

Development of Attitude Scale and Practice Questionnaire Regarding the Consumption of Junk Food

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ABSTRACT

Background: At present, Junk food consumption has become very frequent among children, adolescents and adults resulting in increasing problems of obesity and other health problems. In India junk food consumption is a very common phenomenon. Proper nutritional food habit or practice and proper attitudes towards the consumption of junk foods are required for overcoming this problem and for healthy life style. **Aim:** The aim of the present study is to develop an attitude scale and a practice questionnaire to find out the attitude of the people of West Bengal towards the junk food and practice related to junk food consumption respectively. **Methods and Materials:** The attitude scale is the five point Likert scale. Pre-try-out and try-out were undertaken for both attitude scale and practice questionnaire. The view of the experts was taken for the improvement of the test items. Test items of attitude scale were analyzed by calculating discrimination index and determining internal consistency by Chronbach's alpha method. Validity was established by Flesch-Kincaid readability tests, content validity, construct validity and face validity. Test-retest method was followed to assess the reliability. **Result:** The coefficient correlation of attitude scale and practice questionnaire were found to be 0.7653 and 0.7902 which were very high. The final attitude scale consisted of 21 test items. And the practice questionnaire retained 9 test items. **Conclusion:** This attitude scale and practice questionnaire have potentiality in developing healthy food choice and may be used in other related studies.

Keywords: Attitude scale, Practice questionnaire, Junk food, Food consumption

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INTRODUCTION

Food is the need of our everyday life and part of the balanced diet. The nourishment we get from the balanced food helps us to grow, to develop, to lead active and healthy life. Worldwide junk food is a very popular term.^[1] But it cannot be included within our daily diet. Because, junk food generally do not have or have little protein, minerals, vitamin content and high salt, sugar, fat and energy. The common junk foods are chocolates, french-fries, ice cream, potato chips, carbonated drinks etc.^[2] Candy, gums, sweet deserts are also considered as junk food. Pizza, hamburgers may be included either in junk food or nutritious food depending on their preparation time and nutritional contents.^[3] Now-a-days Junk food consumption has become very frequent among children,

adolescents and adults. As a result there is increasing problems of obesity and other related health problems.^[4]

A study reveals that most of the adolescents perceive the junk food as less healthy and not nutritious but they consume them as they are tasty, easily available and fast.^[5] Another study shows that people with negative self-concept consume more unhealthy foods (e.g., fast food) and aged people possess more positive attitude towards healthier food choices.^[6] In India most of the studies have reported the snacks eating habit by mostly adolescent boys and girls.^[7] 30% person of

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adult age was found addicted to quick food and 49.2% favoured KFC food.^[8] There is lack of information regarding the attitude towards junk food and junk food habit or practice by overall people. In West Bengal a state of India, there is also the report of increasing obesity among children.^[9]

For leading a healthy life style a person should have proper nutritional food habit and appropriate choice of different types of foods. So, he/she should have proper attitudes towards nutrition and unhealthy foods like junk foods. Attitudes may be described as emotional, motivational, perceptive and cognitive beliefs. These beliefs may influence positively or negatively the behaviour or practice of an individual.^[10,11] There is very urgent need to find out the actual attitudes of people towards junk food consumption which may be used for the better understanding of the junk food practice of people of West Bengal. For this reason suitable research tool is necessary for the collection of the data regarding the attitude of the people towards junk food and Junk food practice. Thus the present study is aimed at to the development of an attitude scale and a practice questionnaire to find out the trend of junk food consumption among the people of West Bengal, India. Here the steps of the development of attitude scale and practice questionnaire have been described in details.

METHOD AND MATERIALS

Attitude Scale

There are different types and techniques for the development of attitude scale. In this study, five point Likert scale has been used for attitude scale. A series of statements against specific dimensions related to people's attitude towards junk food are placed in Likert scale and have been followed by five options of increasing agreement to the statement.^[12] Adolescents (15-21), young adults (22-35), and adults of the West Bengal were the target population.

