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Nursing care for polytrauma care: integrative review

ABSTRACT | OBJECTIVE: To describe nursing care for severe polytrauma patients. **METHOD:** Integrative review with searches in the following databases: CINAHL, MEDLINE/BIREME, IBECs, BDNF and LILACS, using MeSH (Medical Subject Headings) obtained through the PVO strategy and Boolean operator in two different strategies: strategy 01 "nursing care AND multiple trauma" and strategy 02 "nursing care AND patient AND multiple trauma". **RESULTS:** After searching and applying the eligibility criteria, a total of 09 articles remained. In this sense, it was observed that nursing care for polytrauma patients is linked to the scope of adequate management with body structure, with an emphasis on the immobilization technique; care for the restoration and maintenance of the skin; medication administration and pain control; and, the monitoring of physiological systems. **CONCLUSION:** Nursing care is a complex instrument that encompasses the being in its entirety, where in assistance to multiple trauma patients, several interventions are necessary for there to be progression in the health status of this individual, demonstrating the importance of this profession due to the numerous activities performed.

Keywords: Nursing care; Patients; Polytrauma.

RESUMEN | OBJETIVO: Describir la atención de enfermería a pacientes politraumatizados graves. **METODO:** Revisión integrativa con búsquedas en las bases de datos CINAHL, MEDLINE/BIREME, IBECs, BDNF y LILACS, utilizando el MeSH (Medical Subject Headings) obtenido a través de la estrategia PVO y operador booleano en dos estrategias distintas: estrategia 01 "cuidado de enfermería y trauma múltiple" y estrategia 02 "cuidado de enfermería y y trauma múltiple del paciente". **RESULTADOS:** Después de buscar y aplicar los criterios de elegibilidad, se mantuvieron un total de 09 artículos. En este sentido, se observó que la atención de enfermería para pacientes politraumatizados está vinculada al ámbito de un manejo adecuado con estructura corporal, con énfasis en la técnica de inmovilización; cuidado de la restauración y mantenimiento de la piel; administración de drogas y control del dolor; y, el monitoreo de los sistemas fisiológicos. **CONCLUSIÓN:** La atención de enfermería es un instrumento complejo que abarca el ser en su totalidad, donde en el cuidado de la politraumatizada son necesarias varias intervenciones para que haya progresión en el estado de salud de este individuo, demostrando la importancia de esta profesión debido a las numerosas actividades realizadas.

Palabras claves: Cuidado de enfermería; Pacientes; Politrauma.

RESUMO | OBJETIVO: Descrever os cuidados de enfermagem ao paciente politraumatizado grave. **MÉTODO:** Revisão integrativa com buscas nas bases de dados CINAHL, MEDLINE/BIREME, IBECs, BDNF e LILACS, utilizando os MeSH (Medical Subject Headings) obtidos através da estratégia PVO e operador booleano em duas estratégias distintas: estratégia 01 "nursing care AND multiple trauma" e estratégia 02 "nursing care AND patient AND multiple trauma". **RESULTADOS:** Após buscas e aplicação dos critérios de elegibilidade restaram uma totalidade de 09 artigos. Nesse sentido, observou-se que os cuidados de enfermagem ao paciente politraumatizado estão ligados ao âmbito do manejo adequado com a estrutura corporal, com ênfase na técnica de imobilização; aos cuidados à restauração e manutenção da pele; à administração medicamentosa e controle da dor; e, ao monitoramento de sistemas fisiológicos. **CONCLUSÃO:** O cuidado de enfermagem é um instrumento complexo que abrange o ser em sua totalidade, onde na assistência ao politraumatizado várias intervenções são necessárias para que haja progressão no estado de saúde deste indivíduo, demonstrando a importância desta profissão em virtude das inúmeras atividades desempenhadas.

Palavras-chaves: Cuidados de enfermagem; Pacientes; Politraumatismo.

