

THE USE OF DISPOSABLE AIDS IN HYGIENE CARE

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Abstract

The need for purity belongs to the human needs. Evidence Based Nursing (EBN) is applied even in basic nursing work through the implementation of Evidence Based Practice (EBP).

Objective: To determine whether disposable hygiene aids are used within the EBP in hygiene care.

Methods: We used quantitative research using interviews, by means of questionnaires of our own design based on a theoretical knowledge of literature and database resources. From a total of 25 questions in the questionnaire, for the purposes of this paper we used only 5 questions related to education in the areas of information sources retrieval including EBN, experience and the use of disposable aids for hygiene care. Data collection took place between February and March 2016.

Results: The research showed that disposable aids for hygiene care recommended by EBN are not often used by nurses. Nurses do not have these aids available in their departments or do not know about their existence.

Conclusion: In hygiene care provision, nurses follow the standards used by local departments, they use the knowledge gained during the qualification studies, and act according to the customs of their departments. The results show that nurses are not used to hygiene care disposable aids that conform to the recommended requirements of EBP. Unavailability and lack of knowledge of the latest aids for hygiene care are obstacles to the implementation of good practice (which means recommended EBN requirements). The education of the respondents has no significant effect on the use of EBP.

Key words: Evidence Based Practice (EBP); disposable hygiene aids; education of nurses; quality of care

INTRODUCTION

Since 1990, there has been a shift in the global understanding of what constitutes good health care. This corresponds with the emergence of Evidence Based Medicine – EBM, advances in medicine, information technology and Nursing Based on Evidence (EBN – process based

on the total of interpretation, evaluation and inclusion of significant and clinically applicable research). Nelson (2014) notes that this shift reflected a sharp increase in the discussions on the new concept for nursing literature, including good practice (activity of nurses who make decisions based on the latest evidence from research, their professional knowledge,

skills, needs and the preferences of patients). According to Dalheim et al. (2012) EBP requires the taking of professional decisions based on a systematic gathering of evidence, which is drawn from research and experience. These decisions are applied according to the patients' wishes and needs in particular situations, even in the provision of hygiene care. This means that it is not professional to implement hygiene care in the same way as in previous decades. The approach, known as EBP, is very important to ensure that nurses provide their patients the best care and the best quality in all aspects of a holistic approach. We encounter a commitment to provide nursing care on the basis of good practice not only in legislation; the Concept of Nursing (Ministry of Health 2004, p. 7) states that *"to conduct research and use its results is one of the conditions of the development of evidence-based practice. It allows for the provision of high quality nursing care based on evidence"*, but also in the Code of ethics for nurses (ČAS 2003) and last but not least, in the original textbooks for modern nursing, such as Lemon 1: study texts for nurses and midwives (1996), Patients' rights (Haškovcová 1996), Nursing (Kozierová et al. 1995). These are the primary sources that appeared at the beginning of the transformation of nursing education in the Czech Republic after 1989. Their content and meaning, despite its age, is still relevant, but in Czech nursing practice it is less widespread than abroad, although good practice is also highlighted in contemporary Czech literature. Good practice refers to clinical practice, treatment and interventions that lead to the best outcome for both the patients and healthcare facilities which provide these services (Best practices ... 2007). The evidence from the research carried out focuses on ensuring hygiene care to patients and recommends, inter alia, the use of disposable, packaged equipment including sinks, washcloths, cleaning products with a balanced pH, skin softeners and aids for cleaning without the use of water (AACN 2013, Veje and Larsen 2014, Schoonhoven et al. 2015). The reason for using these aids is to reduce the incidence of infection, and for the protection and comfort of patients. Equally important is the benefit for nurses, because the time required to care for the equipment is reduced.

The need for personal hygiene may seem a very simple operation at first glance, but sometimes it can be a very difficult performance that requires plenty of time and patience (Workman and Bennett 2006) and carefulness. Procházková (2013) emphasizes that badly executed and secured personal hygiene care of the patient, despite a precise adherence to all other procedures, might cause health and psychological complications to patients, including a prolonged hospital stay, and thus might cause an obvious increase in the cost of treatment. Within EBP hygiene, nurses have space for personal, individualized care and an opportunity to interview their patients in order to encourage them (Workman and Bennett 2006). The procedures of hygiene care during hospitalization vary depending on the patient's condition (Kříšková et al. 2006). The nurse must take into account that the dependency on hygiene care is mainly connected with limited ability of movement of the patient (Fonseca et al. 2015). Cichá and Orságová (2006) focus on the fact that in any nursing, therapeutic or diagnostic intervention, including hygiene care, it is important to respect the intimacy of each patient.

