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Management of dermatitis associated with incontinence by the nurse: integrative review

ABSTRACT | Objective: to describe the management of dermatitis associated with fecal and urinary incontinence by the nurse professional. Method: This is a bibliographic study, type integrative review. The search for articles was carried out; published in the period from 2015 to 2019; in Portuguese, English and Spanish; available in full. The following data platforms were consulted: BIREME, LILACS and SciELO. The data were organized and presented in figures and tables. Result: Of the 501 studies found, 32 were selected for full reading; however, after reading, only those who met the criteria described in the methodology remained, totaling 22 studies. After reading the selected studies, the articles were categorized into thematic clippings, classifying the knowledge produced on the topic. Conclusion: In general, all studies pointed out the importance of an adequate skin inspection, constituting itself as the "gold standard", which means "gold standard" for the prevention and diagnosis of AID.

Keywords: Dermatitis, Nurse Practitioners, Pressure Ulcer, Urinary Incontinence.

RESUMEN | Objetivo: describir el manejo de la dermatitis asociada a incontinencia fecal y urinaria por parte del profesional de enfermería. Método: Se trata de un estudio bibliográfico, tipo revisión integradora. Se realizó búsqueda de artículos; publicado en el período de 2015 a 2019; en portugués, inglés y español; disponible en su totalidad. Se consultaron las siguientes plataformas de datos: BIREME, LILACS y SciELO. Los datos fueron organizados y presentados en figuras y tablas. Resultado: de los 501 estudios encontrados, 32 fueron seleccionados para lectura completa; sin embargo, luego de la lectura, solo quedaron aquellos que cumplieron con los criterios descritos en la metodología, totalizando 22 estudios. Luego de la lectura de los estudios seleccionados, los artículos fueron categorizados en recortes temáticos, clasificando el conocimiento producido sobre el tema. Conclusión: En general, todos los estudios apuntan a la importancia de una adecuada inspección cutánea, constituyéndose como el "estándar de oro", que significa "estándar de oro" para la prevención y diagnóstico de la SIDA.

Palabras claves: Dermatitis, Enfermeras Practicantes, Úlcera por Presión, Incontinencia Urin.

RESUMO | Objetivo: descrever o gerenciamento da dermatite associada a incontinência fecal e urinária pelo profissional enfermeiro. Método: Trata-se de um estudo bibliográfico, tipo revisão integrativa. Realizou-se a busca por artigos; publicados no período de 2015 a 2019; nos idiomas português, inglês e espanhol; disponíveis na íntegra. Foram consultadas as seguintes plataformas de dados: BIREME, LILACS e SciELO. Os dados foram organizados e apresentados em figuras e tabelas. Resultado: Dos 501 estudos encontrados, 32 foram selecionados para a leitura na íntegra; contudo, após a leitura permaneceram apenas os que atendiam aos critérios descritos na metodologia, totalizando 22 estudos. Após a leitura dos estudos selecionados, os artigos foram categorizados em recortes temáticos, classificando o conhecimento produzido acerca do tema. Conclusão: De uma forma geral, todos os estudos apontaram para a importância de uma adequada inspeção da pele, constituindo-se como o "gold standard" que quer dizer "Padrão ouro" da prevenção e diagnóstico de DA.

Palavras-chaves: Dermatite, Profissionais de Enfermagem, Lesão por Pressão, Incontinência Urinária.

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INTRODUCTION

Bearing in mind that the skin is the largest organ in the human body, researchers define it as a wrapper with the function of covering and protecting more complex organs, isolating the internal environment from the external, still functional and sophisticated according to the authors, due to its renovations and repairs to all the time. It occupies an important place in the psychic sphere of the human being, being responsible for the connection of the individual to the external environment.^{1,2}

Several factors can generate changes in the skin, including humidity. Moisture Associated Skin Damage (MASD) skin damage is portrayed as inflammation and skin erosion caused by prolonged skin exposure to urine, feces, sweat, wound exudate and mucus. Related to these exposures, other etiological factors should also be considered, such as the occurrence of hyperhydration, the presence of friction and skin temperature. The four forms of MASD are Intertriginous Dermatitis, Peristomal Dermatitis, Peripheral Dermatitis and Incontinence-Associated Dermatitis (IAD).^{2,3}