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INTRODUCTION

The socioeconomic and political changes, the increase in urbanization and the development of automobiles have raised important public health problems, including accidents and traffic violence. Currently, Brazil occupies the fifth place in numbers of traffic accidents. Every day, 16 thousand people die from traumatic injuries. For every victim who dies many others survive, however, with sequelae that have lasted for a lifetime. ⁽¹⁾

One of the most important of a highly significant character in the whole social area is trauma. Taking into account that death from heart disease or cancer decreases the life, on average, of 10 to 15 years, of a citizen, the death that results from a trauma reaches values of 30 to 40 years of a productive life, once that the problem mainly affects young individuals. ⁽²⁾

Assistance to people with physical traumas should be carried out in a multiprofessional way, however, this is experienced in a more integral way by the professional nurse, who considers the client as being biopsychosocial, not just stopping the curative practice, as nursing care is a dynamic and complex process. ⁽³⁾

As nursing care is an instrument based on judgment and clinical knowledge carried out by nurses, these are attributed in view of real, behavioral, family or community results and individual perceptions, which are measured during the evaluation process, so that treatment with implementation of specific actions. ⁽⁴⁾

The nurse's role in assisting polytrauma patients is fundamental and indispensable, since the approach and attention directed to these victims must be done effectively, going beyond the integration of care systems: prevention, pre-hospital care and hospital, and rehabilitation. In this sense, the victim needs specialized and continuous attention not only in the initial care and admission, but in the entire process until the moment of hospital discharge. ⁽¹⁾

Polytrauma is due to some trauma-



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tic event in which there is a great loss of energy, such as traffic accidents, falls, pedestrian accidents, injuries by firearms, among other causes that may cause no individual of greater severity. This problem presents, among other impasses, a burden on public health services, in addition to personal, economic and social losses. Despite all this, it was neglected as a disease for a long time, due to its connotation of an accident, something unexpected, however, like any other pathology, there is already a diagnosis and implementation of preventive measures, such as actions control for assistance. ⁽⁵⁾

Given the above, the study aims to describe nursing care for severely traumatized patients.

METHOD

The study is an integrative literature review based on the model described by Mendes, Silveira and Galvão ⁽⁶⁾, which was divided into six stages: a) First stage: identification of the theme and selection of the hypothesis for the elaboration of the integrative review; b) Second stage: establishment of criteria for inclusion and exclusion of studies/sampling and literature search; c) Third stage: definition of the information to be extracted from the selected studies/categorization of the studies; d) Fourth stage: evaluation of the studies included in the integrative review; e) Fifth stage: interpretation of results; f) Sixth stage: presentation of the knowledge review / synthesis.

The first stage was constituted to obtain articles appropriate to the objective of the study, using the search strategy Population, Variables and Outcomes (PVO), described in table 01.

Table 1. PVO strategy for obtaining MeSHs.

Acrônimo	Componentes	Mesh
Population	Pacientes	Patient
Variables	Poli traumatismo	Multiple trauma
Outcomes	Cuidado de enfermagem	Nursing care
Source: Own elaboration		

The second stage took place through the establishment of inclusion and exclusion criteria in order to guide the search and selection of articles. Studies available in full and published between 2013 and 2018 were filtered, as they present updated approaches on the theme. Included were: original articles, available in English, Portuguese and Spanish; and, excluded: review articles, reflection, documentaries, monographs, dissertations, theses, projects, abstracts and reports; repeated studies in different databases; and, that did not fit the theme addressed, for this purpose, the titles and abstracts were read.

The studies were selected from the databases Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medical Literature Analysis and Retrieval System Online (MEDLINE / BIREME), Bibliographic Index Español em Ciencias de la Salud (IBECS), Nursing Database (BDENF), Latin American and Caribbean Literature in Health Sciences (LILACS). Medical Subject Headings (MeSH) and Boolean operator were used in two different strategies: strategy 01 “nursing care AND multiple trauma” and strategy 02 “nursing care AND patient AND multiple trauma”.

The third stage consisted of categorizing the results through the composition of a table composed of Author / year /, objectives, outcome and article number.

The fourth stage took place through the classification of the level of evidence of the articles, proposed by Pompeo, Rossi and Galvão (7), from the level of best methodological quality to the level of least evidence, which were as follows:

The fifth stage, occurred through the interpretations of the articles. At this stage, it was possible to notice that, in the researched bases, there were articles about the theme in the given period.

