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RESEARCH ARTICLE

PHYSICAL AND PSYCHOSOCIAL PROBLEMS WITHIN PALLIATIVE CARE PATIENTS WITH NON HEALING WOUNDS IN MONGOLIA

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ABSTRACT

We provided the randomized study within 50 patients with non healing wounds hospitalized in Hope, Grace, Green home hospices of Mongolia during January 2015-January 2016**.** 47 (94%) patients had wound pain, 27 (54 %) patient's wounds were contaminated with stool and urine within patients, 42 (84%) patients had smell from wounds, 43 (86%) patients had severe secretions from the wounds, 17 (34%) patients had bleeding from the wounds. 32 (64%) patients had anxiety, 45 (90%) had depression, 34 (68 %) had insomnia, 32 (64%) patients felt shame, 32 (64%) patients faced social isolation because of wounds smell, 29 (58%) patients isolated because of wound location, 41 (82%) patients suffer from luck of dressing material, 21 (42 %) patients had no wound caring person, 42 (84%) patients had financial problems to buy the dressing materials. Anxiety had statistically significant correlation with pain (r=-0.405; p=0.004), insomnia (r=0.557; p=0.0001), isolation because of smell of wounds (r=-302; p= 0.033) and with contamination wounds with stool and urine (r=0.450; p=0.001). Depression had statistically significant, direct and moderate correlation with pain (r=-0.299; p=0.035), insomnia (r=0.486; p=0.0001), and isolation because of feeling shame (r=0.444; p=0.001).

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INTRODUCTION

Chronic wounds are defined as wounds, which have failed to proceed through an orderly and timely reparative process to produce anatomic and functional integrity over a period of 3 months (Werdin *et al*., 2009; Klaus *et al*., 2011; Trøstrup *et al*., 2013). A practical definition of a chronic wound is one that has failed to heal within 3 months. Although there are a variety of underlying causes, most can be categorized as pressure sores, diabetic foot ulcers or leg ulcers (Mustoe, 2005). A non-healing or chronic wound is defined as a wound that does not improve after four weeks or does not heal in eight weeks. These including diabetic foot ulcers, venous-related ulcerations (Werdin *et al*., 2009), non-healing surgical wounds, pressure ulcers, wounds related to metabolic disease, wounds that repeatedly break down (Dorothea, 2017), (Scott R. Helson, 2010). Chronic leg and foot ulcers occur in many adults with vascular disease or diabetes and are attributed to chronic venous insufficiency, arterial disease, prolonged pressure, or neuropathy (Richmond *et al*., 2013). Non-healing, chronic wounds cause tremendous suffering and debilitation. There's a lot more that we can do for patients who struggle with this problem if we understand that chronic wounds are very different from acute wounds, and require an entirely different treatment approach (Scott R. Helson, 2010). These ulcers last on average 12 to 13 months, recur in up to 60% to 70% of patients, can lead to loss of function and decreased quality of life, and are a significant cause of morbidity (Mustoe, 2005), (Robert and Jaminelli, 2015). Predominantly a condition of the elderly, chronic wounds are becoming more prevalent and more difficult to treat and are associated with high treatment costs (Robert and Jaminelli, 2015), (Bradford Rice *et al*., 2014). In the United States, chronic wounds affect around 6.5 million patients. It is claimed that an excess of US$25 billion is spent annually on treatment of chronic wounds and the burden is growing rapidly due to increasing health care costs, an aging population and a sharp rise in the incidence of diabetes and obesity worldwide. The annual wound care products market is projected to reach $15.3 billion by 2010 (Gottrup, 2004). Socioeconomically, management of chronic wounds reaches a total cost of 2–4% of the health budget in western countries (Jaminelli, 2015). In the UK Pressure ulcer care alone is estimated to cost around £1.2 billion a year, while surgical site infections are estimated to cost between £814 and £6626 per patient (Sheila and Helen, 2015). The aim of this study is to understand the incidence of the physical and psychosocial problems faced palliative care patients with non healing wounds and the correlation between psychological problems

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and physical, social problems in the Mongolian palliative care patients.