The IAD stands out, which usually appears in patients with urinary and/or fecal incontinence. It is a very frequent condition, taking into account that there is a significant number of people, mostly aged 65 and over, hospitalized in acute or long-term care, who suffer from urinary and/or fecal incontinence.²

Long-term contact with urine and feces increases the incidence of this type of injury, characterized by inflammation of the skin with an initial appearance of hyperemia, which can progress to skin rupture, called ulceration. The main risk factor is the presence of incontinence. Prolonged exposure to a continuously moist local geranium, a skin maceration that evolves to the erosion of the epidermis, leaves the skin more prone to the harmful effect of pressure, increasing the disposition for the emergence of pressu-

re ulcers, for infection by *Staphylococcus*, which can evolve walks to cellulite and necrotizing fasciitis.²⁻⁴

This condition has a considerable effect on people's physical and psychological well-being, causing them to experience discomfort, pain, burning, itching, tingling in the affected areas, excessive discomfort during care, disturbance in the performance of activities of daily living, in sleep with consequent reduction in quality of life.³

Since skin is a sensitive variable to nursing care, the structure and process by which nursing care is provided ends up influencing its results, thus requiring available scientific evidence, aiming to fill the gaps in care provision and identification risk factors. It is essential to develop a prevention, treatment and management strategy so that there is better care and, therefore, better quality of life.³⁻⁵

The prevalence of IAD is little known, and international data on the prevalence of incontinence show values ranging from 1,9 to 21,3% of the population, rising with the increase in the age group.⁵ In this way, the importance and relevance of this work is perceived to empower scientific research and improve the knowledge of nursing professionals about IAD and its aspects for detection, proper management and prevention. Such placements are of great importance to subsidize and assist in the design of health care in a broad and effective way.

The present study, after all described

and seeking to answer the following guiding question of the research: "How is the management of dermatitis associated with fecal and urinary incontinence performed by the nurse professional?", Aims to describe the management of dermatitis associated with fecal and urinary incontinences by the nurse professional.

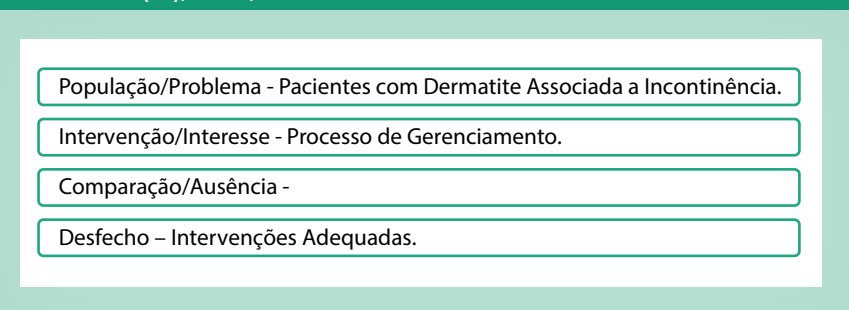
METHOD

It is a bibliographic study, type integrative review where the search for articles for methodological development was carried out and the following steps were taken: elaboration of the guiding question and objective of the study; definition of inclusion and exclusion criteria for scientific productions; search for scientific studies in databases and virtual libraries; analysis and categorization of the productions found; results and discussion of the findings.⁶

To survey the guiding question, the PICO strategy (P-population/patient, I-intervention/interest, C-comparison/Absence and O-outcome) was applied where C remained absent, as there were no elements of a comparative nature. Strategy based on segmentation of the hypothesis, which aims to collect data in a systematic way.⁷

Thus, the following research guiding question was defined: "How is the management of dermatitis associated with fecal and urinary incontinence carried out by the nurse professional?" (Figure 1).

Figure 1: Definition of the guiding question according to the PICO strategy. Recife, Pernambuco (PE), Brazil, 2020.



Source: Own elaboration.

For the selection of articles, the following inclusion criteria were used: to be an original article, to have been published in Portuguese, English or Spanish, from 2015 to 2019, and to be available in full. Theses, dissertations and monographs, editorials, case studies, as well as repeated studies found in more than one database or virtual library, in addition to articles that did not answer the guiding question, were excluded.

