Student Nurses' Knowledge and Practice on Performing and Interpreting Electrocardiography: A Cross Sectional Study

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ABSTRACT

Introduction: In clinical settings, nurses are often the first to be called upon to perform ECG procedures and as such, it is imperative nurses can interpret and immediately report basic anomalies in electrocardiograms. In Universiti Malaysia Sabah (UMS), although student nurses are taught ECG both in theory and hands-on learning through simulation, there is no study examining the extent of student's knowledge-skill retention regarding ECG. This study is to determine the learning attitude, level of knowledge and skill retention on electrocardiography among student nurses in UMS. **Methods:** A study entails a descriptive cross-sectional design. Nonprobability purposive sampling was used, where 100 (N) nursing students (2nd year n=50, 3rd-year n= 50) with selection criteria of respondents with prior learning on ECG were recruited for the study. A validated questionnaire (Cronbach α=0.81) benchmarked from a previous study was used to assessed learning attitude, level of knowledge and practice (skills) regarding ECG. **Results:** 85% (n=80) of the student nurses in this study had good to fair level knowledge and 15% (n=15) scored poor level of knowledge regarding ECG. With regards to practice competency, 87% (n=87) had fair to good level and 13% (n=13) scored poor skill level regarding ECG. Learning attitude towards ECG was positive among 88% (n=88) with 12% having a negative stance on readiness towards learning ECG. Sub-analyses showed a strong positive correlation between knowledge on ECG and practice (r=0.64). **Conclusion:** There is fair to good learning attitude, knowledge, and practice competency regarding ECG among the majority of nursing students in this study but a small cohort of students in this study have competency deficit regarding ECG. The deficit may compromise their ability to report critical anomalies present in patient electrocardiograms and there is a need to address this knowledge- practice gap.

Keywords: Electrocardiography Competency, Student Nurses