

Original Research Article

Prevalence of food-related misbeliefs among postoperative patients at a tertiary care health center: a pilot survey and future directions

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ABSTRACT

Background: Effective postoperative recovery is significantly influenced by nutrition, yet pervasive food-related misbeliefs can impede this process. This is particularly prevalent in regions with high rates of medical misinformation and cultural dietary restrictions.

Methods: A survey was conducted with 917 postoperative patients at a tertiary care center in India from July 2019 to December 2019. A structured questionnaire was used to identify prevalent dietary misconceptions and their potential impact on wound healing.

Results: The survey revealed that 18.9% of patients harboured detrimental food-related misbeliefs, with the majority avoiding high-protein foods such as meat and dairy due to unfounded fears of adverse effects on wound healing.

Conclusions: The findings highlight a critical need for targeted educational interventions to correct these misbeliefs and promote nutritional practices that support recovery. Given the scope of this issue, further research is recommended to explore the broader implications of dietary misconceptions on post-surgical outcomes across different regions and cultures.

Keywords: Postoperative nutrition, Dietary misbeliefs, Wound healing, Patient education, Cultural dietary practices, Tertiary care

INTRODUCTION

Post-surgical wound healing is a critical concern for both surgeons and patients. However, patients often lack the medical knowledge and experience of healthcare professionals. Their understanding of the wound healing process is typically derived from past experiences, internet research, and advice from doctors. In developing countries like India, where educational outreach and counseling often receive less emphasis in the medical process, patients tend to rely heavily on traditional beliefs and inconsistent information sourced from the internet. This reliance can

foster adherence to unscientific practices and precautions due to fears of wound-related complications.^{1,2}

Nutritional status and dietary intake during the post-operative period are well-established factors influencing wound healing. The scientific community has extensively researched the beneficial effects of various dietary products on wound healing. In contrast, popular beliefs, particularly in developing regions, frequently focus on the perceived negative impacts of certain foods on recovery. For instance, Ayurvedic practices in India advocate against the consumption of black gram and sesame oil during the

recovery phase-views that are prevalent yet unsupported by scientific evidence.^{3,4}

Despite extensive research on the benefits of diet on postoperative wound healing, literature on patient perceptions regarding the detrimental effects of diet on surgical recovery is scarce. In our clinical practice, we frequently encounter patient inquiries about excluding specific foods that they believe might impede their healing process or lead to secondary infections. Motivated by these observations, our study aims to identify the dietary products postoperative patients believe to interfere with wound healing or cause infections and to assess the prevalence of these misbeliefs across different demographic groups. To our knowledge, this study is the first of its kind in the existing medical literature.^{5,6}

Objective

Objective of this study was to assess prevalence of food-related misconceptions among postoperative patients at a tertiary care health center and to examine the influence of such beliefs on dietary choices during wound healing process. We aim to identify specific dietary items postop patients believe may negatively impact their recovery and the reasons underlying these beliefs. This study seeks to understand demographic and cultural factors that contribute to these misbeliefs, ultimately providing data that can guide future educational interventions to improve post-surgical recovery through better nutrition.

METHODS

Study setting and participants

We conducted a prospective survey at Whiston hospital, Mersey West Lancashire NHS Trust, UK. The study involved postoperative patients who presented to our outpatient department for wound inspection or suture removal between July 2019 and December 2019. Upon registration at the reception, patients were provided with a pre-structured questionnaire available in both English and Hindi. Participants were instructed to complete and return the questionnaire to a designated drop box before leaving clinic. For those requiring assistance, translation support for the questions into their native language was provided.

Inclusion criteria

The study included adult patients aged 18 years and older who were postoperative and visiting outpatient department for wound inspection or suture removal. Participants needed to be able to give informed consent and complete the questionnaire either independently or with assistance.

Exclusion criteria

We excluded individuals younger than 18 years, those with impaired cognitive abilities, and those who refused to participate in the survey.

