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Relationship between Gastrointestinal Problems and Quality of Life of Rural Population of a Tertiary Care Hospital Lahore

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ABSTRACT

Background: Gastrointestinal problems are prevalent globally and significantly impacts the overall well-being and quality of life. Gastritis, peptic ulcers, irritable bowel syndrome (IBS), constipation, and acid reflux influence the physical and emotional well-being of patients. **Methodology:** This descriptive cross-sectional study at Jinnah Hospital, Lahore, included 300 rural patients diagnosed with gastrointestinal problems, excluding those with psychological disorders. Data were collected using the WHO Quality of Life questionnaire over two months, with ethical approval and informed consent obtained. Statistical analysis was conducted using SPSS 25, employing descriptive statistics and Pearson correlation to assess the relationship between GI symptoms and quality of life. A p-value <0.05 was considered statistically significant. **Results:** The study indicated that majority of participants were aged 46–60 years (35%) and female (53.3%). Nearly half were illiterate (46.7%), most were married (66.7%), and a majority were unemployed (73.3%). Regarding quality of life (QoL), 45% reported good, 40% moderate, 8.3% poor, and 6.7% very good QoL. Analysis revealed that participants experiencing gastrointestinal symptoms such as abdominal pain, bloating, indigestion, nausea, vomiting, diarrhea, and constipation were significantly more likely to report lower QoL, falling into the poor or moderate categories. All these associations were statistically significant ($p < 0.05$), underscoring a strong negative impact of GI problems on quality of life in this rural population. **Conclusion:** The study found that gastrointestinal symptoms were significantly associated with lower quality of life among rural patients, with those affected more likely to report poor to moderate QoL. Conversely, participants without GI symptoms generally reported better quality of life, highlighting the substantial negative impact of GI disorders in this population.

INTRODUCTION

Gastrointestinal problems are prevalent globally and significantly impacts the overall well-being and quality of life (Chuah et al., 2021). Gastritis, peptic ulcers, irritable bowel syndrome (IBS), constipation, and acid reflux influence the physical and emotional well-being of patients (Shahzad et al., 2021). In developing countries like Pakistan, rural people had limited access to healthcare facilities due to poor health literacy and lack of access to health facilities (Bint Harun et al., 2024). While, self-medication even most the life of patients (Sarkar et al., 2022).

Quality of life is a broad concept that reflects the culture, beliefs, personal concerns, and goals of life. It includes several features, including physical state, psychological health, individuality, and ecological environments (Fairlie et al., 2023). Gastrointestinal problems restrict the daily activities, disturb sleeping by impairing quality of life. These problems are often more worsened in rural situations due to socioeconomic weaknesses, insufficient health care possessions, and the disgrace associated with chronic illnesses (Namdeo et al., 2023).

METHODOLOGY

This was descriptive cross-sectional study, conducted at Jinnah Hospital, Lahore. About 300 participants were registered through convenient sampling technique.

Diagnosed individuals of gastrointestinal problems, living in rural areas were included in the study. While participants having psychological disorders were excluded from study. Data was collected using self-administered WHO quality of life questionnaire. Ethical approval was obtained from the institutional review board, and informed consent was taken from all participants. Data collection was carried out over a two-month period in outpatient and inpatient departments of the hospital. Statistical analysis was performed using SPSS version 25, with descriptive statistics used to summarize demographic characteristics, and Pearson correlation applied to determine the relationship between GI problems and quality of life scores. A p-value of <0.05 was considered statistically significant.

RESULTS

Table 1

Socio-Demographic Variables (N=382)

Variables	Frequency	Percent
Demographic Variables		
Age		
18–25	40	13.3%
26–35	75	25.0%
36–45	80	26.7%
46–60	105	35.0%
Gender		
Male	140	46.7%
Female	160	53.3%
Educational Level		
Illiterate	140	46.7%
Elementary	60	20%
High School	70	23.3%
Graduate	20	6.7%
Professional Degree	10	3.3%
Marital Status		
Married	200	66.7%
Single	100	33.3%
Employment		
Unemployed	220	73.3%
Employed	80	26.7%

Table 1 presents the demographic characteristics of the 300 participants. The majority of participants were aged between 46–60 years (35.0%), followed by 36–45 years (26.7%). More than half of the respondents were female (53.3%). In terms of education, 46.7% were illiterate, while only a small proportion held a professional degree (3.3%). Most participants were married (66.7%) and unemployed (73.3%).

