Letter to the Editor: South Asian Diet Among Older Adults With Knee Replacement

Nutrition and Metabolic Insights
Volume 18: 1–2
© The Author(s) 2025
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/11786388251324239

Samreen Sadiq[1] and Rabiya Noor[2]

[1]Department of Physical Therapy, Riphah College of Rehabilitation and Allied Health Sciences, Riphah International University, Gulberg III, Lahore, Pakistan. [2]Professor, Department of Physical Therapy, Riphah College of Rehabilitation and Allied Health Sciences, Riphah International University, Gulberg III, Lahore, Pakistan.

The notion of sustainable diets illuminates the importance of enduring consequences associated with the food system, which accounts for more than a quarter of global greenhouse gas emissions and inflicts ecological harm, such as freshwater eutrophication and soil acidification, resulting in diminished biodiversity. Consequently, advocacy for dietary patterns that nourish the expanding global population while equally prioritizing human and environmental well-being is becoming increasingly crucial. Concurrently, the detrimental impact of animal-derived sustenance on the ecosystem is widely recognized, and a substantial reduction in its consumption is strongly suggested to safeguard planetary health and promote human wellness. In this context transitioning toward a more plant-centric nutritional model is of paramount importance.[1] The South Asian Diet (SAD) encompasses numerous key sustainable elements, positioning it as a noteworthy model of a wholesome and eco-friendly dietary pattern. This traditional eating approach emphasizes plant-based foods, showcasing a wide variety of locally sourced grains, legumes, vegetables, and fruits. SAD's reliance on seasonal produce and regional ingredients promotes food security and accessibility while supporting local economies. Its diverse culinary traditions respect and preserve cultural heritage, safeguarding time-honored cooking techniques, and recipes. The diet's moderate use of animal products and emphasis on plant proteins contribute to environmental conservation by reducing greenhouse gas emissions and water usage. Furthermore, the incorporation of traditional farming methods and crop diversity by SAD helps maintain biodiversity and soil health.

By balancing nutritional adequacy with ecological mindfulness, the South Asian diet exemplifies a sustainable food system that nourishes both people and the planet, making it a valuable reference for global dietary recommendations.[2]

The International Association of Gerontology and Geriatrics (IAGG) Task Force on Nutrition in the Elderly conducted a comprehensive review of research examining the role of nutrition in age related functional decline. Their analysis highlighted the significant impact of nutrition on aging, particularly concerning physical function and disability. However, the task force identified several limitations in the existing literature, including inconsistent methodologies, limited long-term data, insufficient focus on diverse elderly populations, and a lack of standardized measures. In response, they proposed recommendations for future research, emphasizing the need for robust longitudinal studies, investigations into specific nutrients and dietary patterns, exploration of targeted nutritional interventions, examination of interactions between nutrition and other factors influencing age-related disablement, and the establishment of standardized assessment methods.

Lifestyle modification programs focusing on dietary behaviors and physical activity have been successfully implemented for adults with knee osteoarthritis. However, there is a notable gap in such interventions, which are specifically tailored for elderly individuals undergoing knee replacement surgery. Older populations scheduled for or recovering from knee arthroplasty are often excluded from evidence-based lifestyle change initiatives because of their unique mobility challenges and perioperative considerations.[3] Obstacles that can hinder nutritious dietary habits and recovery from knee replacement surgery include cravings for calorie-dense, high-fat cuisine; excessive food consumption; and emotional eating patterns. Conversely, implementing meal planning strategies and practicing portion awareness may contribute to fostering healthier eating behaviors. In the postoperative phase of knee arthroplasty, patients often face challenges in maintaining a balanced diet. These challenges can manifest as an increased appetite for energy rich, indulgent foods; difficulty in regulating food intake, leading to overconsumption; and the use of food as a coping mechanism for mood fluctuations or discomfort. These factors can potentially impede the rehabilitation process and compromise long-term outcomes. However, adopting proactive approaches to nutrition can help mitigate these issues.[4] Key strategies that may promote healthier eating habits include developing structured meal plans tailored to individual nutritional needs, educating patients on appropriate serving sizes and the importance of portion control, and implementing mindful eating techniques to increase awareness of hunger and satiety cues. By addressing these dietary challenges and incorporating supportive strategies, patients may be better equipped to navigate the nutritional aspects of their recovery journey following knee replacement surgery. This approach could contribute to improved healing, weight management, and overall health outcomes.[5] Given the array of obstacles faced by this population, it may be essential to develop a comprehensive lifestyle intervention program that addresses their specific needs. This approach should encompass not only dietary modifications but also adapted physical activity routines and behavioral strategies to support long-term adherence. To create an effective program, it is crucial to engage both patients and healthcare providers in a collaborative process.

