Journal of Nursing
Revista de Enfermagem
UFPE On Line
ISSN: 1981-8963

ORIGINAL ARTICLE

EVALUATION OF ANXIETY AND DEPRESSION IN PATIENTS WITH VENOUS ULCERS TREATED WITH ACUPUNCTURE

AVALIAÇÃO DA ANSIEDADE E DA DEPRESSÃO EM PACIENTES COM ÚLCERA VENOSA TRATADOS COM ACUPUNTURA

EVALUACIÓN DE LA ANSIEDAD Y DE LA DEPRESIÓN EN PACIENTES CON ÚLCERA VENOSA TRATADOS CON ACUPUNTURA

Maria de Lourdes Guarnieri Barbosa[1], Geraldo Magela Salomé[2], Lydia Masako Ferreira[3]

ABSTRACT

Objective: to evaluate anxiety and depression in individuals with venous ulcer who received acupuncture as an adjunctive treatment. ***Method***: this is a quantitative, descriptive, multicenter, analytical, prospective, comparative and controlled study in 80 patients with a venous ulcer, of both genders, attended at the Basic Health Unit and Family Health Strategy (ESF). The Hospital Anxiety and Depression Scale (HADS) was administered to all patients. ***Results***: the mean HADS score for anxiety in the Study Group was 9.30 in the first week and 3.35 in the third week of treatment, and in the Control Group it was 12.78 in the first week and 3.0 in the third week. The mean HADS score for depression in the Study Group was 8.25 in the first week and 4.43 in the third week of treatment, and in the Control Group was 12.70 in the first week and 5.0 in the third week of treatment. ***Conclusion***: Patients in the Study Group showed improvements in anxiety and depression after 6 sessions of acupuncture. ***Descriptors***: Acupuncture Therapy; Quality of Life; Anxiety; Depression; Varicose Ulcer.

RESUMO

Objetivo: avaliar ansiedade e depressão em indivíduos com úlcera venosa que receberam acupuntura como tratamento coadjuvante. ***Método*:** estudo quantitativo, descritivo, multicêntrico, analítico, prospectivo, comparativo e controlado em 80 pacientes com úlcera venosa, de ambos os sexos, atendidos na Unidade Básica de Saúde e Estratégia Saúde da Família (ESF). A Escala Hospitalar de Ansiedade e Depressão (HADS) foi administrada a todos os pacientes. ***Resultados***: o escore HADS médio para ansiedade no Grupo Estudo foi de 9,30 na primeira semana e 3,35 na terceira semana de tratamento; e no Grupo Controle foi de 12,78 na primeira semana e 3,0 na terceira semana. O escore HADS médio para depressão no Grupo Estudo foi de 8,25 na primeira semana e 4,43 na terceira semana de tratamento; e no Grupo Controle foi de 12,70 na primeira semana e 5,0 na terceira semana de tratamento. ***Conclusão*:** os pacientes do Grupo Estudo apresentaram melhoras na ansiedade e depressão após 6 sessões de acupuntura. ***Descritores*:** Terapia por Acupuntura; Qualidade de Vida; Ansiedade; Depressão; Úlcera Varicosa.

RESUMEN

Objetivo: evaluar ansiedad y depresión en individuos con úlcera venosa que recibieron acupuntura como tratamiento coadyuvante. ***Método*:** estudio cuantitativo, descriptivo, multicéntrico, analítico, prospectivo, comparativo y controlado en 80 pacientes con úlcera venosa, de ambos sexos, atendidos en la Unidad Básica de Salud y Estrategia Salud de la Familia (ESF). La Escala Hospitalaria de Ansiedad y Depresión (HADS) fue administrada a todos los pacientes. ***Resultados***: el puntaje HADS medio para ansiedad en el Grupo Estudio fue de 9,30 en la primera semana y 3,35 en la tercera semana de tratamiento; y en el Grupo Control fue de 12,78 en la primera semana y 3,0 en la tercera semana. El puntaje HADS medio para depresión en el Grupo Estudio fue de 8,25 en la primera semana y 4,43 en la tercera semana de tratamiento; y en el Grupo Control fue de 12,70 en la primera semana y 5,0 en la tercera semana de tratamiento. ***Conclusión*:** los pacientes del Grupo Estudio presentaron mejoras en la ansiedad y depresión después de 6 sesiones de acupuntura. ***Descriptores*:** Terapia por Acupuntura; Calidad de Vida; Ansiedad; Depresión; Úlcera Varicosa. ***Descriptores*:** Terapia por Acupuntura; Calidad de Vida; Ansiedad; Depresión; Úlcera Varicosa.

