Literature Review

TEXTO & CONTEXTO ENFERMAGEM
TEXT & CONTEXT NURSING TEXTO & CONTEXTO ENFERMERÍA

NURSES' BEST PRACTICES IN THE MANAGEMENT OF FECAL INCONTINENCE IN THE HOSPITAL CONTEXT: AN INTEGRATIVE REVIEW

Alice da Silva[1]
Allyne Quaresma Costa[1]
Daniel de Macedo Rocha[2]
José Wicto Pereira Borges[2]
Elaine Maria Leite Rangel Andrade[2]
Francisca Tereza de Galiza[3]
Cláudia Daniella Avelino Vasconcelos[1]

[1]Universidade Federal do Piauí. Teresina, Piauí, Brasil.
[2]Universidade Federal do Piauí, Programa de Pós-graduação. Teresina, Piauí, Brasil.
[3]Universidade Federal do Piauí. Programa de Pós-graduação em Rede Nordeste de Formação em Saúde da Família. Teresina, Piauí, Brasil.

ABSTRACT

Objective: to analyze, in the literature, the nurses' best practices towards management of Fecal Incontinence in the hospital context.
Method: this is an integrative literature review with a search carried out in September 2021 in the MEDLINE/PubMed and Web of Science, as well as in the *Biblioteca Virtual em Saúde* database, which included the *Literatura Latino-Americana e do Caribe em Ciências da Saúde*, *Base de Dados de Enfermagem* and Índice *Bibliográfico Español en Ciencias de la Salud* databases. The analysis considered the descriptive methods and elaboration of a textual *corpus* in the *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* software program.
Results: a total of 11 studies were included (and their analysis allowed evidencing prevalence of the English language) published between 1977 and 2021 and which presented, in a greater proportion, an observational methodological design with level of evidence 2C. The results were grouped into two categories: "Care evidence for the management of Fecal Incontinence", with greater predominance of the use of fecal drainage systems; and "Support devices and prevention of complications", presenting, in a greater proportion, the containment devices.
Conclusion: it was identified that the best practices adopted by nurses in the hospital context are associated with the use of drainage systems and fecal content containment devices. A limitation was evidenced in the nursing team regarding use of other beneficial practices for patients with Fecal Incontinence.

DESCRIPTORS: Fecal incontinence. Nurses. Hospital care. Hospitals. Hospital units.

HOW CITED: Silva A, Costa AQ, Rocha DM, Borges JWP, Andrade EMLR, Galiza FT, Vasconcelos CDA. Nurses' best practices in the management of fecal incontinence in the hospital context: an integrative review. Texto Contexto Enferm [Internet]. 2022 [cited YEAR MONTH DAY]; 31:e20220026. Available from: https://doi.org/10.1590/1980-265X-TCE-2022-0026en

MELHORES PRÁTICAS DE ENFERMEIROS NO MANEJO DA INCONTINÊNCIA FECAL EM CONTEXTO HOSPITALAR: REVISÃO INTEGRATIVA

RESUMO

Objetivo: analisar, na literatura, as melhores práticas de enfermeiros acerca do manejo da Incontinência Fecal em contexto hospitalar.
Método: trata-se de uma revisão integrativa da literatura com busca realizada em setembro de 2021 nas bases de dados MEDLINE/PubMed, *Web of Science* e no banco de dados da Biblioteca Virtual em Saúde, que incluiu as bases de dados Literatura Latino-Americana e do Caribe em Ciências da Saúde, Base de Dados de Enfermagem e Índice Bibliográfico *Español en Ciencias de la Salud*. A análise considerou os métodos descritivos e a elaboração de um *corpus* textual mediante o *software Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires*.
Resultados: foram incluídos 11 estudos (e a análise destes permitiu evidenciar a prevalência do idioma inglês) publicados entre os anos de 1977 e 2021 e que apresentaram, em maior ocorrência, delineamento metodológico observacional com nível de evidência 2C. Os resultados foram agrupados em duas categorias: "Evidências de cuidados para gerenciamento da Incontinência Fecal", tendo como maior predominância o uso dos sistemas de drenagem fecal, e "Dispositivos de apoio e prevenção de complicações", apresentando, com maior ocorrência, os dispositivos de contenção.
Conclusão: identificou-se que as melhores práticas adotadas pelos enfermeiros no contexto hospitalar estão associadas ao uso de sistemas de drenagem e dispositivos de contenção do conteúdo fecal. Evidenciou-se a limitação da equipe de Enfermagem quanto ao uso de outras práticas benéficas ao paciente com Incontinência Fecal.

DESCRITORES: Incontinência fecal. Enfermeiros e enfermeiras. Assistência hospitalar. Hospitais. Unidades hospitalares.

PRÁCTICAS DE ENFERMERÍA RECOMENDADAS EN EL MANEJO DE LA INCONTINENCIA FECAL EN EL CONTEXTO HOSPITALARIO: UNA REVISIÓN INTEGRADORA

RESUMEN

Objetivo: analizar, en la literatura, las prácticas de Enfermería recomendadas con respecto al manejo de la Incontinencia Fecal en el contexto hospitalario.
Método: se trata de una revisión integradora de la literatura en la que la búsqueda se realizó en septiembre de 2021 en las bases de dados MEDLINE/PubMed y *Web of Science* y en el banco de datos de la Biblioteca Virtual en Salud, que incluyó a las bases de datos Literatura Latino-Americana y del Caribe en Ciencias de la Salud, Base de Datos de Enfermería e Índice Bibliográfico Español en Ciencias de la Salud. En el análisis se consideraron los métodos descriptivos y la elaboración de un *corpus* textual por medio del *software Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires*.
Resultados: se incluyeron 11 estudios (y su análisis permitió evidenciar prevalencia del idioma inglés) publicados entre 1977 y 2021 y que, en mayor proporción, presentaron diseños metodológicos observacionales con nivel de evidencia 2C. Los resultados se agruparon en dos categorías: "Evidencias de medidas de atención para el manejo de la Incontinencia Fecal", con mayor predominancia del empleo de sistemas de drenaje fecal, y "Dispositivos de apoyo y prevención de complicaciones", con mayor proporción de dispositivos de contención.
Conclusión: se identificó que las prácticas recomendadas adoptadas por los enfermeros en el contexto hospitalario están asociadas al uso de sistemas de drenaje y dispositivos de contención del contenido fecal. Se puso en evidencia una limitación del personal de Enfermería en relación al uso de otras prácticas beneficiosas para los pacientes con Incontinencia Fecal.

DESCRIPTORES: Incontinencia fecal. Enfermeros y enfermeras. Asistencia hospitalaria. Hospitales. Unidades hospitalarias.