Table 2

Overall Quality of life

Quality of life	Frequency	Percent
Poor	25	8.3%
Moderate	120	40%
Good	135	45%
Very good	20	6.7%

Results of table showed that majority of participants 135 (45%) had good quality of life with 120(40%) had moderate quality of life, and very few 20(6.7%) had very good quality of life

Table 3

Relationship between Gastrointestinal problems and quality of life

Gastrointestinal Problems	Categories	Quality of Life				p-value
		Poor	Moderate	Good	Very good	
Abdominal Pain	Yes (n = 80)	15 (18.8%)	42 (52.5%)	20 (25.0%)	3 (3.8%)	<0.001*
	No (n = 220)	10 (4.5%)	78 (35.5%)	115 (52.3%)	17 (7.7%)	
Bloating	Yes (n = 70)	12 (17.1%)	38 (54.3%)	17 (24.3%)	3 (4.3%)	0.002*
	No (n = 230)	13 (5.7%)	82 (35.7%)	118 (51.3%)	17 (7.3%)	
Indigestion	Yes (n = 60)	10 (16.7%)	30 (50.0%)	17 (28.3%)	3 (5.0%)	0.004*
	No (n = 240)	15 (6.3%)	90 (37.5%)	118 (49.2%)	17 (7.1%)	
Nausea	Yes (n = 50)	9 (18.0%)	26 (52.0%)	13 (26.0%)	2 (4.0%)	0.003*
	No (n = 250)	16 (6.4%)	94 (37.6%)	122 (48.8%)	18 (7.2%)	
Vomiting	Yes (n = 35)	8 (22.9%)	18 (51.4%)	8 (22.9%)	1 (2.9%)	0.006*
	No (n = 265)	17 (6.4%)	102 (38.5%)	127 (47.9%)	19 (7.2%)	
Diarrhea	Yes (n = 40)	7 (17.5%)	20 (50.0%)	11 (27.5%)	2 (5.0%)	0.005*
	No (n = 260)	18 (6.9%)	100 (38.5%)	124 (47.7%)	18 (6.9%)	
Constipation	Yes (n = 75)	14 (18.7%)	39 (52.0%)	18 (24.0%)	4 (5.3%)	<0.001*
	No (n = 225)	11 (4.9%)	81 (36.0%)	117 (52.0%)	16 (7.1%)	

The findings reveal that participants experiencing gastrointestinal symptoms—such as abdominal pain, bloating, indigestion, nausea, vomiting, diarrhea, and constipation—had significantly lower quality of life compared to those without these issues. A greater proportion of individuals with GI problems fell into the "poor" and "moderate" quality of life categories, whereas those without symptoms were more likely to report "good" or "very good" quality of life. All associations were statistically significant ($p < 0.05$), indicating a strong link between GI disorders and diminished quality of life.

DISCUSSION

The current study indicated that gastrointestinal problems have significant association with quality of life. Most of the participants reported either good (45%) or moderate (40%) quality of life, with only a minority indicating poor (8.3%) or very good (6.7%) quality of life. These results are constant with some researches, which has shown that chronic illnesses effect the quality of life of patients. A study by Andhi et al. (2022) reported that individuals experiencing functional GI symptoms such as bloating, abdominal discomfort, and indigestion had poorer health-related quality of life. Likewise, Vernon-Roberts et al. (2023) also showed similar findings and reported that gastrointestinal problems negatively impacted both physical and psychological health. In contrast, Aljahdli et al. (2024) found that majority of GI problem patients had poor quality of life.

The study indicated that GI problems had significant association with quality of life of patients. These findings are supported by Donthu et al. (2024), who reported that

GI symptoms affect both physical and psychological functioning of patients.

Additionally, Liu et al. (2024), found that communal GI disorders were linked with disruptions in everyday activities. Chan et al. (2021) also support these findings and showed a strong relationship between GI symptoms and reduced quality of life.

CONCLUSION

The study included 300 rural participants, predominantly aged 46–60 years (35%) and female (53.3%). Nearly half were illiterate (46.7%), most were married (66.7%), and a majority were unemployed (73.3%). Regarding quality of life (QoL), 45% reported good, 40% moderate, 8.3% poor, and 6.7% very good QoL. Analysis revealed that participants experiencing gastrointestinal symptoms—such as abdominal pain, bloating, indigestion, nausea, vomiting, diarrhea, and constipation—were significantly more likely to report lower QoL, falling into the poor or moderate categories. Conversely, those without GI symptoms tended to report better QoL (good or very good). All these associations were statistically significant ($p < 0.05$), underscoring a strong negative impact of GI problems on quality of life in this rural population.

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