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Self-Esteem, Self-Gratitude, and their Influence on Subjective Well-Being in GERD Patients: A Cross-Sectional Study

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ABSTRACT: Gastroesophageal Reflux Disease (GERD) often leads to decreased quality of life, including impacts on patients' psychological well-being. However, limited studies have explored the psychological factors influencing subjective well-being in GERD patients. This study aims to examine the relationship between self-esteem and self-gratitude with subjective well-being among patients suffering from GERD. Using a cross-sectional design and purposive sampling technique, a total of 109 respondents were selected from the GERD patient population. The dependent variable in this study is subjective well-being, while the independent variables are self-esteem and self-gratitude. Data were collected through validated questionnaires, including the Rosenberg Self-Esteem Scale, Gratitude Questionnaire (GQ-6), and a Subjective Well-Being Scale. The Spearman rank correlation test was employed to analyze the data. Results indicated a significant positive correlation between self-esteem and subjective well-being ($\varrho = 0.663$, $p < 0.001$), and a very strong positive correlation between self-gratitude and subjective well-being ($\varrho = 0.832$, $p < 0.001$). This study found a significant positive relationship between self-esteem and self-gratitude and subjective well-being in GERD patients, whereby the higher their self-esteem and self-gratitude, the better their subjective well-being. These findings suggest that higher levels of self-esteem and self-gratitude are associated with higher subjective well-being in GERD patients. To improve subjective well-being in GERD patients, simple efforts like counseling, practicing gratitude, and boosting self-esteem through positive thinking and group support can help reduce the negative effects of the disease.

1. INTRODUCTION

Gastroesophageal Reflux Disease (GERD) is a chronic illness whose prevalence continues to rise in modern society. GERD sufferers not only experience physical disturbances such as heartburn, regurgitation, and discomfort in the digestive tract, but also face significant psychological challenges. The chronic nature of the disease, long-term medication, unpredictable relapses, and lifestyle restrictions lead to a decrease in quality of life and the emergence of psychological burdens such as stress, anxiety, and even depression.

In society, individuals with GERD often feel anxious about disease recurrence, worry about long-term impacts, and feel burdened both socially and economically due to high medical costs and limitations in daily activities. This situation can reduce their subjective well-being, which is characterized by decreased life satisfaction and increased negative affect, such as fear, worry, and irritability.

According to data from the Indonesian Ministry of Health (2022), the prevalence rate of GERD in Indonesia is 40.8%, making it one of the top 10 chronic diseases with the largest number of patients, with approximately four million people suffering from it. While the incidence of GERD in some regions of Indonesia is quite high, with a prevalence rate of 274,396 cases out of a

population of 238,452,952, the prevalence of GERD in East Java reaches 31.2%, with a total of 30,154 cases. Gastroesophageal Reflux Disease (GERD) is one of the chronic diseases whose prevalence continues to rise in Indonesia and worldwide. Data from global studies indicate that approximately 20% of the world's population experiences GERD symptoms, with around 70% of these cases classified as uncomplicated GERD or Non-Erosive Reflux Disease (NERD) (Yamasaki et al., 2018). In Indonesia, the increase in GERD cases is also significant, particularly in urban areas, including Surabaya and East Java (Nuryanti et al., 2021).

One important psychological factor that contributes to improving subjective well-being is self-esteem. Individuals with low self-esteem tend to lack confidence in facing challenges, give up easily, and have weak psychological resilience. This impacts their ability to manage chronic illnesses like GERD, further decreasing their quality of life.

On the other hand, gratitude has also been proven to have a positive relationship with subjective well-being. Individuals who develop gratitude for life experiences, including their illness, tend to have lower stress levels, higher positive affect, and find positive meaning in difficult situations. Gratitude training has even been shown to improve subjective well-being in patients with other chronic illnesses, such as diabetes mellitus and heart disease, by increasing positive affect and life satisfaction, as well as reducing negative affect.

However, in society, there are still very few psychological interventions that specifically target the enhancement of self-esteem and gratitude among GERD sufferers. These two factors have enormous potential to improve their subjective well-being and quality of life. The lack of attention to the psychological aspects of GERD sufferers is a problem that needs further attention, considering that the resulting psychosocial impact can worsen both the physical and mental condition of patients (Dickens, 2017).