Education, parental attitude, prohibition, subjective belief, food preferences, perceived behavioral control, perceived health problem have been taken as dimensions. Subjective belief is the expression of subjective opinion.^[13] Perceived behavioural control is both behavioural intension and the behavior itself.^[14] Perceived health problems are the person's self-assessed health related problems.^[15] Parental attitude is related to the parent – child relationship. It also involves how much parents set restrictions or permission for their children in many matters including food choices.^[16]

Junk Food Eating Habit/Practice

A food frequency table was used to express the junk food practice or consumption habit. The first column contained five categories of junk food, like, (i) Tea/Coffee, (ii)

Carbonated drinks, (iii) Processed drinks, (iv) Candy, (v) Fries/snack foods. The other six columns had the headings, (i) More than once per day, (ii) Every day, (iii) 2-3 times per week, (iv) Once in a week, (v) Seldom (not often), (vi) Never. The highest score was allotted to choice (i) $S = 5$ and was decreased towards choice (vi) $S = 0$. In addition, miscellaneous dimensions like (i) Exercise and (ii) other behaviours (e.g, food advertisement likings, skipping breakfast, reasons for junk food preferences, etc.) were kept under which six items were placed. If a person consume greater amount of junk food the practice score will increase. Getting the frequency of consuming Junk food, doing exercise or not and other related habits was the primary aim of the practice questionnaire.

Item Pool

The advice, guidance and instruction of the respectable guide were followed at the starting of the development and standardization of the attitude scale and practice questionnaire. Different dimensions of the scale and questionnaire were authenticated by the views of the experts working at the fields of education, medicine and health education. Thus, the test items were corrected, rejected and added..

Pre-Try Out

Among friends, family and acquaintances 30 respondents were chosen. They were of different ages (15-21 yrs., 22-35 yrs., 35 yrs. and above), sexes (male and female), educational backgrounds (Primary, secondary, higher education). Respondents covered different parts of West Bengal in the test population. The items were prepared in two languages, Bengali and English. Respondents were given the Attitude scale and practice questionnaire in written form. Respondents filled out the questionnaire in relaxed pace. They were guided to note the start time and the end time to obtain the time required for answering the questionnaire. Then the data were collected and analyzed for edition of the individual question and statement. The suggestions from the experts were also taken for further language improvement and for removing complexity, repetition or ambiguity in the test items.

Try Out

After one month of pre try-out, the researcher administered the attitude scale and practice questionnaire to the 30 respondents of rural and urban areas of West Bengal. The respondents were requested to put tick (✓) mark against each test item according to the instructions given. Against each individual test item the score of individual respondent was obtained.

Item Analysis of the Attitude Scale

Item analysis is a technique for selecting and omitting an item

in a test to improve the test.^[17] In this study the discrimination index and the internal consistency of the test items were found out. For interpreting the discrimination-values and to reject or accept an test item, the guideline by Ebel was used.^[18] Test items with larger D-value were retained in the test and items with smaller or negative values were rejected. Chronbach's alpha was calculated by using SPSS Ver 20. Internal consistency expresses the degree to which in a test all the items measure the same construct. Thus it shows the inter-relatedness of the items in that test.^[19] Items having Chronbach's alpha value greater than 0.70 were considered as having internal consistency and accepted. Other items below it were rejected. Thus 6 items were rejected and finally the attitude scale retained 21 items in total.

Validity

The validation of the attitude scale and practice questionnaire was first done by Flesch-Kincaid readability tests.^[20] In this method the content was validated in terms of readability of the target subjects. Different dimensions were authenticated by the experts working in health education, medicine and education field. According to their valuable suggestions the items were rejected, corrected, altered. In case of attitude scale, the content validity, construct validity and face validity were determined. A subject who has negative attitude towards junk food is expected to consume lesser amount of junk food.

