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Original article

PROFILE OF USERS ATTENDED AT A WOUND CARE OUTPATIENT CLINIC

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ABSTRACT: The objective was to characterize the profile of the patients attended at a wound care outpatient clinic. A descriptive, retrospective and quantitative study was undertaken at a wound care outpatient clinic in the interior of the state of São Paulo, in a population of 347 patient histories, between 2012 and 2014. As a result, the following characteristics were predominant: male sex (207/59.6%), age between 19 and 59 years (56%) and married (151/43.5%). It was observed that 203 (58.5%) presented some comorbidity and 103 (29.6%) some type of habit, mainly smoking and alcohol consumption. As regards the wound characteristics, 225 (64.9%) presented only one wound and 90 (26%) of the suture dehiscence type, 176 (46.2%) of the lesions were located on the upper body and the most used treatment involved hydrogels (153/21.3%). In conclusion, knowing the population profile allows the nurse to specifically plan health care, evidencing the importance of this professional in wound care.
DESCRIPTORS: Nursing care; Outpatients; Wound healing; Epidemiology.

PERFIL DOS USUÁRIOS ATENDIDOS EM AMBULATÓRIO DE CUIDADO COM FERIDAS

RESUMO: O objetivo da pesquisa foi caracterizar o perfil dos pacientes atendidos em ambulatório de cuidado com feridas. Trata-se de estudo descritivo, retrospectivo, quantitativo, realizado em ambulatório de cuidado com feridas no interior do estado de São Paulo, com população de 347 prontuários, no ano de 2012 a 2014. Como resultado, houve predominância do sexo masculino (207/ 59,6%), idade entre 19 e 59 anos (56%) e casados (151/ 43,5%). Observou-se que 203 (58,5%) apresentavam alguma comorbidade e 103 (29,6%) algum tipo de hábito, principalmente tabagismo e etilismo. Com relação às características da ferida, 225 (64,9%) apresentavam apenas uma ferida e 90 (26%) do tipo deiscência de sutura, 176 (46,2%) das lesões localizavam-se no tronco e o tratamento mais utilizado foi com hidrogéis (153/ 21,3%). Concluiu-se que o conhecimento do perfil da população permite ao enfermeiro realizar planejamento específico de assistência à saúde, evidenciando a importância deste profissional no cuidado às feridas.
DESCRITORES: Cuidados de enfermagem; Pacientes ambulatoriais; Cicatrização de feridas; Epidemiologia.

PERFIL DE LOS USUARIOS ATENDIDOS EN AMBULATORIO DE CUIDADO CON HERIDAS

RESUMEN: El objetivo de la investigación fue caracterizar el perfil de los pacientes atendidos en ambulatorio de cuidado con heridas. Se trata de estudio descriptivo, retrospectivo, cuantitativo, desarrollado en ambulatorio de cuidado con heridas en el interior del estado de São Paulo, con población de 347 archivos, entre 2012 y 2014. Como resultado, predominaron el sexo masculino (207/ 59,6%), edad entre 19 y 59 años (56%) y casados (151/ 43,5%). Se observó que 203 (58,5%) presentaban alguna comorbilidad y 103 (29,6%) algún tipo de hábito, principalmente tabaquismo y etilismo. Respecto a las características de la herida, 225 (64,9%) presentaban solamente una herida y 90 (26%) del tipo dehiscencia de sutura, 176 (46,2%) de las lesiones se localizaban en el tronco y el tratamiento más utilizado fue conhidrogeles (153/ 21,3%). Se concluyó que el conocimiento del perfil de la población permite al enfermero la planificación específica de la atención de salud, evidenciando la importancia de este profesional en el cuidado a las heridas.
DESCRIPTORES: Atención de enfermería; Pacientes ambulatorios; Cicatrización de heridas; Epidemiología.

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INTRODUCTION

The skin is an organ that covers the entire body for the purpose of protection against the external midst, identification, absorption, excretion, sensitivity, among other important functions. The occurrence of an open injury in the cutaneous tissue is called a wound, which is also defined as a skin continuity solution[1-2].

Factors classified as extrinsic or intrinsic are related to the occurrence of wounds. The main extrinsic factors are external traumas. The intrinsic factors, on the other hand, are predominantly associated with comorbidities, such as Diabetes Mellitus (DM), Systemic Arterial Hypertension (SAH), Obesity, Neoplasms, Vasculopathies, among others[3-4].