[1]Nurse, Master in Health Science, Master Professional Program in Health Applied Science, University of Vale do Sapucaí. Pouso Alegre (MG), Brazil. E-mail: lu.guarnieribarbosa@hotmail.com; [2]Nurse, Ph.D. Professor, Master Professional Program in Health Applied Science, University of Vale do Sapucaí/UNIVÁS. Pouso Alegre (MG), Brazil. E-mail: salomereiki@yahoo.com.br; [3]Plastic surgery, Full Professor and Coordinator of the Discipline of Plastic Surgery, Federal University of São Paulo/UNIFESP. São Paulo (SP), Brazil. E-mail: lydiamferreira@uol.com.br

INTRODUCTION

The presence of chronic ulcers in the lower limbs affects up to 5% of the adult population in Western countries with a significant socioeconomic impact. Its etiology is associated with several factors such as chronic venous disease, peripheral arterial disease, neuropathies, arterial hypertension, physical trauma, sickle cell anemia, cutaneous infections, inflammatory diseases, neoplasms and nutritional alterations. [1-2]

Studies have a prevalence of 0.3% venous ulcer. Its occurrence increases with age, being greater than 4% in people over 60 years old, compared to 1% of the adult population with a history of active or healed ulcers, being a serious public health problem.[1-2]

Studies show that when patients acquire an ulcer, several changes in their lifestyle in leisure, social restraint, locomotion and alteration in physical appearance occur because of the pain and appearance of the injury. Many of these patients feel sadness, frustration, fear, a sense of helplessness, and many of them lose hope that the wound will heal, which is why most of them end by abandoning treatment.[3-4] Patients may experience anxiety, depression symptoms, and may develop negative feelings about body image associated with sadness, self-depreciation, and decreased libido.

Anxiety and depression are an emotional state encompassing both psychological and physiological components, imbued with feelings such as fear, insecurity, apprehension, and alteration of waking or alert states. Anxiety becomes pathological when it is disproportionate to the situation that triggers it or when there is no specific object to which it is directed.[5] Acupuncture is an ancient Chinese practice that has been used in the Occident and it consists of the application of fine and flexible needles at specific points distributed throughout the body for the stimulation of peripheral nerves located at needle insertion sites. Thus, there will be alteration in neurotransmitters of the central nervous system (CNS) with consequent modulation of positive responses to energy imbalances presented.[6]

The basic principle of acupuncture holds that balance is maintained in the human body through the gentle flow of an energy called by the Chinese as Qi, as well as by the smooth flow of blood through the body, called by the Chinese as Xue. Environmental, alimentary, emotional or spiritual problems can cause some type of alteration in the circulation of Qi and Xue in the organism, giving rise to some type of dysfunction or pathology. From the moment some pathology is installed in the organism, one of the ways to eliminate or minimize it would be the insertion of needles at specific points in the body, which has the property of restoring this smooth flow, that is, by the practice of acupuncture.[7]

Thus, any type of dysfunction or pathology, for example, anxiety and depression, can be treated with acupuncture. However, treating a condition such as anxiety for acupuncture may not be as simple as it may seem at first because in the Chinese Traditional Medicine (TCM) literature there is no reference to this specific pathology whose nomenclature is typically Occidental. Even anxiety is a phenomenon still insufficiently understood even in the Occident, because, at the same time that it presents specific symptoms, it can be understood as a symptom of other pathologies.

As reported, the venous ulcer may exert a significant influence on patients´ daily life and may have consequences including psychosocial disorders such as anxiety and depression, which may have the worsening of the wound and the patient's abandonment from continuing treatment as a consequence.

OBJECTIVE

- To evaluate anxiety and depression in individuals with venous ulcer who were receiving acupuncture as coadjuvant treatment.

MÉTHOD

This is a multicenter, descriptive, analytical, prospective, comparative, and controlled study of 80 patients with venous ulcer of both genders assisted at the Basic Health and Family Health Strategy Unit (ESF) of Ponte Nova de Bueno Brandão, São João and in the wound clinic of the Centro Espírita Irmão Alexandre em Pouso Alegre (MG). Data collection was done after approval of the Research Ethics Committee (protocol number CEP 366968), from May 2013 to April 2014, after clarifying the study and signing the Free and Informed Consent Term by the patient.