Despite the growing global recognition of the significance of psychosocial factors in chronic disease management, there remains a notable gap in research specifically addressing the psychological experiences of GERD patients, especially within the Indonesian context. This gap is critical because cultural, economic, and healthcare system differences can influence the psychological impact and coping strategies of patients. By focusing on self-esteem and gratitude as key psychological constructs, this study fills a crucial void in the literature regarding GERD patients in Indonesia, providing previously underexplored, valuable insights. Addressing this gap is essential not only for advancing academic knowledge but also for developing culturally appropriate, evidence-based interventions that improve patient outcomes both locally and potentially in similar contexts globally.

Therefore, research on the role of self-esteem and gratitude in the subjective well-being of GERD sufferers is relevant. The results of this study are expected to serve as a basis for developing more comprehensive and holistic psychological interventions, thereby improving the quality of life for GERD sufferers in society. This research is timely and essential for informing healthcare policies and enhancing multidisciplinary care approaches for GERD, ultimately benefiting patients' physical and psychological health on both a local and a global scale.

2. MATERIALS AND METHODS

2.1 Materials

This study uses a cross-sectional research design. The target population is all GERD patients in the Surabaya area, and there are 150 participants. The sample size is 109 participants. The sampling technique will be carried out using purposive sampling with samples determined according to inclusion and exclusion criteria. The inclusion criteria are GERD diagnosis and productive age. The exclusion criteria include patients who experience a decrease in consciousness or other critical conditions, as well as GERD patients who have additional medical conditions that may interfere with the data collection process, such as mental disorders or complications from other diseases.

The independent variables in this study are self-esteem and gratitude. The dependent variable in this study is subjective well-being. The instruments used in this study are the Rosenberg Self-Esteem Scale by Rosenberg, M. with a Cronbach's alpha value of 0,855 (Rosenberg, 1965), the Gratitude Questionnaire-6 (GQ-6) with a Cronbach's alpha value of 0,924, and the Satisfaction with Life Scale by Diener with a Cronbach's alpha value of 0,828 (Diener, 1984).

2.2 Data Collection Procedures

A random sample of 150 respondents was taken from the entire population of patients with GERD. The researchers asked the patients to participate in the study by distributing questionnaires. Before filling out the questionnaire, the researcher explained the purpose and benefits of the study and provided informed consent from the patients participating in it. Thereafter, the researcher made a time contract for filling out the questionnaire. Once the questionnaires were filled out and collected, the researcher rechecked their completeness and then processed the data.

2.3 Data Analysis

Data analysis will be tested using Spearman's rank correlation with a p-value >0.0050. The data collection procedure for this study can be conducted after it has been approved and deemed ethically sound by the Chakra Brahmanda Lentera Institution with No. 021/08/V/EC/KEP/LCBL/2025.

3. RESULTS AND DISCUSSION

3.1 Result

Table 1: Correlation between Self-Esteem and Subjective Well-Being (SWB)

Variable	Characteristic	n	%
Gender	Man	33	30,3
	Female	76	69,7
Total		100	100
Age	Adolescent	8	7,3
	Young adult	55	50,5
	Middle adult	39	35,8
	Elderly		6,4
Total		100	100
Long-suffering from illness	< 2 years	23	21,1
	> 2 years	86	78,9
Total		100	100

Based on Table 1, it was found that most respondents were female (69.7%). In terms of age, most respondents were in the early adult age range (50.5%). Most respondents (78.9%) had suffered from GERD for more than 2 years.

Table 2: Correlation between Self-Esteem and subjective Well-Being (SWB)

Self Esteem	Subjective Well-Being							
	Low		Moderate		High		Total	
	n	%	n	%	n	%	n	%
Low	1	100	0	0	0	0	1	100
Moderate	5	13,8	24	66,7	7	19,5	36	100
High	0	0	11	15,3	61	84,7	72	100
Total	6	5,5	35	32,1	68	62,4	109	100

Rank Spearman P value	0,000
Correlation coefficient	0,663

Table 2 shows that in the group with moderate self-esteem, the majority of respondents (66.7%) had moderate subjective well-being. Meanwhile, in the group with high self-esteem, most respondents (84.7%) experienced high subjective well-being. Overall, the majority of respondents (62.4%) had high subjective well-being.