The increased life expectancy and aging are related to the higher frequency of chronic illnesses and comorbidities in the population. The presence of comorbidities predisposes to the development of complex wounds that are difficult to health and whose treatment requires a multiprofessional approach. In view of the countless factors related to the appearance of wound, the importance of expert nurses' work and of knowing the target population is emphasized[2-4].

Complex wounds can be classified as acute or chronic. Usually, acute wounds are injuries that heal within the expected time and in accordance with the stages of the healing process. Examples are traumatic and surgical injuries. Chronic wounds, on the other hand, are long-lasting or relapsing wounds and are normally associated with comorbidities. Examples are diabetic lesions, vasculogenic ulcers, neoplastic wounds, among others[3,5].

The wounds provoke different impacts in the population, such as increased treatment costs for the health institutions as well as the families. Complex lesions, mainly of the chronic type, demand specialized interdisciplinary care, use of technological products and long treatment periods. In addition, the presence of these lesions often causes absence from professional activities. Hence, the quality of life is also impaired, as the accomplishment of daily activities becomes harder and, often, individuals with wounds need help from other people to accomplish those activities[5-7].

The role of the nurse expert in care for individuals with wound includes general assessment, through the patient history and physical examination; specific assessment of the wound; choice of what product to use; monitoring and assessment of the treatment. Different injury characteristics should be taken into account in the choice of the product for its care. The type of tissue present, the injury dimensions, the volume and characteristic of the exudate, presence of smell and analysis of the border and skin surround the injury[8-9].

Today, countless products exist on the market and new technologies are available for wound care. The choice of the best treatment takes into account the risk factors and comorbidities the individual presents, as well as the characteristics of the injuries and their sociodemographic conditions. Therefore, specialized multiprofessional care is needed, including expert nursing care, besides the need to know all characteristics of the patient, family and the environment they live in[5,8-9].

In view of the literature review, the goal in this research was to answer the following guiding question|: What is the profile of the population attended at an outpatient clinic specialized in wound care?

It is highlighted that knowing the characteristics of the users attended at the wound care outpatient clinic is essential with a view to understanding their profile and the changes needed to organize the service and improve the quality of nursing care.In this context, the objective in this study was to characterize the profile of the patients attended at an outpatient clinic specialized in wound care.

METHOD

Quantitative, descriptive and retrospective study undertaken at a wound care outpatient clinic located in an interior city in the state of São Paulo. At this clinic, patients with acute and chronic generally complex wounds are attended, which need specialized monitoring.

The outpatient clinic is located at the Specialty Outpatient Clinic of the *Hospital de Base de São José do Rio Preto*, state of São Paulo, which covers the entire city and the region corresponding to Regional Health Department (DRS) XV, including 102 cities. DRS XV is part of the administrative division of the State of São Paulo Health Department, with a view to promoting the regionalization of the responsibilities and intersectoral articulation. In addition, users from other regions of the country are also attended, such as Mato Grosso, Paraná and Minas Gerais, showing that this clinic is a referral service in the state and country. On average, 600 consultations per year take place at this clinic.

In the study, all patients attended at the service between January 2012 and December 2014. Patient histories beyond that period were excluded.The data were collected through a survey in the database of the hospital's electronic system, using the patients' electronic histories. The data were collected between June and August 2015, by means of a data collection instrument the researchers had elaborated, including sociodemographic and clinical data.

To collect sociodemographic information, the following variables were considered: sex, age, marital status, city of residence and education. As regards the clinical characteristics, the following variables were selected: comorbidities, habits (alcohol consumption and smoking), types and number of wounds present, location of the injuries and therapies used.

The results were grouped, organized in tables in Microsoft Excel 2007 and processed in Bioestat 5.3 through descriptive statistics; absolute and relative figures were presented for the variables, followed by the analysis.

The study is linked to the research project entitled "Characteristics of patients attended at a Nursing outpatient clinic for wound care", which received approval from the Ethics Committee forResearch involving Human Beings at the School of Medicine, São José do Rio Preto (FAMERP); opinion 949.814.

Due to difficulties during the data collection, such as the absence of information in some patient histories, such as medical diagnosis, patient's profession and frequency of dressing change, this information was not added in the worksheets and did not figure in the results, so as not to compromise the statistical analysis. This fact can be considered a research limitation.