MATERIALS AND METHODS

We provided the randomized study within 50 patients with non healing wounds (the wound which did not have tendency to heal during 3 months of treatment) hospitalized in Hope, Grace, Green home hospices of Mongolia during January 2015-January 2016**.** We used subjective and objective methods of study to define the symptoms of suffering and physical, psychological, and social problems caused by non healing wounds. We used questions with general information about the patient; we assessed symptoms of suffering caused by wound like pain, secretion, smell, bleeding, and infection. Pain assessed by Wong Baker method. Psychological problems, like depression we assessed by San Diego hospice depression screening method, anxiety assessed by Spielberg Hanin questionnaire, insomnia by Insomnia Assessment Tool (Institute of living). Social problems caused by non healing wound we assessed with questionnaire about feeling shame, isolation, existing wound care person, existing of wound dressing materials, financial problems to buy wound dressing materials. Statistic analysis and descriptive analysis we provided by "SPSS 23.0" program. We used Spearmen correlation coefficient to assess the variables within the symptoms. The statistical significance was $P \leq 0.05$.

Physical symptoms of suffering within patients with non healing wounds: 18 patients (36%) with chronic non healing wounds had severe \P $_{7-10}$\ pain (95% CI: 24.5 - 51.4), 21 (42%) had moderate \P$_{4-6}$\ pain (95% CI: 28.3 - 55.6), 8 (16%) of patients had mild \P$_{1-3}$\ pain (95% CI: 5.83 - 26.1), 3 (6%) had no pain (95% CI: -1.43 - 9.43). Wounds were contaminated with stool and urine within 27 (54 %) patients (95% CI: 40.1 – 67.8), wounds were contaminated with stool in 1 (2%) patient (95% CI: -1.8 - 5.88), wounds were contaminated with urine in 5 (10%) patients (95% CI: 1.6 – 18.3), totally 66% of wounds were contaminated with secretions and increased the physical suffering of patients. 39 (78%) patients had more than 2 wounds in the body (95% CI: 2.9 - 42.7), 42 (84%) patients had smelled wounds (95% CI: 73.8-94.1), 43 (86%) patients had severe secretions from the wounds (95%CI: 76.3-95.6), 17 (34%) patients had bleeding from the wounds (95% CI: 52.8-79.1). See Table 1

Psychological and social problems caused by non healing wound within palliative care patients: 32 (64%) patients had anxiety (95% CI: 50.6-77.3), 45 (90%) patients had depression (95%CI: 31.2-58.7), 34 (68 %) patients had insomnia (95% CI: 55.0-80.9), 32 (64%) had shame (95%CI: 50.6-77.3). 32 (64%) patients faced social isolation because of wounds smell (95 % CI: 50.6-77.3), 29 (58%) patients isolated because of wound location (95%CI: 64.1-87.8). 41 (82%) patients suffer from luck of dressing material (95%CI: 73.8-94.1), 21 (42 %) patients had no wound caring person (95%CI: 28.3-55.6), 42 (84%) patients had financial problems to buy the dressing materials (95% CI: 73.8-94.1) We conducted study on correlation within psychological suffering and physical symptoms of palliative care patients with chronic, non healing wounds. Anxiety had statistically significant inverse and moderate correlation with pain (r=-0.405; p=0.004), moderate correlation with infected wounds by stool and urine (r=0.450; p=0.001), moderate correlation with insomnia (r=0.557; p=0.0001). This suggests that pain and wounds contaminated with stool and urine cause anxiety. But number of wounds (r=0.246; p= 0.082), smell from wounds (r=0.1000; p=0.490),

Table 1. Symptoms of suffering and problems caused by non healing wounds within palliative care patients

Symptoms of suffering and physical problems	Number of patients with non healing wounds \n=50\		Confidence interval 95%
	n	%	
Pain			
No pain P_0	3	6	-1.43-9.43
Mild pain P_{1-3}	8	16	5.83-26.1
Moderate pain P_{4-6}	21	42	28.3-55.6
Severe pain P_{7-10}	18	36	24.5-51.4
Contaminated wounds			
Wound contaminated with stool	1	2	-1.8-5.88
Wound contaminated with urine	5	10	1.6-18.3
Wound contaminated with stool and urine	27	54	40.1-67.8
Wound not contaminated	17	34	20.8-47.1
Number of wounds in the body			
1wound	11	22	10.5-33.4
2 wounds	16	32	19.0-44.9
3 wounds	13	26	13.8-38.1
4 wounds	5	10	1.6-18.3
≥ 5 wounds	5	10	1.6 – 18.3
Smell			
Yes	42	84	73.8-94.1
No	8	16	5.83-26.1
Secretion			
Yes	43	86	76.3-95.6
No	7	14	4.3-23.6
Bleeding			
Yes	17	34	52.8-79.1
No	33	66	20.8-47.1

