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A Correlational study on interpretive ability of common blood investigations and critical thinking among nursing students of a selected College of Nursing, Udupi District.

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"ABSTRACT

Florence Nightingale (1860) opined that observation and interpretation were hallmark of Nursing practice. Interpretive ability of common blood investigations not only allows nurses to rule out patients' diagnosis but also supports the examination of widespread possibilities. Interpreting laboratory findings is a crucial part of nursing function as nurses confront patients' blood investigations before treating physician. Therefore, Ms Norine Veera conducted A Correlational study on interpretive ability of common blood investigations and critical thinking among nursing students of a selected College of Nursing, Udupi District.

The study intended to determine the critical thinking ability among nursing students, which will yield information on mastery of higher learning skills such as understanding, reasoning, logical thinking and problem solving. And to find the correlation between critical thinking and interpretive ability of common blood investigations.

The objectives of the study were to:

 assess the interpretive ability on common blood investigations among B.Sc.Nuring students using interpretive exercises on common blood investigations.

 assess the critical thinking among B.Sc Nursing students using Yoon's critical thinking disposition

 determine the relationship between interpretive ability and critical thinking among B.Sc Nursing students

A survey was conducted among 140 nursing students from 3rd year and 4th year B.Sc. Nursing from Manipal College of Nursing, Manipal using non probability purposive sampling technique. The conceptual framework for the study was adopted from Modified Tanners clinical judgement model.

Data were collected using demographic proforma, interpretive exercises on common blood investigations developed by the investigator and Yoon's critical thinking disposition inventory developed by Yoon with established validity and reliability (r=0.9).

The content validity of the two tools were established by giving the tools to seven experts and modifications were made based on the suggestions. All three tools were pre-tested and reliability was established. The reliability of the interpretive exercise tool was established by using split half method (r=0.723). The reliability of the Yoon's critical thinking disposition inventory was checked for present research setting by Cronbach's alpha and found reliable (r=0.8).

The study findings were analysed using SPSS 20.0. The analysis of the data showed that majority (57.1%) of the students were from 3rd year B.Sc Nursing and 60% of the students were of the age group between 21-22years. Academic performance of majority of the students' were within the range group of 50-64 in five subjects.

Interpretive ability of students on common blood investigations was assessed using structured interpretive exercises on common blood investigations. Interpretive ability scores were not following normality and the median of interpretive ability score on common blood investigations was 13 and the interquartile range of 25th and 75th percentile were 11 and 14. The maximum score obtained by the students was 22 and minimum score was 4 by both the batches.

The interpretive ability scores on common blood investigations were estimated in six areas of investigations namely complete blood counts (4 items), renal function test (5 items), serum electrolytes (4 items), liver function test (3 items), lipid profile (5 items) and arterial blood gas analysis (5 items). It was found that 52.20% of the students recognized 51-75% of the liver function test abnormal findings and 33.60% of the students interpreted 51-75% of complete blood counts abnormal findings.

The mean critical thinking score of nursing students was 96.0 and the standard deviation 9.537. The maximum score obtained by the students' was 123 and minimum score was 64. The 3rd year B.Sc Nursing students mean critical thinking scores were 96.4 (SD 7.63, Range 47), whereas that of 4th year students was 95.6 ((SD 11.7, Range 59). By scale, the students scored highest in Intellectual eagerness (Mean 18.58, SD 2.6) and lowest for systematicity (Mean 10, SD 1.6).

There was a weak positive correlation between interpretive ability on common blood investigations and critical thinking, however, it was statistically not significant (r= 0.141, p=0.096). Similarly, there was a weak positive correlation between interpretive ability on common blood investigations and intellectual curiosity (r= 0.181, p=0.032) and intellectual fairness (r= 0.174, p=0.039) which were statistically not significant. However, there was significant association between interpretive ability on common blood investigations and academic performance of the subjects (F=4.5, p=0.012).

The study limitations were that purposive sampling technique was used and the clinical exposure for the students was not similar. Interpretive exercises can be used to stimulate critical thinking among Nursing students.

Although there is little evidence on interpretive ability on common blood investigations present study adds to the evidence on interpretive ability on common blood investigations and its relatedness to critical thinking. Evidence based nursing practice requires utilization of critical thinking skills during the bedside care of the patient.

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