INTRODUCTION

Fecal Incontinence (FI) is a disorder that exerts an impact on people's quality of life, as it can cause emotional harms and negatively influence interpersonal and work relationships. In addition to that, it is an underreported condition due to the patient's embarrassment in informing the symptoms to the health professional and considering it a change inherent to aging[1–2].

The International Continence Society defines FI as involuntary loss of solid and/or liquid feces that can occur in any gender and age group. Some studies report divergence of data on prevalence and this variation reflects the different methodologies adopted for the investigation of FI, as well as the population and environment studied[3]. A research study carried out in the Netherlands with individuals of both gender and belonging to different age groups showed 7.9% prevalence[4]. Another study, whose objective was to determine FI prevalence and severity and that was developed in the United States in 2015 among community-dwelling Americans, evidenced that 14.4% of the interviewees had FI and that 33.3% reported loss of feces in the week prior to the survey[2].

At the global level, a study conducted at a university hospital in Ireland is also presented, which evidenced a higher percentage of FI cases (30.4%) in the Orthopedics ward, as well as presence of this condition with increasing age in hospitalized patients, identifying prevalence values of 13.9% in older adults aged between 75 and 84 years old and of 21.1% in those over the age of 85[5]. People who experience this problem need assistance from trained professionals, who know how to identify and manage this disorder, in order to minimize the harms suffered by the patients[6].

In Brazil, the epidemiological projections regarding FI vary between 0.2% and 15%. A recent study conducted in a capital city from the Northeast region identified 6.57% prevalence in women treated by the Family Health Strategy (FHS)[7–8].

In a hospital context, nursing care for patients with FI has been carried out in a limited way and the care practices are commonly neglected, thus increasing the risk for other problems such as falls, dermatitis and Pressure Injury (PI). These events generate individual and care impacts, in terms of longer hospitalization times, and show the need to know the best evidence-based practices[9].

The role played by nurses in caring for patients with FI is crucial, as they apply and guide various treatments aimed at people in this situation, enabling the prevention of complications and improvements in quality of life. Thus, it is indispensable that the professional recognizes these treatments, in order to provide quality and safe care, with individual planning aimed at the breadth of these subjects[6].

Female gender is cited among the risk factors for developing FI, due to greater vulnerability to impairments in their pelvic anatomy and parity, aging, obesity and intestinal dysfunctions such as diarrhea and rectal prolapse[10–11]. Other groups can also be affected by this disorder, such as victims of traumas that result in anal sphincter dysfunction and those suffering from neurological diseases such as dementia and stroke[12–13].

The economic repercussions caused by FI include direct costs, such as personal hygiene products, outpatient visits, diagnostic tests, medical and surgical management and indirect costs, characterized by loss of productivity and changes in the living spaces. As FI is considered a chronic condition, the financial impacts become difficult to assess, as is the case with the surgical costs[11].

Incontinence-Associated Dermatitis (IAD) is among the main problems caused by FI. In this sense, it is important for nurses to be able to recognize the signs and symptoms and prevent complications in the patients' skin since, when incontinence is identified, they must be alert about skin care in order to avoid problems and events that may compromise well-being and quality of life[14–15].

Thus, it becomes necessary to develop evidence-based best practices in order to provide excellent care to the people who suffer from fecal incontinence. By definition, a best practice is a

technique or methodology that, through experiences and studies, has been presented in a safe way, directing the expected result, which can be presented partially and be associated with only one or more elements of the practice[16].

FI is a public health problem that affects both men and, in higher numbers, women, exerting direct impacts on the quality of life of these individuals. However, it is difficult to identify people who live with this disorder due to the low number of complaints arising from embarrassment and because many individuals have the erroneous thought that this condition is linked to aging. In addition to that, there is lack of published studies about the theme.

Although there are studies that address the issue in question, gaps are still observed regarding management of FI by professional nurses in the hospital context, a care environment in which a high incidence of this problem is identified[17–18]. In addition, considering that they are the health professionals who plan and carry out direct care for the patients, it is believed that this study will support the care practice, favoring the prevention and reduction of constant problems in FI, in addition to enabling a contribution to future research studies. Consequently, the objective is to analyze, in the literature, the nurses' best practices towards management of FI in the hospital context.

METHOD

This is an integrative literature review in which the following steps were performed for its development: 1) Identification of the topic and guiding question; 2) Definition of inclusion and exclusion criteria/search in the literature; 3) Definition of the diverse information to be extracted from the studies retrieved/categorization of the studies; 4) Evaluation of the studies involved in the review; 5) Interpretation of the results found; and 6) Presentation of the review with the knowledge synthesis[19].

In order to prepare this integrative review, elaboration of the guiding question was carried out through the PICo strategy, where P = Problem: Fecal Incontinence, I = Phenomenon of Interest: Nurses' best practices, and Co = Context: Hospital. The following guiding question was formulated: hich are the nurses' best practices towards management of FI in the hospital context?

The following inclusion criteria were established: primary articles, in any language, and which included patients with FI in the hospital context. The exclusion criteria are as follows: review articles, letters to the editor, duplicate articles, thesis and dissertations. It is noted that, due to the characteristics of the review method, which aims at synthesizing the best evidence on the problem, as well as to the limited search results, no time frame was defined.

The literature search was performed in September 2021 in MEDLINE/PubMed and Web of Science (WOS), as well as in the and *Biblioteca Virtual em Saúde* (BVS) database, which included the *Literatura Latino-Americana e do Caribe em Ciências da Saúde* (LILACS), Base de Dados de Enfermagem (BDENF) and Índice *Bibliográfico Español en Ciencias de la Salud* (IBECS) databases.

The descriptors selected for the research in the databases were found through searches in the *Medical Subject Headings* (MeSH) terms and in the Descriptors in Health Sciences (*Descritores em Ciências da Saúde*, DeCS). Controlled descriptors and keywords were used according to the PICo strategy (Chart 1). After selecting the descriptors, the search strategies were built in each database selected, as presented in Chart 1, which shows the search expression generated in MEDLINE/PubMed.

Chart 1 – Descriptors used in the databases selected and search strategy in MEDLINE/PubMed, Teresina, PI, Brazil, 2021.

