

Life experience of patients with gastric cancer after gastrectomy: a qualitative study

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Abstract

Purpose

This study aimed to explore the lived experiences of patients with gastric cancer after gastrectomy, with a focus on lifestyle changes and food preparation.

Methods

A descriptive phenomenological approach was used to capture subjective experiences of patients with gastric cancer following gastrectomy. Using purposive sampling, 20 participants who had undergone gastrectomy were recruited from a medical center in Taiwan. Semi-structured and face-to-face interviews were conducted between March 2017 and March 2018. Data was analyzed using Colaizzi's (1978) seven-step method to extract significant contents and emerge four core themes.

Results

Four themes were identified: (1) reshaping eating behaviors, (2) adapting health behaviors, (3) developing self-directed dietary knowledge, and (4) reappraising traditional dietary practices. Participants altered their eating habits, developed self-directed strategies, and reinterpreted traditional beliefs to accommodate physical and psychosocial changes. In the Chinese cultural values and social contexts, the findings showed that patients would adapt not only biopsychosocial changes but also food preparation.

Conclusion

Patients with gastric cancer represented a dynamic process involving physical recovery, psychosocial adjustment and cultural reinterpretation. Understanding patients' experiences may help oncology nurses develop culturally sensitive and patient-centered interventions to enhance their quality of life after gastrectomy.

Introduction

Gastric cancer remains a major global health concern, ranking as the fifth most common malignancy and the third leading cause of cancer-related death worldwide, with approximately 968,000 new cases and 660,000 deaths reported in 2022 [1]. The incidence and mortality of gastric cancer are particularly high in Asia, especially in East Asia. In Taiwan, gastric cancer ranks eighth in both cancer incidence and cancer-related mortality [2].

Surgery is one option of primary cancer treatments in clinical decision-making among patients with gastric cancer. After gastrectomy, patients frequently experienced significant shifts in their eating patterns, nutritional consumption, and social interactions [3–5]. Previous studies have explored associations between dietary patterns and gastrointestinal cancers, with particular attention to lifestyle changes following surgery [6–10]. Among the most prominent consequences are changes in diet, food purchasing behaviors, and meal preparation practices [7, 9, 11]. These challenges are commonly attributed to reduced gastric capacity and impaired digestive function. Experiencing dumping syndrome after subtotal or total gastrectomy often compelled patients to adapt their eating behaviors and minimize discomfort, such as eating more slowly [6]. Post-gastrectomy dietary adjustments

may further contribute to this tension due to differing expectations regarding meal content, food preparation, and eating behaviors. Such situations underscore the importance of effective communication, shared goal setting, and patient-centered dietary planning to mitigate perceived pressure to eat [7, 11, 12].

Evidence from meta-analytic studies suggested that consumption of red and processed meats may increase the risk of gastric cancer [14]. Among traditional Chinese populations, cultural norms related to food, including meal frequency, communal dining, food therapy, and the use of traditional medicine, play a significant role in shaping dietary practices [3, 15–18]. Although advances in targeted therapy and immunotherapy have offered promising directions for the treatment of gastric cancer, many patients undergoing adjuvant or neoadjuvant chemotherapy continue to experience debilitating symptoms that adversely affect their quality of life [18–20]. Some patients undergoing gastrectomy require adjuvant chemotherapy, and chemotherapy-induced side effects may further compromise nutritional status and eating behaviors, sometimes necessitating enteral or parenteral nutrition. To manage these problems, patients may adopt supplementary strategies, such as dietary counseling, nutritional education, supplementation, or the use of traditional Chinese medicine [4, 6, 7, 9, 11, 12, 21]. Despite this, research examining postoperative dietary changes and adaptive processes among patients with gastric cancer within a Chinese cultural context remains limited.

Given the complex interplay of medical, nutritional, psychological, and cultural factors, this study employed a descriptive phenomenological approach to explore the lived experiences of patients with gastric cancer after gastrectomy [6, 22–24]. The aim was to gain deeper insight into postoperative adaptation and life transition.

