at 20% beta or 80% power]

$\sigma$  = anticipated SD (from the pilot study result)

$d$  = anticipated clinically significant difference

$m$  = no of repetitions

**Sample Size:** 100 students of first year BSc (N) students will be recruited for this study.

**Sampling technique:** out of 100 students in a batch, 50 students will be selected as control group(P1) by lottery method and remaining 50 students will be grouped as intervention group whom will be taught with 'miute to win game' and brain storming session.(P2)

**Inclusion criteria for the recruitment of study**

All Students Those Who Studying In First Year Bsc (N) Programme

**Exclusion Criteria Are**

Students those who are not having 100% attendance in the teaching session.

**Randomization**

Simple randomization technique used for allocation of participants to two groups using lottery method.

**Ethical Consideration**

The research study proposal was presented and approved by Institutional Ethics Committee and Doctoral Research Committee vide letter no DMIMS(DU)/IEC/2017-18/6938.

Students will be informed the study and voluntary nature of participation in the study. A written informed consent will be obtained prior to the study.

## **MATERIALS AND METHODS:**

**Study Setting:**

The study will be conducted in Radhikabai memorial CON, Datta Meghe Institute Of Medical Sciences, deemed to be university , Wardha, Maharashtra. The annual intake of students for BSc (N) programme is 100.College is attached with hospital which is1200 bedded equipped by advanced facilities like simulation lab, digital library etc

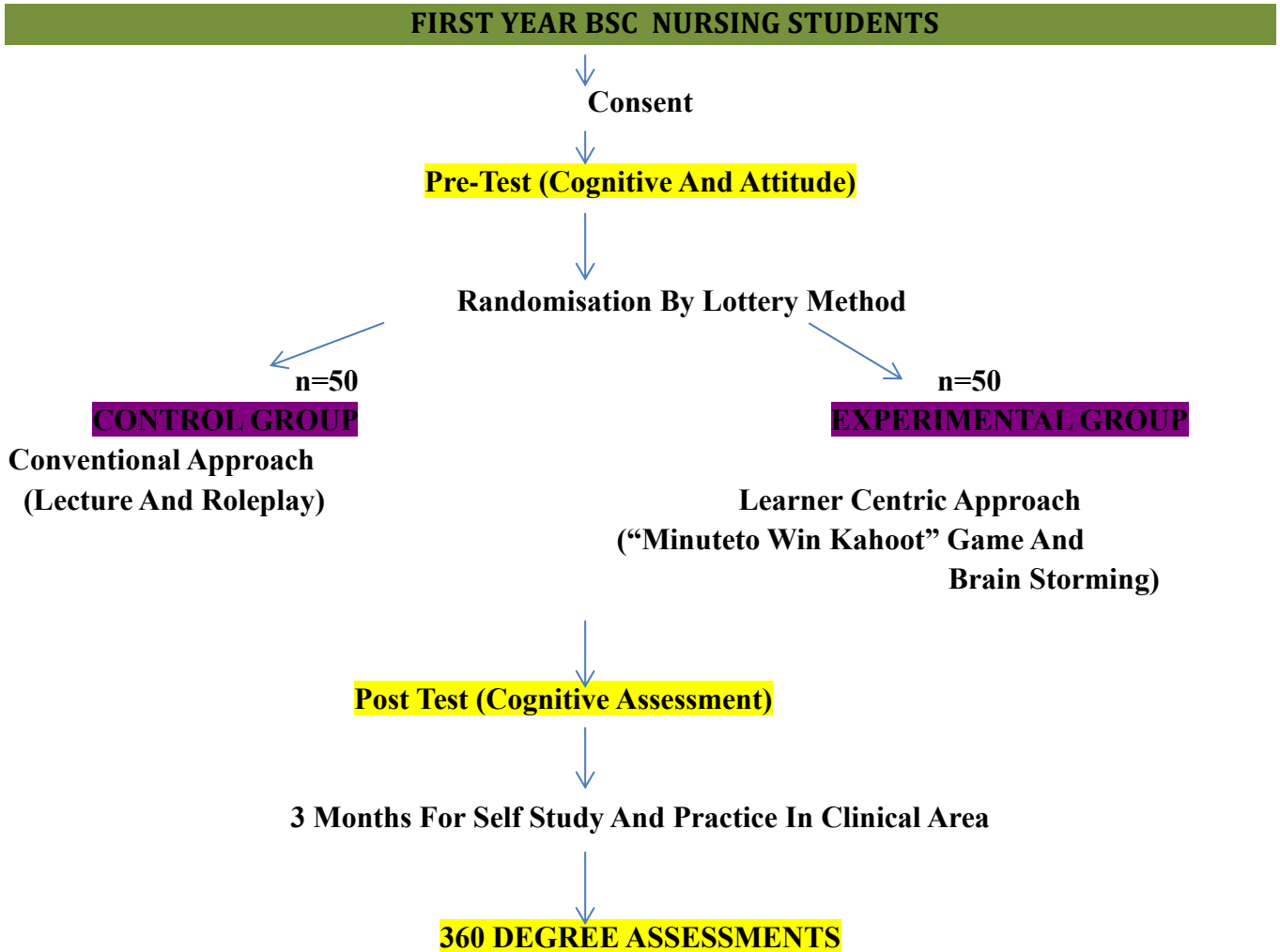
**.The tools which will be used in the study will be**