MeSH		
PICo	**Controlled descriptors**	**Keywords**
P	*Fecal Incontinence*	*Nurse*; *Personnel, Nursing*; *Registered Nurses*
I	*Nurses*	*Incontinence, Fecal*; *Bowel Incontinence*; *Incontinence, Bowel*
Co	*Hospitals*; *Hospital Units*	*Hospital*; *Hospital Unit*
Search strategy		
P	(("*fecal incontinence*"[*All Fields*]) *OR* ("*incontinence fecal*"[*All Fields*])) *OR* ("*bowel incontinence*"[*All Fields*])) *OR* ("*incontinence bowel*"[*All Fields*])	
I	((("*nurses*"[*All Fields*]) *OR* ("*nurse*"[*All Fields*])) *OR* ("*personnel nursing*"[*All Fields*])) *OR* ("*registered nurses*"[*All Fields*])	
Co	((("*hospitals*"[*All Fields*]) *OR* ("*hospital units*"[*All Fields*])) *OR* ("*hospital*"[*All Fields*])) *OR* ("*hospital unit*"[*All Fields*])	
P AND I AND Co		
(((((("*nurses*"[*All Fields*]) *OR* ("*nurse*"[*All Fields*])) *OR* ("*personnel nursing*"[*All Fields*])) *OR* ("*registered nurses*"[*All Fields*])) *AND* ((((("*fecal incontinence*"[*All Fields*]) *OR* ("*incontinence fecal*"[*All Fields*])) *OR* ("*bowel incontinence*"[*All Fields*])) *OR* ("*incontinence bowel*"[*All Fields*]))) *AND* ((((("*hospitals*"[*All Fields*]) *OR* ("*hospital units*"[*All Fields*])) *OR* ("*hospital*"[*All Fields*])) *OR* ("*hospital unit*"[*All Fields*]))		

The search yielded 268 articles. A total of 230 articles were excluded after peer-reading of the titles and abstracts. In cases where no consensus was reached, a third reviewer was contacted. In this way, 38 articles were obtained for full-reading, with 11 comprising the sample (Figure 1). Selection followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guideline[20].

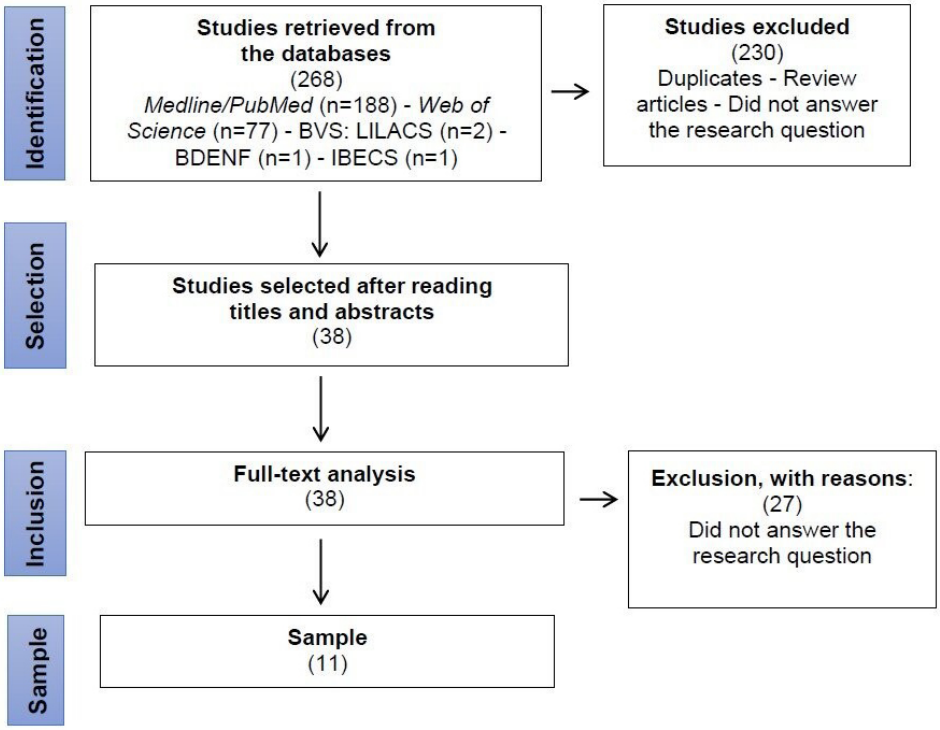

Figure 1 – Flowchart corresponding to selection of the studies by using the PRISMA guideline. Teresina, PI, Brazil, 2021.

Data extraction was performed using an instrument adapted from the *Red Internacional de Enfermería en Salud Ocupacional* (RedENSO) form with the following variables: title, year, country, type of study and Level of Evidence (LE)[21].

For the classification regarding the LE, the recommendations Sep forth by the Oxford Centre for Evidence-Based Medicine were used, where: 1A corresponds to the systematic review of randomized controlled clinical trials; 1B, to a randomized controlled clinical trial with a narrow confidence interval; 1C, to "all or nothing" therapeutic results; 2A, to the systematic review of cohort studies; 2B, to a cohort study; 2C, to the observation of therapeutic results, ecological studies; 3A, to the systematic review of case-control studies; 3B, to a case-control study;4, to a case report; and 5, to experts' opinions[22].

The analysis considered the descriptive and analytical methods through the *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* (IRaMuTeQ) software, which is responsible for analyzing a significant number of texts, enabling verification of the context in which the words are presented[23]. For the analysis of the articles in the software, a textual *corpus* comprised by the results and conclusions of each study in the sample was used. The productions were also grouped according to semantic similarity, which resulted in the elaboration of two categories.

RESULTS

The descriptive analysis of the studies included evidenced prevalence of the English language, papers published between 1977 and 2021 and which, in a greater proportion, presented an observational design with LE 2C (Chart 2).

Chart 2 – Categorization of the studies according to the pre-established criteria. Teresina, PI, Brazil, 2021.

Title	Year	Country	Type of study	LE*
A hospital study of a new absorbent BED PAD for incontinent patients[24]	1977	Australia	Crossover	1C
The Rectal Trumpet: Use of Nasopharyngeal Airway to Contain Fecal Incontinence in Critically Ill Patients[25]	2002	USA	Single-case study	4
Clinical Evaluation of a flexible fecal incontinence management system[26]	2007	USA	Prospective, not controlled, descriptive and clinical	1C
Incontinence Pad use in patients admitted to medical wards[27]	2007	Italy	Prospective cohort	2B
Methods of Bowel Management in Critical Care[28]	2012	USA	Randomized clinical trial	1A
Prevalence, management and clinical challenges associated with acute faecal incontinence in the ICU and critical care settings: The FIRST™ cross-sectional descriptive survey[29]	2012	Germany, Italy, Spain and United Kingdom	Cross-sectional and descriptive research	2C
Developing a critical care bowel management assessment tool to manage faecal incontinence[30]	2014	United Kingdom	Methodological study	2C
Nurse-led clinics can manage faecal incontinence effectively: results from a tertiary referral centre[31]	2015	Denmark	Cross-sectional study	2C

Chart 2 – Cont.

