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ORIGINAL ARTICLE

Assessment of knowledge Vis-à-vis Food Labels

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ABSTRACT

Background: Public health initiatives focused on improving food at the community level to reduce the risk of nutrition-related disorders have gained pace in light of the enormous illness burden associated with chronic diseases connected to nutrition. Delivering straightforward, pertinent, and understandable information regarding the nutritional value of food is the goal of Front of Package Labelling (FoPLs), which are intended to assist consumers in choosing healthier foods at the point of purchase. **Methodology:** It was a cross-sectional study carried out online through a series of webinars using an online survey platform and a feedback-designed questionnaire to ascertain webinar participants' knowledge of front of package labeling. **Results:** Among the participants, only 75.4% correctly identified the characteristics of packaged foods that increase the risk of obesity. Also, it was found that 84.7% of the participants knew that food labels had to display complete nutritional information. About 93.6 percent of the individuals were aware of public health initiatives that raise awareness of FOPL. Only 38.9% of the individuals were aware that certain food products were free from labelling, in comparison. **Conclusion:** Front of package labelling (FOPL) regulation goals must be adopted in order to enable consumers to simply, quickly, and accurately identify items containing extra sugars, trans-fats, oils, and sodium. This will help the Government of India comply with WHO recommendations on unhealthy foods.

Keywords: Front of Package labelling (FoPL), Public Health, Webinar

Introduction

Over the last few decades, the world has experienced a dramatic dietary shift. The prevalence of deficiency illnesses including stunting, anemia, and mineral and vitamin deficiencies has increased dramatically. [1] Chronic diseases caused by poor nutrition, such as cardiovascular disease, cancer, and diabetes, have become a key concern for the existing health system's stability.[2]

Controlling the condition requires altering risk factors and intervening on issues like food, obesity, and physical exercise. There is a well-established link between diet and diabetes risk and obesity. The emphasis should be on the global diet in general, as well as what it would take to develop a food policy framework that encourages people to eat well. The world's population has been accustomed to poor diets including foods having high calories, high sodium, high sugars, and less fibers over the last few decades.[3]

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To reduce the burden of NCDs, particularly pediatric obesity, multiple initiatives, and a setting-based strategy are required. Health education and law are two different types of tactics that might be used. [1] Given the significant illness burden associated with nutrition-related chronic diseases, public health initiatives aimed at improving diet at the community level to minimize the risk of nutrition-related diseases have gained traction. Front-of-Pack Nutrition Labels (FoPLs) are gaining popularity among the numerous initiatives in this field.[2] Appropriate FPL can lower the incidence of NCDs, as well as promote healthy food options, which can be achieved through both educative and legislative initiatives.[1]

Food labelling is a crucial step in the food manufacturing process that should not be missed. The label serves as the consumer's primary contact with the manufacturer.[4] Food labelling is a community-based strategy of informing customers about a food's nutrient composition to improve the environment for making good food choices. This knowledge, combined with a basic understanding of nutritional concepts, leads to well-informed food purchase behaviour.[5]

FoPLs are designed to help consumers make healthier food choices at the time of purchase by delivering simple, relevant, and easy-to-understand knowledge about food nutritional quality. Some FoPLs have been demonstrated in intervention trials to considerably increase the nutrient value of food choices, which may have a positive effect on nutrient habits. Furthermore, FoPLs are seen as opportunities for food producers to enhance the nutrient quality of their goods through modifications and advancements.[2] FOP nutrition labelling usually has two objectives: to provide added information to customers to help them make healthier food choices and to urge the food sector to restructure goods to make healthy decisions.[6]

Front of Package (FOP) labels (a type of FPL) are a condensed version of the nutritional info that appears on the front of food packages and varies by item. In comparison to back of pack labelling, food packets with FOP labels are much more noticeable and comprehensible to users due to their simplicity (pictorial/numerical/text). There are several food labelling systems in use around the world, each with its own set of pros and cons.[1]

Methodology

To build a public narrative around how strong FOPL can help address Obesity, Cardiovascular diseases, Diabetes, and associated endocrinal diseases, etc. a series of webinars were organized by All India Institute of Medical Sciences, Rishikesh in collaboration with other AIIMS and Government Medical College. In our study, all webinar participants who filled both the registration link and feedback form were included as study participants**.**

The present study was a cross-sectional study and was conducted online through a series of webinars using an online survey platform with feedback designed questionnaire to determine the knowledge regarding front of package labelling among participants of webinars.

