

Common Prevailing Food Myths among Hospitalized Patients and Effect of Dietary Counselling

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Abstract:

➤ *Background:*

Hospitalized patients often hold various beliefs about food and nutrition, some of which may be inaccurate or even harmful to their health. These food myths can stem from cultural traditions, personal experiences, or misinformation spread through various channels. Common examples include the belief that certain foods can cure diseases, that dietary restrictions are unnecessary, or that supplements can replace a balanced diet. Such misconceptions can negatively impact a patient's adherence to prescribed dietary plans, potentially hindering their recovery and overall health outcomes. Effective dietary counseling plays a crucial role in addressing these myths, providing evidence-based information, and empowering patients to make informed food choices. Studies have shown that dietary counseling can lead to improved adherence, better understanding of nutritional needs, and ultimately, better health outcomes for hospitalized patients.

➤ *Aims & Objectives:*

This study investigates prevalent food myths among hospitalized patients and aims to dispel these misconceptions through evidence-based nutrition education, empowering patients to make informed dietary choices for improved health outcomes.

➤ *Method:*

50 hospitalized patients, both male and female aged 20 to 70, were randomly selected from a single hospital in Nagpur, Maharashtra. All participants provided written informed consent before enrolling in the study. Data was collected using non-invasive methods, including questionnaires and personal interviews. Participants also received nutrition education aimed at dispelling common food myths, and this education was documented.

➤ *Results:*

50 hospitalized patients were studied, with the most common chief complaints being post-cesarean section (8%) and uncontrolled diabetes (4%). Other conditions included anemia, COPD, hypertension, fractures, and cancers. The most frequently prescribed diet was a normal diet (38%), while specialized diets like modified diabetic high protein, DASH, and renal diets were each prescribed to only 2% of patients. A common food myth was the avoidance of sour and cold foods (48%), followed by beliefs about "hot-natured" foods (26%), yellow-colored foods (10%), and rice (10%). Hearsay was the primary source of these myths (84%), with social media contributing less (16%). Eliminating these foods showed no health benefits. Dietary counseling had varying acceptance rates: complete acceptance (44%), partial acceptance (22%), and non-acceptance (34%). This highlights the need for better communication and education to improve adherence to dietary plans.

➤ *Conclusion:*

Dietary counselling saw varying levels of acceptance among participants. While 44% fully embraced the recommendations, a substantial 34% did not accept them, and 22% showed partial acceptance. Interestingly, neither gender nor age significantly influenced acceptance rates, suggesting that other, yet unidentified, factors are more likely determinants of adherence to dietary advice.

Keywords: Food Myths, Food Faddism, Dietary Counseling, Hearsay, Hot Natured Food, Taaseer, Social Media.

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I. INTRODUCTION

Hospitalization creates a vulnerable state where nutritional support is paramount for recovery, yet prevalent food myths pose a significant challenge. Patients, already dealing with health conditions, often adhere to culturally ingrained or anecdotal dietary beliefs.

These myths can lead to unnecessary food restrictions, imbalances, and even counterproductive dietary choices, hindering the effectiveness of prescribed treatments. This is especially problematic in hospital settings, where precise nutritional intake is crucial for healing. Such misinformation can undermine therapeutic diets, delay recovery, and potentially exacerbate existing health issues. Therefore, understanding and addressing these food myths is vital for ensuring patients receive optimal nutritional care and achieve better health outcomes during and after hospitalization.

These myths, often rooted in cultural beliefs and anecdotal experiences, can lead to dietary restrictions and imbalances, exacerbating existing health issues. A notable example is the concept of "taseer" in South Asian cultures, which classifies foods as "hot" or "cold" based on their perceived effects on the body, influencing dietary choices during illness (Khanna & Puri, 2011). These beliefs can lead to unnecessary food avoidance, especially during febrile illnesses or gastrointestinal distress. The impact of such myths is compounded in hospital settings where patients are often vulnerable and anxious. Dietary counselling plays a crucial role in dispelling these myths, providing evidence-based nutritional guidance, and promoting adherence to therapeutic diets. This research aims to investigate the common prevailing food myths among hospitalized patients and evaluate the effect of dietary counselling on modifying these beliefs and improving nutritional intake.

II. LITERATURE REVIEW

A Study by Story M. et.al. 2008 on “**Cultural Food Beliefs and Hospitalized Patients**” Explored cultural food beliefs, including concepts like "hot" and "cold" foods, impact dietary intake and adherence to prescribed diets in hospitalized patients from diverse backgrounds. They found that Cultural beliefs often lead to dietary restrictions and avoidance, potentially compromising nutritional status. Dietary counseling should be culturally sensitive.

A study by Waitzberg D.L. et. al. 2001, on “**Impact of Food Myths on Nutritional Status in Hospital Settings**” Analyzed the effects of common food myths on the nutritional status of hospitalized patients, particularly those with chronic diseases. Food myths can contribute to malnutrition, delayed recovery, and increased hospital stay. Dietary education is crucial.