Ethical approval

This study was conducted with the approval of the ethics committee of the Mersey West Lancashire NHS Trust. All participants provided informed consent prior to participation.

Sampling technique

A convenience sampling technique was used. This method was chosen due to the practical constraints of accessing a specific patient population visiting the outpatient department within a defined period.

Data anonymization and security

Patient data was anonymized and secured following the departmental data protection protocols.

Data categories and analysis

The foods assessed in the survey were categorized into eleven distinct groups. Additional demographic and social characteristics of the participants were also recorded. Data were tabulated and analyzed using Microsoft excel. The results were presented in the form of graphs and bar diagrams.

RESULTS

A total of 2,164 questionnaires were distributed, with 917 (42.4%) being returned, indicating a response rate of 42.4% (Figure 1). The basic demographic characteristics of the participants are detailed in Table 1. The majority of the cohort consisted of Hindus (44.8%) and Sikhs (38.8%), with smaller proportions of Muslims (11.4%), Christians (2.2%), Jains (0.8%), and Buddhists (0.9%). A significant portion of our participants (74.6%) were categorized as economically disadvantaged, with a family income of less than Rs. 10,000 per month.

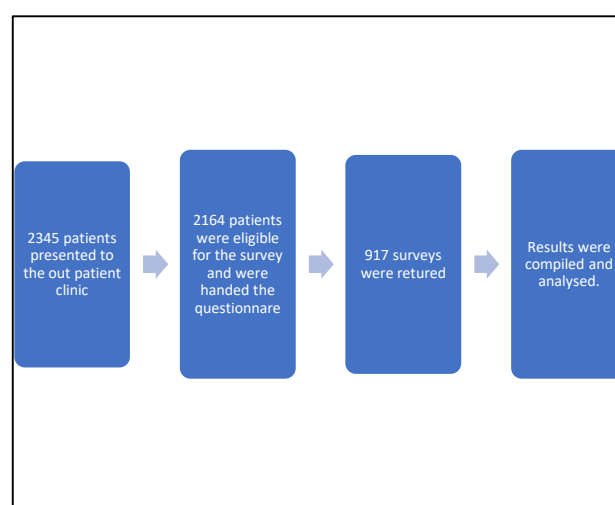


Figure 1: Flow chart depicting the survey process.

Among the respondents, 173 (18.9%) believed that certain foods were detrimental to their recovery. Specifically, 21 (2.3%) participants believed that multiple food types could negatively impact normal wound healing. Dairy products (9%) and meat and poultry (5.7%) were most frequently identified as harmful. Lesser concerns were noted for rice (1.8%) and eggs (1.2%). Few participants also considered some vegetables (0.4%), fruits (0.2%), and nuts and seeds (0.4%) as potentially harmful to healing process. Notably,

no participants reported adverse effects from seafood or legumes and pulses.

Of those who identified 'guilty' foods, 152 (16.6%) completely omitted these from their diet, whereas 21 (2.3%) still occasionally consumed them. The religious distribution of participants who believed that certain foods could delay wound healing is presented in the Table 3 below.

Table 1: Demographics of the participants.

Demographics		N (%)
Mean age (in years)		49.7
Gender	Males	674 (73.5)
	Females	243 (26.5)
Religion	Hindus	411 (44.8)
	Sikhs	356 (38.8)
	Muslims	105 (11.4)
	Christians	20 (2.2)
	Jains	7 (0.8)
	Buddhists	8 (0.9)
	Others	10 (1.1)
Monthly family income	>10,000	233 (25.4)
	<10,000	684 (74.6)
Participants	Believed that certain foods	173 (18.9)
	Believed food doesn't hamper wound healing	744 (81.1)
	Total	917

Table 2: Food type and number of participants who believed it negatively affected wound healing.