Title	Year	Country	Type of study	LE*
Adecuación del uso de absorbentes de incontinencia urinaria en pacientes adultos ingresados en un hospital[32]	2015	Spain	Cross-sectional, observational, descriptive and exploratory research	2C
Incontinence, Incontinence-Associated Dermatitis, and Pressure Injuries in a Health District in Australia[33]	2018	Australia	Mixed methods	2C
Prevalence and predictors of continence containment products and catheter use in an acute hospital: A cross-sectional study[34]	2021	Ireland	Cross-sectional and observational	2C

*LE: Level of Evidence[21]

A total of 180 text segments (82.57%) and 8,163 occurrences emerged. The material analyzed was categorized into two *subcorpuses* (A and B) and seven classes. *Subcorpus* A consists of classes 1,2, 5 and 6 and *subcorpus* B is comprised by classes 3,4, and 7, which were later grouped into two categories described in Figure 2.

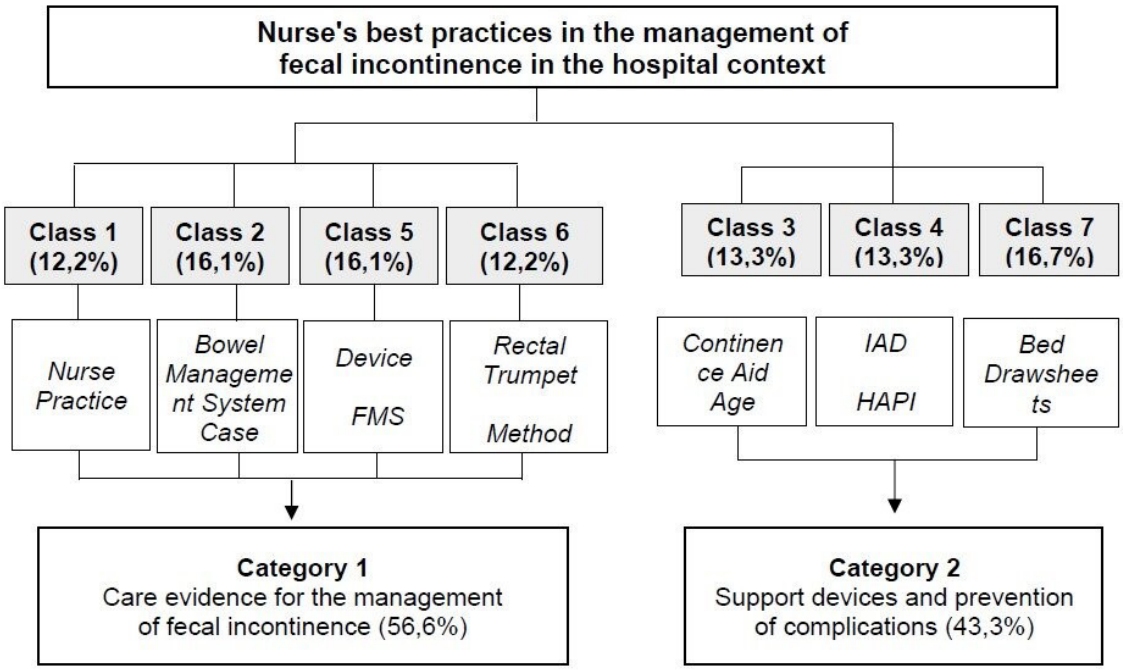

Figure 2 – Dendrogram corresponding to the layout of the scientific articles; hierarchical classification prepared in the IRaMuTeQ software program. Teresina, PI, Brazil, 2021.

In the "care evidence for the management of FI" category, the most recurrent terms from *subcorpus* A were the following: *nurse*; *practice*; *bowel management system*; *case*; *device*; *FMS*; *rectal trumpet*; and *method*. The most evident care strategies corresponded to use of internal and external collectors[35]. Internal: Fecal Management System (FMS) (Figure 3), Bowel Management System (BMS) (Figure 4), and Rectal Trumpet (RT) (Figure 5). External: identified by the fecal collector (Figure 6)[25–26,28–30].

Figure 3 – Fecal Management System (FMS)[35].

Figure 4 – Bowel Management System (BMS)[35].

Figure 5 – RT catheter introduced in the anal region[36].

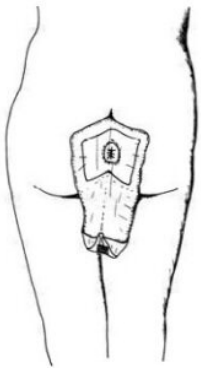

Figure 6 – Fecal collector[36].

Three methods for managing IF were compared: RT, BMS and fecal collector[28]. It was evidenced that RT is a viable option for the treatment of this condition[25], as well as the importance of planning and training for the use of the BMS[30]. The FMS was also identified as an important manager of FI in Intensive Care Units (ICUs)[26,29].

For the "support devices and prevention of complications" category, the terms from *subcorpus* B stood out: *continence aid*; *iad*; *age*; *hapi*; *bed*; and *drawsheets*. The devices presented in the studies were as follows: absorbents, bed absorbent pads and drawsheets[24,27,29,32–34].

Three important support strategies were used for patients with dual incontinence (urinary and fecal), namely: absorbent bed pads, pads containing 1% picloxidine and 12% benzalkonium chloride in a surfactant and drawsheet base[24], in addition to washable and disposable pads[33].

Other evidence of best practices in the management of FI were identified during the manual reading; however, they are not included in *subcorpuses* A and B due to the low use frequency of these practices identified in this integrative review. However, they are included in the categories. Individual conservative approaches, which consisted in the use of fiber or bulking agents combined with mini-enemas, constipating medication, biofeedback therapy, and transanal irrigation, were included in category 1[31].

In category 2, the usual skin cleansing care measures were evidenced, which consisted in the use of antiseptic, antibacterial and antifungal soaps and skin protective pads containing zinc or dimethicone[28,33]. The use of a classification scale for the evaluation of the skin condition in patients with FI was also verified[26], as well as the tool called "fishbone" to elucidate the main causes of the problem and devise solutions collectively focused on the care of patients with FI[30].

Most of the articles presented level of evidence 2C; however, three studies pointed to designs with higher levels of evidence (1C, 1C, 1A), which identified the following as best practices, respectively: use of absorbent bed pads[24], use of FMS[26], and use of barrier creams and drainage systems that included BMS, RT and fecal collector[28].