A study by Steptoe A. et. al. 1995 on “**Effectiveness of Dietary Counseling in Modifying Food Beliefs**” Evaluated the efficacy of dietary counseling interventions in modifying harmful food beliefs and promoting healthy eating habits among hospitalized patients. Tailored dietary counseling, including education and behavioral interventions, can effectively change food beliefs and improve dietary adherence.

Franz, M. J et.al 2002 conducted a study on “**Food Myths and Chronic Disease Management in Hospitals**” and Examined the specific food myths prevalent among hospitalized patients with chronic diseases (e.g., diabetes, hypertension) and their impact on disease management. Food myths can interfere with disease-specific dietary recommendations, leading to poor glycemic control or blood pressure management.

Coulston, A. M., et.al. 2013 conducted a study on “**The Role of Dietitians in Addressing Food Myths**” and Investigated the role of registered dietitians in identifying and addressing food myths among hospitalized patients and providing evidence-based nutritional guidance. Dietitians play a vital role in dispelling myths, providing personalized counseling, and promoting nutritional literacy.

A study by Ogden, J. 2017 on “**Psychological Factors Influencing Food Beliefs in Hospitalized Patients**” Explored the psychological factors, such as anxiety and fear, that contribute to the adoption and persistence of food myths among hospitalized patients. Psychological distress can increase susceptibility to food myths and influence dietary choices. Dietary counseling should address psychological needs.

Drewnowski, A. et. al. 2005 conducted a study on “**Socioeconomic Factors and Food Myth Prevalence**” and Analyzed the relationship between socioeconomic factors (e.g., education, income) and the prevalence of food myths among hospitalized patients. Lower socioeconomic status may be associated with increased prevalence of food myths and limited access to accurate nutritional information.

A study by Glasgow, R. E. et.al. 2000 on “**Food Myths and Post-Hospital Discharge Dietary Adherence**” Examined the impact of food myths on dietary adherence after hospital discharge and the role of discharge counseling in promoting long-term dietary changes. Persistent food myths can hinder dietary adherence after discharge. Discharge counseling should reinforce evidence-based guidance.

Satia, J. A. 2002 conducted a study on “**The influence of family and community on food myths during hospitalisation.**” And found studies the impact that family members, and the community have on the food myths that patients believe while hospitalized. Family and community

members often reinforce food myths. Therefore, it is important to include family members in the dietary counseling process.

Allcott, H. 2019 et. al conducted a study on “Digital Interventions and Food Myth Dissemination” and found that digital platforms and social media contribute to the dissemination of food myths and the potential of digital interventions for addressing these myths. Social media can spread misinformation, but digital interventions can also be used to deliver accurate nutritional information and personalized counseling.

III. METHODOLOGY

This Descriptive Study is a single centre study comprising of total 50 subjects admitted under different categories (i.e. ward, HDU and ICU) in the hospital set up from nagpur and its periphery.

- Inclusion: both male and female of age group 20 to 70 years, hospitalized in ward, HDU and ICU categories, on oral and tube feeding with documented consent and voluntary participation were selected for the study.

- Exclusion: patients terminally ill, ventilated, nil per oral or nil by mouth, palliative care, day care, emergency, on high inotropes or other contra indicatory drugs, unable to give positive voluntary consent were excluded from the study.
- Tools and techniques: non-invasive tools and techniques were used for conducting the study i.e. personal interview method, structured questionnaires, scientific study materials were used to educate and counsel the patient and the acceptance or rejection of counselling was documented. The collected data was statistically analysed using Descriptive Statistics for categorical data analysis. Chi-square test were used to determine the association between different variables.

IV. RESULT AND DISSCUSSION

The study population was predominantly female, with 62% female and 38% male participants. Tables 1 and 2, along with Figs 1 and 2, illustrate the age distribution, revealing that the 25-45-year age group constituted the largest segment at 40%. The 45-65 and 65-85-year age groups each comprised 15% of the study population.

Table 1 Gender Wise Distribution of Hepatized Patients

| Gender | No. of Patients | % |
|-------------|-----------------|--------|
| Male | 19 | 38.00 |
| Female | 31 | 62.00 |
| Grand Total | 50 | 100.00 |

Table 2 Age Group Wise Distribution of Hepatized Patients

| Age group | No. of Patients | % |
|-------------|-----------------|--------|
| 25-45 | 20 | 40.00 |
| 45-65 | 15 | 30.00 |
| 65-85 | 15 | 30.00 |
| Grand Total | 50 | 100.00 |

