KNOWLEDGE AND PRACTICES REGARDING FIBER DIET AMONG NURSES

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Abstract:
Introduction: Public health campaigns and interventions designed to promote healthy behaviors such as diet often assume that if people know what is good for them, they are more likely to act in their own best health interest.
Objectives: The main objective of the study is to find the knowledge and practices regarding fiber diet among nurses.
Material and methods: This cross-sectional study was conducted in The Children's Hospital and Institute of Child Health, Lahore during 2018 to 2019. Food frequency questionnaires assess usual frequencies of intake using a structured list of foods over a specified period of time in the past; in the NHSs, we have focused on food intake over the previous year. Results: When formulating dietary guidelines, randomized controlled trials are typically considered the highest level of evidence. However, they are usually not the most appropriate or feasible study design for answering questions regarding long-term effects of diet on chronic disease risk because the drug trial paradigm does not neatly apply to dietary hypotheses. Conclusion: It is concluded that several demographic factors (female gender, urban environment, and especially university education) were associated with both greater knowledge of dietary fibre and greater consumption.

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INTRODUCTION:

Public health campaigns and interventions designed to promote healthy behaviors such as diet often assume that if people know what is good for them, they are more likely to act in their own best health interest. However, although knowledge about diet is indeed a predictor of healthy food consumption, it is not the only predictor [1]. Consumption of healthy food in general, and intake of dietary fibre in particular, also depends on knowledge, habits, motivation, personal characteristics and hedonistic orientation. This has important implications for health professionals, whose mission is to promote positive health behaviours through effective education, counselling and awareness-building. Numerous studies have demonstrated the health benefits of dietary fibre, including its ability to prevent and treat various diseases [2]. Dietary fibre can be defined as edible parts of plants that are not digestible in the small intestine and so are not absorbed there, but that are partially or totally degraded in the large intestine by intestinal microflora [3]. Main sources of dietary fibre are vegetables, fruit, grains, legumes and seeds. Daily intake of 25 g of dietary fibre is important for optimal functioning of the intestines, and daily intake above this amount can reduce the risk of many chronic diseases.

Diet includes multiple interacting components and varies for individuals over time, making it challenging to measure in large, free-living populations. In the Nurses' Health Studies (NHSs), we dealt with this challenge by using semiquantitative food frequency questionnaires (SFFQs) for diet assessment, conducting substudies to compare their validity with that of more detailed assessment methods (e.g., multiple-week weighed diet records) and biomarkers, and further developing measurement error correction techniques to improve the validity of diet–disease association findings.

Objectives

The main objective of the study is to find the knowledge and practices regarding fiber diet among nurses.

MATERIAL AND METHODS:

This cross sectional study was conducted in The Children's Hospital and Institute of Child Health, Lahore during 2018 to 2019. Food frequency questionnaires assess usual frequencies of intake using a structured list of foods over a specified period of time in the past; in the NHSs, we have focused on food intake over the previous year. For the NHS, we developed a semiquantitative questionnaire that incorporates information about usual portion sizes (e.g., asking about "one glass of milk" as opposed to "milk"). An SFFQ was the ideal choice for the large-scale NHSs because it was relatively inexpensive, was easy to administer by mail, and had low participant burden. This English survey was translated into Croatian by two native speakers of Croatian with experience in public health and nutrition studies. No questions were modified, removed or added during the translation. The translated survey was examined by the creators of the English survey, who verified that the overall structure was unchanged. In this survey, respondents were asked about their consumption of dietary fibre and their awareness of concepts, definitions and health effects of dietary fibre. Items on the survey deal with demographic characteristics, fibre consumption (fruit, vegetables, whole grains), knowledge of fibre sources in foods, recommended daily fibre intake, and effects of fibre intake on the risk of certain diseases.

The data was collected and analysed using SPSS version 19. All the values were expressed in mean and standard deviation.

RESULTS:

When formulating dietary guidelines, randomized controlled trials are typically considered the highest level of evidence. However, they are usually not the most appropriate or feasible study design for answering questions regarding long-term effects of diet on chronic disease risk because the drug trial paradigm does not neatly apply to dietary hypotheses. Diet randomized controlled trials can be difficult to blind, are rarely placebo controlled, often have high drop-out rates, tend to have poor compliance, can suffer from obsolescence, and often do not consider substitution effects or interactions. Also, in contrast to drug trials, the control arm does not have zero exposure.

The level of general knowledge about dietary fibre in our sample correlated positively with the level of knowledge about its health benefits (rs = 0.24). Joint variability between the two types of knowledge was 5.8% (P < 0.001). This variability, while statistically significant, is small, so we focused on the potential associations between the level of general knowledge and knowledge about the effects on specific diseases. Significant associations (P < 0.001) were observed in the case of constipation for 15%, (rs = 0.39), bowel cancer for 14.0% (rs = 0.37), chronic disease for 11.5% (rs = 0.34), obesity for 6.2%, (rs = 0.25) and elevated cholesterol for 4.3%, (rs = 0.21).

DISCUSSION:

In a more recent NHS analysis, saturated fat intake was not associated with CHD risk when compared with refined starch and added sugars but was positively associated with CHD risk when compared with intakes of unsaturated fats or whole grains. These analyses, consistent with the effects on blood lipids, underscore the importance of choosing healthy types of fats and carbohydrates in reducing cardiovascular risk. Of note, the energy-adjustment methodology that was pioneered by the NHS investigators has played a key role in these analyses. Adjusting for energy intake is now standard practice in nutritional epidemiology, not only to understand substitution effects but also to control for potential confounding by determinants of energy intake (e.g., physical activity and body size), remove extraneous sources of variation, and understand how dietary composition relates to the risk of disease, which is more amenable to modification by individuals than is absolute intake.

Because of the relevance of dietary patterns to overall health, the 2015 Dietary Guidelines Advisory Committee report and the *2015 US Dietary Guidelines* have put much greater emphasis on recommending healthy dietary patterns. On the basis of a systematic review of evidence from randomized controlled trials and observational cohorts, which included many reports published on the basis of the NHSs, the committee identified 3 dietary patterns that are associated with a reduced risk of chronic diseases and improved diet quality: the healthy US-style pattern, the healthy Mediterranean-style pattern, and the healthy plant-based dietary pattern. These 3 patterns have several elements in common: a higher consumption of fruits, vegetables, whole grains, nuts and seeds, legumes, low-fat dairy, and seafood and a lower consumption of red and processed meats, sugar-sweetened foods and beverages, and refined grains.

CONCLUSION:

It is concluded that several demographic factors (female gender, urban environment, and especially university education) were associated with both greater knowledge of dietary fibre and greater consumption. Future studies should aim to correlate knowledge about dietary fibre with actual fibre consumption, which would substantially improve our understanding of public behavior, allowing the improvement of public health programmes.

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