A total of 2098 participants registered for the six webinars organized by 'AIIMS Rishikesh in cooperation with AIIMS Bibinagar, AIIMS, Deogarh, AIIMS Gorakhpur, AIIMS Guwahati, AIIMS Kalyani, and Government Medical College, Srinagar. The webinar included questionnaires to assess the gain of knowledge among the participants. The questionnaire included 8 questions based on Front of Package Labelling. Out of 2098 registered participants, of which 1037 participants were included as study participants who had filled both the registration and feedback form, after removing duplicates and missing data.

Data Collection: Participants for the webinar were provided with a registration link and a feedback link used for data collection. All the subjects were explained the purpose of the study, and data were collected through Google Forms circulated at the end of the webinar. In our study, all registered participants who filled both the

registration forms and feedback forms were included as study participants. The link had information regarding the participant's socio-demographic details as well as their knowledge of FOPL**.**

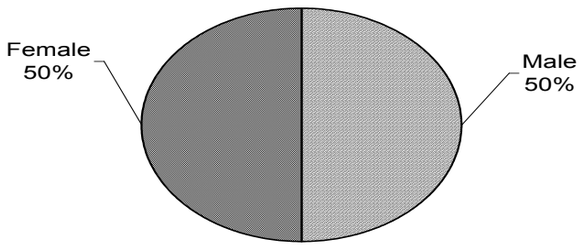
Statistical Analysis: Data collection and compilation were done in MS Excel and analysed using SPSS. Categorical variables were reported as percentages. The Institutional Ethics Committee, All India Institute of Medical Sciences, Rishikesh, granted ethical approval via Letter No-AIIMS/IEC/21/391, Dated 16-7-2021

Results

The purpose of our present study was to gauge public awareness of food labels. Food labelling has the potential to be a direct and cost-effective tool for supporting consumers in making healthy food decisions. Nutrition labels assist people in determining the type of food they are consuming**.**

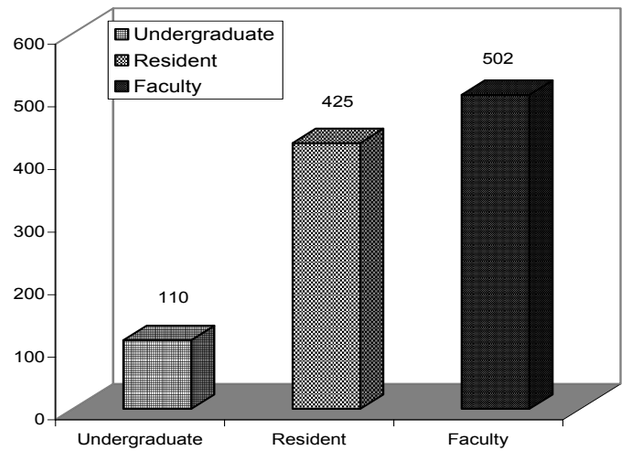
In our study, a total of 1037 study participants were included with equal distribution of males and females (Fig.-1)

Fig.- 1: Distribution of study participants by gender



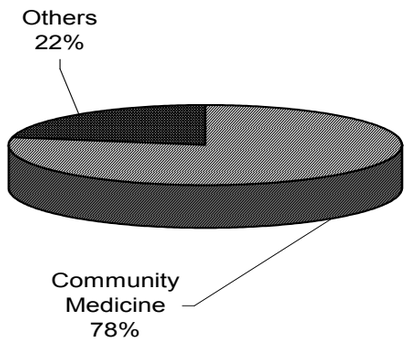
In our study, a total of 1037 study participants were included. Out of these 1037 study participants, the majority of them were from Faculty followed by residents and undergraduates respectively (Fig.-2).