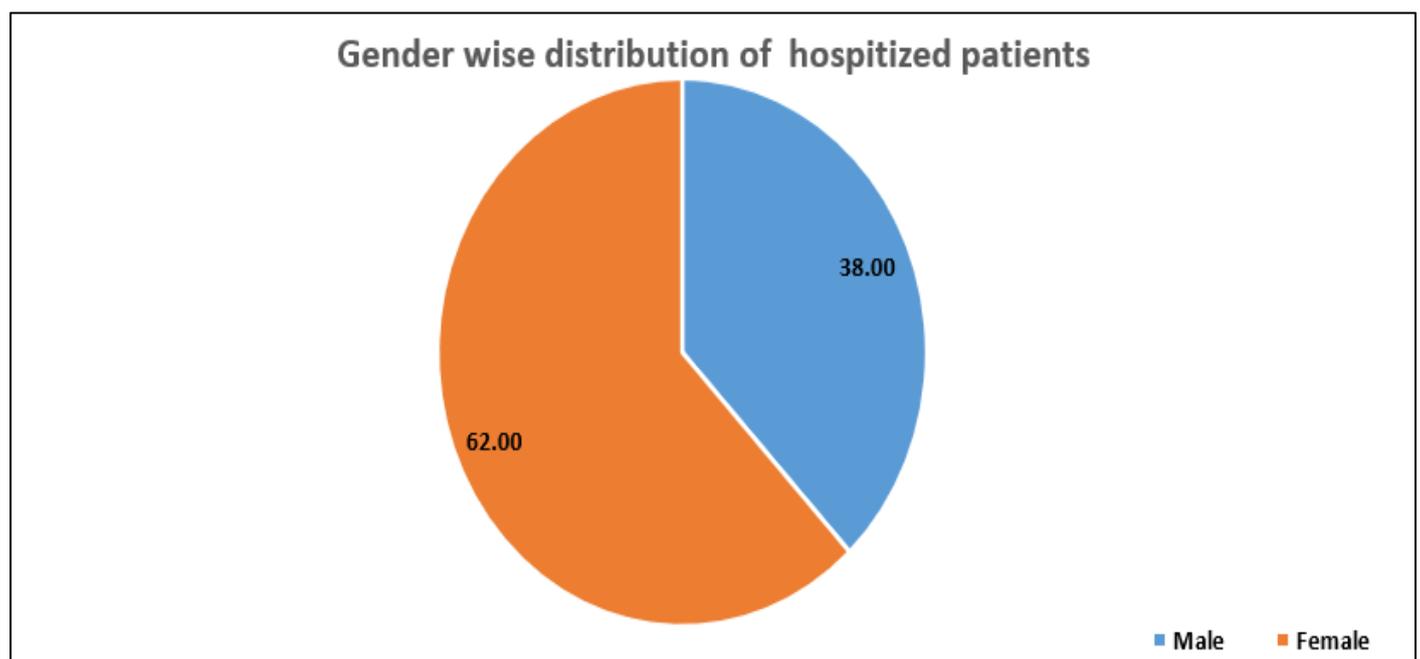


Fig 1 Gender Wise Distribution of Hepatized Patients

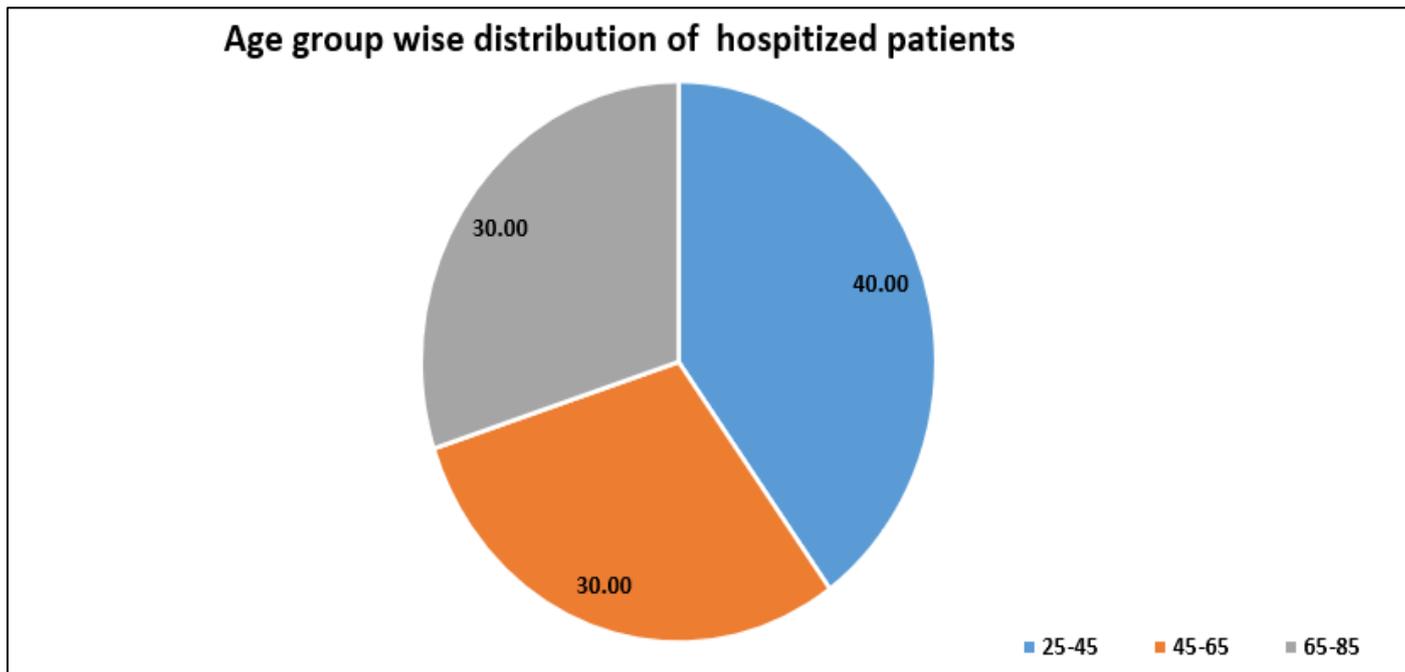


Fig 2 Age Group Wise Distribution of Hepatized Patients

Table 3 BMI Status of Hepatized Patients (%)

| Weight Status | No. of Patients | % |
|---------------|-----------------|--------|
| Normal | 27 | 54.00 |
| Obesity | 2 | 4.00 |
| Over Weight | 20 | 40.00 |