The inclusion of the patient in the study was according to the order of arrival. Among the 80 patients studied, 40 patients were part of the Control Group and 40 patients were part of the Study Group. Patients in the Study Group were treated by MTC with acupuncture and those in the Control Group received conventional treatment.

The inclusion criteria used were: age above 18 years old, both genders, ankle/arm index

between 0.8 and 1.0, ulcer in only one limb, and agree to participate in the study after signing the Free and Informed Consent Term. The exclusion criteria: individuals with arterial or mixed ulcers and diabetic patients with ulcerated feet. The exclusion criteria of the Study Group were patients who were absent from the acupuncture session and who were taking pain relief medication, and the exclusion criterion for the Control Group was patients who missed the weekly session.

The instruments used for the data collection from the research were: form for the collection of demographic data and data related to the injury, and the Hospital Anxiety and Depression Scale (HADS).

The HADS consists of 14 items. Seven items are focused on the assessment of anxiety (HADS-A) and seven for the assessment of depression (HADS-D).[8] Each of its items is scored from 0 to 3, composing the maximum score of 21 points for each subscale. Responses to HADS items were obtained to assess the frequency of anxiety and depression. The cut-off points recommended for both subscales were adopted.[8] For HADS-A, patients were classified as "without anxiety" for scores ranging from 0 to 8; and "anxious" for scores >9. For HADS-D, patients were classified as "nondepressed" for scores ranging from 0 to 8 and "with depression" for scores> 9.[8]

Patients who received only conventional treatment and being part of the Control Group answered the questionnaires at the time of inclusion in the study, at the 3rd and 6th weeks of treatment. Patients in the Study Group were treated with MTC and underwent 6 weekly sessions of systemic acupuncture, as well as being instructed not to use any type of analgesic, and answered the questionnaires at the time of inclusion in the study, at the 3rd and 6th acupuncture sessions. The questionnaires were applied by the researcher.

Patients in the Study Group were placed in a quiet and appropriate place, and evaluated according to MTC through tongue, wrist and complete anamnesis, seeking to identify the energy imbalances according to the signs and symptoms presented by them. An acupuncture point protocol was opted to be used to avoid bias and provide a more neutral view in the research. Some places were used to tone the spleen, disperse the Qi and Xue from the liver and nourish the kidneys and liver; and some places of large intestine and liver to balance the top and bottom. Places to clear the mind, alleviate nervousness, anxiety, depression and acting on emotional imbalances were also used.

The main patterns that contribute to the case of venous veins are stagnation of Qi and blood, deficiency of Spleen-Pancreas (SP) with the sinking of SP and humidity-heat.

The acupuncture technique used was through the insertion of needles with stainless steel 25X30 spiral cable, disposable and in predetermined cutaneous places according to the given care protocol. The needles were introduced with the plastic mandrel and in different degrees of inclination and with stimulation to harmonize, tone or sedate.

The Mann-Whitney test and the Chi-square test were used for statistical analysis. For all statistical tests, significance levels of 5% ($P < 0.05$) were considered.

RESULTS

Table 1 shows that, in the Study Group, 33 (82.50%) of the patients were white, 28 (70%) were female and 29 (72.5%) were non-smokers. Regarding the educational level, 29 (72.5%) of the patients had incomplete Elementary School. As for the profession, 22 (55%) were retired. Analyzing the Control Group, we verified that 28 (70%) of the patients were white, 26 (65%) female and 29 (72.5%) smokers. Regarding the educational level, 18 (45%) patients were only literate. As far as the profession was concerned, 26 (65%) were retired. Only the variables education and profession did not present statistical significance.

Table 1. Socio-demographic characteristics of the research participants. Pouso Alegre (MG), Brazil (2014)

Variables	Study Group (n=40)		Control Group (n=40)		p-value
	N	%	N	%	
Race					
White	33	82.5	28	70.0	0.001*
Black	7	17.5	12	30.0	
Age group					
Less than 50 years old	1	2.5	2	5.0	0.001*
51 to 59 years old	3	7.5	1	2.5	
60 to 69 years old	31	77.5	35	87.5	
70 to 79 years old	5	12.5	1	2.5	
More than 80 years old	0	0	1	2.5	
Gender					
Female	28	70.0	26	65.0	0.001*
Male	12	30.0	14	35.0	
Smoker					
No	11	27.5	11	27.5	0.003*
Yes	29	72.5	29	72.5	
Education level					
Illiterate	0	0	18	45.0	0.067
Elementary School	4	10.0	1	2.5	
Incomplete Elementary School	29	72.5	13	32.5	
Incomplete	2	5.0	3	7.5	
Complete High School	4	10.0	5	12.5	
Higher education	1	2.5	0	0	
Profession					
Unemployed	0	0	5	12.5	0.087
Retired	22	55.0	26	65.0	
Housewife	10	25.0	9	22.5	
Maid	6	15.0	0	0	
Caregiver	1	2.5	0	0	
Craftsman	1	2.5	0	0	

Chi-square test.* P < 0.05.

