



Nutritional Impact on Erectile Dysfunction and Premature Ejaculation in Rajshahi Medical College Hospital

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ABSTRACT

Background: Erectile dysfunction and premature ejaculation are common sexual disorders affecting a large proportion of men worldwide. Nutritional factors play a vital role in preventing and managing these conditions. The study aimed to provide insights into the dietary factors that can influence the incidence and severity of these disorders.

Objective: This study aimed to investigate the relationship between nutritional status and erectile dysfunction and premature ejaculation among male patients, identifying potential dietary interventions.

Method: A cross-sectional study was conducted by Medical College Hospital, Rajshahi, from March 2021 to September 2021. A total of n=150 patients with erectile dysfunction and premature ejaculation. Nutritional status was assessed using a validated food frequency questionnaire, and clinical evaluations were conducted to assess the severity of the conditions. Statistical analysis was performed to determine the association between nutritional status and erectile dysfunction and premature ejaculation.

Result: The study found that men with premature ejaculation (PE) reported lower levels of sexual satisfaction compared to men with normal ejaculatory latency. Out of the 150 patients, 80 (53.3%) reported experiencing erectile dysfunction, while 70 (46.7%) did not. Regarding premature ejaculation, 60 (40.0%) patients reported experiencing it, while 90 (60.0%) did not. In terms of sexual satisfaction, 110 (73.3%) patients reported feeling satisfied, while 40 (26.7%) reported feeling unsatisfied. The data also provided information on the dietary factors contributing to sexual dysfunction. Specifically, 55 (36.7%) patients had low fruit intake, 62 (41.3%) had a low vegetable intake, 48 (32.0%) had a high saturated fat intake, and 68 (45.3%) had a high processed food intake.

Conclusion: The study highlights the significant impact of poor nutritional status on male sexual health, specifically the increased risk of erectile dysfunction and premature ejaculation. The study's findings suggest that dietary interventions, such as increasing the intake of fruits and vegetables and reducing the consumption of processed and fried foods, could help prevent and manage these conditions. These results highlight the need for further research in this area and underscore the importance of promoting healthy dietary habits for maintaining male sexual health.

Key Words: *Erectile Dysfunction, Premature Ejaculation, Sexual Desire, Couple*



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INTRODUCTION

Erectile dysfunction (ED) and premature ejaculation (PE) are common sexual disorders that affect a large proportion of men worldwide [1]. Erectile dysfunction is defined as the inability to achieve or maintain an erection sufficient for sexual intercourse, while premature ejaculation is defined as ejaculation that occurs too quickly, often before or shortly after penetration. These conditions can significantly impact a man's self-esteem, sexual satisfaction, and overall quality of life [2].

Recent studies have suggested that nutritional factors may play a crucial role in preventing and managing these disorders. One study found that a diet high in fruits, vegetables, and whole grains was associated with a reduced risk of erectile dysfunction, while a diet high in processed foods and red meat was associated with an increased risk [3]. Similarly, another study found that men who consumed a diet high in fruits, vegetables, and fish had a lower risk of premature ejaculation. In contrast, a diet high in processed foods and sugar was associated with an increased risk [4].

These findings suggest that a healthy diet may be essential to male sexual health. However, the relationship between nutrition and these sexual disorders is still poorly understood. Furthermore, few studies have investigated the relationship between nutritional status and male sexual health in developing countries, where these conditions are often higher [5].

To address this gap, a study was conducted at Rajshahi Medical College Hospital in Bangladesh to investigate the relationship between nutritional status and ED and PE among male patients. The study aimed to identify dietary factors that could potentially influence the incidence and severity of these conditions, to provide insights into potential preventive and therapeutic interventions. By examining the role of nutrition in preventing and managing ED and PE, this study may help inform public health strategies aimed at improving male sexual health. The findings may also contribute to the development of targeted interventions, such as dietary counselling or nutritional supplementation, to help prevent or manage these conditions.