RESULTS

We provided study within 50 palliative care patients with non healing wounds. Mean age of patients was 60.5±17.4. Mean square of wounds was 61.35 ±56.6 cm^2, the biggest wound had square 380 cm^2, the smallest wound had square 4 cm^2. Totally 50 patients had 127 wounds, there were not exist 1st stage wound, 13 (10.2%) patients had 2nd stage wounds, 32 (25.2%) patients had 3rd stage wounds and 82 (64.6%) had 4th stage wounds. 89.8 % of non healing wound were 3-4 stages.

secretion from wounds (r=-0.062; p=0.667), bleeding from wounds (r=0.099; 0.496) not correlated with anxiety. Depression had statistically significant inverse and mild correlation with pain (r=-0.299; p=0.035), moderate correlation with insomnia (r=0.486; p=0.0001).

We conducted study on correlation within psychological suffering (anxiety and depression) and social problems (isolation because of shame, isolation because of location of wounds, isolation because of smell of wounds, luck of dressing materials, financial problems to buy dressing materials, not

Table 2. Psychological and social problems caused by non healing wounds

Psychological and social problems		Number of patients with non healing wounds \n=50\		Confidence interval 95%
		N	%	
Anxiety	Yes	32	64	50.6-77.3
	No	18	36	22.6-49.3
Depression	Yes	45	90	31.2-58.7
	No	5	10	1.68-18.3
Insomnia	Yes	34	68	55.0-80.9
	No	16	32	19.0-44.9
Shame	Yes	32	64	50.6-77.3
	No	18	36	22.6-49.3
Isolation because of smell	Yes	32	64	50.6-77.3
	No	18	36	22.6-49.3
Isolation because of wound location	Yes	29	58	44.3-71.6
	No	21	42	28.3-55.6
Lack of wound material	Yes	41	82	73.8-94.1
	No	9	18	5.83-26.1
Existing wound caring person	Yes	21	42	28.3-55.6
	No	29	58	44.3-71.6
Financial problems	Yes	42	84	73.8-94.1
	No	8	16	5.83-26.1

Table 3. Correlation within physical symptoms of suffering and psychological problems

Symptoms of suffering	Anxiety \n=37\			Depression \n=47\		
	%	r	P	%	R	P
Pain		-0.405	0.004		-0.299	0.035
No pain P_0	0			2 (4.4)		
Mild pain P_{1-3}	2 (6.25)			4 (9)		
Moderate pain P_{4-6}	17 (53.1)			21 (46.6)		
Severe pain P_{7-10}	13 (40.6)			18 (40)		
Wound contaminated with		0.450	0.001		0.232	0.104
Wound contaminated with stool	1 (3.1)			1 (2.2)		
Wound contaminated with urine	2 (6.2)			4 (8.9)		
Wound contaminated with stool and urine	13 (40.7)			23 (51.1)		
Wound not contaminated	16 (50)			17 (37.8)		
Number of wounds		0.249	0.082		0.016	0.910
1 wound	10 (31.2)			9 (20)		
2 wounds	10 (31.2)			16 (35.5)		
3 wounds	7 (21.8)			12 (26.7)		
4 wounds	2 (6.2)			3 (7.6)		
≥ 5 wounds	3 (9.3)			5 (11.1)		
Smell		0.1000	0.490		-0.036	0.802
Yes	35((94.5%)			45 (95.7%)		
No	2(5.4%)			2 (4.3%)		
Secretion		-0.062	0.667		0.058	0.691
Yes	36 (97.5%)			46 (97.9%)		
No	1 (2.7%)			1 (2.1%)		
Bleeding		0.099	0.496		-0.239	0.094
Yes	17 (45.9%)			20 (42.5%)		
No	20 (54.1%)			27(57.4%)		
Insomnia		0.557	0.0001		0.486	0.0001
Yes	28 (87.5)			34 (75.5)		
No	4 (12.5)			11 (24.5)		

Table 4. Correlation within psychological and social problems caused by chronic non healing wounds within palliative care patients