Table 2 shows the variables related to the wound. It was observed that in the Study Group, 25 (62.5%) patients had the wound between 6 and 10 years; 32 (80%) of the lesions had no exudate and 32 (80%) had an odor. Regarding the participants in the Control Group, it was observed that 31 (77.5%) patients had the wound between 6 and 10 years; 22 (55.00%) lesions presented exudate and 23 (57.50%) exuded an odor. All variables were statistically significant.

Table 2. Characteristics of the wounds of the research participants. **Pouso Alegre (MG), Brazil (2014)**

Variables	Study Group (n=40)		Control Group (n=40)		p-value
	N	%	N	%	
Time of injury					
Less than 12 months	4	10.0	2	5.0	0.001*
1 to 5 years	6	15.0	3	7.5	
6 to 10 years	25	62.5	31	77.5	
More than 11 years	5	12.5	4	10.0	
Exudate					
Yes	32	80.0	22	55.0	0.001*
No	8	20.0	18	45.0	
Odor					
Yes	31	77.5	23	57.5	0.001*
No	9	22.5	17	42.5	

Chi-square test. *P < 0.05.

From the analysis of Table 3, it can be seen that in the patients of the Study Group, 32 (80%) had no diabetes mellitus and 26 (65%) had hypertension. Analyzing the Control Group, it was observed that 20 (50%) patients had no diabetes mellitus and 20 (50%) had hypertension. All variables were statistically significant.

Table 3. Clinical data from research participants. Pouso Alegre (MG), Brazil (2014)

Variables	Study Group (n=40)		Control Group (n=40)		p-value
	N	%	N	%	
Diabetes mellitus					
Yes	8	20.0	13	32.5	0.001*
No	32	80.0	27	92.0	
Hypertension					
Yes	14	35.0	20	50.0	0.001*
No	26	65.0	20	50.0	

Teste Qui-quadrado. *P < 0,05.

Table 4 in a general way shows the frequency of anxiety of patients through the HADS-A scale. It was observed that in the Study Group, in the first data collection performed in the study inclusion, the mean of the HADS-A score was 9.30 and in the 3rd data collection, after 6 weeks of acupuncture, the mean was 3.35, showing an improvement in patients´ anxiety frequency. In the Control Group, it was verified that the mean of the frequency of anxiety in the first data collection was 12.78 and that in the 3rd data collection, after 6 weeks of conventional treatment, the mean was 3.80, also showing improvement in the frequency of anxiety.

Table 4. HADS-A scores at the three different times for both groups

HADS-A scores	Study Group (n=40)				Control Group (n=40)				p-value
	Mean	SD	Minimum	Maximum	Mean	SD	Minimum	Maximum	
1st collection	9.30	3.639	4	18	12.78	5.289	4	21	0.001*
2nd collection	6.30	2.830	1	14	9.17	4.596	1	17	0.001*
3rd collection	3.35	2.282	0	11	3.80	2.554	0	11	0.001*

Mann-Whitney test. *P <0.05; HADS-A = Hospital Anxiety and Depression Scale/subscales anxiety; SD = Standard Deviation.

Table 5 reflects the depression frequency analysis by means of the subscale HADS-D. It can be observed that, in the first data collection of the Study Group, the mean anxiety frequency was 8.25; in the last data collection, after 6 acupuncture sessions, the mean was 4.43. In the Control Group, it was observed that in the first data collection, the mean frequency of depression was 12.70, and in the 3rd data collection, after 6 weeks of conventional treatment, the mean was 5.00.

Table 5. **HADS-D scores at the three different times for both groups**

HADS-D scores	**Study Group (n=40)**				**Control Group (n=40)**				**p-value**
	Mean	**SD**	**Minimum**	**Maximum**	**Mean**	**SD**	**Minimum**	**Maximum**	
Inclusion	8.25	2.619	3	14	12.70	4.708	3	20	0.001*
3rd week	6.12	2.078	1	11	8.05	3.129	1	14	0.001*
6th week	4.43	1.880	1	9	5.00	2.641	0	10	0.001*

Mann-Whitney test. * P <0.05; HADS-D = Hospital Anxiety and Depression Scale/subscales depression; SD=Standard Deviation.