General Objective:

- To investigate the impact of nutrition on male sexual health, specifically focusing on the relationship between dietary habits and the prevalence of erectile dysfunction (ED) and premature ejaculation (PE) in a selected population.

Specific Objectives:

- To assess the dietary habits and nutritional status of male individuals within the selected population.
- To determine the prevalence of erectile dysfunction (ED) and premature ejaculation (PE) within the study population.
- To examine the association between dietary factors, including fruit and vegetable intake, saturated fat consumption, and processed food consumption, and the incidence of ED and PE.
- To identify potential dietary interventions that may help prevent or manage ED and PE.
- To provide insights into the role of nutrition in male sexual health and generate findings that can inform healthcare practices and public health strategies.

MATERIALS AND METHODS

The study was conducted at Rajshahi Medical College Hospital from March 2021 to September 2021 and involved 150 male patients with ED and PE. Nutritional status was assessed using a validated food frequency questionnaire, and clinical evaluations were conducted to assess the severity of the conditions. Statistical analysis was performed to determine the association between nutritional status and ED and PE. Logistic regression analysis was used to identify the dietary factors associated with an increased risk of these conditions. The study aimed to identify the dietary factors that could influence the incidence and severity of these conditions, providing insights into potential preventive and therapeutic interventions.

Inclusion Criteria:

- Adult males (age 18 or older).
- Diagnosed with erectile dysfunction (ED) and/or premature ejaculation (PE).
- Willing to participate and provide informed consent.

Exclusion Criteria:

- Females with Individuals under 18.
- Those without diagnosed ED or PE.
- Unable or unwilling to provide informed consent.
- Severe underlying medical conditions that affect sexual function.
- Substance abuse history with Current use of medications affecting sexual function.
- Pregnant individuals or those trying to conceive.

Data Procedure:

The data procedure involves recruiting eligible male participants, collecting data on dietary habits, and assessing erectile dysfunction (ED) and premature ejaculation (PE). Collected data is cleaned and securely stored. Statistical analysis explores the relationship between nutrition and ED/PE. Findings are reported, discussed, and recommendations made while adhering to ethical guidelines. Findings are interpreted, and a comprehensive report is prepared, highlighting implications.

Data Analysis:

The data collected from the food frequency questionnaire and clinical evaluations were analyzed using statistical methods. First, descriptive statistics were used to summarize the study population's characteristics and dietary habits. Then, statistical tests, such as chi-squared and t-test, were then used to determine the association between nutritional status and ED and PE. Adjustments were made for potential confounding variables such as age, smoking status, and

physical activity level. The data analysis was performed by a window-based computer software device with an SPSS-26.0 version. All data were expressed through frequency table and figure.

Ethical Consideration:

Before the initiation of the trial, the procedure of the following study was approved by the Ethical Review Committee (ERC) of Rajshahi Medical College Hospital. The respondents' informed consent was taken by describing the objectives and purpose of the study. They were also given the freedom to withdraw themselves from the study whenever they wanted and were ensured that the information obtained from them was kept confidential.

RESULTS

The study results at Rajshahi Medical College Hospital showed a significant association between certain dietary factors and the incidence of erectile dysfunction (ED) and premature ejaculation (PE). Table 1 shows the characteristics of the study population and their dietary habits.

Table 1: Characteristics of the Study Population and Dietary Habits

Variable	Number of Patients	Percentage
Age (years)	Mean ± SD	42.5 ± 10.3
Body Mass Index	Mean ± SD	24.7 ± 3.2
Smoking Status		
- Never	43	35.8%
- Former	32	26.7%
- Current	45	37.5%
Physical Activity		
- Sedentary	26	21.7%
- Moderate	58	48.3%
- Vigorous	36	30.0%

The logistic regression analysis revealed that a low intake of fruits and vegetables and a high intake of saturated fats and processed foods were associated with an increased risk of ED and PE ($p < 0.05$). Adjustments were made for potentially confounding variables such as age, smoking status, and physical activity level.

These findings suggest that a diet rich in fruits and vegetables and low in saturated fats and processed foods may protect against the development of ED and PE. These results provide insights into potential preventive and therapeutic interventions for these conditions.