- 1. Demographic data of the students** which consists of 6 items
- 2. Knowledge assessment by Multiple Choice Questionnaire,15 items**
- 3. Attitude assessment by Nurses Professional Values Scale- R ,**Which consists of 26 items

4. **Professional skills will be assessed by Mini-CEX Tool by British Dermatological Nursing Group (BDNG)**, which is free and validated tool permitted to use in any settings.

The details of the study are illustrated in figure 1 and schedule of enrolment, pre-test, intervention, and post-test is detailed.

**Figure 1 flow diagram of the study procedure.**



1. Self evaluation
  2. Peer evaluation
  3. Faculty Evaluation
  4. Staff Evaluation
  5. Patient Evaluation- By Validated Questionnaire In Marathi
- BY BDNG-Mini-CEX**

**Data analysis plan:** All the categorical variables will be summarized using frequency and percentage. Quantitative variables are summarized using mean and SD if data follows normality, else using medical and IQR [Q<sub>1</sub> and Q<sub>3</sub>]. Chi square test/Fishers test will be used to check the significant difference in the frequency distribution of demographic variables between groups.

Chi square test/Fisher's test will perform to check is there any association between knowledge and attitude with demographic variables. Effect of intervention on both group will be studied using two-way repeated measures mixed ANOVA. Between group comparison will perform by means of Bonferroni pair wise comparison.

$p < 0.05$  is considered as statistically significant and the entire analysis is preformed using EZR software.

### Results:

The study will bring out the discernment on effectiveness of learner centric approach and assessment of students on the professional behaviour of students.

### Reference:

1. Mohamed LK, Dorgham SR, Eid WM. Experiences of professionalism attributes among undergraduates nursing students and nurses. *Evidence-Based Nursing Research*. 2020 Mar 1;2(1):80-91.
2. Black, B. P. (2016). *Professional Nursing: Concepts and Challenges*, 8th ed. St. Louis, Missouri: Elsevier, 52-60.
3. Modi JN, Anshu, Gupta P, Singh T. Teaching and assessing professionalism in the Indian context. *Indian pediatrics*. 2014 Nov;51:881-8.
4. van Mook WN. Teaching and assessment of professional behaviour: Rhetoric and reality.
5. van Mook WN, van Luijk SJ, O'Sullivan H, Wass V, Schuwirth LW, van der Vleuten CP. General considerations regarding assessment of professional behaviour. *European Journal of Internal Medicine*. 2009 Jul 1;20(4):e90-5.
6. Asmara FY, Santoso A. The effectivity of Multi Source Feedback (MSF) to assess Professional Behaviour (PB) of nursing students: An evaluation study. *Nurse Media Journal of Nursing*. 2015;5(2):101-8.
7. Castro MJ, López M, Cao MJ, Fernández-Castro M, García S, Frutos M, Jiménez JM. Impact of educational games on academic outcomes of students in the Degree in Nursing. *PloS one*. 2019 Jul 29;14(7):e0220388.
8. Maddineshat M, Yousefzadeh MR, Mohseni MA, Maghsoudi Z, Ghaffari ME. Teaching ethics using games: Impact on Iranian nursing students' moral sensitivity. *Indian journal of medical ethics*. 2018 Jul 14;4(1):14-20.
9. Registered Nurses' Association of Ontario (RNAO) (2007). *Nursing best practice guidelines program. Healthy work environments best practice guidelines. Professionalism in nursing*. Toronto, Ontario: Registered Nurses' Association of Ontario