DISCUSSION

The incidence of venous ulcers increases in individuals over 60 years old and in females, most often interfering in social relationships, leisure activities and work. These patients are often dismissed from work as a result of an ulcer.[9-11]

In this study, most of the participants in the survey were over 61 years old and female, with incomplete elementary education, retired and smokers. Several studies corroborate our findings and have pointed out that ulceration affects work productivity and functional capacity, leading to disability retirement, as well as restricting daily and leisure activities.[11-14]

It is important to know the education level of the patient with venous ulcer to plan the performance in a correct way and to facilitate his understanding regarding information about ulcer, treatment, and prevention of complications. Given the high percentage of patients with no education, it is fundamental

to use appropriate methods, encouraging patients´ self-care and re-evaluating current knowledge to incorporate new knowledge so they can live as healthy as possible.[15] The education level is a factor that can influence the self-care of people, especially those who have wounds since they use drugs, dressings and sometimes complex diets. On the other hand, the whole dynamics of life can be different when they have a higher level of education, for example, greater job opportunity, better salary, and adherence to treatment with specialized professionals.[15-8] In daily practice, it is observed that patients with venous ulcers are unable to perform their labor activities, either by wearing the dressing, whose exchange may be necessary two or more times a day or by physical difficulty. This results in feelings of sadness, frustration, fear, impotence, and loss of autonomy and independence. These feelings can occur because the patient feels mutilated and has difficulty choosing clothes so people do not realize they have a wound and their leg is swollen and may intensify when the lesion has exudate and odor.

Aesthetic factors are significantly relevant for these patients since most of them cohabit daily with the use of bandages, socks and other devices for continuous use. Besides to visual factors, there are those that affect other senses, such as smell. The odor exhaled by the wound retracts the person from social and leisure, and the isolation of friends and relatives occurs, since many fear prejudice. These factors lead patients to present low self-esteem, altered self-image, and quality of life, anxiety, and depression.[19-22]

Depression is considered one of the top ten causes of disability in the world, limiting physical, personal and social functioning. However, a small part of the affected people receives appropriate treatment and on the stigma significantly affects them. The way the population identifies the symptoms of depression and beliefs about its causes can influence the process of seeking help, adherence to treatments, as well as community attitudes and behavior toward those who are suffering from this disorder.[23]

In this research, there were 16 (40%) patients in the Study Group with HADS-A score between 8 and 11, which means possible anxiety, and 12 (30%) patients presented a score of 12 to 21, which represents probably anxiety. Comparing with the 3rd data collection, it was observed that 39 (97.5%) patients had a score of 0 to 7, that is, unlikely anxiety and no patient presented probably anxiety. This demonstrates that there was an improvement in the picture of anxiety during the treatment. Regarding the Control Group, it was verified that 8 (20%) patients had a score of 8 to 11, which means possible anxiety, and 4 (10%) patients had a score of 12 to 21, that is, probably anxiety. Over time, it was found that 4 (10%) patients still had possible anxiety and 2 patients (5%) continued to present probable anxiety after 6 weeks of conventional treatment.

Acupuncture is a safe method seeking to promote the overall balance of the individual by balancing the energies of each element of the body: Fire, Earth, Metal, Water and Wood, as well as Yin and Yang; and associated with pain relief. It is believed that we would also be reducing the symptoms of depression and anxiety, improving patients' self-esteem and quality of life.[24]

Some studies have been performed on patients with chronic diseases who complained of pain, anxiety, insomnia and were also treated with acupuncture. The authors concluded that acupuncture promoted the reduction of pain, anxiety, and improvement of the quality of life.[25-26]

Acupuncture causes multiple biological responses. Besides to promoting the preparation of the various structures of the body by improving tissue oxygenation, it increases blood supply, analgesic, and myorelaxant effect, optimizing the patient's emotional state, minimizing his anxiety.[27]

A study of 60 patients with a venous ulcer, most (91.66%) presented some level of depression, with a higher frequency of mild to moderate symptoms (n = 39; 65%). The five most common symptoms were: sadness, distortion of body image, self-depreciation, decreased libido and social retraction. The least represented symptoms were suicidal idea and loss of appetite, referred by a patient in each aspect. Regarding age, 43 patients were over 61 years old, 38 of them (88.4%) had mild to severe depressive symptoms.[28]