Food type	Number of participants who believed it hampers wound healing
Vegetables	4
Fruits	2
Meat and poultry	52
Dairy products	83
Eggs	11
Rice	17
Grains	2
Legumes and pulses	0
Nuts and seeds	4
Oil, sugar, salt and or spices	17
Seafood	0
Others	2

Table 3: Religion wise distribution of participants who believed food can complicate wound healing.

Food	Hindus	Sikhs	Muslims	Christians	Jains	Buddhists	Others
Meat and poultry	26	16	3	2	1	4	0
Dairy products	41	29	7	3	0	0	3
Eggs	5	3	0	0	1	2	0
Rice	7	8	0	1	0	0	1
Vegetables	1	1	0	0	2	0	0
Fruits	0	2	0	0	0	0	0
Nuts and seeds	3	1	0	0	0	0	0
Oil, sugar, salt and or spices	5	6	1	2	2	1	0

DISCUSSION

Adequate nutrition is well-established as beneficial for wound healing. While researchers continue to explore the specific roles of individual nutritional components, it is widely recognized that malnutrition-whether macro or micronutrient deficiencies-adversely affects the healing process. For instance, Jensen et al reported that 42.7% of patients undergoing orthopedic procedures in a Texan hospital exhibited signs of clinical and subclinical malnutrition, a figure expected to be significantly higher in a developing country like India.⁷ Omitting foods rich in essential nutrients could exacerbate pre-existing nutritional deficits.

India's diverse and rich food culture varies widely across different regions, influenced by local cultures and religious beliefs. This diversity can create significant nutritional gaps, particularly among the economically disadvantaged.⁹ Coupled with pre-existing poor nutritional status due to limited affordability and food-related misbeliefs, these gaps could inadvertently affect the wound healing process. In our study, 18.9% of participants believed that certain food types were detrimental during the healing process, with the majority (16.6%) choosing to omit such foods from their diet. Notably, non-vegetarian foods and dairy products, which are rich in high-quality protein and multivitamins, bore the brunt of exclusion.¹⁰

In India, where hospitals often handle a high patient turnover, dietary instructions are seldom included in discharge advice. The focus during outpatient follow-ups is typically on wound care and physiotherapy, with nutrition often neglected. As a result, patients' dietary choices are frequently based on personal judgment or local beliefs and advice from family and friends. This is concerning, especially since 74.6% of our study population reported a household income of less than Rs 10,000, compared to the national average of 57%, reflecting our public hospital's role in serving low-income households.^{11,12} The high prevalence of malnutrition, poor health literacy, and limited healthcare access makes this demographic particularly vulnerable to the consequences of poor dietary choices in the postoperative period.^{13,14}

Religious dietary norms also influence food choices, as observed with the majority of Hindus and Sikhs in our survey who avoided milk, meat, and poultry due to fears of wound complications.^{16,17} Interestingly, no participants believed that seafood and legumes could have negative effects, likely influenced by geographical factors and local dietary habits.

This pilot survey has several limitations. Firstly, the data analysis was conducted using basic percentages in Microsoft excel. Secondly, the questionnaire design may have led some participants to feel compelled to select at least one food type as detrimental. Additionally, routine dietary habits might have influenced participants to report exclusions unrelated to their beliefs about wound healing.

Lastly, our sample, drawn from patients at our institution, may not be representative of the general population.

CONCLUSION

Adequate nutrition is crucial for patient recovery following surgery. Excluding certain food types based on unscientific beliefs can lead to serious nutrient deficiencies, particularly in populations already at risk of malnutrition, such as those in economically disadvantaged regions. It is imperative to further investigate these misconceptions and extend targeted educational interventions to both patients and the general public. Providing accurate guidance on maintaining a balanced diet post-surgery is essential to improve recovery outcomes and overall health. Efforts should focus on integrating comprehensive nutritional advice into patient care protocols, ensuring that such guidance is accessible and adapted to the cultural and socioeconomic contexts of the populations served.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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