

# Evidence based practic- incentive spirometry

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Evidence based practice- Incentive Spirometry Introduction Research defines scientific investigation that aims at developing knowledge for bridging knowledge gap or for solving an identified problem. The approach has been implemented in nursing to develop evidence from which practitioners can refer to, when solving nursing problems. This paper discusses evidence based practice, as applied in nursing. Definition of evidence based practice

Evidence based practice, according to Sackett, is the “ conscientious, explicit, and judicious” application of contemporary and best evidence to inform care decisions over a patient (Duke University, 2013, p. 1). The definition implies incorporation of best practices, which empirical studies have established, with a nurse’s expertise and values of a patient, to optimize offered care and identifies four elements. The first element is the patient’s conditions that needs care, the second element is the “ patient’s goals, values, and wishes” and the third element is established evidence in the scope of the patient’s problem (Drisko, 2011, p. 1). The practitioner’s clinical competence is the fourth element that defines evidence-based practice (Drisko, 2011).

Identified nursing intervention and significance of determining best practice in the intervention Usage of Incentive Spirometry is the identified nursing intervention. Incentive Spirometer is a device that aids respiration through visual and audio feedback. Many reasons exist to suggest significance of best practice in application of Incentive Spirometer. High number of patients that need the intervention means that a necessity because up to 88 percent of patients who receive operations on their upper abdomen may require the intervention. Efficiency needs in the nursing profession towards patients’ well being and respect for patients’ goals and values identify the need for

practitioners' determination of best practice (Jayasekara, 2013; Drisko, 2011). Current state of knowledge and evidence for the identified nursing intervention Literature has been developed on Incentive Spirometry. Reports on its significance explain that a majority of patients needs the intervention after their upper abdominal operations. Further, complications whose operations may require application of Incentive Spirometer are also known and include "atelectasis, pneumonia, respiratory failure, and tracheobronchial infection" (Jayasekara, 2013, p. 1). The intervention has also been applied as a preventive measure against pulmonary problems following operations. In abdominal surgery, Incentive Spirometry, like chest physiotherapy, is suitable for managing patients' conditions. A study established that the intervention is not effective to managing some surgery such as cardiac surgery. The intervention is also not effective in "reducing pulmonary complications" and in "decreasing negative effects of pulmonary functions" in patients after coronary artery operations. "Post abdominal surgery and lung expansion" have reported significant benefits from the intervention because of the intervention's scope that require little energy input (Jayasekara, 2013, p. 1). Evidence also establishes the intervention's freedom from complications and patients' longer stay in care facilities as a result of the application. Similarly, the intervention is as safe as physiotherapy with respect to complications following pulmonary surgeries. Evidence that support the use of Incentive Spirometry is however, limited and this identifies the need for practitioners' rationale (Jayasekara, 2013). Incorporation of the evidence into the care of my patient in the clinical unit The evidence was assimilated into care of a patient who had a heart surgery

and extensive use of anesthesia during the surgery. The patient reported very short breaths and required aid to empower her lungs. Research was made into suitability of Incentive Spirometry and physiotherapy and the ease of application of the Spirometry prompted its application. The intervention was also safe and the patient could use it, independently, and based on her respiratory needs. The usage yielded positive results as the patient got relief from the application. The application also yielded no adverse effects on the patient. These results are consistent with the evidence-based findings that identify effectiveness of the Incentive Spirometry, just like alternative interventions, and its safety. The patient's ability to use the intervention on her own is also consistent with evidence based practice findings that application of Incentive Spirometry is not demanding (Jayasekara, 2013). Next steps needed in the research process for the identified nursing problem Existing evidence supports effectiveness of the intervention in post operation cases and suggests its safety. The evidence however lacks significant level of quality that can inform nursing decision and this identifies a knowledge gap in effectiveness of the intervention and its safety. Steps into an empirical study are therefore necessary to ascertain effectiveness and safety of the intervention. Determination of a suitable research method and quantitative method with experimental design is recommended, sampling research participants, and randomly grouping the participants into treatment and placebo groups are the initial steps. Offering the intervention to the treatment group and no treatment to the placebo groups would then follow and data taken on the participants' respiratory potentials and potential complications. This would

generate information for validating the current evidence on application of Incentive Spirometry (Denise and Beck, 2013). References Denise, P. and Beck, C. (2013). Essentials of nursing research: Appraising evidence for nursing practice. Philadelphia, PA: Lippincott Williams & Wilkins. Drisko, J. (2011). Evidence-based practice. Smith College. Retrieved from: [http://sophia.smith.edu/~jdrisko/evidence\\_based\\_practice.htm](http://sophia.smith.edu/~jdrisko/evidence_based_practice.htm). Duke University. (2013). What is evidence-based practice (EBP)? Duke University. Retrieve from: <http://guides.mclibrary.duke.edu/content.php?pid=431451&sid=3529499>. Jayasekara, R. (2013) Chest physiotherapy: Incentive Spirometry (Triflow). The Joanna Briggs Institute.