Methods

Study setting and participants

The study was conducted at a 1,500-bed medical center in central Taiwan, which includes both inpatient wards and outpatient clinics. Approximately 150–200 patients with gastric cancer are treated at this institution every year. The inclusion criteria were as follows: (1) diagnosed gastric cancer in the medical record; (2) patient awareness of the diagnosis; (3) patient's ability to communicate verbally while conscious; and (4) having undergone gastrectomy and being able to resume oral intake. Patients with mental illness or impaired consciousness were excluded.

Ethical considerations

The study was approved by the Institutional Review Board of Taichung Veterans General Hospital. Written informed consent was obtained from all participants prior to participation in the study.

Procedures and data collection

Two researchers involved in this study were trained in qualitative research and interviewed at the master's and doctoral levels. Data was collected through semi-structured, face-to-face interviews conducted in accordance with the interview guide presented in Table 1.

Table 1
Interview guide

Questions
1. How was your experience different after the gastric cancer surgery?
2. How did dietary changes affect your life?
3. What kind of adjustments have you made to face these changes?
4. What kind of assistance would you like to have for postoperative life changes?

Each interview lasted 30–60 minutes and was conducted either in inpatient wards or an outpatient clinic. During the interviews, participants shared their lived experiences following gastrectomy. Nonverbal cues and body language were also observed and recorded. Most interviews were conducted with only the participant and the interviewer present. When a family member was present, this was accurately documented in the audio recordings and interview transcripts. The interviewer was a female nurse at the study site and was not involved in participants' treatment decisions. Participants were informed that participation was voluntary and would not affect their medical care.

Qualitative data analysis

The study adopted Colaizzi's (1978) seven-step analysis method. The analytic process involved repeated listening to audio-recorded interviews and careful reading of transcripts to develop an overall understanding of the participants lived experiences. Significant statements were then extracted from the transcripts as the primary units of analysis. Meanings derived from these statements were grouped into themes based on similarity and shared characteristics. An exhaustive description of the fundamental structure of the phenomenon was subsequently developed. Regarding the rigor of data extraction and analysis, the trustworthiness of this study was enhanced based on the criteria proposed by Lincoln and Guba. Credibility was supported through repeated reading of the interview transcripts, peer discussion, and the use of direct quotations to authentically represent participants' experiences. Two authors had finished the qualitative study training and could be as the research tool when they were in master and Ph. D program. The author had over 10 years of working experience in the study setting and ensured the accuracy of the transcribed content and context from the audio recordings following the interviews. To enhance transferability, the research context, participant characteristics, and data collection procedures were clearly described, allowing readers to assess the applicability of the findings to similar contexts. For dependability, each participant's transcript was coded, and records of the analytical procedures and transcript data were retained throughout the process of theme development to ensure the stability of the analysis. We used word and excel software to manage data. Finally, confirmability was strengthened by minimizing the influence of researchers' personal biases through discussion with other research team members and by tracing the findings back to the original data. These strategies were used to enhance the credibility and rigor of qualitative research. Participants were also invited to review and confirm their transcripts. The findings reflect the intuitive and subjective perceptions and lived experiences among patients with gastric cancer after gastrectomy. Data saturation was reached after interviews with 20 participants with gastric cancer.

Results

The participants’ basic characteristics are presented in Table 2.

Table 2
Demographic characteristics of the patients in the study (n = 20)

Characteristics	Classification	No	Percentage	Average	Median	Minimum	Maximum
Age (years)				59.1	61	37	74
	< 65 years old	14	70%				
	≥ 65 years old	6	30%				
Gender	Male	13	65%				
	Female	7	35%				
Since last gastrectomy (m)				21.7	3.7	0.7	99.6
	< 6 Month	14	70%				
	≥ 6 Month	6	30%				
Living	Living with others	20	100%				
	Living Alone	0	0%				
Stage	I	6	30%				
	II	3	15%				
	III	4	20%				
	IV	3	15%				
GIST stage	I	1	5%				
	II	2	10%				
	III	1	5%				
	IV	0	0%				
Surgical methods	Total Gastrectomy	6	30%				
	Subtotal Gastrectomy	12	60%				
	Wedge	2	10%				

After reviewing the transcripts, four primary themes were identified: (1) Reshaping eating behavior; (2) Adapting health behaviors within Chinese cultural contexts; (3) Developing self-directed dietary knowledge; and (4) Reappraising traditional dietary practices.