The data survey took place from February to March 2020 in the following databases and virtual libraries: at BIREME, in Latin American and Caribbean Literature in Health Sciences (LILACS); in Scientific Electronic Library Online (SciELO) and electronic nursing journals. Choosing these databases and libraries for understanding that they reach the published literature, as well as Brazilian technical-scientific references in public and collective health. Crossings of the descriptors "Dermatitis associated with incontinence", "IAD

management", "Nursing" and "Wounds" were performed. present in the Health Sciences Descriptors (DecS) base combined with a Boolean operator OR, performing a joint and individual search so that possible differences could be corrected.

The selection of studies was based on the Preferred Reporting Items for Systematic Review and Meta-Analyse - PRISMA, a checklist with 27 items and a four-step flowchart, in order to assist in the development of articles. At first, duplicate studies were eliminated by reading titles and abstracts. Of these pre-selected, full reading was carried out, in order to verify those that meet the guiding question and the inclusion/exclusion criteria. The final sample was then constructed with studies relevant to the pre-established criteria (Figure 2).

The level of evidence for the selected studies was determined according to the Agency for Healthcare Research and Quality (AHRQ, 2016): Level I-

Meta-analysis of multiple controlled studies; Level II- Individual studies with experimental design; Level III- Study with quasi-experimental design as a study without randomization with a single pre- and post-test group, time series or case-control; Level IV- Study with non-experimental design as descriptive correlational and qualitative research or case studies; Level V- Case report or data obtained systematically, of verifiable quality or program evaluation data; and finally, Level VI - Opinions of reputable authorities based on clinical competence or opinion of expert committees, including interpretations of information not based on research.

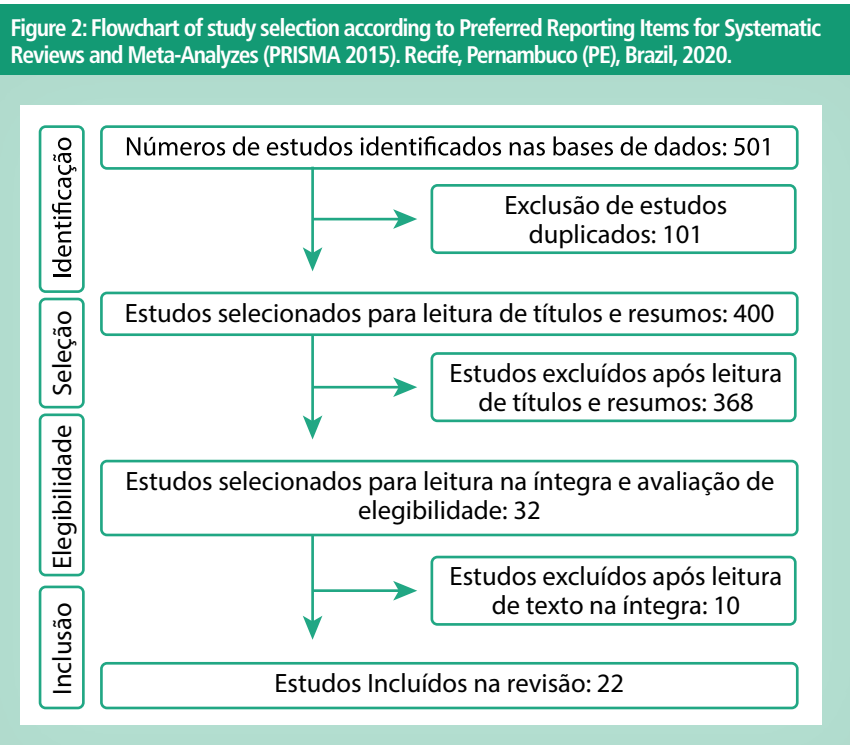
In order to simplify the understanding of the publications selected in this integrative review, the data were organized in figures and tables, presented in a descriptive manner.

RESULTS

Performing an analysis after reading the articles, it was found that in the present study the prevalence of urinary incontinence was 33,33% of institutionalized elderly. At least half of hospitalized elderly people are affected by urinary incontinence, contributing to physical and psychosocial problems. The factors that harm the perineal skin are those such as hydration, long-term moisture, friction, urine pH and/or faeces and pathogens already present in the faeces or in the skin's microbiota.