Social problems		Anxiety			Depression		
		%	R	P	%	r	P
Isolation because of shame	Yes	22 (68.7)	0.132	0.361	32 (71.1)	0.444	0.001
	No	10 (31.3)			13 (28.9)		
Isolation because of smell	Yes	17 (53.1)	-0.302	0.033	27 (60)	-0.250	0.080
	No	15 (46.9)			18 (40)		
Isolation because of location of wounds	Yes	18 (56.2)	-0.047	0.744	27 (60)	0.122	0.400
	No	14 (43.7)			18 (40)		
Luck of dressing materials	Yes	27 (84.4)	0.082	0.569	36 (80)	-0.156	0.279
	No	5 (15.6)			9 (20)		
Luck of wound care person	Yes	13 (40.6)	0.037	0.798	20 (44.4)	0.149	0.303
	No	19 (59.4)			25 (55.6)		
Financial problems	Yes	28 (87.5)	0.127	0.378	37 (82.2)	-0.145	0.313
	No	4 (12.5)			8 (17.8)		

existing wound care person) of palliative care patients with chronic, non healing wounds. Depression had statistically significant, direct and moderate correlation with isolation because of shame of wounds (r=0.444; p=0.001), But anxiety had statistically significant inverse correlation with isolation because of smell of wounds (r=-0.302; p=0.033).

DISCUSSION

By Scott R. Helson study non-healing, chronic wounds cause tremendous suffering and debilitation (Scott R. Helson, 2010). We provide study of physical suffering, psychological and social problems caused by chronic non healing wounds. According to our study pain, smell, secretion, contamination with stool and urine, number of wounds caused severe physical suffering. In the study of Ronda G. Hughes, Alexis D. Bakos, Ann O'Mara, Christine T. Kovner., wounds affect hospice and palliative care patients on a physical level, with mobility-limiting pain, odor, and exudate, so too do wounds have a negative psychosocial impact on patients. According to our study 32 (64%) palliative care patients with chronic, non healing wounds had anxiety, 45 (90%) had depression, 34 (68%) had insomnia. 94 % of patients with wounds had pain and 68% of them had anxiety. In study of Ronda G. Hughes, Alexis D. Bakos, Ann O'Mara, Christine T. Kovner, wounds, especially those with exudates and malodor, cause patients to feel ashamed of their body, and feel cut off from friends and family. This feeling of shame typically results in patients isolating themselves from others out of fear of rejection and potentially sensing disgust from others. The presence of wounds, being potentially malodorous or leaky, erodes positivity that a patient may have regarding their body image. Over time, patients can begin to feel and believe that their body is unacceptable to others. Often as a result of the negative body image and social isolation, patients with wounds can begin sinking into depression. No longer feeling acceptable in the presence of friends or family, feelings of shame, embarrassment, and self-disgust take root, leading to potentially severe depression (Understanding Wound Care in the Hospice and Palliative Setting, 2016; Ronda *et al*., 2005). According to our study 64% of patients with chronic wounds had anxiety, 90% had depression, 64% felt of shame of wound, 64% of patients isolated because of wound smell and 58% of patients isolated because of wound location. According to study of Krister *et al*. chronic wounds have a significant impact on the health and quality of life of patients and their families, financial burden and chronic morbidity or even death (Krister *et al*., 2016). In our study 58% of patients had no wound care person, 82% had luck of dressing materials at home, 84% had financial problem to buy dressing materials. 84% of patients with chronic wound had financial problems to buy dressing materials at home, because dressing materials not covered by health insurance and health budget, but sometimes hospices could not have good dressing materials too. Mostly dressing materials covered by donations. In the study of Anna Renom-Guiteras, José Planas *et al*., 47.5% of palliative care cancer patients with wounds had insomnia, 42% had pain, 38% had depression, 33% had anxiety (Anna *et al*., 2014). In our study 68% of patients with chronic wounds had insomnia, 64% had anxiety, 90% had depression. Insomnia significantly correlated with anxiety (r=0.557; p=0.0001) and depression (r=0.486; p=0.0001). According to the study of Keith G Wilson, Harvey Max Chochinov, 70.3% of palliative care cancer patients with wounds had moderate to severe pain. In our study 78% of palliative care cancer patients with wounds had moderate to severe pain, which is similar to the study of Keith G Wilson, Harvey Max Chochinov.

Limitation

The study has several limitations. We had just 50 patients with chronic, non healing wounds in three hospices of Mongolia during one year observation. For us was difficult to separate physical suffering caused by cancer from symptoms caused by wounds. We tried as possible to separate symptoms of suffering caused by wounds. Questionnaire about psychosocial problems was limited. We need to provide study with wider questionnaire in future, including care givers burden inventory, quality of life index, calculation of financial burden.

