“A study to develop problem based learning teacher training module and train the post graduate nursing faculty to evaluate the effectiveness of PBL on clinical knowledge and critical thinking ability among baccalaureate nursing students using the trained post graduate nursing faculty in selected nursing colleges”.

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ABSTRACT

Background of study
Nurses function in an ever changing rapid paced health care environment and are often confronted with complex and unique patient care situations. PBL is, essentially, a strategic learning system design, which combines several complementary educational principles for the delivery of instruction. The present study was conducted with an aim to develop PBL teacher training module and train post graduate nursing faculty in PBL and assess its effectiveness on clinical knowledge and critical thinking ability of under graduate nursing students.

Methods
The study was conducted in two phases. In Phase I, PBL teacher training module was developed using developmental approach and its effectiveness was tested with Pre experimental One group pre test post test design. Two days workshop on PBL was conducted using the PBL teacher training module for five post graduate nursing faculty. Structured knowledge questionnaire was used to assess the knowledge on PBL and Dolman’s short tutor evaluation questionnaire was used to assess the skill of faculty in conducting PBL.

In phase II, Quasi-experimental non equivalent control group design was used to assess the effectiveness of PBL on clinical knowledge and critical thinking ability of the students. All the students who are studying in B.Sc.Nursing II year programme study group(n=89) and comparison group(n=95) from two nursing colleges in Coimbatore district were the subjects selected using census enumeration method. Structured knowledge questionnaire and Cornell critical thinking scale- Z were used to assess the clinical knowledge and critical thinking score of nursing students. Then the students were divided into eight groups and PBL sessions were implemented weekly twice for the period of 10 weeks for ten selected topics in communicable and non communicable diseases by trained faculty in phase I along with researcher. The data was analyzed using descriptive and inferential statistics.

Results
In phase I, knowledge on PBL was assessed before and after PBL workshop. Mean knowledge score of faculty in pre test was 9.40±1.14 and improved to 18.60±1.67 in post test and found to be statistically significant at p<0.05 level. With regard to skill all five of them had a acceptable mean score of >3 in all five areas namely
Constructive, Self-directed, Contextual, Collaborative, Interpersonal and a global score of above >6. In phase II, in study group mean clinical knowledge score improved from 55.05 ± 9.53 to 68.18 ± 5.91 and the mean critical thinking score increased from 17.01 ± 3.47 in the pre test to 20.13 ± 2.44 in the post test after intervention and was found to be statistically significant p<0.001 level. In comparison group mean score increased from 52.58 ± 11.39 to 53.60 ± 14.90 for clinical knowledge and 16.61 ± 4.53 to 17.00± 4.44 for critical thinking but it was not statistically significant. There was a positive correlation r=0.230 and was significant at p<0.05 level between the pre clinical knowledge and pre critical thinking score of both the groups. In case of post test clinical there were no statistically significant difference noted in pre test clinical knowledge and critical thinking score of study and comparison group knowledge and critical thinking there was a positive correlation r=0.317 and was significant at p<0.001 level. There is an association between the Medium of instruction in higher secondary education and pre clinical knowledge score of the students. Students studied in English medium scored higher than Tamil medium students (.033, p<0.05). Similarly critical thinking score of the students is associated with fathers occupation (.002, p<0.05).

Conclusion
The study concluded that PBL is a small group innovative teaching strategy effective in improving the clinical knowledge and critical thinking ability of the students. Faculty are to be trained sufficiently to facilitate PBL session.

Keywords
Problem Based Learning(PBL), PBL teacher training module, Training, Knowledge, Clinical knowledge, Critical thinking, Nursing students, Post graduate nursing faculty