| Under weight | 1 | 2.00 |
| Grand Total | 50 | 100.00 |

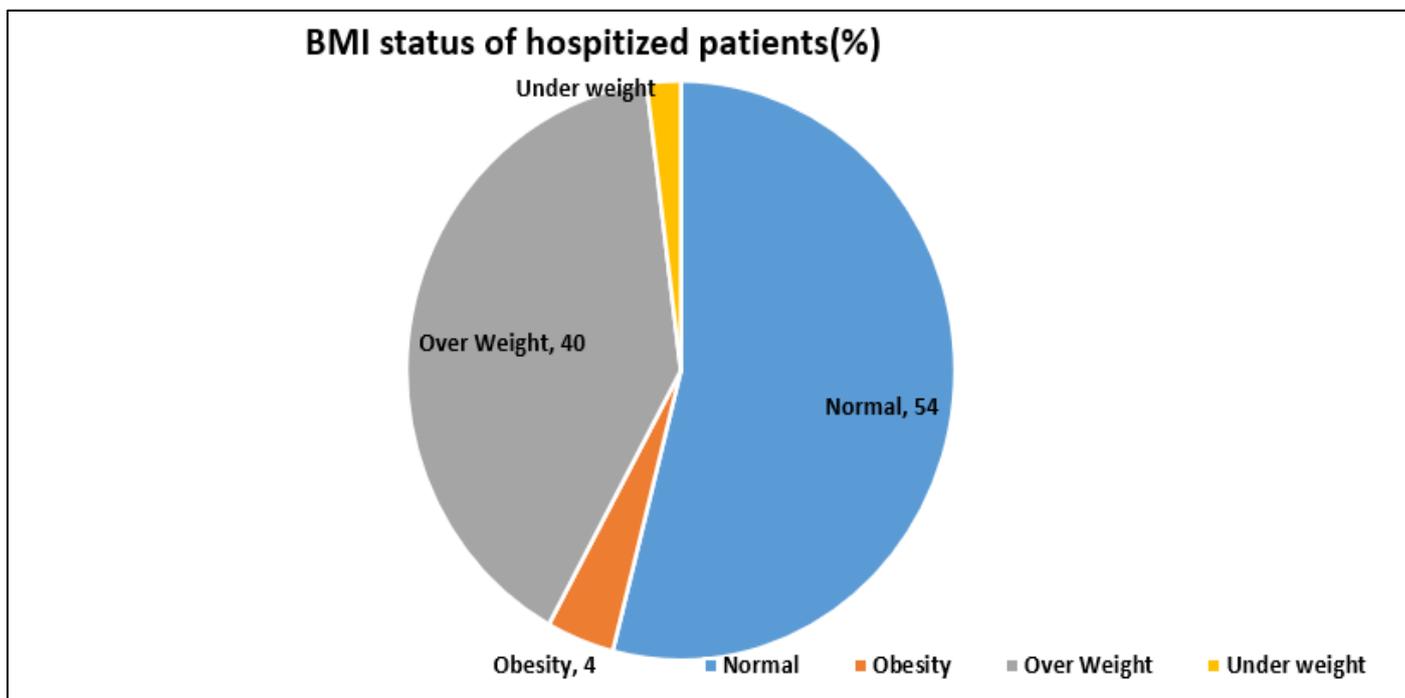


Fig 3 BMI Status of Hepatized Patients (%)

The table 03 and Fig 03 revealed, Among the 50 hospitalized patients with specific food myths, a majority (54%) presented with normal weight. Overweight patients

accounted for 40% of the sample. Underweight and obese patients represented a small minority, at 2% and 4%, respectively.