DISCUSSION

The search for strategies to support, prevent and treat FI, as well as its complications, is the target of research studies in different contexts of the international literature and has aroused the interest of researchers who consider the nurses' role to be fundamental for proper management of the problem, promoting quality of life and well-being.

Care evidence for the management of FI

Use of the FMS was recurrent in the articles included in the sample, proving to be practical, efficient and easy to insert, remove and discard, in addition to providing improved FI control, as well as optimizing time in the care provided to the patient[26]. It was considered as a management system with the purpose of preventing fecal leakage onto the skin, especially in cases of IF and IAD progression[45–46].

The main reported benefit of using this system was the reduction of the cross-contamination and infection risks, in addition to decreasing the risk of loss of skin integrity[29]. However, complications related to using the FMS, such as bleeding and rectal stenosis, have been observed in the literature[47–48].

For being an active drainage system, the BMS allows for the administration of medications and/or for intestinal irrigation to allow passage of feces in liquid state. This system has the positive points of the other passive internal drainage devices, in addition to containing rectal medications, preventing injuries and skin contamination, thus allowing patient movement[35], being especially used in bedridden patients[49].

Although there is no direct correlation between the use of BMS and the reduction in PI occurrence, using this bowel system, together with the processes to prevent these lesions, had positive results[47].

The RT is an internal device used to treat FI and diarrhea and is part of nursing care; however, there is limited evidence to support its use. When properly used, the RT is considered safe and more economical when compared to the fecal collector and to the FMS. The nurses classified this device as easy to apply[5,28].

The fecal collector or external collection device can be used indefinitely, that is, according to the patient's need, not affecting gastrointestinal activity, in addition to not injuring the sphincter or the rectal mucosa[46]. However, presence of abrasions, cuts and tears was observed during use of this device since, when removing it, it can cause skin lesions, as well as non-drainage of fecal content[25].

A considerable number of patients who used internal collectors (BMS and RT) classified them as effective (78% - 86%) and were more satisfied (80%) than with the usual care measures, which included the external collector for FI[28].

In this review, the initial intervention in FI management involved the conservative approach identified as diet regulation, fluid intake, bowel habits, bulking agents indicated to increase consistency of the fecal content and constipating and antidiarrheal medications, that is, focused on non-surgical or non-invasive interventions[31,37]. This management aims at improving or preventing FI, in addition to being considered as a first-line treatment for this condition[37].

Another treatment considered relevant is retraining of the pelvic floor. In a study with a sample of 215 patients, 102 had FI and were instructed by specialist nurses about pelvic floor exercises. Biofeedback was also used to improve muscle resistance, resulting in a significant improvement in FI[38].

In the same perspective, the biofeedback therapeutic approach was investigated in 126 patients with FI, with a mean age of 54 years old. Approximately 63.5% of the research participants were successful in the treatment, becoming asymptomatic and showing improvements in the sphincter muscles[39]. Thus, it proved to be an effective intervention, as it increases sphincter contraction strength and improves quality of life[40].

Another best practice mentioned was transanal irrigation[31], as specialist nurses are able to assess the patients regarding the eligible factors for resorting to this intervention[41]. It is indicated for the treatment of chronic constipation and FI[42].

Also regarding the conservative approach, it is important to understand that, after defining the cause of FI, a systematized care plan must be established, focusing on what is most unpleasant, initiating simpler conservative interventions such as diet, in order to alter bowel motility and stool consistency[43], as well as meal intervals and servings should be added to a bowel management program[44].

Thus, it is understood that the conservative approach is focused on mild FI, while the other interventions (such as FMS, BMS, RT and fecal collector) are indicated for critically-ill patients.

Support devices and prevention of complications

The use of pads was a frequent finding in the articles, being often used in patients with FI, with the purpose of collecting and containing fecal content, in addition to offering control and safety. However, they can cause lesions and discomfort on the skin, in addition to pain[45,50].

This containment device may leak in patients with a large amount of feces. However, in the event of small amounts of fecal content, these patients can be benefited[35].

In turn, pads are easy to manage by health professionals, patients and caregivers, requiring little instruction[35]. They come in a variety of sizes and absorption qualities, including mild to very severe incontinence. Generally used on the body, they can also be employed as bed pads[36], although they have limitations in preventing or reducing the spread of infectious spores such as those of the *Clostridium difficile* bacteria[35].

The most frequently used absorbent pads were those of the all-in-one type[33–34] and 31% (111/355) of all patients admitted to a university hospital in Ireland were using them[34]. In another study conducted in Italy in two intensive care hospitals, of the 396 patients admitted, 120 had urinary, fecal or double incontinence and used absorbent pads[27].

Regarding permanence of the use of absorbents, a study investigated that their use had a tolerance time of 15 minutes by the patients, after an FI episode[51], being essential to exchange them immediately to maintain skin care[41].

Bed pads presented positive points in the analysis of the articles included in the sample, as they were associated with odor reduction, providing improvements in patients' rest, reduction in pressure point erythema due to the patient's skin being kept dry, reduction in the working hours for nurses, and cost savings due to reduced change of clothes[24].

However, a number of inconsistencies in use of this support device were found, such as the following: incorrect use of the size of the absorbent pad, causing leaks; use of extra absorbents or bed protection as opposed to more frequent exchange; and negative connotation in relation to the use of the term "diaper", which can be considered a stigmatized and pejorative expression for those who use it[33].

Skin protection and cleansing with the use of products promoted positive results[52], being essential to choose a product that cleans, protects and moisturizes the perineal skin after an FI episode[49], emphasizing the need to use barrier creams based on zinc oxide, dimethicone and polymers, which favor improvements in skin management[28,33].

The literature also supports the need to implement these interventions, mainly at an early stage, aimed at excessive humidity or diarrhea, based on a previously prepared care plan[46].

It is important to emphasize that the evaluation of a patient with FI regarding their clinical and surgical history, specific symptoms of the current condition, time in which they are happening and

associated complications such as those that affect the skin, is a necessary attitude on the part of nurses which makes a difference in management of this condition[26,43].

Given the above, it is noted that this review contributed to the knowledge about the nurses' best practices regarding the FI care measures, which should be spread in the hospital context, due to the weak management by these professionals regarding FI, adding, in this way, diverse knowledge that will collaborate with the reduced number of studies published on the topic.

Gaps in the national literature were highlighted as study limitations, which precludes comparisons with the findings of the international literature, reflecting in care inconsistencies capable of exerting impacts on the quality of life and well-being of patients with FI. Another limitation is related to the predominant level of evidence (2C), which suggests the need for other methodological designs for the planning, implementation and evaluation of effective, safe and evidence-based interventions that positively support nursing care.