The aim of our paper was to determine whether within the EFT implementation, disposable hygiene products are used to provide hygiene care and the knowledge that nurses have on the recommended hygiene care disposable aids.

We surveyed:

- the extent to which EBN is a predominant source of information to provide hygiene care over the information obtained at school during the qualifying education;
- the extent to which EBN is a predominant source of information to provide hygiene care over the information obtained from local standards of the department where the respondents work;
- the extent to which EBN is a predominant source of information to provide hygiene care over the information obtained by means of the customs of the departments where respondents work;
- how nurses use disposable aids that are defined by EPB for hygiene care;
- how the education of nurses affects the use of the latest aids for hygiene.

MATERIALS AND METHODS

To fulfil the objectives of the work using quantitative research, we used the interview method by means of questionnaires of our own design that we addressed to 165 general nurses working on hospital wards in Southern Bohemia. The return rate was 81%. Thus the research sample was represented by 134 respondents. From a total of 25 questions in the questionnaire, only 5 of them were assessed for the purposes of this paper. These questions rank the use of information sources, including EBN, experience and routines in hygiene care and the use of aids for this nursing activity. The questions were specifically directed to the use of disposable hygiene products relating to individual sinks, disposable cleaning supplies, and disposable washcloths with antibacterial properties. The respondents could choose one of the suggested possible answers. The distribution of the questionnaire was based on personal delivery. The questions about hygiene care were based on the knowledge of foreign authors and their research, for example Best practices ... (2007), Gardiner et al. (2008), Ayello and Shibbald (2012), AACN (2013), Pols (2013), Veje and Larsen (2014), Burton and May Ludwig (2015), Fonseca et al. (2015) and also Czech sources, which provide information on the provision of hygiene care such as the nursing process, Kozierová et al. (1995), Křišková et al. (2006), Klevetová (2008), Vytejšková et al. (2011), Jirkovský et al. (2012), Nikodemová (2012), Procházková (2013), and Pospíšilová and Tóthová (2014). The EBN area was included with respect to the topic of the research, where the lack of the respondents' awareness of the importance of EBN would not allow the use of this method in practice. All participants in the survey were informed and assured of anonymity in the processing and presentation of the results. Before the questionnaire was distributed, a partial study was carried out to verify the clarity and the appropriateness of the wording of the questions. The survey was conducted during February and March 2016.

RESULTS

The research group is mostly represented by the age group 31–40 years (33% of the respondents), 29% of the respondents were aged 21–30 years, and the respondents aged 51–60 years represent 21%. The least represented age category is 41–50 years (17%).

Most respondents (42%) worked for 20 or more years, 35% of the respondents worked for 5–9 years and 11% worked for 15–19 years. Less is represented the group of the respondents working up to 4 years (7%) and 10–14 years (5%).

49% of the respondents achieved qualifications in nursing at a secondary medical school up to 2007, 37% got a bachelor's degree at a university, 11% at a vocational school as a qualified nurse, and 3% of the respondents achieved a master's degree.

The respondents could choose from several options to determine what resources they use to get information on the provision of disposable hygiene care aids (Chart 1). We received 206 responses. 66 respondents follow the knowledge gained during their studies and 64 respondents follow a local hospital standard. Also 66 respondents act in accordance with the practices of their departments. However, these practices are unclear as well as the fact of whether it is possible to evaluate such an approach as good. The last option was "a procedure according to the latest available evidence – EBN" which was selected by 10 respondents.

In case of the question about the use of disposable washbasins, recommended by EBN, only 1% of the respondents confirmed their use, while 84% of the respondents do not use this sink because it is unavailable. Two percent of the respondents do not use it because they prefer using washable washbasins (Chart 2). 13% of the respondents do not know about the existence of this aid. It is possible that the respondents who said they were using disposable washbasins meant that they had one washbasin for one patient, which nobody else was using – as an individual aid during hospitalization.