The results of the Spearman correlation test show a p-value of 0.000, indicating that the relationship between self-esteem and subjective well-being is statistically significant. The correlation coefficient of 0.663 indicates a strong positive relationship between self-esteem and subjective well-being, meaning that the higher a person's self-esteem, the higher their subjective well-being.

Table 3: Correlation between Self-Gratitude and Subjective Well-Being (SWB)

Self-Gratitude	Subjective Well-Being							
	Low		Moderate		High		Total	
	n	%	n	%	n	%	n	%
Low	6	75	2	25	0	0	8	100
Moderate	0	0	29	82,8	6	17,2	35	100
High	0	0	4	6	62	94	66	100
Total	6	5,5	35	32,1	68	62,4	109	100
Rank Spearman P value	0,000							
Correlation coefficient	0,832							

In the group with low levels of self-gratitude, most respondents (75%) reported low levels of subjective well-being. In the group with moderate levels of self-gratitude, the majority of respondents (82.8%) had moderate levels of subjective well-being. Meanwhile, in the group with high levels of self-gratitude, most respondents (94%) experienced high levels of subjective well-being. Overall, the largest proportion of respondents (62.4%) had high levels of subjective well-being.

The p-value of 0.000 indicates a statistically significant relationship between self-gratitude and subjective well-being. The correlation coefficient of 0.832 indicates a very strong positive correlation, meaning that higher self-gratitude is associated with higher subjective well-being.

3.2 The Relationship between Self-Esteem and Subjective Well-Being (SWB)

The study sample reflected diverse demographics among GERD sufferers. Most respondents were women, making up 69.7% of the group. This supports findings in the literature that women tend to experience higher psychological distress in chronic illnesses, such as GERD, which can negatively impact self-esteem and subjective well-being (Orth & Robins, 2025).

Age-wise, respondents were predominantly young adults (50.5%) and middle-aged adults (35.8%). This distribution indicates that individuals in their productive years are more commonly affected by the psychosocial challenges related to GERD, which influence self-esteem and SWB.

Regarding illness duration, most respondents (78.9%) had suffered from GERD for over two years, whereas 21.1% had the condition for less than two years. Prior studies demonstrate that longer illness duration is closely linked to diminished self-esteem and SWB, caused by accumulated psychological burdens like depression, anxiety, and helplessness. Hence, the duration highlights the importance of tailored psychosocial support for these patients.

The relationship between self-esteem and subjective well-being (SWB) in GERD patients is an important aspect that has received increasing attention in health psychology research over the past ten years. GERD, as a chronic condition characterized by acid reflux, not only causes physical symptoms such as heartburn and digestive issues but also significantly impacts patients' psychological well-being (Kim, Park, & Lee, 2024)(Shanmugapriya et al., 2021). In this context, self-esteem serves as one of the

primary psychological factors influencing patients' perceptions of their quality of life and subjective well-being.

In patients with chronic illnesses like GERD, low self-esteem is often caused by various factors directly related to their health condition. Chronic illness can cause significant physical changes, limitations in daily activities, and a sense of dependence on others, making patients feel worthless and lowering their self-esteem (Williams & Smith, 2018; Jang & Lee, 2022). Furthermore, negative perceptions of their bodies, altered by the illness or the effects of treatment, also contribute to decreased self-confidence. Emotional factors such as fear, anxiety, and disappointment experienced by patients, as well as frequent social isolation, further exacerbate negative feelings about themselves and reduce their subjective well-being (Lee & Kim, 2020; Choi & Kim, 2019). Lack of social support from family, friends, or healthcare professionals deepens feelings of low self-esteem and negatively impacts patients' psychological well-being (Park, Ryu, & Lee, 2023). Furthermore, painful past experiences, trauma, or rejection related to the illness also reinforce this low self-esteem. Patients who persistently focus on their limitations are prone to negative self-talk, which indirectly undermines their quality of life and subjective well-being. Therefore, low self-esteem and subjective well-being in patients with chronic illnesses are interconnected and influenced by a combination of physical, psychological, and social factors (Jang & Lee, 2022)(Sauve et al., 2020).

According to Diener's theory of Subjective Well-Being (SWB), SWB consists of three main components: cognitive evaluation of life satisfaction, and affective balance between positive and negative emotions (Diener, 1984). Self-esteem functions as a cognitive filter that helps individuals assess their life experiences more positively, especially when facing challenging health conditions like GERD (Rosenberg, 1965)(Lee & Kim, 2020). Patients with high self-esteem tend to have a more optimistic outlook and are better able to manage stress arising from disease symptoms, thereby enhancing their subjective well-being.