It is important to highlight that, although the nurses' best practices in the hospital context were identified, there was lack of standardization regarding the terminology of the collecting devices used in the management of FI, hindering the authors' understanding, which configured a knowledge gap on the topic.

Thus, it is suggested that more research studies with high levels of evidence be developed in order to standardize and/or consolidate the use of devices and adjuvants for better management of FI in the hospital context.

CONCLUSION

The analysis of the articles from the sample allowed identifying the best practices adopted by nurses towards management of FI in the hospital context. It was recognized that the nursing approach is focused on the use of drainage systems (FMS, BMS, RT and fecal collector) and fecal content containment devices (absorbents, absorbent bed pads and drawsheets), as well as enemas, pharmacological treatment, biofeedback therapy, transanal irrigation and skin care using antiseptic, antibacterial and antifungal soaps, in addition to skin protective pads containing zinc and dimethicone. A limitation was also evidenced in the nursing team regarding use of other beneficial practices for patients with FI.

This study proves to be relevant in the national and international scenario, as it gathers scientific productions from countries in Europe, North America and Oceania, allowing access to the strategies adopted in the management of FI in different realities. Therefore, the innovation of this paper is verified, in view of the reduced production of articles on this theme and the association with good nursing practices.

The importance of a closer approximation by nursing students to the theme studied in the academic context is also emphasized, as it is a topic little explored in the scientific literature although frequently experienced by nurses in their work environments, requiring improvement and studies on the topic for better courses of action.

REFERENCES

1. Rodrigues BDS, Reis IGN, Coelho FMO, Buzatti KCLR. Fecal incontinence and quality of life assessment through questionnaires. J Coloproctol [Internet]. 2017 [cited 2021 Apr 5];37(4):341-8. Available from: https://doi.org/10.1016/j.jcol.2017.06.008
2. Menees SB, Almario CV, Spiegel BMR, Chey WD. Prevalence of and factors associated with fecal incontinence: results from a population-based survey. Gastroenterology [Internet]. 2018 [cited 2021 Apr 5];154(6):1672-81. Available from: https://doi.org/10.1053/j.gastro.2018.01.062

3. Bliss DZ. Management of fecal incontinence for the advanced practice nurse [Internet]. Minneapolis, MN(US): Springer Cham; 2018 [cited 2021 Apr 5]. 308 p. Available from: https://doi.org/10.1007/978-3-319-90704-8

4. Meinds RJ, van Meegdenburg MM, Trzpis M, Broens PMA. On the prevalence of constipation and fecal incontinence, and their co-occurrence, in the Netherlands. Int J Colorectal Dis [Internet]. 2017 [cited 2021 Apr 5];32(4):475-83. Available from: https://doi.org/10.1007/s00384-016-2722-3

5. Condon M, Mannion E, Molloy DW, O'Caoimh R. Urinary and Faecal Incontinence: point prevalence and predictors in a university hospital. Int J Environ Res Public Health [Internet]. 2019 [cited 2021 Apr 5];16(2):194. Available from: https://doi.org/10.3390/ijerph16020194

6. Leme LNR, Souza NVDO, Chagas PF. Nursing care and repercussions in the life of the person with anal incontinence: integrative review. Rev Enferm UERJ [Internet]. 2019 [cited 2021 Apr 6];27:e40285. Available from: http://doi.org/10.12957/reuerj.2019.40285

7. Faria CA, Benayon PC, Ferreira ALV. Prevalence of anal and double incontinence in elderly women and impact on their quality of life. Arch Health Sci [Internet]. 2018 [cited 2021 Apr 6];25(1):41-5. Available from: https://doi.org/10.17696/2318-3691.25.1.2018.865

8. Silveira RK, Saturnino MPB, Lee S, de Melo Filho DSA, Melo LALV. Prevalência de incontinência fecal e qualidade de vida em mulheres atendidas pela estratégia de saúde da família. J Coloproctol [Internet]. 2019 [cited 2021 Apr 6];39(1):165-222. Available from: https://doi.org/10.1016/j.jcol.2019.11.316

9. Silva TC, Mazzo A, Santos RCR, Jorge BM, Souza Junior VD, Mendes IAC. Consequências do uso de fraldas descartáveis em pacientes adultos: implicações para a assistência de enfermagem. Aquichan [Internet]. 2015 [cited 2022 May 19];15(1):21-30. Available from: https://doi.org/10.5294/aqui.2015.15.1.3

10. Ribeiro DC, Souza JRN, Zatti RA, Dini TR, Moraes JR, Faria CA. Double incontinence: associated factors and impact on the quality of life of women attended at a health referral service. Rev Bras Geriatr Gerontol [Internet]. 2019 [cited 2021 Apr 6];22(6):e190216. Available from: https://doi.org/10.1590/1981-22562019022.190216

11. Bharucha AE, Dunivan G, Goode PS, Lukacz ES, Markland AD, Matthews CA, et al. Epidemiology, pathophysiology, and classification of fecal incontinence: state of the science summary for the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) workshop. Am J Gastroenterol [Internet]. 2015 [cited 2021 Apr 6];110(1):127-36. Available from: https://doi.org/10.1038/ajg.2014.396

12. Machado D, Assis GM. Intestinal pattern and control measures adopted by patients with spinal cord trauma. Estima [Internet]. 2018 [cited 2021 Apr 6];16:e1418. Available from: https://www.revistaestima.com.br/estima/article/view/468

13. Abrams P, Andersson KE, Apostolidis A, Birder L, Bliss D, Brubaker L, et al. International Consultation on Incontinence: evaluation and treatment of urinary incontinence, pelvic organ prolapse and prolapse and faecal incontinence. Neurourol Urodyn [Internet]. 2018 [cited 2021 Apr 7];37(7):2271-2. Available from: https://doi.org/10.1002/nau.23551

14. Saurusaitis AD, Santiago LC, Peregrino AAF, Silva RCL, Marta CB, Schutz V. Análise de custo e minimização do cuidado da pele na prevenção de dermatite associada à incontinência. Saúd Coletiv [Internet]. 2019 [cited 2021 Apr 7];9(48):1279-85. Available from: https://doi.org/10.36489/saudecoletiva.2019v9i48p1279%20-%201285

15. Strehlow, BR, Fortes, VLF, Amarante MV. Incontinence-associated dermatitis in hospitalized elderly patients: nurses' self-reported knowledg. R Pesq Cuid Fundam Online [Internet]. 2018 [cited 2021 Apr 7];10 Suppl 3:801-9. Available from: https://doi.org/10.9789/2175-5361.2018.v10i3.801-809