Reshaping eating behavior

Most participants described noticeable changes in their eating behaviors, including the quantity and texture of food intake, eating speed, nutrient choices, and frequency of eating out. Participants generally reported reduced food intake, slower eating speed, and a preference for softer food textures, particularly after surgery (ID2, ID4). Although some changes were influenced by healthy eating education, many participants described discomfort caused by eating excessive amounts, consuming hard-to-chew foods, or eating too quickly. These experiences prompted voluntary adjustments in eating behavior (ID2, ID19, ID20).

"I had more careful about my food amount, and I ate less. Since I have many small meals each day, I also ate less." (ID2)

"I only ate about 1/3 or 1/4 of the regular amount of my food before surgery." (ID4)

"I ate a lot less after the operation because as long as I ate a little more, I felt stomach discomfort." (ID19)

"I liked eating fruit, but for harder fruits, such as pears, I chewed them thoroughly before swallowing." (ID20)

Adapting health behaviors within the Chinese cultural contexts

Following gastrectomy, participants described changes in their social lives as a result of altered daily routines and physical limitations. They also adjusted their behaviors in response to social expectations and perceptions. Role change referred to shifts in responsibility for food preparation. Participants described replacing eating out with consuming meals prepared by themselves or by family members in order to meet their dietary needs (ID1, ID16).

"I used to think that it was very convenient to eat out, but now I have concerns, and I prepare myself or have my son cook for me." (ID1)

"Now my wife does all the cooking... I eat whatever she prepares." (ID16)

In Chinese dietary culture, eating together commonly symbolizes sharing, togetherness, and family reunion. After surgery, however, participants were required to eat smaller and more frequent meals, eat more slowly, and limit certain food choices. As a result, many participants reported eating alone more often, which required cultural adjustment (ID4, ID7).

"I stopped eating with my colleagues after the surgery, and I had greater concerns about food options. Now I am also more used to bringing adequate foods that are easy to eat by myself." (ID4)

"Now I eat more slowly than before, it is not as easy to eat with others." (ID7)

Developing self-directed dietary knowledge

In this theme, diet is discussed from the perspective of self-direction. After gastric surgery, participants experienced changes in food choices and the formation of new dietary habits. This theme was therefore named "developing self-directed dietary knowledge." Regarding food choices, some participants reduced meat intake because large portions of meat were difficult to digest and instead preferred softer foods such as porridge (ID1, ID6).

"I did not really or should not, eat large pieces of meat, as they were not easy to digest." (ID1)

"I chose to eat food like porridge because softer food was easier to digest." (ID6)

Participants also described the development of healthier eating habits, including chewing slowly, avoiding spicy foods, and consuming smaller meals (ID2, ID5, ID11).

"I used to swallow food very quickly, but now I eat slowly and chew food to pieces before swallowing." (ID2)

"I used to like spicy food; however, I no longer eats food as spicy as I used to." (ID5).

"I don't eat much in one go now. I eat smaller meals because eating too much makes me feel stuffed." (ID11).

Some participants reported receiving advice from other patients, relatives, and friends, with peer experiences influencing decision-making (ID5, ID17, ID19). Participants also described Qigong and regulation of Qi, were also discussed (ID5, ID8, ID11, ID12).

"The nutritionist has given me health education, for example, to eat softer food." (ID17)

"I tend to have greater trust in what the medical staff tells me. If I have questions, I will consult the health providers." (ID19)

"I wanted to enhance my physical strength and muscular endurance, so I tried practicing 'Qigong' exercise." (ID8)

"I had been exercising like walking for a longer distance, and the exercise volume was more than what I had before the surgery." (ID11)

"I focused on replenishing 'Qi'. I have been taking Chinese medicine to regulate 'Qi' and have also taking chicken soup." (ID12)

Disease-related conditions influenced participants' cognitive and behavioral adjustments. After meals, participants described deciding whether to rest or move around to support digestion based on how they felt. Three participants also reported discontinuing the habit of finishing leftover food (ID2, ID8, ID18).

"I would handle the food I buy myself... and it is also necessary to relieve the burden of digestion on the stomach." (ID2)

"As a housewife, I used to finish all the leftovers, but now I do not do that anymore." (ID8).

"I tried to eat very slowly and lie down to rest after I finish, which makes me feel better." (ID18).