RESULTS

Between 2012 and 2014, 347 patients were attended at the clinic, constituting the research population, representing 1,600 consultations in total. According to Table 1, male patients were predominant. The age varied between 07 and 96 years, with an average of 54 years, standard deviation of 19 and variation coefficient of 35.4%. What the marital status is concerned, married people predominated (151/ 43.5%).

Patients coming from 58 cities in Regional Health Department (DRS) XV prevailed. Considering the education level, unfinished primary education was predominant, corresponding to 143 (41.2%).

Table 1 – Distribution of sociodemographic characteristics of patients attended at the wound care outpatient clinic. São José do Rio Preto, SP, Brazil, 2012-2014 (continues)

Variables	Frequency	%
Sex		
Male	207	59.6
Female	140	40.4
Age		
0-11	4	1.1
12-18	7	2
19-38	72	20.8
39-59	122	35.2
60 or older	142	40.9

Marital status		
Married	151	43.5
Single	95	27.4
Divorced	29	8.4
Widowed	35	10
Fixed partner	35	10
No information	2	0.7
Origin		
São José do Rio Preto	135	39
Cities in the region	212	61
Education		
Illiterate	36	10.3
No information	22	6.3
Unfinished primary	143	41.2
Finished primary	50	14.4
Unfinished secondary	18	5.2
Finished secondary	63	18.2
Unfinished higher	4	1.2
Finished higher	11	3.2

As observed, a large number of patients had at least one comorbidity (203/58.5%), corresponding to more than half of the population. The main comorbidity was SAH (73/35.9%) and the association between SAH and DM (51/25.1%). Other comorbidities were Dyslipidemias (DLP), followed by Peripheral Vascular Failure, Anemia, Chronic Kidney Failure (CKF) and Chronic Osteomyelitis, observed in 68 patients. Among the patients who presented some habit, 50 (48.5%) were smokers (Table 2).

Table 2 – Patients attended at the wound care outpatient clinic according to comorbidities and present habits. São José do Rio Preto, SP, Brazil, 2012-2014

Variables	**Frequency**	%
Comorbidities		
Yes	203	58.5
No	144	41.5
Type of comorbidity(1)		
DM*	25	12.3
SAH**	73	35.9
DM *+ SAH**	51	25.1
Neoplasms	57	28
Others(2)	76	37.4
Habits		
Yes	103	29.6
No	244	70.4
Type of habit(1)		
Smoking	50	48.5
Alcohol consumption	30	29.1
Former smoking	39	37.8
Former alcohol consumption	22	21.3
Illegal drugs	4	3.8

(1)The same patient can present more than one comorbidity or habit.
(2)Recurrent urinary tract infection, chronic kidney failure, asthma, anemia, hepatitis C, systemic lupus erythematosus, osteomyelitis, AIDS, obesity, peripheral vascular failure, tuberculosis, Goldenhar Syndrome, congestive heart failure, liver cirrhosis, thalassemia, Chagas' disease, chronic obstructive pulmonary disease, dislypidemias.
*Diabetes Mellitus
**Systemic Arterial Hypertension

In view of the clinical characteristics of the wound, we found that patients with one injury were predominant (225/64.9%). As regards the wound type, suture dehiscence prevailed (90/26%), followed by pressure lesion (85/24.5%) and traumatic lesion (71/20.5%). These three types of wounds represented 246 (71%) of all lesions studies. What the location of the wounds is concerned, 334 (87.7%) were located on the Lower Limbs (LL) and upper body, as displayed in Table 3.

Table 3 – Patients attended at wound care outpatient clinic according to number and type of wounds, location and products used. São José do Rio Preto, SP, Brazil, 2012-2014

Variables	Frequency	%
Number of wounds		
1	225	64.9
2	63	18.2
3 or more	59	16.9
Wound type		
Suture dehiscence	90	26
PL*	85	24.5
Traumatic	71	20.5
Tumor	18	5.2
Abscess	15	4.3
Venous ulcer	13	3.7
Others	55	15.8
Injury locations(1)		
LL**	158	41.5
UL***	14	3.7
Upper body	176	46.2
Head	23	6
Neck	10	2.6
Products used in the dressings(2)		
Hydrogels	153	21.3
Papaine	138	19.2
Sulfadiazina de prata 1% silver sulphadiazine + 0.4% cerium nitrate	99	14
Aloe vera gel	81	11.3
EFA****	64	8.9
Antimicrobial plaque	59	8.2
Others(3)	123	17.1