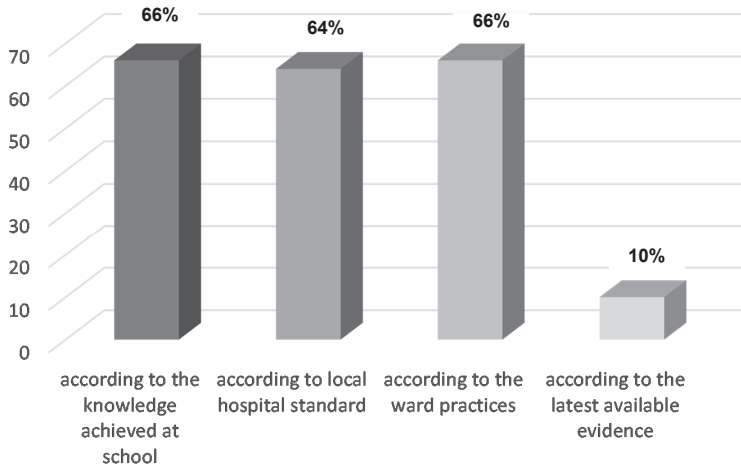


Chart 1 – Sources of information on the provision of hygiene care with disposable aids

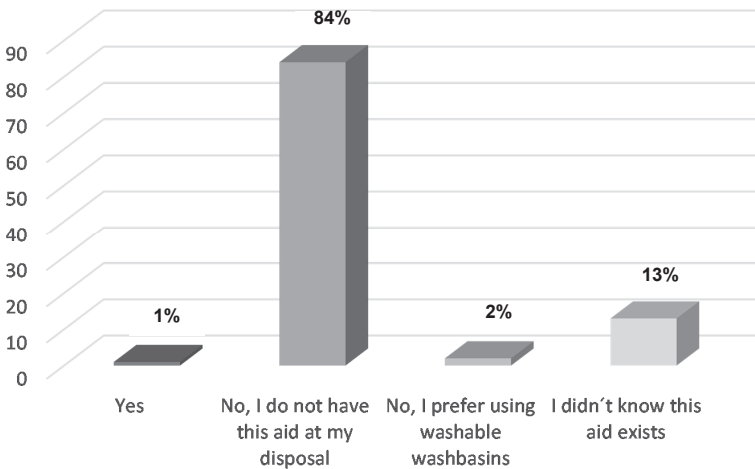


Chart 2 – Use of disposable washbasins

Although the positive response rate is higher, the situation about the use of rinse-free detergents in hygiene care for patients is similar to using disposable washbasins. These means of hygiene care are used by 50% of the respondents (Chart 3); 40% of the respondents do not use them because they do not have this kind of aid, and 4% of the respondents do not use them because they prefer using other detergents. We did not investigate the reasons the respondents have for using other means, or how they understand the term rinse-free

detergent. 6% of the respondents did not know about the existence of this aid.

Apart from rinse-free detergents, disposable washbasins are the least used modern EBN-based appliances – only 1% of the respondents use them and 11% of the respondents use disposable washcloths containing antibacterial solution without soap and water. 79% of the respondents said: “No, I do not have this aid available.” 3% of the respondents said: “No, I prefer using soap and water”, and the last option “I did

not know that this aid exists” was reported by 7% of the respondents. Although wet tissues are becoming a common issue in civilian life,

it is not yet the case for using similar aids for patient hygiene (Chart 4).