16. World Health Organization. Um guia para identificar e documentar as melhores práticas em programas de planejamento familiar [Internet]. Geneva, (CH): WHO; 2017 [cited 2021 Sep 19]. 41 p. Available from: http://apps.who.int/iris/bitstream/handle/10665/258690/9789290341154por.pdf;jsessionid=39EC9CF22FBA335B17F0B392D307CA4B?sequence=5

17. Jaques RMPL, Costa ECL, Assis GM, Oliveira AC, Benício CDAV, Bezerra SMG. Socio-demographic and intestinal elimination profile in women treated at a health servisse. Estima [Internet]. 2020 [cited 2021 Nov 17];18(1):e0820. Available from: https://doi.org/10.30886/estima.v18.830_IN

18. Demir N, Yuruyen M, Atay K, Yavuzer H, Hatemi I, Doventas A, et al. Prevalence of fecal incontinence and associated risk factors in elderly outpatients: a cross-sectional study. Aging Clin Exp Res [Internet]. 2017 [cited 2021 Apr 7];29(6):1165-71. Available from: https://doi.org/10.1007/s40520-017-0723-x

19. Mendes KDS, Silveira RCCP, Galvão CM. Integrative literature review: a research method to incorporate evidence in health care and nursing. Texto Contexto Enferm [Internet]. 2008 [cited 2021 May 10];17(4):758-64. Available from: https://doi.org/10.1590/S0104-07072008000400018

20. The PRISMA Group. Principais itens para relatar Revisões sistemáticas e Meta-análises: A recomendação PRISMA. Epidemiol Serv Saúde [Internet]. 2015 [cited 2021 May 10];24(2):335-42. Available from: https://doi.org/10.5123/S1679-49742015000200017

21. Marziale MHP. Instrumento para recolección de datos revisión integrativa [Internet]. São Paulo, SP(BR): Redenso; 2015 [cited 2021 Jun 30]. 4 p. Available from: https://gruposdepesquisa.eerp.usp.br/sites/redenso/wp-content/uploads/sites/9/2019/09/Instrumiento_revision_litetarura_RedENSO_2015.pdf

22. Oxford Centre for Evidence-Based Medicine. Levels of evidence [Internet]. March 2009 [cited 2021 Jun 30]. Available from: https://www.cebm.ox.ac.uk/resources/levels-of-evidence/oxford-centrentre-for-evidence-based-medicine-levels-of-evidence-march-2009

23. Salviati ME. Manual do Aplicativo Iramuteq: compilação, organização e notas [Internet]. Planaltina, DF(BR); 2017 [cited 2021 Oct 16]. 93 p. Available from: http://www.iramuteq.org/documentation/fichiers/manual-do-aplicativo-iramuteq-par-maria-elisabeth-salviati

24. Silberberg FG. A hospital study of a new absorbent bed pad for incontinent patients. Med J Aust [Internet]. 1977 [cited 2021 Sep 3];1(16):582-6. Available from: https://doi.org/10.5694/j.1326-5377.1977.tb.130924.x

25. Grogan TA, Kramer DJ. The rectal trumpet: use of a nasopharyngeal airway to contain fecal incontinence in critically ill patients. J Wound Ostomy Continence Nurs [Internet]. 2002 [cited 2021 Sep 3];29(4):193-201. Available from: https://doi.org/10.1067/mjw.2002.125456

26. Padmanabhan A, Stern M, Wishin J, Mangino M, Richey K, DeSane M, et al. Clinical evaluation of a flexible fecal incontinence management system. Am J Crit Care [Internet]. 2007 [cited 2021 Sep 3];16(4):384-93. Available from: https://doi.org/10.4037/ajcc2007.16.4.384

27. Palese A, Regattin L, Venuti F, Innocenti A, Benaglio C, Cunico L, et al. Incontinence pad use in patients admitted to medical wards: an Italian multicenter prospective cohort study. J Wound Ostomy Continence Nurs [Internet]. 2007 [cited 2021 Sep 3];34(6):649-54. Available from: https://doi.org/10.1097/01.WON.0000299815.75359.4c

28. Pittman J, Beeson T, Terry C, Kessler W, Kirk L. Methods of bowel management in critical care: a randomized controlled trial. J Wound Ostomy Continence Nurs [Internet]. 2012 [cited 2021 Sep 3];39(6):633-9. Available from: https://doi.org/10.1097/WON.0b013e31826a4b9c

29. García BC, Binks R, De Luca E, Dierkes C, Franci A, Gallart E, et al. Prevalence, management and clinical challenges associated with acute faecal incontinence in the ICU and critical care settings: the FIRST cross-sectional descriptive survey. Intensive Crit Care Nurs [Internet]. 2012 [cited 2021 Sep 3];28(4):242-50. Available from: https://doi.org/10.1016/j.iccn.2012.01.005

30. Peart J, Richardson A. Developing a critical care bowel management assessment tool to manage faecal incontinence. Nurs Crit Care [Internet]. 2015 [cited 2021 Sep 3];20(1):34-40. Available from: https://doi.org/10.1111/nicc.12101

31. Duelund-Jakobsen J, Haas S, Buntzen S, Lundby L, Bøje G, Laurberg S. Nurse-led clinics can manage faecal incontinence effectively: results from a tertiary referral centre. Colorectal Dis [Internet]. 2015 [cited 2021 Sep 3];17(8):710-5. Available from: https://doi.org/10.1111/codi.12983

32. Blanc BFL, Granados GL, Burillo JMT, Montealegre ALR, Octavio IA, León AG. Adecuación del uso de absorbentes de incontinencia urinaria en pacientes adultos ingresados en un hospital. Enferm Clin [Internet]. 2015 [cited 2021 Sep 3];25(4):198-203. Available from: https://doi.org/10.1016/j.enfcli.2015.06.001

33. Johnson MB, Barnett C, Lai M, Wand T, White K. Incontinence, incontinence-associated dermatitis, and pressure injuries in a health district in Australia: a mixed-methods study. J Wound Ostomy Continence Nurs [Internet]. 2018 [cited 2021 Sep 3];45(4):349-55. Available from: https://doi.org/10.1097/WON.0000000000000446

34. Condon M, Mannion E, Collins G, Ghafar MZAA, Ali B, Small M, et al. Prevalence and predictors of continence containment products and catheter use in an acute hospital: a cross-sectional study. Geriatr Nurs [Internet]. 2021 [cited 2021 Sep 3];42(2):433-9. Available from: https://doi.org/10.1016/j.gerinurse.2021.02.008