(1)Each patient can present more than one lesion at different locations.
(2)Each patient may have been treated with more than one type of product.
(3)Stryphnodendron adstringens, growth factor, ginger glycolic extract, barrier cream, 0.9% saline solution, 10% urea moisturizer.
*Pressure Lesion
**Lower Limbs
***Upper Limbs
****Essential Fatty Acids

Also in Table 3, we can observed that the main products used to treat the lesions were: hidrogels (153/21.3%), including hydrogel associated with Polyhexamethylene Biguanide (pHMB) and hydrogel associated withcalcium alginate; papain (19.2%) and1% silver sulfadiazine associated with 0.4% cerium nitrate (99/14%).

DISCUSSION

According to the results, in the study, male elderly patients with chronic injuries were predominant. In line with the literature, it is observed that men visit health services less to promote and prevent injuries. That can be observed in a study developed in the South of Brazil at a prevention and treatment outpatient clinic of SAH, with a prevalence of women attended at this service[10]. Hence, based on the data analysis, it can be inferred that male persons visit the health services when health problems are evidenced.

In this study, an important part of the traumatic wounds were traumatic (20.5%). In addition, many wounds occurred in the lower limbs (LL) (56.2%). Considering the analysis of the relation among age, gender and the occurrence of traumatic wounds in the population, a study undertaken in the state of Piauí can be mentioned, with a prevalence of motorcycle accidents in young and male patients between 18 and 29 years of age. Also, most of these injuries (41.5%) happened in the LL, corresponding to the present research results[11].

These characteristics can be explained by the lack of experience and inability of young people to perceive danger[11]. In that context, health professionals are very important in education for accident prevention. Furthermore, knowing the injury causes permits planning prevention actions.

Also evidencing the importance of age in the relation with the origins of the injury, in a study developed in Belo Horizonte, it could be observed that a minority of the lesions (6.3%) was traumatic, while the majority (68.3%) was associated with chronic illnesses, the most frequent population being elderly. In this study, the result differed, as one of the most prevalent injury types was traumatic and the prevalent population mainly consisted of young adults. Hence, based on the analysis, it can be verified that younger patients tend to present traumatic wounds, while elderly patients tend to present chronic wounds[2,11-12].

In that sense, to modify this situation, the planning of prevention and health promotion strategies is essential to avoid health problems due to the comorbidities, improving the population's quality of life and reducing spending on health[5-7,13].

Proceeding with the analysis of the population's sociodemographic conditions, most patients had not finished primary education and lived in small cities in the region, corresponding to 41.2% and 61.0%, respectively. The low education level and the fact of living in small cities can represent limited resources and greater difficulties to access the health services, which influence the continuity of the therapeutic regimen, also hampering the self-care[5,14].

In addition, the understanding of the information provided can be impaired. Therefore, the orientations provided during the consultations should be as clear as possible and the feedback on the understanding of this information should be questioned, permitting the continuity of the treatment[5,14].

Although traumatic wounds represent 20.5% of the total sample in this research, the most frequent wound type was suture dehiscence (26.0%), one of the most frequent complications of surgical wounds. Some factors can influence the healing of surgical wounds, making the wound complex with second-intention healing, demanding specific treatment[15].

Surgical wound dehiscence corresponds to the partial or total rupture of the epithelial tissue and deep levels. The literature discusses various predisposing factors of this condition, including Diabetes Mellitus (DM), Systemic Arterial Hypertension (SAH), smoking and surgical site infection, which provoke significant changes in the healing process[15-17]. In this study, 73.3% of the patients with some comorbidity suffered from DM, SAH or the association of both.

The presence of excess glucose in the bloodstream provokes the reduced concentration of

serum nitric oxide. This reduction promotes endothelial dysfunction, causing a peripheral ischemic microenvironment, which reduces the rate of angiogenesis. In addition, it promotes the reduction of the growth factor response. All of these changes culminate in the delay of the healing process, favoring the occurrence of suture dehiscence in surgical wounds[18].