Another study was developed to identify traits and anxiety status in patients with a venous ulcer in outpatient treatment and to correlate the level of anxiety-trait and state with the age and duration of the wound.[29] There were 40 patients evaluated and most of them (78%) reported that the ulcer interfered with their social and leisure activities.[29] All patients presented some level of anxiety. The level of anxiety-state was elevated in all age groups and, when compared to the level of anxiety-trait, they remained high, except in the age group of 51 to 60 years old, in which there is a predominance of the level of

moderate anxiety.[29] The study showed that anxiety is present at different levels in patients with venous ulcer. State anxiety was high in all age groups. The anxiety-trait and anxiety-state levels were moderate in patients with ulcers of 5 to 10 years, contrasting with the high anxiety level of patients with a longer ulcer.[29]

In this study, patients reported that they felt more relaxed, with a pleasant feeling of well-being and lightness in the body after the acupuncture session. During the session, many patients were able to sleep and each session heard reports of improved pain, sleep, and coping with the disease. Some patients who had difficulty locomotion, and after acupuncture treatment, showed more confidence and hope that the lesion would improve.

People with anxiety create an atmosphere of tension, insecurity, and hostility towards others; they go through a series of psychological and behavioral changes, arising from a physical or psychological danger experienced. The anxiety reaction is proportional to the magnitude of the real danger that evokes it, that is, the greater the external danger, the more clearly the threat is perceived and the more intense the anxiety reaction.[30]

The results of the intervention with acupuncture and the speeches of the study participants suggest that this therapy may be effective for improving the quality of life, pain, and anxiety of people with a venous ulcer. This technique can be used as an effective strategy for promoting the quality of life of this specific population (patients with venous ulcer), mainly because patients often feel discouraged, since the slow healing process and the difficulty of locomotion and to develop daily activities are characterized as exhausting, generating anxiety and disturbances in the quality of life.

Currently, drug use has become abusive, leading to significant side effects, intoxication, tolerance to drug use, and expensive treatment. In this way, it has become important to perform this work, since acupuncture can regulate the body's balance, improve blood circulation and increase body resistance. This minimizes the need for drugs and increases therapeutic efficacy.

It is hoped that this study may provide subsidies for other professionals to use acupuncture as a routine practice in the care of patients with a venous ulcer since so many benefits have been proven through this research. It is expected to increase the knowledge on the subject and to mobilize the patients to look for alternatives to treatments also effective.

Acupuncture is a low-cost therapy already regulated by the SUS without side effects and can be offered to patients as a complement to other therapies, avoiding abusive use of medications.

CONCLUSION

Patients with a venous ulcer after treatment with systemic acupuncture showed improvement of anxiety and depression.

REFERENCES

1. Tasci I, Saglam K, Basgoz BB. Ankle Brachial Index and foot ulcer etiology. Adv Skin Wound Care [Internet]. 2016 Mar [cited 2017 Jan 22];29(3):104-5. Available from: http://journals.lww.com/aswcjournal/Fulltext/2016/03000/Ankle_Brachial_Index_and_Foot_Ulcer_Etiology.2.aspx

2. Jones J, Barr W, Robinson J, Carlisle C. Depression in patients with chronic venous ulceration. Br J Nurs [Internet]. 2006 June [cited 2017 Jan 22];15(11):S17-23. Available from: http://www.magonlinelibrary.com/doi/abs/10.12968/bjon.2006.15.Sup2.21237

3. Lourenço L, Blanes L, Salomé GM, Ferreira LM. Quality of life and self-esteem in patients with paraplegia and pressure ulcers: A controlled cross-sectional study. J Wound Care [Internet]. 2014 Jun [cited 2017 Jan 22];23(6):331-7. Available from: http://www.magonlinelibrary.com/doi/abs/10.12968/jowc.2014.23.6.331

4. Salomé GM, Blanes L, Ferreira LM. Evaluation of depressive symptoms in patients with venous ulcers. Rev Bras Cir Plást [Internet]. 2012 Jan [cited 2017 Jan 25];27(1):124-9. Available from:http://www.scielo.br/scielo.php?pid=S1983-51752012000100021&script=sci_arttext&tlng=en

5. Rocha SF, Dias-Neto E, Gattaz WF. Ansiedade na performance musical: Tradução, adaptação e validação do Kenny Music Performance Anxiety Inventory (K-MPAI) para a língua portuguesa. Rev Psiquiatr Clín [Internet]. 2011 [cited 2017 Jan 25];38(6):217-21. Available from:http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0101-60832011000600001