35. Hurnauth C. Management of faecal incontinence in acutely ill patients. Nurs Stand [Internet]. 2011 [cited 2021 Nov 10];25(22):48-56. Available from: https://doi.org/10.7748/ns2011.02.25.22.48.c8318

36. Cottenden A, Fader M, Beeckman D. Management using continence products. In: Abrams P, Cardozo L, Wagg A, Wein A, editors. Incontinence [Internet]. 6th ed. 2017 [cited 2021 Nov 10]. 124 p. Available from: https://www.ics.org/Publications/ICI_4/files-book/comite-20.pdf

37. Barrie M. Nursing management of patients with faecal incontinence. Nurs Stand [Internet]. 2018 [cited 2021 Nov 10];33(2):69-74. Available from: https://doi.org/10.7748/ns.2018.e11167

38. Jones HJ, Gosselink MP, Fourie S, Lindsey I. Is group pelvic floor retraining as effective asindividual treatment? Colorectal Dis [Internet]. 2015 [cited 2021 Nov 10];17(6):515-21. Available from: https://doi.org/10.1111/codi.12881

39. Öztürk Ö, Özin Y, Bacaksız F, Tenlik İ, Arı D, Gökbulut V, et al. The Efficacy of Biofeedback Treatment in Patients with Fecal Incontinence. Turk J Gastroenterol [Internet]. 2021 [cited 2021 Nov 10];32(7):567-74. Available from: https://doi.org/10.5152/tjg.2021.20430

40. Santos KLAS, Cavenaghi S, Folchine AER, Carvalho LH, Martins P, Ferreira LL, et al. Effects of biofeedback in the treatment of female fecal incontinence. J Coloproctol [Internet]. 2018 [cited 2021 Nov 11];38(3):194-8. Available from: https://doi.org/10.1016/j.jcol.2018.03.008

41. Nazarko L. Faecal incontinence: investigation, treatment and management. Br J Community Nurs. 2018 [cited 2021 Nov 11]; 23(12):582-8. Available from: https://doi.org/10.12968/bjcn.2018.23.12.582

42. Woodward S. Treating chronic constipation and faecal incontinence using transanal irrigation. Br J Nurs [Internet]. 2017 [cited 2021 Nov 11];26(22):1220-2. Available from: https://doi.org/10.12968/bjon.2017.26.22.1220

43. Ness W. Managing faecal incontinence. Br J Nurs [Internet]. 2018 [cited 2021 Nov 17];27(7):378-81. Available from: https://doi.org/10.12968/bjon.2018.27.7.378

44. Meyer I, Richter HE. Impact of fecal incontinence and its treatment on quality of life in women. Womens Health (Lond) [Internet]. 2015 [cited 2021 Nov 11];11(2):225-38. Available from: https://doi.org/10.2217/WHE.14.66

45. Willson MM, Angyus M, Beals D, Callan L, Francis K, Kingan MJ, et al. Executive summary: a quick reference guide for managing Fecal Incontinence (FI). J Wound Ostomy Continence Nurs [Internet]. 2014 [cited 2017 Nov 11];41(1):61-9. Available from: https://doi.org/10.1097/WON.0000000000000004

46. Makic MBF, VonRueden KT, Rauen CA, Chadwick J. Evidence-based practice habits: putting more sacred cows out to pasture. Crit Care Nurse [Internet]. 2011 [cited 2021 Nov 13];31(2):38-61. Available from: https://doi.org/10.4037/ccn2011908

47. Sparks D, Chase D, Heaton B, Coughlin L, Metha J. Rectal trauma and associated hemorrhage with the use of the Convatec Flexi-Seal Fecal Management System: report of 3 cases. Dis Colon Rectum [Internet]. 2010 [cited 2021 Nov 13];53(3):346-9. Available from: https://doi.org/10.1007/DCR.0b013e3181c38351

48. Chatterjee K, Klair JS, Agarwal A, Aduli F. A case of rectal stricture associated with the use of a fecal management system. J Coloproctol [Internet]. 2015 [cited 2021 Nov 13];35(4):223-6. Available from: https://doi.org/10.1016/j.jcol.2015.06.005

49. Royal College of Nursing. Management of lower bowel dysfunction, including digital rectal examination and digital removal of faeces [Internet]. London, (UK): RCN; 2019 [cited 2021 Nov 13]. 62 p. Available from: https://www.rcn.org.uk/professional-development/publications/pub-007522

50. Butcher L. Clinical skills: nursing considerations in patients with faecal incontinence. Br J Nurs [Internet]. 2004 [cited 2021 Nov 13];13(13):760-7. Available from: https://doi.org/10.12968/bjon.2004.13.13.13489

51. Fernando J, Wagg A. What wait time in a soiled pad is acceptable to older patients and their direct caregivers? J Wound Ostomy Continence Nurs [Internet]. 2017 [cited 2021 Nov 14];44(6):562-7. Available from: https://doi.org/10.1097/WON.0000000000000369

52. Pather P, Hines S. Best practice nursing care for ICU patients with incontinence-associated dermatitis and skin complications resulting from faecal incontinence and diarrhoea. Int J Evid Based Healthc [Internet]. 2016 [cited 2021 Nov 14];14(1):15-23. Available from: https://doi.org/10.1097/XEB.0000000000000067

NOTES

ORIGIN OF THE ARTICLE

Extracted from the Course Conclusion Paper - Nurses' best practices in management of Fecal Incontinence in the hospital context: An integrative review, presented at the Undergraduate Nursing Course of the Health Sciences Center, *Universidade Federal do Piauí*, in 2021.

CONTRIBUTION OF AUTHORITY

Study desing: Silva A, Costa AQ, Rocha DM, Vasconcelos CDA.
Data collection: Silva A, Costa AQ.
Data analysis and interpretation: Silva A, Costa AQ, Rocha DM, Vasconcelos CDA, Galiza FT.
Discussion of the results: Silva A, Costa AQ, Rocha DM, Vasconcelos CDA
Writing and/or critical review of the content: Silva A, Costa AQ, Rocha DM, Vasconcelos CDA, Andrade EMLR, Borges JWP.
Review and final approval of the final version: Silva A, Costa AQ, Rocha DM, Vasconcelos CDA, Andrade EMLR, Borges JWP.

CONSENT OF USE OF IMAGE

Not applicable.

CONFLICT OF INTERESTS

There is no conflict of interests.

EDITORS

Associated Editors: Gisele Cristina Manfrini, Monica Motta Lino.
Editor-in-chief: Roberta Costa.

HISTORICAL

Received: February 23, 2022.
Approved: June 09, 2022.

CORRESPONDING AUTHOR

Alice da Silva
alicesilva.ufpi@gmail.com