Chronic blood pressure increase also provokes microvascular changes. The blood vessels tend to increase the thickness of the vessel walls, reducing their lumen. Hence, the peripheral blood flow decreases, reducing the supply of oxygen and nutrients to the wound. Also, the local hypoxia decreases the collagen deposits and inhibits phagocytic action, provoking delayed healing[19].

As for the presence of habits like smoking and alcohol consumption, 86.3% of the patients who had some habit declared current or previous smoking at some moment in life. Chronic exposure to smoking causes important vascular changes. The main change is peripheral vasoconstriction, which reduces the lumen of the blood vessels and impairs the intake of oxygen and local nutrients. In addition, the nicotine, the main component of cigarettes, makes oxygen transport in the red blood cells difficult, aggravating the tissue hypoxia. The local oxygen reduction negatively affects the neoangiogenesis and the multiplication of fibroblasts in the wounds and provides for a microenvironment favorable to bacterial growth, thus increasing the risk of infection[20].

Countless aspects are related to the occurrence of wounds in the population, as observed earlier. This fact enhances the complexity of these patients' assessment, treatment and monitoring. It also shows the importance of knowing the products available in the market, as well as the indication of each of them[9].

The main objectives of a dressing are to control the microbial load, protect against traumas, maintain a moist environment, favoring the cell multiplication, and stimulate the epithelialization. Therefore, all wound characteristics should be assessed, such as the extension, depth, presence of tunnels and fistulae, type of tissue, quality and quantity of secretion, besides the skin surrounding the injury, permitting the correct indication of the products using in the treatment[9].

Today, a considerable amount of products exist in the market to favor the healing process. The main products used in this study were: hydrogels, associated with calcium alginate and Polyhexamethylene-biguanide (pHMB), papaine and 1% silver sulfadiazine plus 0.4% cerium nitrate, corresponding to 54.5% of the products used. The use of Aloe vera gel ranked fourth, followed by Essential fatty acids (EFA) and antimicrobial plaques. In a study at a wound care outpatient clinic in the state of Rio de Janeiro, hydrogel was used in 30% of the patients, EFA in 23% and collagenase in 16%[8].

The choice of what products to use in the wound treatment mainly considers the injury characteristics. Most products maintain a moist environment, favoring cell multiplication and migration, besides promoting autolytic debridement. Plaques like silver hydrofiber and sodium alginate and calcium also absorb excessive secretion and are antimicrobial, due to the presence of silver. Papain and collagenase maintain a moist environment and have debriding properties, favoring the removal of devitalized tissue due to their enzymatic action[8].

In the choice of the most suitable product, besides assessing the wound itself, the patients' socioeconomic condition and education should also be taken into account. One of the problems faced refers to the high cost of many treatments and the lack of these products in the public network. Thus, often, the patients need to purchase the products, which puts a strain on the family income[8].

In view of the present study data and the literature findings, the importance of knowing the population that is taken care of is highlighted. The information provides knowledge on the main needs of the population and permits optimizing the treatment and using suitable and accessible products. It also admits the planning of health promotion, prevention and recovery actions, in accordance with this group's need. In addition, the importance of the expert nurses' activities is observed, who are responsible for analyzing all of these data[8,21].

As a study limitation, the data collection through patient histories can be evidenced, making the researcher dependent on the inclusion of data by the professionals responsible for the wound care. Therefore, some data had to be withdrawn from the analysis to guarantee the reliability of the data.

CONCLUSION

Through the study, the profile of the study population could be outlined. The main characteristics found were: male patients, elderly, married, from cities in the region of São José do Rio Preto, with unfinished primary education and suture dehiscence (90/26%), pressure lesion (85/24.5%) and traumatic injury (71/20.5%).

It was evidenced that most patients with wound presented comorbidities (58.5%), demanding educational intervention. This fundamental role of nurses permits evidencing the occurrence of complications deriving from background conditions. In addition, the education profile of the population could be observed, with a view to intervening through educational proposals accessible to the individuals' characteristics.

Therefore, it was concluded that knowing the population permits outlining some improvements for practice, such as the planning and execution of specific activities. The importance of care at an outpatient clinic specialized in wound care and of the activities of nurse experts was evidenced. These professionals are responsible for the assessment, conduct, execution and monitoring of the lesions and patients, always taking into account the individual's physical, emotional, sociodemographic and cultural dimensions.

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