Women have a higher incidence of urinary incontinence than men, being affected in all age groups. We found that patients with a higher percentage of urinary incontinence are women 77,77% than men 22,22%. Despite mild symptoms, IAD often produces discomfort 78% have this symptom and 38% of individuals also experience symptoms of itching or burning.

In one of the studies, 150 institutionalized elderly people were found,



Source: Own elaboration.

urinary incontinence had a higher prevalence in women (62,6%) than in men (45,7%). The higher risk of female-related urinary incontinence is due to the fact that anatomical differences such as differences in female urethral length are greater in men; the anatomy of the pelvic floor; in addition to the decrease in urethral closure pressure, associated with the hypermobility of the bladder neck and the weakening of the pelvic floor muscles, due to the effects of pregnancy and childbirth on the continence mechanism, in addition to hormonal changes resulting from menopause.

In relation to men undergoing treatment for prostate cancer, those undergoing radical prostatectomy (RP) and also those undergoing brachytherapy (BT), have urinary incontinence. The incidence of urinary incontinence was higher in patients who underwent PR compared to those who underwent BT treatment. The data of those who presented UI as a sequel to these treatments were 66% of men who underwent PR, and 33% of those who underwent BT.

In studies carried out in hospital units, it was evidenced that 86% of nurses have knowledge to manage

mild and moderate or severe cases of IAD and, to manage this process of dermatological complication and differentiate it from stage 1 LPP, including skin peeling and blisters, are under the responsibility of the institution's skin lesions/dressings committee, if there is a request for evaluation by the medical team in a hospital or by the nurse manager of the dressing committee, so the team should be oriented to inform the nurse about early signs of IAD. All the results carefully answer the objectives and present total adherence to the work process.

Chart 1: Distribution of articles according to their characterization regarding: authors, objective, type of study and year of publication. Recife, Pernambuco (PE), Brazil, 2020.

Q	AUTORES	OBJETIVO	N*	TIPO DE ESTUDO	ANO DE PUBLICAÇÃO
1	QuadrosLB, Aguiar A, Menezes AV, Alves EF, Nery T, Bezerra PP.	Determinar a prevalência de incontinência urinária em uma amostra de idosos institucionalizados e analisar sua relação com características socio-demográficas, comorbidades associadas, função cognitiva e independência funcional.	IV	Estudo transversal, descritivo e exploratório.	2015
2	WeschenfelderAJ, Strelow CS, Arruda GT, Froelich MA, PivettaHMF, Braz MM.	Comparar a prevalência e o impacto da incontinência urinária sobre a qualidade de vida e características das perdas urinárias de idosos do meio urbano e rural.	IV	Observacional de caráter transversal.	2016
3	Chianca TCM, Gonçalves PR, Salgado PO, Machado BO, Amorim GL, Alcoforado CLGC.	Estimar incidência, determinar fatores de risco e propor modelo de predição de risco para desenvolvimento de dermatite associada a incontinência em pacientes adultos críticos.	IV	Estudo descritivo.	2016
4	Arco HMSLR, Costa AM, Gomes BM, Anacleto NMRA, Silva RAJ, Fonseca SCP.	Identificar intervenções a adotar na prevenção, gestão e tratamento da dermatite associada à incontinência.	V	Revisão integrativa.	2018
5	Tavares AP, Ramos AF, Vieira EV, MendonçaS, Fonseca C, Lopes MJ, et al.	Identificar quais as intervenções de enfermagem dirigidas à prevenção e cicatrização da DAI, em cuidados agudos e de longa duração.	V	Revisão integrativa.	2017
6	Alves LAF, Santana RF, Cardozo AS, Souza TM, Silva CFR.	Analisar o uso da fralda geriátrica ao que concerne a técnica, os produtos e os eventos adversos e a partir disso formular um protocolo de intervenção para uso de fraldas geriátricas.	V	Revisão sistemática.	2017
7	StrehlowBR, Fortes VLF, Amarante MV.	Identificar o conhecimento autor referido dos enfermeiros em relação a prevenção, diagnóstico e tratamento da dermatite associada a incontinência (DAI) em idosos hospitalizados e propor a construção de um protocolo de cuidados de enfermagem a partir de fluxograma.	IV	Exploratória descritiva, qualitativa.	2018