Table 4 Speciality Wise Distribution of Hepatized Patients (%)

| Speciality | No. of Patients | % |
|--------------------|-----------------|---------------|
| Medicine | 11 | 22.00 |
| Oncology | 10 | 20.00 |
| Gastroenterology | 7 | 14.00 |
| Gyanecology | 7 | 14.00 |
| Pulmonology | 5 | 10.00 |
| Nephrology | 4 | 8.00 |
| Orthopedic | 3 | 6.00 |
| Cardiology | 2 | 4.00 |
| ENT | 1 | 2.00 |
| Grand Total | 50 | 100.00 |

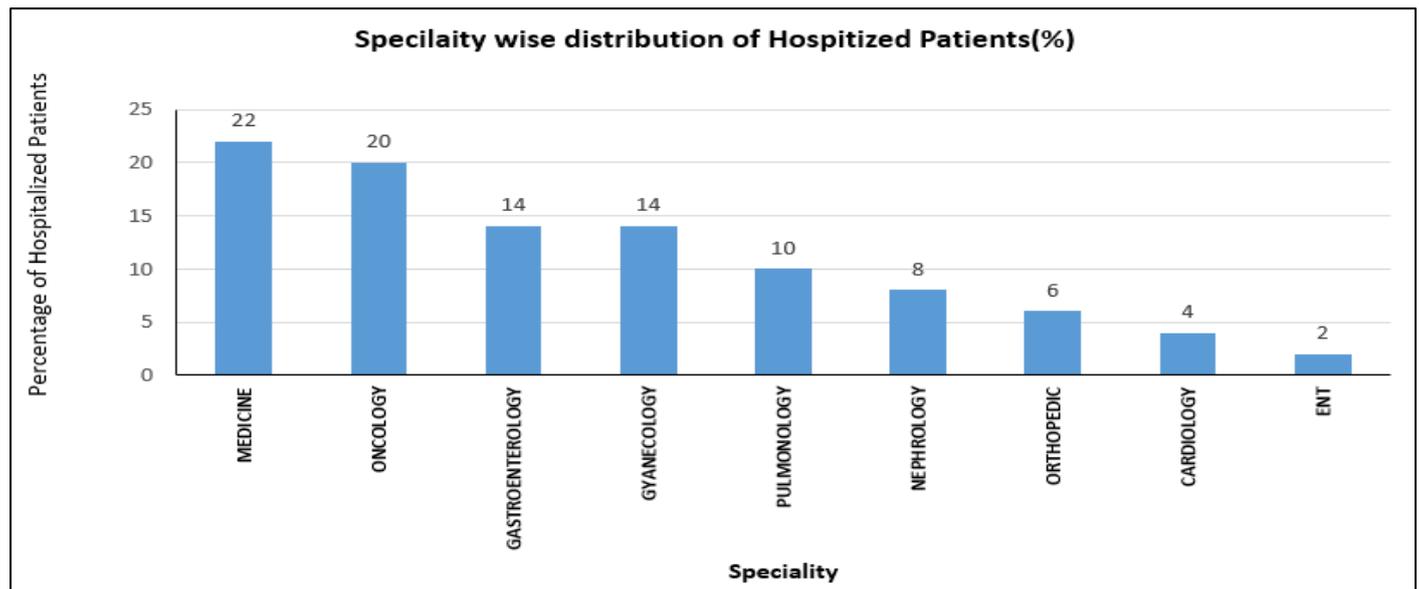


Fig 4 Speciality Wise Distribution of Hepatized Patients (%)

The distribution of food faddism across medical specialties, as depicted in Figure 4, reveals significant variation. A leading 22% of subjects were from the medicine department, with oncology representing 20%.

Gastroenterology and gynecology each comprised 14% of the population. The remaining specialties showed lower proportions: pulmonology (10%), nephrology (8%), orthopedics (6%), and ENT (2%).