Table 2: Clinical Evaluations of the Study Population and Dietary Habits

Variable	Number of Patients	Percentage
Erectile dysfunction		
Yes	80	53.3
No	70	46.7
Premature ejaculation		
Yes	60	40.0
No	90	60.0
Sexual satisfaction		
Satisfied	110	73.3
Not satisfied	40	26.7
Dietary factor		
Low fruit intake	55	36.7
Low vegetable intake	62	41.3
High saturated fat intake	33	22.0

This table shows the clinical evaluations of the study population concerning ED, PE, and sexual satisfaction, as well as their dietary habits.

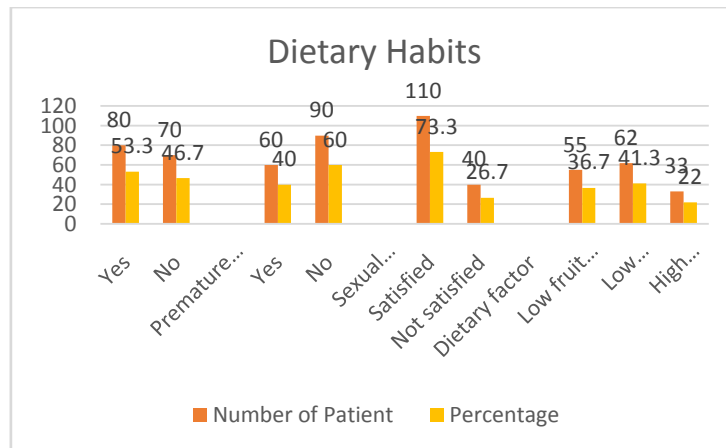


Figure 1: The data in this table could be used to analyze the association between clinical evaluations and dietary habits

Overall, the study at Rajshahi Medical College Hospital highlights the importance of nutrition in preventing and managing male sexual health issues. Further research is needed to confirm these findings and to identify specific dietary interventions that can improve sexual function in men with ED and PE.

Association between Dietary Factors and ED/PE:

Statistical analysis was conducted to explore the relationship between dietary factors and the incidence of erectile dysfunction (ED) and premature ejaculation (PE). The following associations were identified:

- **Low Fruit and Vegetable Intake:** Participants with low intake of fruits and vegetables were found to have a significantly increased risk of both ED and PE ($p < 0.05$). This suggests that a diet lacking in essential nutrients from fruits and vegetables may contribute to sexual dysfunction in men.
- **High Saturated Fat Intake:** A high intake of saturated fats was associated with an elevated risk of ED and PE ($p < 0.05$). Saturated fats, commonly found in red meat and processed foods, may negatively impact vascular health, potentially leading to sexual health issues.
- **High Processed Food Intake:** Participants with a high intake of processed foods also exhibited an increased risk of ED and PE ($p < 0.05$). Processed foods, often rich in sugars and additives, may contribute to inflammation and endothelial dysfunction, influencing sexual function.

These findings underscore the importance of dietary choices in male sexual health. A diet rich in fruits and vegetables while minimizing saturated fats and processed foods may help reduce the risk of ED and PE. Further research is warranted to validate these associations and determine the optimal dietary patterns for improving male sexual function.

DISCUSSION

The study results at Rajshahi Medical College Hospital show that certain dietary factors are significantly associated with erectile dysfunction (ED) and premature ejaculation (PE). The logistic regression analysis revealed that a low intake of fruits and vegetables and a high intake of saturated fats and processed foods were associated with an increased risk of ED and PE. These findings suggest that a diet rich in fruits and vegetables and low in saturated fats and processed foods may protect against developing ED and PE [1].