Reliability

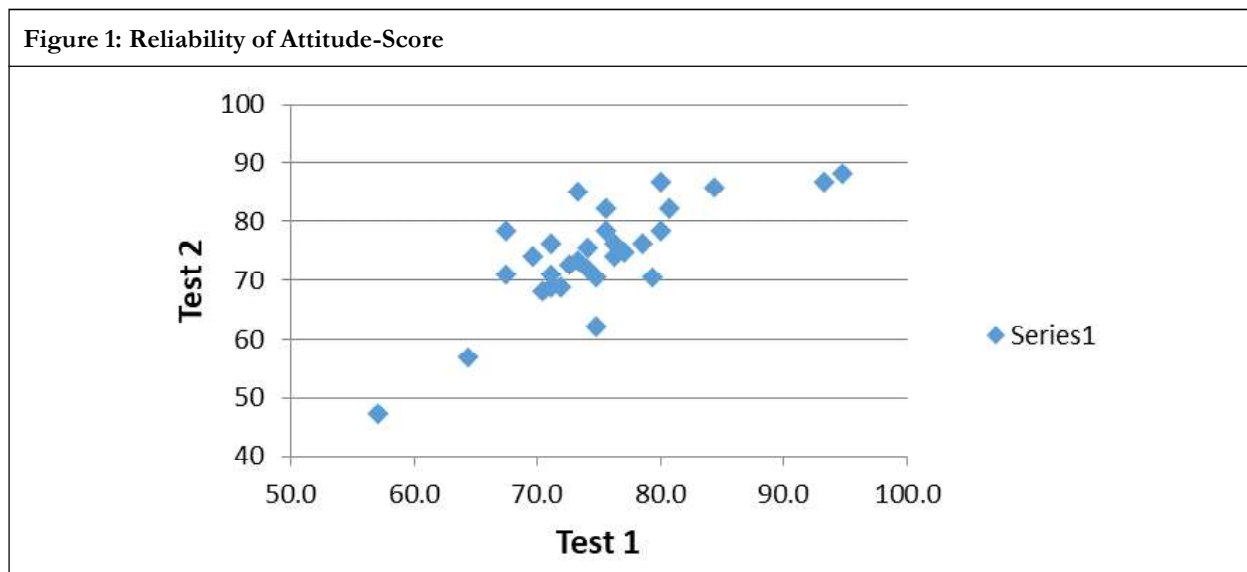
Test-retest method was applied to determine the reliability of attitude scale and practice questionnaire. The time interval between test and retest was 30 days. Retest was done to the same group of respondents. Then data was collected and from paired scores of respondents the Correlation coefficient was calculated.

RESULTS AND DISCUSSION

Initially the number of test items in attitude scale was 27. Each had 5 point Likert scale. There were five options - Strongly agreed, Partially agreed, Neutral, Partially disagreed and Strongly disagreed. Highest score may be five. The Items depicting positive opinion would score 5 to 1 and the negative opinion would score 1 to 5. If the respondent has the positive attitude towards avoiding junk food the attitude score will be expected to increase. Respondent with greater Attitude-score is expected to show less tendency of consuming junk food in practice.

The readability validity of attitude scale by Flesch-Kincaid readability tests was found 5.0 which was the average of all 27 test items. 11.7 and 0.0 were the maximum and minimum "Flesch-Kincaid Grade Levels" respectively. "Flesch-Kincaid Grade Level" range is expressed as 5.1 ± 2.4 (SD). Language of test items of attitude scale was found easy to read and easily understandable by average 11-year old student. In case of practice questionnaire readability validity was found to be 0.5 with maximum and minimum of 6.8 and 0.0 respectively. Here the language of test items were found easy to read and easily understandable by average 5th-grade student. According to the valuable suggestions of the experts the items were rejected, corrected, altered. According to them, the test items of the attitude scale were found to cover the dimensions based on which the items were made. Thus the content validity was established and the items were—appropriate for the adolescents, middle age and above 35 years age group of people of West Bengal. The experts also assured that the test items were according to the respective purposes of the research. Construct validity was also established by the ease, difficulty the respondents faced during completion of the test and other factors. The Experts determined the face validity of the scale, they found the test items were relevant to the junk food related behaviors and its health effects at the present time.

Figure 1: Reliability of Attitude-Score



The coefficient of correlation in case of attitude scale was found to be (R) 0.7653 which was very high and it has been shown in the (Figure 1).

Final Form of Attitude Scale

6 items were rejected and finally, the attitude scale had total 21 items against seven dimensions. The test items distribution against dimensions in the final form of has been shown in (Table 1).

In practice questionnaire, the value of the correlation coefficient was found (R) 0.7902 which was highly reliable. It has been shown in the [Figure.2].