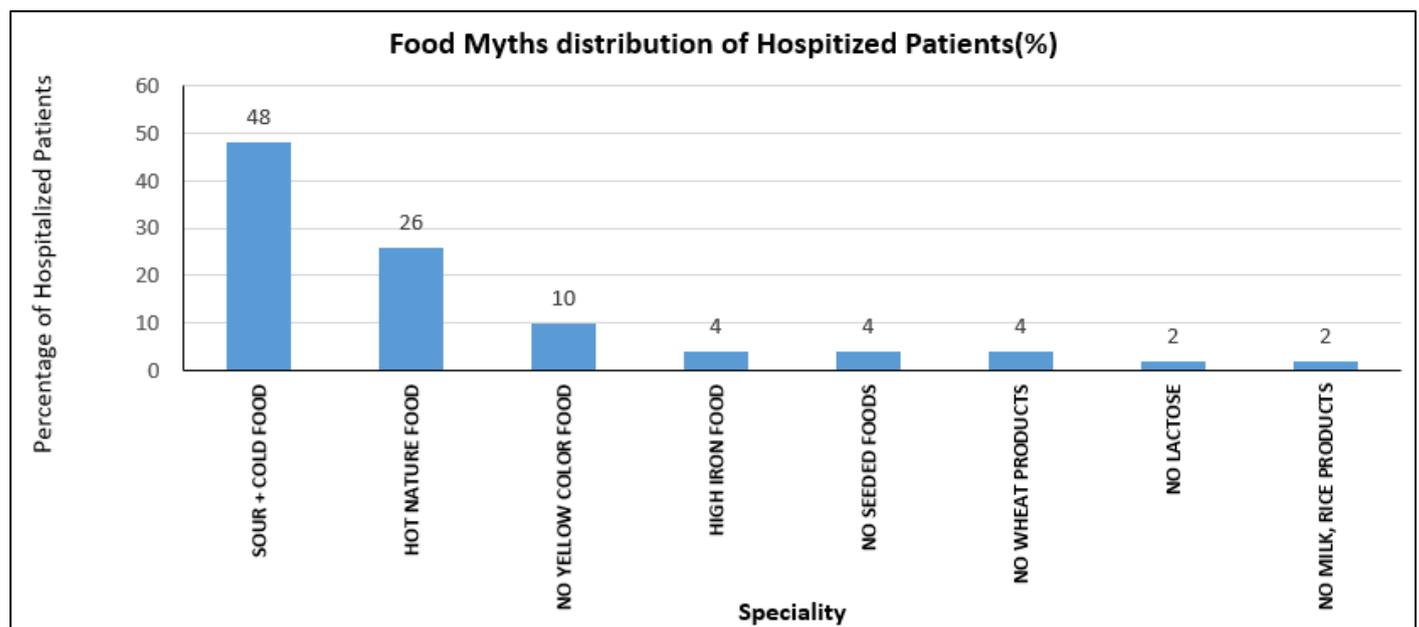


Fig 5 Food Myths Distribution of Hepatized Patients (%)

Fig 5, reveals the prevalence of food myths among hospitalized patients. 'Sour + Cold Food' (48%) and 'Hot Nature Food' (26%) were the most common misconceptions, indicating strong beliefs about food combinations and temperature impacts on health. Other myths, like avoiding yellow foods or lactose, were significantly less prevalent (2-

10%). These findings highlight the need for targeted dietary counseling to address these misconceptions and promote evidence-based dietary practices, considering potential cultural influences. Further research is needed to evaluate the effectiveness of such interventions."