- Level I of evidence - Systematic review or meta-analysis (synthesis of evidence from all relevant randomized controlled trials).
- Level II of evidence - Evidence derived from at least one randomized, controlled, well-defined clinical trial.
- Level III of evidence - Evidence obtained from well-defined clinical trials, without randomization.
- Level IV of evidence - Evidence from well-defined cohort and case-control studies.
- Level V of evidence - Evidence would originate from a systematic review of descriptive and qualitative studies.

The Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) instrument was used ⁽⁸⁾, to demonstrate the search and selection of studies, as illustrated in image 1:

After searching and applying the eligibility criteria, a total of 9 articles remained, which were used to build the study. Among those that did not fit

RESULTS

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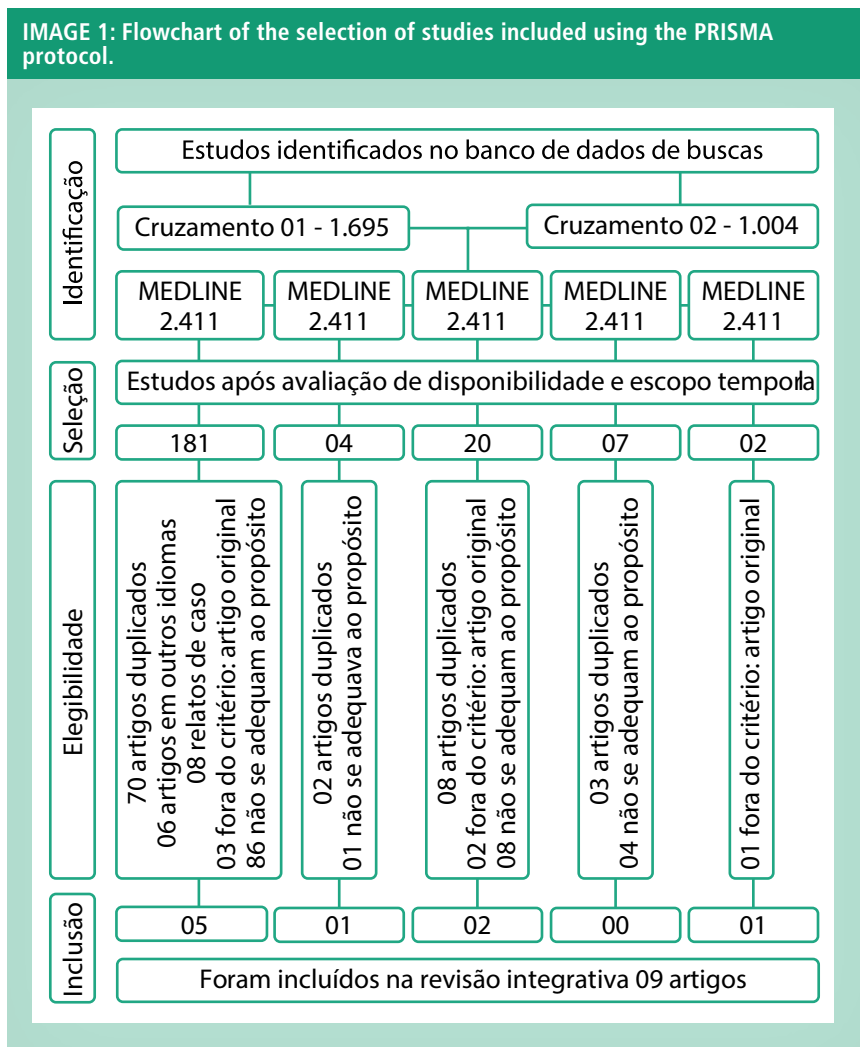


Table II. Objectives and main findings of the articles.