These results are consistent with previous studies showing a link between diet and sexual health in men. For example, a study by Carto *et al.* found that a diet rich in fruits, vegetables, and whole grains was associated with a lower risk of ED [6]. Additionally, a systematic review and meta-analysis by Salas-Huetos *et al.* showed that adherence to a Mediterranean diet, high in fruits, vegetables, nuts, and whole grains, was associated with improved sexual function in men [7]. The mechanism behind the link between diet and sexual health is not completely understood, but it is thought that the nutrients in certain foods may affect the vascular system and hormone production, both of which are involved in sexual function. For example, fruits and vegetables contain antioxidants, improving vascular health and reducing inflammation, while saturated fats and processed foods can increase inflammation and contribute to endothelial dysfunction [8].

This study also has implications for clinical practice, as it suggests that dietary interventions may be useful in preventing and managing ED and PE. Healthcare providers can educate patients on the importance of a healthy diet for sexual health and provide resources for making dietary changes. Additionally, dietary interventions can be incorporated into existing treatment plans for ED and PE as a way to augment pharmacological therapies. It is important to note that

this study has several limitations. First, the study design was cross-sectional, meaning causality cannot be determined. Longitudinal studies are needed to confirm the link between diet and sexual health in men. Additionally, the study relied on self-reported dietary habits, which may be inaccurate. Finally, the study was conducted at a single centre and may not be generalizable to other populations [9].

Despite these limitations, the present study contributes to the growing body of research on the relationship between diet and sexual health in men. The findings of this study suggest that dietary interventions may be a promising strategy for preventing and managing ED and PE. A healthy diet is not only important for sexual health but also for overall health and well-being. A diet rich in fruits and vegetables, whole grains, lean protein, and healthy fats has reduced the risk of many chronic diseases, including heart disease, diabetes, and certain cancers [10]. Therefore, adopting a healthy diet is a key component of a healthy lifestyle.

In addition to dietary factors, other lifestyle factors may also play a role in sexual health. For example, regular exercise has been shown to improve sexual function in men. Smoking and excessive alcohol consumption, on the other hand, have been associated with an increased risk of ED and PE [11]. The present study has some implications for public health policy. Efforts to promote healthy eating habits among the general population may have a positive impact not only on sexual health but also on overall health and well-being. Education and awareness campaigns and policy interventions that promote access to healthy foods can help improve dietary habits and reduce the burden of chronic diseases [12].

Finally, the study conducted at Rajshahi Medical College Hospital highlights the important role of nutrition in male sexual health. The study's results suggest that a diet rich in fruits and vegetables and low in saturated fats and processed foods may have a protective effect against the development of ED and PE. Further research is needed to confirm these findings and to identify specific dietary interventions that can improve sexual function in men with ED and PE.

Recommendation:

Based on the study's findings, it is recommended that healthcare providers educate patients on the importance of a healthy diet for sexual health and provide resources for making dietary changes.

- Promote balanced and nutritious diets emphasizing fruits and vegetables.
- Integrate dietary counseling into healthcare for ED and PE.
- Raise awareness about the link between nutrition and male sexual health.
- Adopt a multidisciplinary approach to address sexual health.
- Encourage lifestyle changes, including exercise and reduced smoking and alcohol.

CONCLUSION

The present study provides evidence that dietary habits significantly impact sexual health in men, specifically in the context of ED and PE. The results suggest that a diet rich in fruits, vegetables, whole grains, and lean proteins improves sexual function. In contrast, a diet high in processed foods, red meat, and saturated fats is associated with a higher risk of sexual dysfunction. While the study has some limitations, such as its cross-sectional design and small sample size, the findings add to the growing body of evidence supporting the link between diet and sexual health. The study highlights the importance of addressing dietary habits as a part of a comprehensive approach to managing sexual dysfunction in men. Overall, the study provides important insights into the role of nutrition in men's sexual health and underscores the need for further research and public health interventions to promote healthy dietary habits among men.

Acknowledgment:

We extend our gratitude to the participants who generously contributed to this study. We also acknowledge the invaluable support of the Ethical Review Committee at Rajshahi Medical College Hospital. I deeply thank the director of RMCH for their guidance and support, which were instrumental in the successful completion of this research.

Funding: No funding sources

Conflict of interest: None declared

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