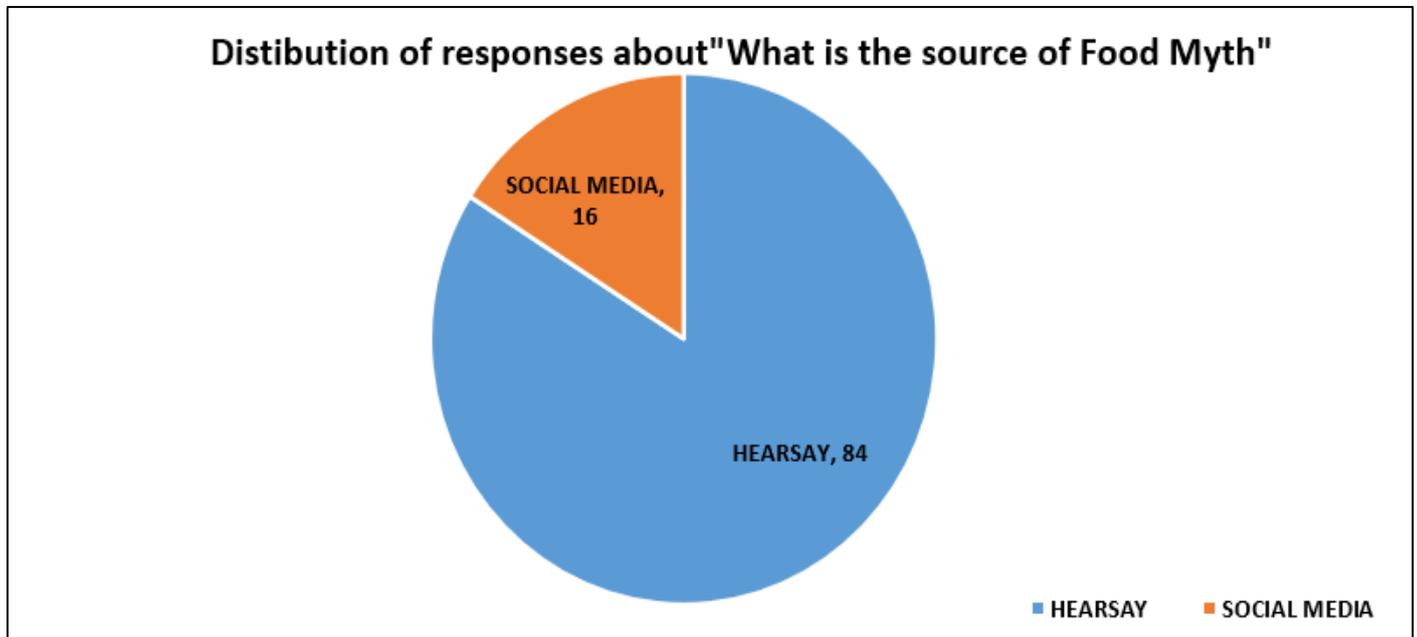


Fig 6 Distribution of Responses about "what is the Source of Food Myth

The Fig 6, depicts the distribution of responses to "Source of Food Myth." The categories are "Hearsay" and "Social Media." "The "Hearsay" category constitutes a substantial majority (84 out of 100, or 84%) of the responses. This suggests that anecdotal information and word-of-mouth are perceived as the primary sources of food myths within the

studied population. "Social Media" accounts for a significantly smaller proportion (16 out of 100, or 16%) of the responses. While not negligible, it indicates that social media is considered a less influential source of food myths compared to hearsay. This highlights the relative dominance of hearsay in the perceived origin of food myths.

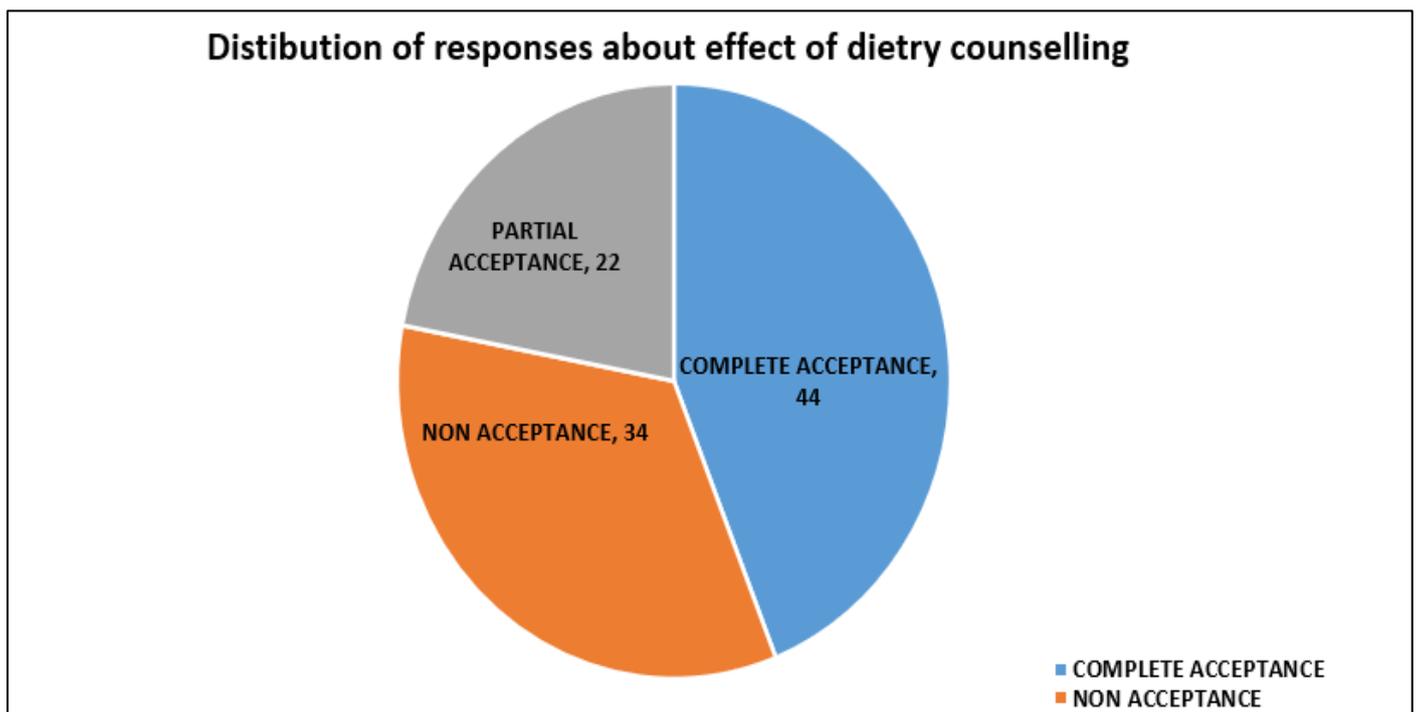


Fig 7 Distribution of Responses about effect of Dietary Counselling

This pie chart- 7, directly addresses the "effect of dietary counseling" of patients with food myths. It visualizes the participants' responses regarding their acceptance of the dietary counseling provided. The chart represents the distribution of a categorical variable: "Acceptance of Dietary Counseling." The categories are "Complete Acceptance," "Partial Acceptance," and "Non-Acceptance." The chart serves as a primary outcome measure for evaluating the effectiveness of the dietary counseling intervention. It quantifies the degree to which hospitalized patients adopted the dietary recommendations provided.