It is important to provide detailed dietary recommendations personalized to older adults following knee replacement. These strategies should highlight the addition of high-protein diets to

support muscle repair as well as wound healing, together with anti-inflammatory choices like turmeric, ginger, and omega 3 sources for example walnuts etc. Micronutrients, comprising calcium, vitamin D and magnesium are predominantly vital for healthier bones and recovery process. Moreover, the significance of satisfactory hydration to assist cellular repair should be emphasized.[6] Dietary needs should be classified based on stage of rehabilitation. During the maximum protection phase known as the initial postoperative period, easily digestible foods can aid manage inflammation and stimulate healing. In the minimum protection phase, a balanced diet that combines high-fiber foods is important to preserve overall well-being and avoid weight gain.

In view of the presence of comorbidities in older adults, dietary variations are required to address definite health conditions. For diabetic individuals, less-glycemic index nutrients like lentils and whole-grain chapati should be suggested. Hypertensive patients can take advantage from restrictive salt consumption and integrating potassium-rich selections such as bananas and spinach. Heart-healthy fats like nuts and seeds for individuals with cardiovascular issues should be included. Furthermore, cultural predilections, such as vegetarianism shared in South Asian populations, should be reflected when modifying dietary plans.

Lifestyle modifications have an essential part in supporting recovery. Incorporation of physical activity and exercise plans categorized into morning, afternoon and evening, can supplement dietary interventions and help in rehabilitation. Educating and counseling patients can additionally improve nutritional worth of their meals. Formulating structured dietary plans based on the South Asian diet with portion sizes along with physical activity and educational key points, can provide patients and their caregivers a practical roadmap toward recovery.[7] This methodology can also include a written manual with pictures and videos guidance to streamline adherence to these lifestyle modifications encompassing dietary recommendations, physical activity and education.

This patient-centered approach can help identify practical strategies for implementing healthy eating patterns, incorporating gentle movement into daily routines, and managing pain and mobility issues specific to knee replacement recipients.

Author Contributions

S.S: Conception and Design, Writing Draft; R.N: Review, Final Approval of article.

ORCID iD

Samreen Sadiq https://orcid.org/0009-0003-4275-0950

REFERENCES

1. Berardy A, Sabaté J. *Towards Sustainable Diets and Food Systems. Nutritional Health: Strategies for Disease Prevention*. Springer; 2023: 331–342.
2. Mrabet R. *Sustainable Agriculture for Food and Nutritional Security. Sustainable Agriculture and the Environment*. Elsevier; 2023: 25–90.
3. Sabesan VJ, Rankin KA, Nelson C. Movement is life—optimizing patient access to total joint arthroplasty: Obesity disparities. *J Am Acad Othop Surg*. 2022;30:1028-1035.
4. Spahn JM, Reeves RS, Keim KS, et al. State of the evidence regarding behavior change theories and strategies in nutrition counseling to facilitate health and food behavior change. *J Am Diet Assoc*. 2010;110:879-891.
5. Pellegrini CA, Ledford G, Chang RW, Cameron KA. Understanding barriers and facilitators to healthy eating and physical activity from patients either before and after knee arthroplasty. *Disab Rehab*. 2018;40:2004-2010.
6. Hirsch KR, Wolfe RR, Ferrando AA. Pre-and post-surgical nutrition for preservation of muscle mass, strength, and functionality following orthopedic surgery. *Nutrients*. 2021;13(5):1675.
7. Izquierdo M, Merchant R, Morley JE, et al. International exercise recommendations in older adults (ICFSR): expert consensus guidelines. *J Nutr Health Aging*. 2021;25:824-853.

RECEIVED: August 21, 2024. **ACCEPTED:** February 13, 2025.

TYPE: Letter to the Editor

FUNDING: The author(s) received no financial support for the research, authorship, and/or publication of this article.

DECLARATION OF CONFLICTING INTERESTS: The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

CORRESPONDING AUTHOR: Rabiya Noor, Department of Physical Therapy, Riphah College of Rehabilitation and Allied Health Sciences, Riphah International University, Gulberg III, Lahore 54000, Pakistan. Email: samreen.sadiq19@gmail.com