Reappraising traditional dietary practices

Within Chinese culture contexts, participants described an inherent understanding of cultural conventions related to food ingredients and food as a therapy. This process was conceptualized as "reappraising and adapting traditional dietary practices." Some participants reported reducing their meat consumption after their illness by eating more vegetables and fruits and less red meat (ID11). Other participants emphasized nutrient supplementation and increased protein intake, including meat (ID2).

"I usually ate more vegetables and fruit, and less red meat." (ID11)

"I still ate meat, mostly beef since beef could promote blood production." (ID2)

Changes in meal frequency were also commonly described. Participants reported that because they ate smaller amounts at each meal, they increased the number of meals per day (ID2, ID12). In addition, food therapy was frequently mentioned. Participants described using specific food ingredients believed to promote health, such as red dates, Chinese medicinal foods, or foods with higher energy content. (ID5, ID12, ID20).

"When I bought fruits, I would buy fruits of various colors. Sometimes I cook chicken with Chinese medicine to boost my health." (ID5)

"I could not to eat much at a single meal anyway, so I eat more meals now." (ID12)

"I used Chinese medicine to nourish my body and replenish 'Qi'." (ID12)

"Now I make my 5-grain porridge softer or cook white fungus soup to better my health." (ID20)

Changes in social roles and work responsibilities, along with the inconvenience of going out after illness, also contributed to reduced social activity (ID7, ID8). One participant noted that she discontinued her previous habit of eating leftover food after diagnosed with gastric cancer (ID8).

"It was not that convenient to eat with others, so most of the time, I did not eat out." (ID7)

"I finished all the food at weddings or any leftovers at home. I always wanted to finish all the food, but later I realized that it was not good for me." (ID8)

"I wanted to enhance my physical strength and muscular endurance, so I tried practicing 'Qigong' exercise." (ID8)

This theme reflects patients' acquisition of knowledge related to disease management and recovery through post-cancer and postoperative health education. As a result, participants became more aware of their own role in initiating behavioral change. With respect to food handling, participants reported preparing softer foods at home or reheating food after receiving dietary guidance (ID2, ID11).

"When I bought take-out food, I always cook again at home before eating." (ID2)

"Now when I cook, I usually made the food softer, especially meat and noodles." (ID11)

Discussion

Using a descriptive phenomenological approach, this study explored the lived experiences of patients with gastric cancer after curative gastrectomy. The findings revealed that postoperative adaptation is a dynamic process involving physiological adjustment, dietary reconstruction, cultural reinterpretation, and changes in social roles. The four themes illustrated how patients negotiated internal adjustments and outward behavioral strategies when responding to bodily limitations and cultural expectations. These findings are consistent with previous studies suggesting that postoperative adaptation is a multidimensional process [3, 6, 8, 9, 13, 22, 23, 25–27].

Postoperative adaptation among patients with gastric cancer after gastrectomy was found to be a continuous and evolving process. As patients confronted reduced gastric capacity, impaired digestive function, and dumping syndrome, they gradually developed new eating patterns and food selection strategies. These observations are

consistent with previous literature describing the physiological limitations and symptoms experienced after gastrectomy [5, 6, 8, 21, 22]. In addition to surgical changes, chemotherapy-related side effects further complicated nutritional intake and made postoperative adjustment more challenging [16, 18–20].

The findings also suggested that physiological limitations were not the sole determinants of dietary behavior. Participants integrated bodily sensations, professional health education, and pre-existing cultural knowledge to form individualized judgments, which gradually developed into self-directed dietary knowledge [13, 26]. In addition, eating behaviors were strongly shaped by cultural values. Chinese cultural beliefs related to food therapy, perceived food properties, and communal dining continued to exert a significant influence on dietary decisions during postoperative recovery [3, 15–17]. While previous studies have described patients' negotiation between medical guidance and traditional dietary practices, this study further contextualizes this process through a qualitative lens, revealing how cultural influences operate in everyday life [3, 13, 17].