- **"Complete Acceptance" (44%):** This category represents the largest proportion of participants. It indicates that a significant percentage (44 out of 100) fully accepted and likely adhered to the dietary advice given

during the counseling sessions. This suggests a positive impact of the intervention.

- **"Non-Acceptance" (34%):** This category shows that a substantial portion (34 out of 100) did not accept the dietary counseling. This could be due to various reasons, such as persistent beliefs in food myths, lack of understanding, or resistance to change.
- **"Partial Acceptance" (22%):** This category represents those who accepted some aspects of the dietary counseling but not others. It suggests a moderate impact of the intervention, with room for improvement in addressing the remaining misconceptions or barriers to adherence.

Table 5 Effect of Dietary Counselling by Gender

| Effect of Dietary Counselling | Male | % | Female | % | Grand Total | % | P Value | Significance |
|-------------------------------|------|-------|--------|-------|-------------|--------|---------|------------------|
| Complete Acceptance | 10 | 20.00 | 12 | 24.00 | 22 | 44.00 | 0.063 | Non-Significance |
| Non Acceptance | 5 | 10.00 | 12 | 24.00 | 17 | 34.00 | | |
| Partial Acceptance | 4 | 8.00 | 7 | 14.00 | 11 | 22.00 | | |
| Grand Total | 19 | 38.00 | 31 | 62.00 | 50 | 100.00 | | |

Table 6 Effect of Dietary Counselling by Age Groups

| Effect of Dietary Counselling | 25-45 | % | 45-65 | % | 65 to 85 | % | Grand Total | % | P Value | Significance |
|-------------------------------|-------|-------|-------|-------|----------|-------|-------------|--------|---------|------------------|
| Complete Acceptance | 10 | 20.00 | 5 | 10.00 | 7 | 14.00 | 22 | 44.00 | 4.6078 | Non-Significance |
| Non Acceptance | 6 | 12.00 | 8 | 16.00 | 3 | 6.00 | 17 | 34.00 | | |
| Partial Acceptance | 4 | 8.00 | 2 | 4.00 | 5 | 10.00 | 11 | 22.00 | | |
| Grand Total | 20 | 40.00 | 15 | 30.00 | 15 | 30.00 | 50 | 100.00 | | |

The results evaluate the effect of dietary counselling on patients, categorized by gender (Table 5) and age groups (Table 6). The acceptance of dietary counselling is classified into three groups: complete acceptance, partial acceptance, and non-acceptance.

➤ *Table 5: Effect of Dietary Counselling by Gender*

- Among males, 20% completely accepted dietary counselling, 10% did not accept it, and 8% had partial acceptance.
- Among females, 24% completely accepted, 24% did not accept, and 14% had partial acceptance.
- Overall, 44% of participants fully accepted dietary counselling, while 34% did not accept it, and 22% showed partial acceptance.
- The p-value (0.063) indicates no statistically significant difference between males and females regarding dietary counselling acceptance.

➤ *Table 6: Effect of Dietary Counselling by Age Groups*

- In the 25-45 age group, 20% showed complete acceptance, 12% did not accept, and 8% had partial acceptance.
- In the 45-65 age group, 10% showed complete acceptance, 16% did not accept, and 4% had partial acceptance.

- In the 65-85 age group, 14% showed complete acceptance, 6% did not accept, and 10% had partial acceptance.
- The p-value (4.6078) suggests no statistically significant difference in dietary counselling acceptance across different age groups.

V. CONCLUSION

The results indicate that while dietary counselling was completely accepted by 44% of participants, a notable percentage (34%) did not accept it, and 22% had partial acceptance. No significant differences were observed between males and females or among different age groups regarding the acceptance of dietary counselling. This suggests that gender and age do not play a major role in determining dietary counselling acceptance, and other factors may influence compliance.

RECOMMENDATIONS

- **Intervention Effectiveness:** Dietary counseling showed mixed results; while many accepted, significant non-acceptance highlights the need for improvement.
- **Further Investigation:** Reasons for non-acceptance require exploration, focusing on myth resistance, communication effectiveness, and socio-cultural influences.

- **Counseling Refinement:** Strategies should be tailored, persuasive, and supportive to enhance patient acceptance and adherence.
- **Patient-Centered Focus:** Understanding and respecting patient beliefs is crucial for effective counseling.
- **Long-Term Impact Assessment:** Future research must evaluate the sustained effects of counseling on dietary behaviors and health outcomes.

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- **Conflict of Interest:** None

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