8	Nascimento DC, Cunha CV, PennaLHG,SouzaNVDO,Marques GS.	Analisar produções científicas que abordam esse tipo de lesão considerando seus conceitos e medidas de prevenção e tratamentos propostos.	V	Revisão integrativa.	2016
9	Greco APC, Guimarães AF, NascimentoTS	Descrever a utilização do equipamento de controle de IA e demonstrar sua eficácia no manejo de pacientes com DAI.	IV	Qualitativo, descritivo, retrospectivo.	2017
10	Ramos AF, Pinto MCPF	Elaborar espelho demonstrativo de medidas preventivas através de literatura e folder explicativo sobre medidas de prevenção de DAI.	V	Revisão sistemática.	2018
11	SaudLF, Campos GV, ManiezzoR, Marques YMP, Rezende LF	Desenvolver uma revisão sistemática sobre a incidência de incontinência urinária em homens submetidos aos tratamentos de braquiterapia e prostatectomia.	V	Revisão integrativa	2018
12	Alcoforado CLGC, Machado BO, Campos CC, Gonçalves PC, Ercole FF, Chianca TCM.	Identificar, na literatura, as melhores evidências sobre os fatores de risco para o desenvolvimento da Dermatite Associada à Incontinência (DAI).	V	Revisão integrativa.	2018
13	Silva RM, Fernandes FAV	Mapear as competências específicas do Gestor de Feridas.	V	Revisão sistemática de escopo.	2019
14	Rocha Filho JS, Carvalho CGN.	Prover informações acerca de um subtipo morfológico raro de dermatite irritativa das fraldas na prática clínica, a DJ.	V	Revisão integrativa.	2017
15	Alves AT, Jácomo RH, Epaminondas WA, Faria DS, Leite RM, GomideLB, et al.	Analisar a efetividade da intervenção educativa na prevenção e tratamento da dermatite da fralda de idosos institucionalizados.	IV	Estudo qualitativo, longitudinal e prospectivo	2015
16	Bitencourt GR, Santana RF.	Analisar instrumentos de avaliação dos eventos adversos associados ao uso de fraldas geriátricas.	V	Revisão integrativa.	2019
17	Lage MA, Silva TBC, Evangelista DR, Rezende FAC, Silva Netto LS, Osório NB, et al.	Caracterizar a prevalência de incontinência urinária e fecal nos idosos.	IV	Estudo transversal.	2019
18	Leme LNR, Souza NVDO, Chagas PF.	Revisar a produção científica sobre incontinência anal (IA), atualizando o conhecimento de enfermagem sobre o tema.	V	Revisão integrativa.	2019
19	Paula VAA, Souza ID, Almeida RLM, Santos KB.	Caracterizar o perfil da formação e atualização dos enfermeiros assistenciais e avaliar o conhecimento sobre o tratamento de feridas em um hospital público de ensino da Zona da Mata Mineira.	IV	Estudo observacional, descritivo e quantitativo.	2019
20	Mendes DC, Santos BCOS, Oliveira LB, Sabino LF.	Mostrar a importância da nutrição como fator de interferência no processo de cicatrização, expondo sua relevância em cada etapa.	V	Revisão da literatura.	2018
21	Moraes JT, BorgesEL, Lisboa CR, Cordeiro DCO, Rosa EG, Rocha NA.	Apresentar na língua portuguesa a terminologia, conceito e descrição dos estágios da lesão por pressão estabelecidos pelo NationalPressureUlcerAdvisoryPanel em 2016.	IV	Descritivo, reflexivo do tipo ensaio teórico.	2016
22	SilvaSAO, Martins FA, Silva AS, GhelenMH, Diaz CMG, Martins ESR.	Avaliar, por meio da literatura, o conhecimento do enfermeiro para diagnosticar o biofilme em feridas.	IV	Pesquisa narrativa.	2018
* Level of Evidence.					
Source: Own elaboration.					