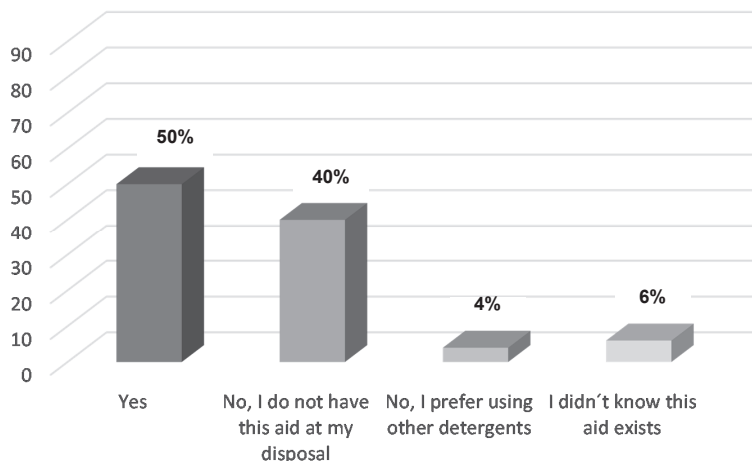


Chart 3 – Use of rinse-free detergents

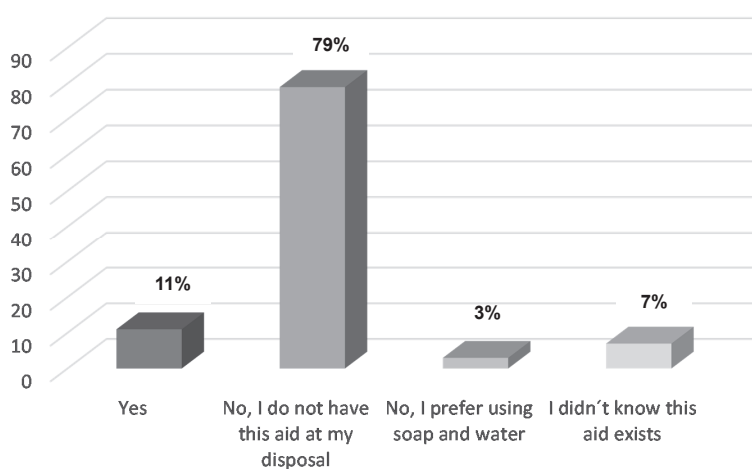


Chart 4 – Use of disposable washcloths containing antibacterial solution

DISCUSSION

Evidence-based practice enables the best use of research results, whether for a particular patient, the supervision of nursing practices and the principles of their implementation, or for teaching students about good practices and good practice approaches (Doshier 2007).

The “hygiene care” nursing process is not new. Procházková (2013) stresses that health

care has been provided to the patient since ancient times, but it is still a procedure that is unavoidable and indispensable in providing good care for our patients. Good practice is the activity during which the nurse decides on the interventions provided on the basis of the latest research evidence, according to her expertise and qualifications, taking into account the needs and preferences of the patient. It is also of course related to the

provision of hygiene care. That's why we tried to find out the situation in the real-world environment of patients who are receiving this care.

Zeleníková and Jarošová (2013) report that in recent years, increasing emphasis has been placed on providing patient-centred care based on the best available evidence in order to improve clinical practice. However, according to the latest available evidence, only 10 of the 134 respondents (see Chart 1) perform the hygiene care. This result is strongly influenced by the respondents' age, when 1/5 are aged 51–60 and also by the fact that less than half of them (42%) have been working for 20 or more years. Less than a half of the respondents achieved their qualification prior to 1989. Therefore they did not have the opportunity to learn about the EBN. We assume that current standard procedures are based on evidence, and that these standards are used at university or during other tertiary education. It is striking that the same number – 66 respondents (Chart 1) use routine procedures, local standards, and knowledge acquired in qualifying education. We did not check whether EBN was included in the above procedures, but if only 10 respondents indicated that they were choosing a procedure to perform hygiene care based on EBN, we can assume that other respondents do not work like that. It is possible that the management of the respective departments do not require the EBN or there appear to be organizational and financial problems in the workplace, such as a high number of assigned patients per nurse. In the sample of 134 respondents, only 40% of them are graduates of universities with EBN in their curriculum. Without the theoretical knowledge of EBN, it is not possible to provide good practice. Therefore, we can state that EBP is not used to carry out the nursing process of hygiene care. Charts 2–4 show obvious reasons why nurses cannot use good practice: the absence of recommended aids at the departments and the fact that the respondents do not know them.

New technologies and new materials offer various aids for EBP in nursing care, which reduce the possibility of nosocomial infections. Therefore they are suitable for providing barrier care (Melicherčíková 2015) and are beneficial to the patient. Disposable aids do not require post-use care, are

disposed of or destroyed in hospital waste macerators and are environmentally friendly. That is why we have dealt with hygiene care aids recommended for EBN in literature. According to the American Association of Nurses (AACN 2013), intensive care includes patients' bathing, based on evidence of the use of disposable wash basins and rinse-free detergents and towels. Disposable washbasins are used by only 1% of our group (Chart 2). The problem is probably that 84% of the respondents said they do not have this aid at their disposal. Traditionally and historically used aids, such as plastic wash basins, towels, washcloths and soaps, are currently being replaced by disposable aids. According to Veje and Larsen (2014) bathing should improve hygiene, displace microbes and reduce the potential for infection. However, the washbasins used may be a reservoir for bacteria. In the case of mechanical friction of the skin, its flora is released into the sink and this can be a source of contamination from one person to another. Another possible reason for the sink contamination is that it is not dried enough after use, by hand or in a dishwasher, and thus it becomes a nutrient soil for pathogenic organisms and fungi. Studies show that soap and water can have a direct impact on the skin and pose a number of threats to skin integrity and skin barrier functions (Veje and Larsen 2014). The risk increases with insufficient drying.