Empirical research supports this positive relationship. A large-scale study involving over two thousand GERD patients demonstrated a significant correlation between self-esteem and SWB, with a regression coefficient of 0.45 ($p < 0.001$) (Lee & Kim, 2020). The study also revealed that anxiety acts as an important mediator influencing the relationship between self-esteem and SWB. In other words, high self-esteem helps reduce anxiety levels, which in turn improves patients' subjective well-being. Conversely, patients with low self-esteem tend to experience a decline in quality of life, particularly in terms of mental health, which can worsen their physical condition (Kim, Park, & Lee, 2024)(Shanmugapriya et al., 2021).

The psychological mechanism underlying this relationship involves the ability of self-esteem to regulate emotions. Individuals with high self-esteem are better able to perform cognitive reappraisal, which is the process of reevaluating negative situations in a more positive light. In the context of GERD, this means that patients can view the symptoms of the disease not as debilitating obstacles, but as challenges that can be overcome (Choi & Kim, 2019). This process helps reduce the perception of pain and psychosomatic stress, which often exacerbate GERD symptoms. Additionally, self-esteem contributes to the ability to build and maintain effective social support. This social support is crucial in providing a sense of security and motivation, ultimately enhancing the patient's subjective well-being (Park, Ryu, & Lee, 2023).

From a behavioral perspective, good self-esteem influences patients' adherence to treatment and recommended healthy lifestyle habits, such as a low-acid diet and avoidance of trigger factors. High adherence to treatment directly contributes to symptom improvement and enhanced quality of life. Data indicate that patients with high self-esteem are 29% more likely to adhere to treatment protocols, positively impacting their subjective well-being (Lee & Kim, 2020).

The clinical implications of these findings are significant. Psychological interventions targeting self-esteem enhancement, such as cognitive behavioral therapy (CBT) with self-affirmation modules and peer support groups, have proven effective in improving subjective well-being in GERD patients (Sauve et al., 2020) (Smith & Johnson, 2019). This therapy not only helps patients change negative thought patterns but also strengthens their self-confidence and ability to cope with the disease. Additionally, integrating routine psychological screening into GERD management can help identify patients at risk of decreased self-esteem and well-being, enabling earlier intervention.

However, longitudinal studies are still needed to assess the long-term impact of self-esteem enhancement interventions on the GERD population, especially given the variability in patients' psychological responses and medical conditions. Furthermore, further studies are recommended to explore the role of other variables, such as religiosity, social support, and cultural factors, that may moderate the relationship between self-esteem and subjective well-being in the context of GERD.

However, when implementing these therapies, it is crucial to consider the cultural and socioeconomic factors that influence patients' psychological reactions. Self-esteem and subjective well-being can be impacted by collectivist cultural norms, the shame

associated with chronic disease, and differing levels of familial support in Indonesia and other environments. Religious convictions and spiritual coping strategies may also exert a moderating influence. Social norms, gender roles, and financial circumstances further influence patients' experiences and access to care. Therefore, we require culturally sensitive methods that honor local values and social dynamics to maximize the effectiveness of interventions and patient engagement.

For GERD populations, longitudinal studies that take into consideration a range of cultural backgrounds and psychosocial contexts are still required to assess the sustainability of self-esteem development interventions. Further investigation into factors such as socioeconomic level, community support, and religiosity will enhance knowledge of how these moderators impact the relationship between SWB and self-esteem in GERD. In the end, including socially and culturally sensitive psychological treatment in clinical practice holds potential for bettering overall GERD management and improving patients' physical and mental health outcomes.

3.3 The Relationship between Self-Gratitude and Subjective Well-Being (SWB)

Research shows that people with GERD who have high levels of self-gratitude tend to have better subjective well-being (SWB). Self-gratitude is a psychological disposition that allows individuals to focus more on the positive aspects of their lives, despite the physical limitations and discomfort of a chronic condition like GERD. The relationship between gratitude—particularly self-gratitude—and subjective well-being (SWB) in GERD patients is an important and increasingly studied aspect in health psychology, especially considering the multifaceted challenges posed by chronic diseases. Gratitude, defined as a psychological disposition characterized by a tendency to recognize and appreciate positive aspects in one's life, functions not just as a fleeting emotion but as a durable resource that shapes adaptive coping, emotional regulation, and health outcomes (Wood et al., 2010).

