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An overview elevating well-being: Addressing menstrual health challenges with nutritional awareness among adolescent girls

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Abstract

This research paper delves into the often overlooked yet critical topic of menstrual health among adolescent college girls. By shedding light on prevalent challenges faced by this demographic, the study aims to raise awareness and promote nutritional empowerment. Through a comprehensive review, the paper explores the intricate relationship between menstrual health and dietary patterns, offering insights into effective intervention strategies. Ultimately, the research seeks to break the silence surrounding menstruation, empower adolescent girls with knowledge and resources, and foster a supportive environment for holistic well-being. The study specifically focuses on investigating the menstrual health issues faced by adolescent college girls and examines the role of dietary patterns in alleviating these problems. In proposing a one-day seminar as an intervention method, the paper aims to provide guidance and awareness on menstrual health and nutrition. This holistic approach aims to address the multifaceted aspects of menstrual health and contribute to the overall well-being of adolescent college girls.

Keywords: Menstrual health, nutritional empowerment, dietary patterns, intervention strategies, silence surrounding menstruation, holistic well-being, prevalent challenges

Introduction

Menstruation, a natural process, often carries stigma and silence, particularly among adolescent college girls. This research aims to unveil the challenges they face and advocate for nutritional empowerment to address these issues. Taboos and myths surrounding menstruation perpetuate shame and isolation, hindering access to information and support. This impacts girls' physical and emotional well-being. Nutritional deficiencies worsen menstrual health challenges. Poor diets, coupled with misconceptions about dietary restrictions, exacerbate these issues. This study explores menstrual health challenges, including stigma and access to hygiene products, and emphasizes the role of nutrition in addressing them. By understanding these challenges and promoting nutritional empowerment, we aim to create a supportive environment for adolescent girls to manage their menstrual health effectively. Empowering girls with knowledge and resources can transform menstruation from a source of stigma to a celebrated aspect of female health and empowerment.

Objectives

1. To propose a one-day seminar as an effective intervention method.
2. To identify common menstrual health issues among adolescent college girls.
3. To examine the relationship between dietary patterns and menstrual health.
4. To provide guidance and awareness on managing menstrual problems through nutrition.
5. To provide guidance for debunking myths and overcoming taboos related to menstruation.

Review of literature

Menstrual health and hygiene among adolescent girls garnered increasing attention in recent years due to their profound impact on overall health, well-being and educational attainment. Several studies have explored various aspects of menstrual disorders, Nutritional interventions and hygiene practices to address these concerns. Here are relevant reviewed studies:"

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Joshi, D., Buit, G., & Gonzalez, D. (2015) ^[5]

This study explored menstrual hygiene management's impact on girls' education and empowerment in developing countries. It found that interventions focusing solely on menstrual hygiene often overlook broader societal attitudes towards menstruation. The study highlighted the need for comprehensive approaches that address societal taboos and empower young girls to navigate their reproductive health confidently.

Mohamadirizi, S., & Kordi, M. (2015) ^[8]

Investigated the relationship between food frequency and menstrual distress among high school females. Findings indicated that dietary habits play a significant role in mitigating menstrual discomfort. The study emphasized the importance of maintaining a balanced diet to alleviate menstrual distress among adolescent girls.

Negi, P., Mishra, A., & Lakhera, P. (2018) ^[9]

Explored the complex relationship between lifestyle patterns and menstrual abnormalities among adolescent girls in India. Findings revealed that lifestyle factors such as diet and physical activity significantly influence menstrual health. The study underscored the importance of promoting healthy behaviors to prevent and manage menstrual disorders effectively.

Singh, M., Rajoura, O. P., & Honnakamble, R. A. (2019) ^[13]

Investigated menstrual patterns and their association with body mass index (BMI) among adolescent school girls. Findings highlighted the importance of maintaining a healthy BMI for menstrual health and regularity. The study emphasized the role of nutrition and body weight in hormonal balance and menstrual cycle regulation.

Rose-Clarke, K., Pradhan, H., & Prost, A. (2019) ^[12]

Conducted a comprehensive assessment of health priorities among adolescent girls in rural India. Findings identified key areas of focus, including violence, undernutrition, mental health, and reproductive health. The study emphasized the need for tailored interventions that address the specific needs of this population.

Rastogi, S., Khanna, A., & Mathur, P. (2019) ^[11]

Elicited the knowledge, attitudes, and practices of adolescent girls regarding menstruation and assessed barriers to practicing menstrual hygiene in government schools of Delhi. Findings highlighted knowledge gaps and barriers to menstrual hygiene practices among adolescent girls. The study emphasized the importance of education and awareness programs to promote proper menstrual hygiene behaviors.

