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Selected indicators of correctness of the pre-laboratory phase in nursing practice

SUMMARY

Introduction. The requirement of the correct diagnostic process, which consists of a pre-analytical, analytical and postanalytical stage, is the high quality of laboratory test results that provide an effective and rapid tool for evaluating human health. Nevertheless, literature data indicate that most errors occur in the pre-analytical phase. They deal with the preparation of the patient for analytical studies, biological material collection techniques, proper use and description of samples, storage and transport of collected material and biological factors affecting the reference values such as age, gender, daily rhythm, pregnancy, body position, diet, physical activity, stress, medication, smoking, alcohol and drugs. The mistakes made at this stage involve the risk of exposing the patient to further extended diagnostics, which can cause physical and mental discomfort. The skills and knowledge of nursing staff play a crucial role in eliminating these abnormalities. Making a conscious effort, providing the highest standard of service, according to current medical knowledge by nurses contributes to obtaining reliable and reliable laboratory test results.

A confidence in self-efficacy significantly influences motivation to work, the desire to acquire knowledge as well as to improve skills and use them in a day-to-day professional practice. The self-efficacy is one of the essential mechanisms of self-regulation of human behaviour, mobilizing internal resources to meet situational demands. A trust in self-efficacy enhances perseverance and effectiveness in action, and the effort put into achieving the goal.

Aim. The aim of this study was to analyse selected indicators of correctness of the pre-laboratory phase in nursing practice as well as the correlation of the nursing staff knowledge on the collection of biological material and the self-efficacy of the analysed group.

Material and methods. The research was conducted from May 2017 until July 2017 among 825 nurses employed in the hospital surgical departments (408) and non-surgical departments (417) in three medical centers in Radom.

The diagnostic survey method was used in this study. The research technique used consisted of a questionnaire and the following research tools were used:

- A survey questionnaire with a set of socio-demographic questions and 30 substantive questions that verify the knowledge of nursing staff on correctness of the pre-analytical phase,
- The Generalized Self-Efficacy Scale (GSES) including 10 statements, helping to measure the strength of a person's overall belief in the effectiveness of coping with difficult events and motivation to acquire knowledge.

The obtained results were analysed statistically using statistical package STATISTICA 10PL.

Results. The knowledge of nurses about the collection of biological material is insufficient. The greatest knowledge deficit concerns the preparation of the patient for analytical studies, and the smallest in terms of technique of collecting material. The main source of information was the laboratory staff and participation in thematic trainings. The vast majority of nursing staff have received high marks in the GSE scale, with more than 10% in surgical departments. The nurses who assessed their knowledge as insufficient, also had a lower self-efficacy rating.

Conclusions. There is a deficit of knowledge about the collection of biological material among the studied population. The level of knowledge depends mainly on participating in trainings concerning correct performance of the pre-analytical phase. Nurses' sense of personal effectiveness (GSE) is high and depends on education, involvement in various forms of postgraduate education, especially participation in courses about collecting biological material. There is a significant correlation between the sense of self efficacy and the presented knowledge. The stronger the GSE, the higher the level of knowledge.