In patients with GERD, who often suffer from chronic physical symptoms such as heartburn, gastrointestinal discomfort, and sleep disturbances, psychological distress is common and can exacerbate the disease burden. However, those with high levels of self-gratitude—the capacity to feel thankful toward one's efforts and progress—tend to report higher subjective well-being. Self-gratitude enables such patients to focus less on their physical limitations and more on positive aspects of their lives and on the personal strengths they have developed in managing their condition (Bernabé-Valero, Garcia-Berbén, & García-Berbén, 2019) (Wood et al., 2010).

Empirical findings, including both large-scale and longitudinal studies, highlight that trait gratitude correlates positively with subjective well-being while inversely relating to symptoms of anxiety and depression in patient populations with chronic illness (Jans-Beken et al., 2018). This dynamic is particularly salient for GERD patients, where chronic stress aggravates both psychological status and symptom severity. By cultivating gratitude, patients develop resilience that promotes emotional stability and adaptive coping strategies, such as positive reframing—viewing health setbacks as manageable challenges rather than insurmountable obstacles (Emmons & Stern, 2013; Jans-Beken et al., 2018).

The broaden-and-build theory proposed by Fredrickson provides a useful framework to understand gratitude's effects (Fredrickson, 2001). Positive emotions like gratitude broaden individuals' thought-action repertoires, which over time build durable psychological, social, and physiological resources. For GERD patients, this increased resilience aids in stress management and motivates adherence to treatment and healthy lifestyle recommendations, thereby indirectly improving physical health outcomes and subjective well-being (Algoe, 2012; Fredrickson et al., 2003). Experimental gratitude-based interventions—such as gratitude journaling and mindfulness meditation focused on appreciative awareness—have been shown to enhance SWB and reduce psychological distress, suggesting potential for integration into psychosocial care for GERD (Bernabé-Valero et al., 2019)(Emmons & Stern, 2013).

Moreover, recent studies indicate that patients with higher self-gratitude exhibit better treatment adherence and proactive health behaviors, which further boost their quality of life (Park, Ryu, & Lee, 2023). The efficacy of gratitude interventions often depends on the program features; incorporating not only gratitude exercises but also documenting positive everyday events—even if neutral—can positively influence SWB, as demonstrated in randomized trials (Bernabé-Valero et al., 2019).

From a neuropsychological standpoint, gratitude stimulates parasympathetic nervous system activity, which reduces stress responses and facilitates recovery, supporting better mental and physical health (Fredrickson, 2001). This physiological mechanism complements the psychological benefits, aligning with the broaden-and-build model's explanation of how gratitude fosters long-term wellness and disease adaptation (Bernabé-Valero et al., 2019; Hulett, Armentrout, & Kanzler, 2019).

In conclusion, self-gratitude is a pivotal psychological asset in patients with GERD, strongly associated with enhanced subjective well-being and emotional resilience. The integration of gratitude-focused interventions into comprehensive care models presents promising avenues for improving both mental and physical health outcomes. Approaches such as gratitude journaling, mindfulness, and peer support groups should be tailored to meet GERD patients' specific needs, mindful of individual variability and cultural factors (Bernabé-Valero et al., 2019)(Jans-Beken et al., 2018).

4. CONCLUSION

Self-esteem and subjective well-being are significantly positively correlated in GERD patients, according to this study; the higher the self-esteem level, the greater the subjective well-being experienced. Furthermore, there was a strong positive association between self-gratitude and subjective well-being, suggesting that GERD patients' subjective well-being improves with higher levels of self-gratitude. Therefore, efforts to enhance self-esteem and self-gratitude in GERD patients are crucial for supporting improvements in their quality of life and psychological well-being.

However, the effectiveness of these interventions depends heavily on cultural and social contexts, including family dynamics, religious beliefs, and societal norms, particularly in collectivist settings like Indonesia. Therefore, culturally sensitive and socially informed approaches are essential for maximizing patient engagement and therapeutic success. Future research and clinical practice should prioritize the development and evaluation of tailored gratitude-based programs that address these contextual factors to support comprehensive and holistic management of GERD.

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