Joshi, S., Singh, R., Narayanan, P., & Divakar, H. (2020) ^[6]

Evaluated the effectiveness of an educational intervention focused on menstrual health, hygiene, and nutrition among adolescent girls in urban Bengaluru. Findings demonstrated significant improvements in participants' understanding of menstrual health and hygiene after the intervention. The study underscored the importance of education in promoting positive health behaviors among adolescent girls.

Latif, S., Naz, S., Ashraf, S., & Jafri, S. A. (2022) ^[7]

Examined the impact of junk food consumption on menstrual abnormalities among adolescent girls. Findings indicated that excessive junk food intake negatively affects menstrual health. The study emphasized the need for dietary interventions to promote healthy eating habits and prevent menstrual disorders.

Divya, S., Thomas, T. M., Ajmeera, R., Hegde, A., Parikh, T., & Shivakumar, S. (2023) ^[1]

Focused on assessing menstrual problems among teenage girls and exploring potential interventions. Findings

highlighted factors contributing to menstrual difficulties and barriers to healthcare access. The study emphasized the importance of education and adolescent-friendly healthcare services in addressing menstrual health issues.

Parikh, V., & Nagar, S. (2024) ^[15]

Examined menstrual hygiene practices among university girls in Gujarat, India. Findings identified gaps in understanding and practices related to menstruation among university girls. The study emphasized the need for education and awareness programs to promote proper menstrual hygiene practices and dispel myths surrounding menstruation.

These findings collectively contribute to our understanding of menstrual health and hygiene among adolescent girls, highlighting the importance of education, nutrition, and tailored interventions in promoting menstrual well-being.

Methodology

Sample of 100 adolescent girls from the Master Tara Singh Memorial College for Women Ludhiana India was selected purposively.

To achieve the set objectives, a one-day seminar was proposed as an effective intervention method to address the identified issues. The seminar served as a platform to disseminate information, raise awareness, and provide guidance on menstrual health and nutrition management. It included presentations, discussions, interactive sessions, and workshops aimed at engaging participants and achieving the desired outcomes within the span of one day.

Introduction and Confidence Building among participants

A brief lecture was conducted to introduce the seminar's objectives and build confidence among participants. Topics covered included the definition of menstruation, emphasizing it as a natural aspect of womanhood to instill pride, discussing the appropriate age for menstruation, and initiating common discussions to normalize the topic.

Encouraging Open Dialogue

Participants were encouraged to engage in dialogues, openly sharing their problems, doubts, and concerns regarding menstrual health. The atmosphere was deliberately created to be supportive and inclusive, fostering trust and understanding among attendees.

Formal Awareness Seminar presentations

Following the introductory phase, the formal awareness seminar commenced, focusing on structured information, practical guidance, and actionable strategies concerning menstrual health and nutritional management.

Expert-led discussions and presentations were conducted to provide comprehensive information about common menstrual health issues, guidance on managing menstrual problems through nutrition, address specific queries raised by participants about taboos and myth concerns.

The seminar aimed to empower attendees with the knowledge and tools necessary for effective menstrual health management, ensuring they felt comfortable expressing their thoughts and seeking guidance throughout the process.

Common menstrual health issues among adolescent college girls include

- **Irregular periods:** Many adolescent girls experience irregular menstrual cycles, which can be caused by hormonal imbalances, stress, excessive exercise, or underlying health conditions.

- **Dysmenorrhea:** Also known as menstrual cramps, dysmenorrhea refers to the painful cramping sensation experienced before or during menstruation. It can vary in intensity and may be accompanied by other symptoms such as nausea, fatigue, and headache.
- **Premenstrual Syndrome (PMS):** PMS encompasses a range of physical and emotional symptoms that occur in the days leading up to menstruation. These symptoms can include mood swings, bloating, breast tenderness, and food cravings.
- **Heavy menstrual bleeding (menorrhagia):** Some girls may experience unusually heavy periods, which can interfere with daily activities and lead to anemia if not managed properly. Menorrhagia can be caused by hormonal imbalances, uterine fibroids, or other underlying health conditions.
- **Amenorrhea:** Amenorrhea refers to the absence of menstruation, which can be primary (never having had a period by age 15) or secondary (sudden cessation of periods after previously having regular cycles). It can be caused by factors such as excessive exercise, low body weight, stress, or hormonal imbalances.
- **Menstrual irregularities due to PCOS:** Polycystic ovary syndrome (PCOS) is a hormonal disorder that can cause irregular periods, prolonged menstrual cycles, or even the absence of periods. Other symptoms of PCOS include acne, weight gain, and excess hair growth.
- **Poor Menstrual Hygiene Practices:** Infections resulting from poor menstrual hygiene, such as bacterial vaginosis, yeast infections, or urinary tract infections, can lead to more serious complications like pelvic inflammatory disease (PID), infertility, or systemic infections if not treated promptly and hygienically.
- **Emotional and Mental Health Issues:** Menstrual problems can also have a significant impact on mental health, leading to increased stress, anxiety, depression, and low self-esteem if girls feel ashamed, embarrassed, or unsupported in managing their menstrual health.