Objetivo	Achados	Artigo	Ano/Autor
Investigar o manejo definitivo de pacientes politraumatizados em uma enfermaria ortopédica italiana.	O manejo terapêutico é realizado de acordo com a avaliação de sinais vitais, onde a dor é tratada como um sinal vital. Há enfoque no cuidado com a pele, estado nutricional e administração medicamentosa. Entre outros aspectos como educação, reabilitação (onde a mobilização difere de acordo com as lesões) e descarga (onde a alta hospitalar não significa que os cuidados parem).	9	BIZ et al., 2016
Examinar o impacto de um pacote de cuidados baseados em evidências sobre o conhecimento dos enfermeiros de emergência tailandeses sobre o manejo de pacientes com traumatismo cranioencefálico grave.	Há foco na avaliação de áreas de conhecimento denominadas principais para o melhor atendimento clínico para diminuir risco de complicações e lesões cerebrais secundárias, que são: o manejo de vias aéreas e a proteção da coluna cervical, o gerenciamento de ventilação, gestão de circulação, posicionamento, reavaliação do paciente, monitorização da pressão intracraniana, gestão de dor e irritabilidade e o diagnóstico por imagem.	10	DAMKLIANG et al., 2015
Pesquisar o conhecimento dos enfermeiros sobre o manejo da dor em pacientes com traumatismos cranioencefálicos relacionados ao combate (TBI).	Este estudo identificou lacunas no conhecimento sobre o manejo da dor. Concluindo que os enfermeiros precisam de educação adicional em relação a síndromes de dor comuns, tratamentos disponíveis e um melhor entendimento do vício para proporcionar um tratamento ideal para esses pacientes.	11	JAIMES et al., 2014
Avaliar o conhecimento de estudantes de enfermagem sobre as práticas de cuidado voltadas para pacientes politraumatizados.	A avaliação inicial do paciente segue-se o padrão mnemônico ABCDE, que oferta um atendimento de acordo com a prioridade, onde de imediato deve-se realizar a abertura das vias aéreas e ofertar oxigênio, e logo em seguida realizar o controle de sangramento e reposição volêmica. A hemorragia presente nos politraumatizados é considerada como o principal fator desencadeante dos quadros de choque, e requer do socorrista atuação imediata no controle e tratamento deste sangramento.	12	Bezerra et al., 2015
Analisar o processo de implantação de um Registro de Trauma em um hospital universitário.	É importante entender o conceito de que o controle de qualidade não é um meio de punir as pessoas, mas uma ferramenta para protegê-las. Nos centros de trauma mais desenvolvidos, a coleta de dados é feita profissionalmente. Existe o papel da Enfermeira de Trauma, com treinamento específico e paga exclusivamente para trabalhar em registro de trauma.	13	PARREIRA et al., 2015
Fornecer recomendações baseadas nas melhores evidências disponíveis com a intenção de atuação normatizadora no cuidado adulto com traumatismo cranioencefálico grave.	As intervenções em um atendimento inicial ao paciente traumatizado consiste na permeabilidade das vias aéreas, na ventilação adequada para prevenção de hipóxia, monitorização da circulação com foco em quadro hipotensivo e restituição de volemia, em alterações do nível de consciência ou outros déficits neurológicos, inspeção qualificada descobrindo o corpo para ter maior visibilidade das estruturas, intervenções quanto a perfusão tissular com infusão sanguínea quando necessário.	14	LÓPEZ-MORALES et al., 2015
Avaliar a carga de trabalho de enfermagem e verificar a correlação entre carga de trabalho e o índice de gravidade APACHE II.	Nas atividades analisadas, encontram-se as investigações laboratoriais, medicações, medida quantitativa do débito urinário, suporte e cuidado aos familiares e pacientes que requerem dedicação exclusiva por cerca de 1 hora, tratamento para melhora da função pulmonar, cuidados com drenos, cuidados com vias aéreas artificiais e tarefas de rotina como processamento de dados, solicitação de exames e troca de informações profissionais.	15	SOUZA et al., 2013
Descrever as experiências de enfermeiras recém-formadas no cuidar de pessoas com amnésia pós-traumática.	Os temas que emergiram das transcrições foram: percepções de comportamento, dificuldades no manejo clínico, segurança, risco de perambulação, apoio externo, contenção e defesa da segurança do paciente.	16	SEARBY, 2014
Identificar os fatores relacionados à alta carga de trabalho de enfermagem necessária para vítimas de trauma internadas na UTI.	Foram citados aspectos voltados à assistência como: o aumento do número de regiões afetadas, a gravidade fisiológica do paciente, execução de procedimentos higiênicos, trocas de curativos, monitoramento, posicionamento dos pacientes, mais encontra-se entre os fatores que impactam sobre a carga de trabalho à assistência ao paciente que desenvolve insuficiência pulmonar.	17	NOGUEIRA et al., 2014

the theme were studies that spoke with a focus on other associated pathologies, psychiatric trauma, evaluation of scores, protocols and instruments, assistance provided by others than nurses, trauma prevention actions, among other aspects that did not configure nursing care for people with mechanical trauma.

