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Original Research Article

ASSESSMENT OF NUTRITIONAL STATUS, SELF-ESTEEM, AND QUALITY OF LIFE IN STOMATIZED PATIENTS

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Abstract: *The prospective study of Nishtar Hospital Multan from January 2022 to January 2023 to assess the impact of intestinal stomas on patients' quality of life and nutritional status. Patients of both genders, aged > 18 years, having intestinal stoma, were included. A total of 100 participants were included in the study. A questionnaire including demographic details, information regarding the stoma, and the Rosenberg Self-Esteem Scale/UNIFESP-EPM quality of Life Scale was used to collect data.59 respondents had low self-esteem (<15), having a mean Score of 0.56; 11 had normal self-esteem with a mean value of 0.64, and 30 had high self-esteem (>25), having a mean of 0.62. A significant association and positive correlation existed between self-esteem and nutritional status (P= 0.04). Linear regression analysis showed a significant association between nutritional status and duration of stoma (P=0.011), type of stoma (P=0.05), monthly income (P=0.01), and number of meals/day (P=0.002). Moreover, there was a significant difference between median QoL – SeSi scores of urostomy patients (Mdn=18.5) compared to those who had a stoma (Mdn=16.5) or an inflamed appendix (16.0) (P= 0.04). Analysis of QoL-FF Score (relation with friends and family) showed urostomy patients (Mdn = 34.5) had substantially higher ratings than colostomy patients (median = 33.5, p = 0.02), and ileostomy patients (Mdn = 32.0, p = 0.025). There was no discernible difference between colostomy as well as ileostomy ratings. It was concluded that stoma patients' quality of life, self-esteem, and nutritional status are interconnected.*

Keywords: Stoma, Quality Of Life, Nutrition, Self-Esteem

Introduction

A stoma is a synthetic opening through which food, waste, or air may be introduced or removed from the body. One may get an ostomy through a combination of medicinal and surgical procedures. Depending on the site of the initial illness, an ostomy may be temporary or permanent. When a stoma is surgically implanted in a patient's belly, the person defecatesvia the conduit (Diniz et al., 2023). It has been noted that people who have received ostomies can suffer psychological and emotional changes that affect their sexuality, identity, quality of life, and even their body image (Saati et al., 2021). The decline in social status comes from the customized person's self-imposed seclusion and society's tendency to reject people who do not conform to "normal" patterns. Such people often experience anxiety, pain, and uncertainty because they fear they may be unable to return to their normal lives after being hospitalized (Atallah et al., 2020).

The Health Organization (WHO) identifies five factors that contribute to an individual's quality of life: their physical health, mental health, amount of independence, social connections, and surroundings (Kristensen et al., 2022). Measuring quality of life provides a complete perspective on the impact of a clinical disease or response to surgery. Health-related quality of life (HRQoL) is a topic of continuous study and debate, particularly concerning the patient's diet. HRQoL is hard to measure because it is a subjective biometrics construct that responds to individual expectations over various domains. Not much investigation has been made on the correlation between diet and happiness. A better nutritional condition is a deciding element in enhancing physiological function because of the significant association between nutrition and changes in muscle, immunological and cognitive processes (Goodyear et al., 2021). Because customized people's lifestyles and routines continue to change following surgery, it is more important to assess their HRQoL and sense of self-worth (Mao et al., 2021). This study aims to assess the impact of intestinal stomas on patients' quality of life and nutritional status.

Methodology

The prospective study of Nishtar Hospital Multan from January 2022 to January 2023. Patients of both genders, aged > 18 years, having intestinal stoma, were included. Patients with dementia who were unable to answer the questionnaire accurately were excluded. Total 100 participants were included in the study. Informed consent of the participants was taken. The ethical board of the hospital approved the study.