Several of these issues can become serious if left untreated or uncontrolled

- **Menstrual Irregularities due to PCOS:** PCOS can lead to long-term complications such as infertility, diabetes, and heart disease if not managed properly. Treating hormonal imbalances and maintaining a healthy lifestyle are crucial in managing PCOS effectively.
- **Heavy Menstrual Bleeding (Menorrhagia):** If left untreated, menorrhagia can lead to anemia, a condition where there's a shortage of red blood cells. Chronic anemia can cause fatigue, weakness, and other health complications.
- **Poor Menstrual Hygiene Practices:** Infections resulting from poor menstrual hygiene can lead to serious complications like pelvic inflammatory disease (PID), which can cause infertility or chronic pelvic pain if not treated promptly and correctly.
- **Emotional and Mental Health Issues:** Untreated emotional and mental health issues related to menstruation can lead to long-term effects on mental well-being, affecting relationships, work, and overall quality of life.

Addressing these issues early on with proper medical care, lifestyle adjustments, and emotional support can significantly reduce the risk of long-term complications.

The exploration of dietary patterns among adolescent girls shed light on how nutrition plays a crucial role in enhancing their overall wellness, particularly in relation to menstrual health. Here are key points highlighting the impact of dietary patterns on menstrual health based on the knowledge gained from the study:

- **Nutrient Intake:** The study emphasized the importance of a balanced diet rich in essential nutrients such as iron, calcium, vitamins, and omega-3 fatty acids. Adequate intake of these nutrients support overall health and positively influenced menstrual health by regulating hormone levels and alleviating symptoms of menstrual disorders.
- **Iron Deficiency Anemia:** Adolescent girls were particularly susceptible to iron deficiency due to menstruation and inadequate dietary intake. The study underscored the significance of iron in preventing iron deficiency anemia, which could exacerbate menstrual problems and lead to fatigue and heavy menstrual bleeding.
- **Calcium and Vitamin D:** Calcium and vitamin D were highlighted as essential nutrients for bone health and menstrual health. Adequate intake of these nutrients helped prevent conditions like osteoporosis and reduced the risk of menstrual disorders such as irregular periods.
- **Omega-3 Fatty Acids:** The study emphasized the role of omega-3 fatty acids in reducing inflammation and alleviating menstrual pain associated with conditions like dysmenorrhea and PMS. Incorporating sources of omega-3 fatty acids into the diet contributed to improved menstrual health outcomes.
- **Dietary Factors and Hormonal Balance:** The study highlighted the impact of dietary factors on hormonal balance and menstrual health. It underscored the importance of consuming a diet rich in fiber, antioxidants, and whole foods while minimizing intake of processed foods, sugar, and caffeine to support hormonal regulation and overall menstrual health.
- **Long-Term Implications:** The study underscored the long-term implications of dietary habits established during adolescence on menstrual health in later ages. It emphasized the importance of adopting healthy eating patterns early on to reduce the risk of developing menstrual disorders and reproductive health issues later in life.

By empowering adolescent girls with knowledge about how dietary patterns could enhance their wellness and menstrual health, the study aimed to promote informed decision-making and encourage the adoption of healthy dietary habits for lifelong well-being.

Guidance on managing menstrual problems through nutrition, focusing on seasonal vegetables, fruits, other foods, and herbs, was provided to girls. it was well communicated by formal lecture

- **Dark Leafy Greens:** Girls were advised to consume spinach, kale, and Swiss chard for their iron content, which could help prevent or alleviate iron deficiency anemia associated with heavy menstrual bleeding.
- **Broccoli and Brussels sprouts:** These cruciferous vegetables were recommended for their compounds that support estrogen metabolism, potentially reducing symptoms of hormonal imbalances.
- **Berries:** Girls were encouraged to include blueberries,

strawberries, and raspberries in their diet for their antioxidant and anti-inflammatory properties, which may help reduce menstrual pain and inflammation.