Fig.- 2: Distribution of study participants by designation



It was observed that majority of participants belonged to department of Community medicine (78.3%), with (21.6%) belonging to other departments.

Fig- 3: Distribution of study participants by Department



Assessment of Knowledge

Table -1: Distribution of subjects based on knowledge

Question	No of respondents	Correct responses	%
Enforcement of Food Safety and Standards (Labelling and Display) amendment regulation 2020	62	13	20.9
Latest guidelines of the Government of India related to food packaging labelling	151	134	88.7
Factors in packaged food leading to increased risk of obesity	151	114	75.4
Must in food labeling	310	270	87.09
FOPL Awareness is generated in the which public health programs:	94	88	93.6
Mandatory declaration of nutrients necessary in packaged food as per the FSSAI	151	128	84.7
Food packaging provides	59	55	93.2
Food items exempted from labelling	59	23	38.9

Only 20.9% of participants were aware of the Enforcement of Food Safety and Standards (Labelling and Display) Amendment Regulation 2020, according to the current study. On the other hand, the vast majority (88.7%) were aware of the government of India's most recent recommendations on food packaging labelling. Only 75.4% of the participants correctly identified the packaged food characteristics that enhance the risk of obesity. It was also shown that 84.7% of the participants were aware that all nutritional information must be included on food labels. About 93.6% of the subjects knew about public health programs in which FOPL awareness is generated. In contrast, only 38.9% of the subjects knew about various food items exempted from labelling.

Discussion

In India, non-communicable diseases (NCD) have replaced communicable diseases as the commonest cause of widespread morbidity and premature deaths among the general population.[7]

Unprecedented availability, accessibility, and affordability of processed and pre-packaged foods is a key driver of obesity and diet-related non-communicable diseases (NCDs) including high blood pressure, cardiovascular disease, type-2 diabetes, and some cancers.[3]

Unhealthy food choices and diets can contribute to major non-communicable diseases (NCDs) such as obesity, type 2 diabetes, various cancers, and cardiovascular diseases.[8] As the global burden of unhealthy diets is increasing and have led to a substantial increase in the NCD burden all over the globe, the need for nutrition labelling is an important population-level intervention for communicating information related to the nutrient content of the foods to the consumers.[7]

The purpose of FOP nutrition labelling is to provide consumers with additional information on healthy dietary choices and to encourage food providers to offer products with a healthier composition.[9] The majority of the attendees in our study had a strong understanding of food labels, which may be leveraged to generate momentum for raising awareness about the importance of food labels and how critical it is to avoid NCDs by altering modifiable risk factors, primarily diet.

Similarly, the study by Kaur et al found a high level of food label awareness and a preference for food items with food labels.[4] Similar to our findings, a study in China found that while 95.1% of college students are worried or very worried about food safety and quality, food safety knowledge scores are only around 60%, and 77.1% of students purchase unsafe food, which has been shown to possibly harm their health.[10] Similarly in a study by Mahdavi et al, the majority of students (89.2%) agreed that food labels were useful in raising nutritional awareness. Students found food labels to be more valuable tools that influenced their nutritional awareness. The author proposed that educational initiatives be designed and implemented to improve people's understanding of food labels.[5]

In another study by Bacarro et al, the findings revealed that 91.8% of consumers were aware of food label information, implying that if consumers' nutrition education and awareness of how to use and understand information on food labels improves, food labelling could be a beneficial health policy intervention.[8]

Conclusion

One of the most powerful methods for influencing consumer behavior to change dietary choices and lessen their susceptibility to NCDs is a strong and effective front-of-package label. Food labels must include information that translates nutrient information for customers of all ages, socioeconomic backgrounds, and education levels.[11]

Therefore, to assist the Government of India in meeting WHO recommendations on unhealthy foods, Front of Package Labeling (FOPL) regulatory objectives must be implemented, to allow consumers to easily, quickly, and correctly identify products containing excess sugars, trans-fats, oils, and sodium. [7]

Disclaimer: *The views expressed in the submitted article belong to the authors and not an official position of the institution. The manuscript has been read and approved by all the authors. The requirements for authorship have been met, and each author believes that the manuscript represents honest work.*

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