6. Pereira RD, Alvim NA. Acupuncture as a technology for intervention to nursing diagnosis. J Nurs UFPE on line [Internet]. 2016 [cited 2017 Jan 25];10(4):1286-91. Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/8829

7. Pereira RD, Silva WW, Ramos JC, Alvim NA, Pereira CD, Rocha TR. Integrative and complementary health practices: an integrative review about non pharmacological measures for oncologic pain. J Nurs UFPE on line [Internet]. 2015 [cited 2017 Jan 25];9(2):710-6.Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/7097

8. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. Acta Psychiatr Scand [Internet]. 1983 June [cited 2017 Jan 24];67(6):361-70. Available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0447.1983.tb09716.x/full

9. Green J, Jester R. Health-related quality of life and chronic venous leg ulceration: Part 2. Br J Community Nurs [Internet]. 2010 Mar [cited 2017 Jan 24];15(3):S4-6,S8,S10. Available from: http://www.magonlinelibrary.com/doi/abs/10.12968/bjcn.2010.15.Sup1.46906

10. Salomé GM, Ferreira LM. Impact of skin grafting of venous leg ulcers on functional status and pain. World J Surgery [Internet]. 2013 Jun [cited 2017 Jan 24];37(6):1438-45. Available from: https://link.springer.com/article/10.1007/s00268-013-1975-z

11. Salomé GM, Pellegrino DM, Vieira TF, Blanes L, Ferreira LM. Sleep quality among patients with venous ulcers: A cross-sectional study in a health care setting in São Paulo, Brazil. Wounds [Internet]. 2012 May [cited 2017 Jan 22];24(5):124–31. Available from: http://www.woundsresearch.com/article/sleep-quality-among-patients-venous-ulcers-cross-sectional-study-health-care-setting-s%C3%A3o-pau

12. Carmo SS, Castro CD, Rios VS, Sarquis MG. Atualidades na assistência de enfermagem a portadores de úlcera venosa. Rev Eletr Enferm [Internet]. 2007 [cited 2017 Jan 23]; 9(2):506-17. Available from: http://www.revistas.ufg.br/fen/article/view/7208

13. Salomé GM, de Almeida SA, de Jesus MT, Massahud MR Jr, de Oliveira CN, de Brito MJ, et al. The impact of venous leg ulcers on body image and self-esteem. Adv Skin Wound Care [Internet]. 2016 Jul [cited 2017 Jan 25];29(7):316-21. Available from: http://journals.lww.com/aswcjournal/Abstract/2016/07000/The_Impact_of_Venous_Leg_Ulcers_on_Body_Image_and.7.aspx

14. Salomé GM, de Almeida SA, Ferreira LM. Association of sociodemographic factors with hope for cure, religiosity, and spirituality in patients with venous ulcers. Adv Skin Wound Care [Internet]. 2015 Feb [cited 2017 Jan 24];28(2):76-82. Available from: http://journals.lww.com/aswcjournal/Abstract/2015/02000/Association_of_Sociodemographic_Factors_with_Hope.6.aspx

15. Bongiovanni CM, Hughes MD, Bomengen RW. Accelerated wound healing: Multidisciplinary advances in the care of venous leg ulcers. Angiology [Internet]. 2006 Mar-Apr [cited 2017 Jan 24];57(2):139-44. Available from: http://journals.sagepub.com/doi/abs/10.1177/000331970605700202

16. Salomé GM, Pereira VR, Ferreira LM. Spirituality and subjective wellbeing of patients with lower-limb ulceration. J Wound Care [Internet]. 2013 May [cited 2017 Jan 24];22(5):230-6. Available from: http://www.magonlinelibrary.com/doi/abs/10.12968/jowc.2013.22.5.230

17. Silva MC, Salomé GM, Miguel P, Bernardino C, Eufrásio C, Ferreira LM. Evaluation of feelings helplessness and body image in patients with burns. J Nurs UFPE on line [Internet]. 2016 [cited 2017 Jan 23];10(6):2134-40. Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/8492

18. Moreira CN, Marques CB, Silva MA, Pinheiro FA, Salomé GM. Association of sociodemographic and clinical factors with spirituality and hope for cure of ostomized people. J Coloproctol (Rio J) [Internet] 2016 Jul-Sep [cited 2017 Jan 22];36(3):162-72. Available from: http://www.scielo.br/scielo.php?pid=S2237-93632016000300162&script=sci_arttext