Rinse-free detergents are used by 50% of the respondents (Chart 3), but in this case 40% of them do not have this tool at their disposal. Using pH-balanced, rinse-free cleaners is more gentle than using alkaline soaps (AACN 2013). Even so, after each bath, it is advisable for the nurse to treat the patient with skin softener so as to prevent skin dryness, rhagas and infections (AACN 2013). Some agents also contain an oil component that prevents drying and has a softening effect. However, we are not convinced that we perceive the rinse-free agents in the same way as the respondents. Do they use detergents firmly labelled as "rinse-free", i.e. they are not to be rinsed in the instruction manual or do they add any detergent into water and do not rinse it out after use? It is always necessary to become familiar with the new aid before use in order to get its recommended and proven effects.

Veje and Larsen (2014) and Schoonhoven et al. (2015) agree on the benefit of other evidence-based aid-disposable washcloths containing antibacterial solution without the use of soap and water. Also a small number of the respondents, only 11% (Chart 4), use this aid and, as in previous cases, 79% do not have this tool available. Even here we can state that EBP is not applied in hygiene care within the nursing process. A study by Schoonhoven et al. (2015), which compares traditional hygiene care with soap and water and the use of a disposable, waterless washcloth, pointed out that the differences between these techniques are not so significant. Washing without water and traditional hygiene care have similar effects in the presence of skin lesions such as intertrigo, dermatitis and candidiasis. Yet, washing without water slightly protects against these skin lesions. Comparing the cost of the respective techniques was also more or less similar. Washing without water can generally be a very effective alternative to traditional hygiene care. When using a waterless cloth, it is not necessary to dry the skin. Otherwise, it is necessary to use a towel. Currently, hospitals do not usually have towels available. They were replaced by paper towels for hands. They cannot be used after a bath. For this purpose, bed linen and personal belongings are used, which is not effective, ethical, aesthetic, friendly or economical. Another option is to use towels that the patient brings to the hospital. The problem, however, occurs when the patient is taken acutely without their personal belongings or when hospitalization is longer and the family of the patient will not bring more towels for replacement. Drying towels on heaters also no longer corresponds to the barrier approach to prevent the spread of infections. If the towel is not dry, the skin cannot be dried sufficiently and this can cause damage to the patient, such as soreness or infection.

The answer to the research questions we received was that nurses most often use theoretical knowledge gained during their studies at school, or follow the practice of the department, or perform hygiene care according to standards, but a minimum number of the respondents use the latest available evidence to provide good practice.

Financial costs of care are a priority for hospital management. This may also be

the reason why these disposable aids are not available in the departments. However, EBN offers economics balance sheets as well as cost of disinfection, washing, treatment of complications caused by nosocomial infections (Kleinpell et al. 2008). While “Putting patient first” is a common motto of hospitals, their comfort and safety should be ensured also in hygiene care.

Nowadays, the lack of nurses in the health care system and the lack of time for care is a big issue in the nursing profession. The use of disposable aids saves time that nurses would otherwise have to spend on helping and drying the skin while using water. An essential aspect for improving patient safety and quality of health care is to improve the working environment. An educated workforce in nursing who promote evidence-based care and a good working environment ensured and supported by quality management are a guarantee of high-quality care. This, of course, also relates to evidence-based nursing (ICN 2014). Aiken et al. (2012) in their study describe that the number of nurses and the quality of the work environment are significantly associated with patient satisfaction and high-quality and safe care.

Good practice is a phenomenon of the present time and also affects nursing disciplines – thus, the realization of the nursing process of hygiene care (Jarošová et al. 2015). This may also be related to the fact that the introduction of a change in clinical practice is sometimes difficult. Jarošová and Zeleníková (2014) state that the implementation of evidence-based practice is strongly influenced by institutional and clinical factors that may act as facilitators to assist the implementation process or, on the contrary, as barriers that hamper this process. Such results indicate what direction efforts should be made to benefit patients in the area of education, practice and the management of care improvement and improving the image of nursing.

CONCLUSION

To provide hygiene care, nurses use local department standards, knowledge acquired during their qualification studies, and also follow the practices of their departments.

The results show that nurses do not use disposable aids for hygiene care that meet the recommended EBP requirements. The unavailability and ignorance of the latest hygiene care aids is an obstacle to good practice, i.e. to the recommended EBN requirements. The education of the

respondents does not have a significant effect on the use of EBP.

CONFLICT OF INTERESTS

The authors have no conflict of interest to disclose.

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