DISCUSSION

Lage⁴ points out that constant skin evaluation, adequate hygiene care and continence management are fundamental activities of the nursing team in the prevention and detection in IAD. Periodic observation of the skin and preventive care should be especially directed to people who have some type of incontinence correlated with comorbidities, body mass and passive mobility.

According to Tavares² skin protection is an essential step, so it is advisable to use a long-lasting barrier cream or polymeric spray film. Skin protectors with petrolatum and zinc oxide base are used as skin protectors against irritation and hydration, due to their easy accessibility and reduced cost. However, it is important to understand the use of certain topical therapies, because creams and ointments do not have an effective barrier effect, their white and opaque color prevents an adequate observation of the condition of the skin, remaining a thin layer that can cause skin lesions in the attempt removal.

Lage⁴ identifies that the highest risk of urinary incontinence is in the female sex and this is due to the fact that anatomical differences such as female urethral length are greater in men; the anatomy of the pelvic floor; in addition to the decrease in urethral closure pressure, associated with the hypermobility of the bladder neck and the weakening of the pelvic floor muscles, due to the effects of pregnancy and childbirth on the continence mechanism, in addition to hormonal changes resulting from menopause.

In the article by Filho¹⁰ and Lage⁴, they assume at the same time that the risk of AID can increase the risk of pressure injury, since the weakness of the skin increases the susceptibility to friction and pressure. They affirm the importance of the nurse knowing how



The Wound Manager, the nurse who works autonomously in the area of wound care has understanding and technical and scientific knowledge and cannot be limited to clinical decision-making but must also discuss ethical issues in a logical and reasonable way, apply ethical principles in practice and analyze the ethical dilemmas faced.



to distinguish the pressure lesion from the IAD, which, for example, that the LPP usually present as a single, circular and symmetrical lesion on a bony prominence and with well-defined edges and the moisture lesions can have a irregular shape, with ill-defined edges, often appearing in the fatty tissue of the buttocks, perineum, inner thighs, scrotum and vulva.

Strehlow¹¹ emphasizes that SAE is an instrument that organizes work based on the approximation between nurse and client, identifying care needs and promoting quality in health recovery. The SAE directs to a sequence of the nursing consultation, nursing diagnoses and interventions and thus establishing important criteria for obtaining positive results.

Ramos¹ emphasizes that the theory of self-care is the content necessary to meet specific requirements, such as: ensuring care for the multiprofessional team; ensure diagnostic and therapeutic rehabilitation actions as established and filed; readjustment in lifestyle due to the situations provided by the event.

Saud¹² BT and PR are treatments for prostate cancer and can have adverse effects on sexual, intestinal and urinary function and that urinary incontinence is one of the main consequences for men who are subjected to these treatments, causing worsening of the quality of life of the patient.

The Wound Manager, the nurse who works autonomously in the area of wound care has understanding and technical and scientific knowledge and cannot be limited to clinical decision-making but must also discuss ethical issues in a logical and reasonable way, apply ethical principles in practice and analyze the ethical dilemmas faced. Silva¹³ explains that the limit of autonomy of the WM has not been defined, however it was mentioned that it is relevant to provide clear guidelines in relation to professional limits, which often follow the recom-

mendations or national/local legislation. Like any nurse who works in private or public companies, the WM acts autonomously.

Paula¹⁴ notes that good care practice, care protocols, dressing commissions, establishing continuing education, with relevance in particular the protocol on care for skin lesions or wounds, become an excellent care strategy, optimizing the resources available at the institution, raising the quality the approach of professionals avoiding divergences between conducts.

CONCLUSION

Nursing interventions aimed at the person with IAD are positioned at the



In healing, it is advisable to perform 2 or 3 steps: clean the skin - skin protection - exudate management.



level of prevention, diagnosis and healing. In general, all studies pointed to the importance of an adequate skin inspection, constituting itself as the “gold standard” for the prevention and diagnosis of IAD.

Regarding the prevention of IAD, 3 steps are generally recommended in the context of nursing intervention: cleaning the skin - application of emollients/moisturizers - skin protection. In healing, it is advisable to perform 2 or 3 steps: clean the skin - skin protection - exudate management (in the case of severe IAD).

Therefore, this work is concluded emphasizing the importance of nurse management to improve the nursing service and its continuity, strengthening the care process. 🐦

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