- **Citrus Fruits:** Oranges, lemons, and grapefruits were suggested for their high vitamin C content, enhancing iron absorption and supporting immune function during menstruation.
- **Pumpkin and Squash:** Girls were advised to incorporate these vegetables into their meals for their beta-carotene and vitamin E content, which may help alleviate symptoms of PMS and support overall reproductive health.
- **Whole Grains:** Girls were encouraged to consume whole grains like brown rice, quinoa, and oats for sustained energy and fiber, aiding in regulating bowel movements and reducing bloating during menstruation.
- **Lean Protein Sources:** Incorporating lean protein sources such as poultry, fish, tofu, and legumes was recommended to support muscle health and reduce cravings for sugary foods.
- **Healthy Fats:** Girls were advised to consume sources of healthy fats such as avocados, nuts, seeds, and olive oil to support hormone production and reduce inflammation associated with menstrual pain.
- **Probiotic-Rich Foods:** Yogurt, kefir, and fermented vegetables like kimchi and sauerkraut were suggested for their beneficial bacteria, supporting gut health and reducing gastrointestinal discomfort during menstruation.
- **Herbs Ginger:** Girls were encouraged to enjoy ginger tea or add fresh ginger to meals and smoothies for its anti-inflammatory properties, which may help alleviate menstrual cramps and nausea.
- **Turmeric:** Adding turmeric to curries, soups, or golden milk was recommended for its anti-inflammatory properties, potentially reducing menstrual pain and inflammation.
- **Chamomile:** Chamomile tea was suggested for its calming effects, which may help reduce stress and anxiety associated with menstruation.
- **Hydration:** Girls were reminded to stay hydrated by drinking plenty of water and herbal teas throughout the day to support hydration and reduce bloating during menstruation.
- **Limit Caffeine and Alcohol:** Girls were advised to reduce consumption of caffeine and alcohol, as they can exacerbate menstrual symptoms such as anxiety, irritability, and breast tenderness.

Girls were encouraged to take good care advice for free from healthcare providers and registered dietitians before making significant dietary changes or incorporating new herbs or supplements, especially if they had underlying health conditions or were taking medications.

The objective of addressing menstruation taboos and myths removal was multifaceted

- **Promoted Gender Equality and Dignity:** Menstruation taboos, often rooted in cultural beliefs associating menstruation with impurity or shame, were challenged. This aimed to eradicate discrimination and stigmatization against menstruating individuals, ensuring they were treated with respect and without prejudice.
- **Ensured Access to Menstrual Health Education and Resources:** Efforts were made to overcome barriers hindering access to accurate information about menstrual

health and hygiene, as well as essential menstrual products. By dispelling myths and taboos, access to comprehensive menstrual health education and resources was facilitated, empowering individuals to manage menstruation safely and hygienically.

- **Improved Reproductive Health Outcomes:** Addressing misinformation and stigma surrounding menstruation aimed to improve reproductive health outcomes. This included promoting informed decision-making and encouraging timely access to reproductive healthcare services, ultimately enhancing reproductive health outcomes.
- **Fostered Positive Attitudes and Behaviors:** Initiatives focused on fostering positive attitudes and behaviors towards menstruation. Open dialogue and acceptance of menstruation as a natural bodily process were promoted to reduce shame, embarrassment, and secrecy, fostering a culture of acceptance and support within society.
- **Empowered Menstruating Individuals:** Efforts were made to empower menstruating individuals to advocate for their rights and make informed choices about their bodies. By challenging taboos and providing accurate information, individuals were encouraged to participate fully in social, educational, and economic activities without fear of discrimination or stigma.

Conclusion

In conclusion, this research underscores the importance of addressing menstrual health issues among adolescent college girls and promoting nutritional awareness as integral components of overall well-being. The proposed one-day seminar emerged as an effective intervention method for empowering girls with knowledge and skills to manage their menstrual health effectively. By identifying common menstrual issues and examining the relationship between dietary patterns and health outcomes, the study provides valuable insights for intervention planning and implementation.

Furthermore, efforts to debunk myths and overcome cultural taboos surrounding menstruation contribute to fostering a supportive environment where open dialogue and acceptance prevail. This research not only sheds light on the complex interplay between menstrual health and nutrition but also emphasizes the need for comprehensive approaches to address these issues.

In the future, it is imperative to continue exploring innovative intervention strategies and scaling up efforts to promote menstrual health and nutritional awareness among adolescent girls. By collaborating with stakeholders across sectors, including healthcare, education, and community organizations, we can create sustainable initiatives that prioritize menstrual health as a fundamental aspect of reproductive well-being. Ultimately, by empowering girls with knowledge, resources, and support, we can strive towards a future where menstrual health is recognized, respected, and prioritized for.

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