A questionnaire including demographic details, information regarding the stoma, and the Rosenberg Self-Esteem Scale/UNIFESP-EPM quality of Life Scale was used to collect data. The Rosenberg index is a 10-item scale with four possible responses: 1 for strongly agreeing, 2 for agreeing, 3 for disagreeing, and 4 for severely disagreeing. There are ten items, five of which measure the individual's positive self-perception, and five measure their negative self-perception. Some senior study participants sought help

from researchers in completing the instrument because of physical limitations such as hand tremors, poor eye and audio acuity, and weak eyesight.

SPSS version 23.0 was used for data analysis. To assess whether or not the distribution was proportional, the chi-squared test was employed on the census profile and associated with the peritoneum variable in the statistical analysis. Kruskal-Wallis and Spearman correlation tests were also used. P value < 0.05 was considered statistically significant.

Results

Demographic and medical data of the participants is shown in Table I. 59 respondents had low self-esteem (<15), having a mean Score of 0.56, 11 had normal self-esteem with a mean value of 0.64, and 30 had high self-esteem (>25) having a mean of 0.62 (Table II). There was a significant association and positive correlation between self-esteem and nutritional status (P= .04). Liner regression analysis showed a significant association between nutritional status and duration of stoma (P=.011), type of stoma (P=.05), monthly income (P=.01), number of meals/day (P=.002).

Analysis of quality of life Self-esteem and Self-image score (QoL – SeSi score) patients with malignant disease had significantly lower scores than those with benign illness (P=.025). Moreover, there was a significant difference between the median scores of urostomy patients (Mdn=18.5) compared to those who had a stoma (Mdn=16.5) or an inflamed appendix (16.0) (P= 0.04). Gender and stoma location had no impact on QoL – SeSi score. Analysis of QoL-FF Score (relation with friends and family) showed urostomy patients (Mdn = 34.5) had substantially higher ratings than colostomy patients (median = 33.5, p = 0.02), and ileostomy patients (Mdn = 32.0, p = 0.025). There was no discernible difference between colostomy as well as ileostomy ratings. Different domains of QoL are summarized in Table III.

Table I Descriptive statistics of variables used in the study.

Variables	Categories	Frequencies	
		Male	Female
Age in years	25 to 30 years	16	13
	31 to 60 years	13	23
	More than 60 years	13	22
Marital status	Single	13	22
	Married	29	36
Primary disease	Benign	36	44
	Malignant	6	14
Duration of stoma	Less than 12 months	31	38
	More than 12 months	11	20
Monthly income in rupees	<50,000	14	17
	51,000 to 100,000	21	32
	More than 100,000	7	9
Type of stoma	Ileostomy	25	26
	Colostomy	11	17
	Urostomy	6	15
No. of meals eaten per day	1-2 meals	9	3
	2-3 meals	20	30
	3-4 meals	13	25
Diseases	Hypertension	23	34
	Diabetes	8	9
	Obesity	11	15
Pattern of exercise	Regular	12	15
	Moderate	21	28
	Sedentary	9	15
Use of Junk foods	Yes	9	7
	No	33	51

Table II Self-esteem score in the study population

Self-esteem score	Frequency	Mean	Std. Deviation
Less than 15	59	0.56	0.50
15-25	11	0.64	0.50
>25	30	0.62	0.49
Total	100	0.59	0.5

Table III Analysis of Quality of life in stomatized patients

	QoL – SeSi Score*			QoL-FF Score*			QoL-SF Score*			QoL-Def Score*		
	Mean	Median	P	Mean	Median	P	Mean	Median	P	Mean	Median	P
Gender												
Male	17.0	6.5	0.14	32.5	8.5	0.50	7.5	6.0	0.07	8.0	4.5	0.40
Female	15.5	4.5		31.5	7.5		6.5	5.5		8.0	3.5	
Age(years)												
25 to 30	14.0	7.8	0.035	32.0	6.0	0.45	7.5	5.0	0.085	7.0	4.5	0.37
31-50	15.0	6.4		31.5	6.5		7.0	5.5		7.5	4.0	
>50	18.0	5.4		31.5	7.0		6.5	6.0		8.0	5.5	
Primary disease												
Benign	14.0	5.5	0.025	32.5	5.5	0.33	6.5	5.5	0.75	8.0	3.7	0.55
malignant	16.0	4.5		34.5	5.0		7.0	3.9		8.5	4.3	
Duration of stoma												
>12 months	14.0	8.8	0.25	31.5	8.4	0.30	7.5	4.0	0.97	7.5	4.5	0.65
<12 months	16.0	7.0		33.5	6.5		7.0	6.0		6.5	4.5	
Type of stoma												
Ileostomy	16.0	0.5	0.04	32.0	3.5	0.025	5.5	5.5	0.075	5.5	4.5	0.14
Colostomy	16.5	7.8		33.5	5.5		7.5	6.5		6.5	3.5	
Urostomy	18.5	7.9		34.5	6.5		7.5	6.5		7.5	2.8	