19. Salomé GM, Espósito VH. Vivências de acadêmicos de enfermagem durante o cuidado prestado às pessoas com feridas. Rev Bras Enferm [Internet]. 2008 Nov-Dec [cited 2017 Jan 22]; 61(6):822-7. Available from:

http://www.scielo.br/scielo.php?pid=S0034-71672008000600005&script=sci_arttext

20. Paula MA, Takabashi RF. Sexualidade humana: Resgatando aspectos de sua trajetória ao longo da história. Rev Estima [Internet]. 2009 [cited 2017 Jan 23];7(1):33-8.Available from: http://www.revistaestima.com.br/index.php/estima/article/view/247

21. da Silva FA, Freitas CH, Jorge MS, Moreira TM, de Alcântara MC. Enfermagem em estomaterapia: Cuidados clínicos ao portador de úlcera venosa. Rev Bras Enferm [Internet]. 2009 Nov-Dec [cited 2017 Jan 25];62(6):889-93. Available from: http://www.scielo.br/pdf/reben/v62n6/a14v62n6

22. Salomé GM, Openheimer DG, de Almeida SA, Bueno ML, Dutra RA, Ferreira LM. Feelings of powerlessness in patients with venous leg ulcers. J Wound Care [Internet]. 2013 Nov [cited 2017 Jan 25];22(11):628–34. Available from: http://www.magonlinelibrary.com/doi/abs/10.12968/jowc.2013.22.11.628

23. Silveira MM, Santo PFE, Salomé GM, Almeida AS, Pereira MTJ. Avaliação do nível de depressão em indivíduos com feridas crônicas. Rev Bras Cir Plást [Internet]. 2014 [cited 2017 Jan 23];28(4):665-71. Available from: http://www.rbcp.org.br/details/1468/avaliacao-do-nivel-de-depressao-em-individuos-com-feridas-cronicas

24. McQuaid JR, Stein MB, Laffaye C, McCahill ME. Depression in a primary care clinic: The prevalence and impact of an unrecognized disorder. J Affect Disord [Internet]. 1999 Sep [cited 2017 Jan 24];55(1):1-10. Available from: http://www.jad-journal.com/article/S0165-0327(98)00191-8/abstract?cc=y=

25. Jorge SA, Guimarães CP, Henríquez DA, Dantas SE. Evaluation of anxiety levels in patients with venous ulcers. Rev Estima 2009;7(4):12–9.

26. Pereira RD, Alvim NAT. Aspectos teórico-filosóficos da medicina tradicional chinesa: acupuntura, suas formas diagnósticas e relações com o cuidado de enfermagem. J Nurs UFPE online [Internet]. 2013 [cited 2017 Jan 25];7(1):279-88.Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/3216

27. Lim S. WHO standard acupuncture point locations. Evid Based Complement Alternat Med [Internet]. 2010 Jun [cited 2017 Jan 24];7(2):167–8. Available from: https://www.hindawi.com/journals/ecam/2010/158143/abs/

28. Salomé GM, Blanes L, Ferreira LM. Avaliação de sintomas depressivos em pessoas com úlcera venosa. Rev Bras Cir Plást [Internet]. 2012 [cited 2017 Jan 22];27(1):124-9. Available from: http://www.rbcp.org.br/imageBank/PDF/v27n1a21.pdf

29. França LH, Tavares V. Insuficiência venosa crônica. Uma atualização. J Vasc Bras [Internet]. 2003 [cited 2017 Jan 23];2(4):318-28. Available from: http://jvascbras.com.br/pdf/03-02-04/03-02-04-318/03-02-04-318.pdf

30. de Almeida SA, Salomé GM, Dutra RA, Ferreira LM. Feelings of powerlessness in individuals with either venous or diabetic foot ulcers. J Tissue Viability [Internet]. 2014 Aug [cited 2017 Jan 25];23(3):109-14. Available from: http://www.sciencedirect.com/science/article/pii/S0965206X14000321

Submission: 2016/11/08
Accepted: 2017/08/26
Publishing: 2017/09/15

Corresponding Address

Geraldo Magela Salomé
Universidade do Vale do Sapucaí/UNIVÁS
Programa de Mestrado Profissional em Ciências Aplicadas à Saúde
Av. Francisco de Paula Quintanilha Ribeiro 280, apt.134
Bairro Jabaguara
CEP: 04330-020 – São Paulo (SP), Brazil