Conclusion

1. Palliative care patients with non healing wounds have many physical, psychological and social problem.
2. Anxiety had statistically significant correlation with pain (r=-0.405; p=0.004), insomnia (r=0.557; p=0.0001), isolation because of smell of wounds (r=-302; p= 0.033) and with contamination wounds with stool and urine (r=0.450; p=0.001).
3. Depression had statistically significant, direct and moderate correlation with pain (r=-0.299; p=0.035), insomnia (r=0.486; p=0.0001), and isolation because of shame of wounds (r=0.444; p=0.001)

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REFERENCES

Anna R.G, José P, Cristina F, Sergi M, Ramón M *et al*. 2014. Insomnia among patients with advanced disease during admission in a Palliative Care Unit: A prospective observational study on its frequency and association with psychological, physical and environmental factors. *BMC Palliative Care*, 13:40. https://doi.org/10.1186/1472-684X-13-40

Bradford Rice, J., Urvi Desai, Alice Kate G. Cummings, Howard G., Birnbaum, Michelle Skornicki *et al*. 2014. Burden of diabetic foot ulcers for medicare and private insurers. *Diabetes Care*, 37(3): 651-658. https://doi.org/10.2337/dc13-2176

Dorothea RF. 2017. What is a non-healing wound. Conditions & Treatments; Wound healing center. Inova.

Gottrup F. 2004. Optimizing wound treatment through health care structuring and professional education; Wound Repair and Regeneration, 12(4);129-133 DOI: 10.1111/j.1067-1927.2004.012204.x

http://onlinelibrary.wiley.com/wol1/doi/10.1111/dth.12051/full

http://www.holisticprimarycare.net/topics/topics-a-g/chronic-disease/989-reaching-closure-tips-for-healing-chronic-non-healing-wounds.html

Jaminelli B. 2015. Challenges in the Treatment of Chronic Wounds. Advance in wound care, 560–582. doi:10.1089/wound.2015.0635

Keith G.W, Harvey M.C, Pierre A, Srini C, Pierre R. G, Karen M. *et al*. 2009. Prevalence and correlates of pain in the Canadian National Palliative Care Survey. *Pain Res*

Manag., 14(5): 365–370. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2779154/

Klaus K and Karen, 2011. Garth J. Chronic Wound Colonization, Infection and Biofilms. *Biofilm Infections*, 14-21

Krister J, Gao Ni, Henrik S, Artur S, Caroline P, *et al*. 2016. Prevalence and incidence of chronic wounds and related complications: A protocol for a systematic review. *Syst Rev*., 5(1): 152. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5017042/ doi: 10.1186/s13643-016-0329-y

Mustoe T. 2005. Dermal ulcer healing. Advances in understanding. Paris, France, file:///D:/My%20Documents/Documents/erdem%20sudlal%202015/Reading/Mustoe_abstract.pdf

Oxana G. P, Joseph A. R, Karen M. M, Thomas Ro, Josée S *et al*. 2010. Prevalence, Demographics, and Psychological Associations of Sleep Disruption in Patients With Cancer: University of Rochester Cancer Center–Community Clinical Oncology Program. *Journal of Clinical Oncology*, 292-298. http://ascopubs.org/doi/10.1200/JCO.2009.22.5011

Richmond, NA., AD Maderal and AC Vivas. 2013. Evidence-based management of common chronic lower extremity ulcers. *Dermatol Ther*., 26:187–196. DOI: 10.1111/dth.12051.

Robert G. F. and Jaminelli, B. 2015. Challenges in the Treatment of Chronic Wounds. Advance in wound care. p 560–582. doi: 10.1089/wound.2015.0635 .

Ronda G. Hughes, Alexis D. Bakos, Ann O'Mara, Christine T. Kovner, 2005. Palliative Wound Care at the End of Life. Home Health Care Management & Practice, 17(3): 196-202.

Scott R. Helson. 2010. Reaching Closure: Tips for Healing Chronic, Non-Healing wounds. 18:43.

Sheila G. and Helen M. 2015. Wound assessment tools and nurses' needs: an evaluation study. *International wound Journal*, 235-37. doi: 10.1111/iwj.12100.

Trøstrup H, Bjarnsholt T, Kirketerp K, Høiby N. and Moser C. 2013. What is new in the understanding of non healing wounds epidemiology, pathophysiology, and therapies, *Ulcers*. http://dx.doi.org/10.1155/2013/625934

Understanding Wound Care in the Hospice and Palliative Setting. 2016. https://crhcf.org/Blog/understanding-wound-care-in-the-hospice-and-palliative-setting/

Werdin F, Tennenhaus M, Schaller H. and Rennekampff H. 2009. Evidence-based Management strategies for Treatment of Chronic Wounds. *Eplasty*, 9: e19. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2691645/

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