*QoL – SeSi score= Self-esteem and Self-image score, QoL-FF score= relation with friends and family, QoL-SF score=relation with sleep and fatigue, QoL-Def score= ostomy device functioning insecurities

Discussion

The current study evaluated QoL, self-esteem, and nutritional status of stomatized patients. In the current study, a total of 59.0 respondents had very low self-esteem (15), 11.0 had real self-esteem, and 29.0 had high self-esteem (>25). This finding backed up the findings of a previous study, which found that persons with transitory ostomies had mild to moderate self esteem, further stressing the need to address HRQOL aspects, including psychological health and social connections (Su et al., 2016). The results showed a significant association between the quantity of food intake per day, duration of stoma, type of stoma, and nutritional status. These findings were consistent with the results of a previous study which discovered that patients' nutritional status was severely influenced during the first month following ileostomy placement. The nutritional status seems negatively impacted by decreased liquids and food intake (Vasilopoulos et al., 2020).

Stoma patients' QoL may suffer for various reasons, some directly connected to the stoma and others to the underlying medical condition. Understanding the elements affecting these people's quality of life is the first step in improving our understanding of them and their care. Our primary goal in conducting this research was identifying the demographic and clinical characteristics associated with customized patients' quality of life. Overall performance or performance on any of the subdomains was not significantly different between the sexes. A previous study found that sexuality detrimentally affects women's and men's quality of life across various dimensions (Schmidt et al., 2005).

Our results on the SF-Score are close to being statistically significant, possibly due to the influence of feminism. Female patients are likely to report beneficial psychological and social effects. A Turkish study indicated that female patients rated their physical health, role mood, and mental component much worse than male patients. Regarding mental and social well-being indicators, no significant gender differences were found (SeSi and FF scores) (Tulek et al., 2020). Another research with 2497 participants found that women who had a colostomy had significantly worse life quality ratings than women who had undergone a small bowel stoma (Braumann et al., 2016).

There were no significant differences statistically between ileostomy and endometrial ablation patients regarding total QoL or domain assessment, which aligns with the prior study (Sirimarco et al., 2021). Some studies suggest that cancer patients who have had to have a stoma created may be more accepting of it being a permanent part of their bodies, according to some studies(Pape et al., 2021; Wulff-Burchfield et al., 2021). Cancer patients also had significantly greater levels of self-worth, as measured by the SeSi score and interpersonal ties (FF score). It is uncommon to evaluate how different stoma types affect patients' quality of life following surgery. Despite several studies showing that individuals with circular ileostomy had greater difficulty than those with colostomy, there seem to be no significant differences in QoL between the two kinds of stoma(Keane et al., 2020; Koç et al., 2022). The limitation of this study is the small sample size. A larger is recommended for further analysis.

Conclusion

It was concluded that anyone with stomas had low self-esteem, and stoma impacts the patient's diet. Stoma patients' quality of life, self-esteem, and nutritional status are interconnected. Knowledge of self-esteem and health-related quality of life in customized patients can help healthcare professionals plan their care.

Declarations

Data Availability statement

All data generated or analyzed during the study are included in the manuscript.

Ethics approval and consent to participate

Not applicable

Consent for publication

Not applicable

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Not applicable

Conflict of interest

The authors declared absence of conflict of interest.

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