An Investigation into Well-being in those with and without DFU

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Introduction

- While the physical aspects of a DFU can be measured the concept of "*wellbeing*" is more challenging to capture.
- Wellbeing can be defined as a dynamic matrix of factors, including physical, psychological and spiritual.
- The concept of wellbeing is inherently individual and will vary over time.

(McIntosh et al., 2019)

Domains of Wellbeing

- **Physical wellbeing**- the ability to function independently in activities such as bathing, dressing, eating, moving around.
- **Mental wellbeing**- this implies that cognitive faculties are intact and that the patient is free from fear, anxiety, stress, depression or other negative emotions.
- **Social wellbeing**- the ability to participate in and engage with family, society, friends and workers.
- **Spiritual wellbeing**-"an ability to experience and integrate meaning and purpose in life through connections with oneself and others."

(McIntosh et al., 2019)

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Aims/ Objectives

- To investigate wellbeing in those who are at high risk of or living with an active diabetic foot ulcer (DFU) attending a community Podiatry clinic in the West of Ireland.

- **Phase 1:** To evaluate levels of spirituality and hope, anxiety and depression, powerlessness and self-esteem.

- **Phase 2:** Through qualitative approaches, to explore the lived experience of people living with and without DFU.

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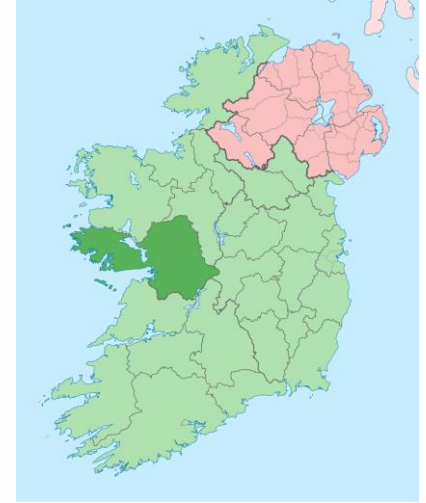
Methods

A total of 25 participants at risk or/ active DFUs were recruited via convenience sampling.

Phase 1 : The following validated tools were utilised:

- Hearth Hope Index (HHI)
- Hospital Anxiety and Depression Score (HADS)
- Rosenberg Self-Esteem Scale (RSES) and Powerlessness Assessment Tool (PAT)
- Spirituality Self-rating Scale (SSRS)

Phase 2: Individual semi-structured interviews, transcription and thematic analysis conducted, key themes and common phrase identification.

Demographic Results

		DFU (n=16, 64%)	High-risk (n=9, 36%)	Total (n=25, 100%)
Gender (n)	Males	11 (68.8%)	8 (88.9%)	19 (76%)
	Females	5 (31.5%)	1 (11.1%)	6 (24%)
Age (years)	Mean	69.93 (+/- 10.38)	70.88 (+/- 13.78)	69.64 (+/- 11.47)
	Median	69	77	70
	40-49	1 (6.3%)	-	1 (4%)
	50-59	1 (6.3%)	3 (33.3%)	4 (16%)
	60-69	6 (37.5%)	-	6 (24%)
	70-79	5 (31.3%)	4 (44.4%)	9 (36%)
	80-89	3 (18.8%)	2 (22.2%)	5 (20%)
BMI^	Mean	27.37 (+/-3.97)	28.34 (+/-3.23)	27 (+/- 3.68)
	Median	25.9	28.4	26.8
Smoker (n)	Current smoker	-	-	
	Non-smoker	9 (56.3%)	5 (55.6%)	14 (56%)
	Ex-smoker	7 (43.8%)	4 (44.4%)	11 (44%)
Duration of DM (years)^	Mean	19.31 (+/- 7.98)	24.7 (+/- 14.36)	21.28 (+/- 10.76)
	Median	20	28	20

^ Results presented as mean +/- standard deviation
(n) Results presented as frequency and percentage

		DFU (n=16)
Location of DFU (n)	Digits	6 (37.5%)
	MTPJs	7 (43.8%)
	Midfoot	2 (12.5%)
	Rearfoot	1 (6.3%)
Ulcer Duration (months)^	Mean	14.68 (+/-19.68)
	Median	7.5
History of Amputation		6 (24%)
Exudate	Present	8 (50%)
	Not present	3 (18.8%)
	Sometimes present	5 (31.3%)
Malodour	Present	7 (43.8%)
	Not present	5 (31.3%)
	Sometimes present	4 (25%)

^ Results presented as mean +/- standard deviation
(n) Results presented as frequency and percentage

Social history demographics

		DFU (n=16)	High-risk (n=9)	Total
Living Status	Living alone	8 (50%)	4 (44.4%)	12 (48%)
	Not living alone	8 (50%)	5 (55.6%)	13 (52%)
Marital Status	Married	7 (43.8%)	3 (33.3%)	10 (40%)
	Single	5 (31.3%)	2 (22.2%)	7 (28%)
	Divorced	2 (12.5%)	1 (11.1.%)	3 (12%)
	Widowed	2 (12.5%)	3 (33.3%)	5 (20%)
Home Help	Home help	5 (31.3%)	2 (22.2%)	7 (28%)
	No home help	11 (68.8%)	7 (77.8%)	18 (72%)
Education	Primary	4 (25%)	1 (11.1%)	5 (20%)
	Secondary	7 (43.8%)	7 (77.8%)	14 (56%)
	Third level	5 (31.3%)	1 (11.1%)	6 (24%)
Believe in Higher Power	Yes	14 (87.5%)	7 (77.8%)	21 (84%)
	No	2 (12.5%)	2 (22.2%)	4 (16%)

^ Results presented as mean +/- standard deviation
(n) Results presented as frequency and percentage

Phase 1 Results

	DFU (n=16)	High Risk (n=9)	Total (n=25)
Spirituality Self Rating Scale (SSRS)	21.56 (+/-6.37)	20.66 (+/- 7.8)	21.24 (±6.78)
Hearth Hope Index (HHI)	36.18 (+/-6.84)	39.22 (+/-4.46)	HHI 37.28 (±6.17)
Rosenberg Self-Esteem Scale (RSES)	19.5 (+/- 5.31)	23.22 (+/- 3.56)	RSES 20.84 (±5.02)
Powerlessness Assessment Tool (PAT)	32.5 (+/- 7.13)	22.88 (+/- 5.41)	PAT 28.88 (±7.91),
Hospital Anxiety and Depression Score (HADS)	8.8 (+/- 5.63)	9.4 (+/- 5.05)	HADS = 9 (±5.33)

Phase 2 Results

Themes

Negative Experiences	Feeling Emotions	Self Management Strategies	Holistic Approach
Inconvenience	Life altering	Gratitude	Regret	Blood glucose monitoring	Footwear check	Smoking Cessation	Dietary advice	Empowerment

Conclusion

Participants living with current DFUs reported:
- stronger feelings of powerlessness
- lower self-esteem
- higher depression scores

Those with current DFUs reported significantly lower anxiety levels than those who were deemed high risk, living without an ulcer.

Individuals at risk and living with a foot ulcer expressed negative emotions around the loss on independence/ regret they experience and a gratitude for the support. Strong desire for wider support and recognition around the psychological and wider impact of DFU.

Thank *you*

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