This study extends three key contributions to existing literature. First, this study strengthens the cultural perspective on postoperative adaptation, addressing a gap in previous research that has primarily focused on quality of life, physiological symptoms, and nutritional intake [6, 7, 19, 23, 24, 28]. The present findings indicate that, among Chinese patients, cultural beliefs, family roles, and the symbolic meaning of food exert an equally important influence on postoperative dietary adjustment [3, 15–17, 26]. Second, this study highlights the importance of self-directed learning. Participants did not rely solely on professional education; rather, they constructed individualized bodies of knowledge through peer sharing, daily experiences, and bodily feedback [13, 23]. In this study, some participants also reported discussing recovery strategies with peers or receiving traditional Chinese medicine-based care. Through practices such as qigong, physical exercise, and the consumption of foods believed to replenish energy, they perceived improvements in physical functioning. These findings underscore self-efficacy and autonomous adjustment as key drivers of successful postoperative recovery. Third, this study identifies potential tensions between dietary limitations and social connectedness. Although previous studies have suggested that postoperative dietary restrictions may reduce social participation [6, 21, 29], the present findings further illuminate the cultural mechanisms underlying this phenomenon. Within Chinese dining culture, the emphasis on sharing and completeness may intensify feelings of embarrassment or guilt when patients need to eat more frequently, eat slowly, or are unable to finish meals after gastrectomy, thereby contributing to social withdrawal [8, 13, 23, 30].

This study has several clinical implications. Postoperative education for patients with gastric cancer should incorporate cultural considerations, including traditional food therapy, beliefs regarding food properties, and family eating practices, to ensure that educational interventions are better aligned with patients' lived experience [13, 23, 26]. Patients should also be encouraged to adopt self-directed management strategies to enhance self-care ability, such as dietary diaries and symptom monitoring. Given the central role of family members in meal preparation and emotional support, family involvement should be integrated into patient education and counseling [6, 11, 13, 17, 20, 25, 31]. In addition, Healthcare providers should remain vigilant to signs of social withdrawal and psychological distress, particularly among patients who experience dietary isolation due to cultural expectations related to communal dining practices. Timely psychological and social support should be offered when needed. Regarding future research should examine postoperative dietary adaptation through cross-cultural and long-term follow-up designs, and further develop and evaluate culturally sensitive dietary education interventions for patients with gastric cancer.

Study limitations

This study had research limitations. Participants were recruited from a single medical center in central Taiwan, and most shared a Chinese cultural background; therefore, the findings may not be generalizable to populations from other cultural or ethnic contexts. In addition, approximately 70% of participants were interviewed within six months after surgery, meaning that their accounts may primarily reflect short-term postoperative experiences.

Conclusion

This qualitative study explored the lived experiences of postoperative dietary adaptation among patients with gastric cancer after gastrectomy. The findings indicate that postoperative adjustment is a multidimensional process involving dietary reconstruction, cultural reinterpretation, self-directed learning, and changes in social roles. Patients developed individualized dietary strategies while negotiating between medical recommendations and deeply rooted beliefs about food. These findings highlight the importance of culturally sensitive postoperative dietary guidance and supportive care. Sociocultural pressures embedded in Chinese dining traditions may also contribute to social withdrawal, indicating the need for timely psychological and social support. Overall, this study provides a foundation for culturally sensitive nursing care and future interventions to support postoperative adaptation among patients with gastric cancer.

Declarations

Ethics approval

This study was conducted in accordance with the ethical principles of the Declaration of Helsinki and was approved by the Institutional Review Board of Taichung Veterans General Hospital, Taiwan (IRB: CE17083A). Clinical trial number: not applicable.

Consent to participate

All study participants received written and verbal information about the study purpose, procedures, confidentiality, and written informed consent was obtained from all participants before the interviews.

Competing interests

The authors declare that they have no competing interests.

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Author Contribution

Chang wrote the main manuscript text and collected the data. Yang and Chou reviewed the manuscript and verified the tables. Lee, Chen, Yang, and Yu provided expert input on the study content. All authors reviewed and approved the final manuscript.

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The authors gratefully acknowledged all patients with gastric cancer who generously shared their lived experiences and contributed to this study.

Data Availability

This study was conducted in accordance with the ethical principles of the Declaration of Helsinki and was approved by the Institutional Review Board of Taichung Veterans General Hospital, Taiwan (IRB: CE17083A). All study participants received written and verbal information about the study purpose, procedures, confidentiality, and written informed consent was obtained from all participants before the interviews. The authors declare that they have no competing interests.

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