Aspects and main findings were captured in the studies, illustrated in Table II.

DISCUSSION

The role of the professional nurse in the context of trauma, is more focused on the treatment of wounds, where it is seen as an essential competence of this professional, who in turn requires theoretical knowledge that can guarantee the quality of care provided, as well as also act in the prevention of other skin deterioration related to this event. ⁽¹⁾

In 2016, a study investigated interventions contained in the evolution of nursing in patients followed by an outpatient specialized in the treatment of wounds, showing that in items such as: application of products, the use of essential fatty acids and hydrogel stood out; the types of bandage, were related to occlusion with sterile gauze and crepe bandage in crescent spiral; the guidelines were related to the dressing at home; the continuity of treatment was made through a return schedule; among other aspects found. ⁽²⁾

Other interventions are essential in the execution of the process, such as: applying the appropriate dressing to the skin; maintain aseptic technique during the performance; document the location, size and appearance of the lesion; apply topical antibiotic to the affected area; describe clothing appropriate to the affected area; guide patient and family about wound care; and, other pertinent actions. ⁽²⁾



Currently, nursing care for patients with spinal cord trauma has become a frequent practice, however, it is observed that some still face difficulties in aspects such as observation of the problem, manipulation, rehabilitation and insertion of this individual in the family and social environment.



Proper body management is paramount to avoid worsening damaged structures with the injury. This technique is called immobilization, which consists of a technical act used to control or prevent movements of any body structure. ⁽¹⁸⁾

Currently, nursing care for patients with spinal cord trauma has become a frequent practice, however, it is observed that some still face difficulties in aspects such as observation of the problem, manipulation, rehabilitation and insertion of this individual in the family and social environment. This study listed problems experienced by the population with spinal cord injury, where low self-esteem is found; cold; sphincter dysfunction; pressure ulcers; mobilization aid; spiritual help; body hygiene; financial concern; food; lethargy and pain. ⁽¹⁹⁾

Pain is an important sign to be investigated in trauma patients, although it receives a subjective evaluation, it must be measured frequently, as this symptom directly interferes with the individual's health status. In a study found, nurses reported that patients with head trauma reported more pain intensity, however, only 40% of them were able to correctly identify the appropriate medication to treat pain, noting that they need additional education on treatment for pain syndromes. ⁽⁸⁾

In addition to the professional shortage of pain / medication, another point that draws attention in the studies obtained is the classification of cardiopulmonary resuscitation guidelines, where the order described is ABCDE, however, in October 2010 the American Heart Association published new guidelines recommending that cardiopulmonary resuscitation was reordered, then proceeding to obey the CABDE sequence (circulatory assistance, airway opening, breathing/ventilation, neurological assessment, exposure and environmental control). ⁽²⁰⁾

CONCLUSION

Nursing care is a complex instrument that must encompass aspects not only of a biomedical nature, as there is a need to contemplate the being in all his biopsychosocial state, where holistic and humanized care are fundamental to the client's recovery process with poly trauma.

This care can be evidenced in se-

veral aspects, with emphasis on the development of actions aimed at the maintenance of the skin, the control of physical mobility, the control of pain, since polytrauma patients are susceptible to high levels of pain due to their own condition. In this sense, it is extremely important that nursing is able to identify the pain signals that the patient emits and intervene in order to control it and prevent its

exacerbation, to drug treatment and to stabilize the body's physiological functions.

In short, it is evident that nursing is fundamental in the process of recovery of patients with multiple trauma, taking into account the constant and continuous presence of the nurse with the patient and the assistance provided to him during the entire hospitalization process. 🌱

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