Final Form of Practice Questionnaire

The practice questionnaire ultimately retained 9 test items against three dimensions as shown in Table.2.

Similar type of study has been found where 31 test items were developed by 5 point Likert scale. The dimensions taken were education, population, equality, small family norm, Government facilities, superstition, sexually transmitted diseases and law. After conducting pre-try out, try-out, item analysis, validity and reliability finally 21 test items were selected.^[21] In another study an attitude scale was developed to find out the attitude towards fast food with 13 test items on a five point Likert scale. The response options were also the same, from strongly agreed to strongly disagreed.^[22] In an article Flesch-Kincaid readability test has been used to determine the readability validity of questionnaire on Junk food.^[23]

This attitude scale and practice questionnaire will help to get a concise information regarding attitude of the people of different age and educational levels towards junk food and

Table 1: Distribution of the Items among Different Dimensions of Attitude Scale Towards Junk Foods

S. No.	Dimensions	Item/Statement No.	
		Favourable	Unfavourable
1	Education	A.1	
2	Parental attitude	A.2, A.3, A.4, A.5	
3	Prohibition	A.6, A.7, A.9, A.10, A.11, A.12, A.20	A.8
4	Subjective belief	A.13	A.14,
5	Food preference		A.15
6	Perceived behavioural control	A.16,	A.17, A.18, A.19
7	Perceived health problem	A.21	
		Total	21

Figure 2: Reliability of Practice-Score

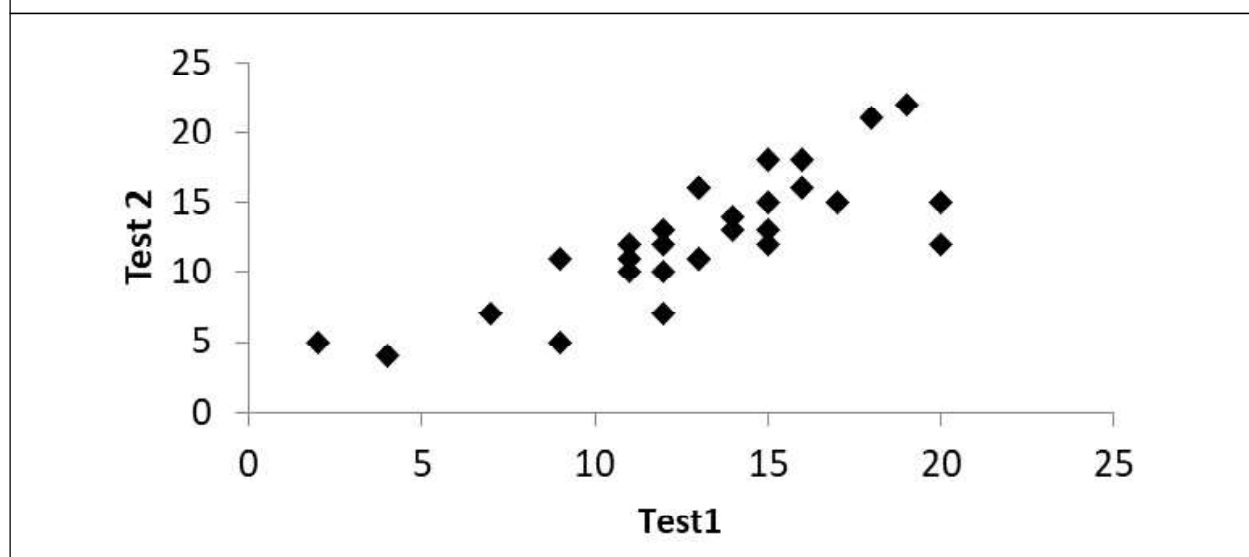


Table 2: Distribution of the Test Items or Statements among Different Dimensions of Practice Related to Junk Food Consumption

S. No.	Dimensions	Item/Statement No.	Total No. of Items
1	Junk food eating habit	P.1, P.5, P.6, P.7	4
2	Exercise	P.3, P.4	2
3	Other behaviours	P.2, P.8, P.9	3
		Total	9

their tendency of junk food consumption habits. The researchers may use the information to get a valuable inference which may be further used to aware and sensitize people regarding harmful effect of Junk food consumption.

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