Nutritional Pattern and its Impact on the Health: A Case Study of Tehsil Kot Addu, Punjab, Pakistan

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Abstract

Nutritional pattern play vital role in better health of every one. The major objective includes assessing the knowledge of the people about nutritional pattern. The present quantitative research was conducted to study the "nutritional pattern and its impacts upon the health of citizen". The Present study was conducted in Tehsil Kot Addu. In this research the researcher also see the relationship between fast food and impacts on the health of citizen The respondent was selected with the help of simple random sampling techniques and sample size was of 140 respondents was selected. Questionnaire was used as a tool of data collection. Thus the data collected and statistically analyzed and interpret by using statistical techniques. Te present research was aim to explore the knowledge attitude and practice regarding nutritional pattern. The major finding reveals that Majority of the 83.5 percent respondents respond that good food is the cause of longevity while fast food has impacts on health. Some respondent that disease occur due to the over eating. The researcher gave the suggestion that people should use the balance diet and avoid the fast food and over eating.

Keyword: Nutritional, Pattern, Health, Kot Addu.

Introduction

Diet is a pattern of eating food followed by a population. The diets of population affected by many factors including climatic conditions, geography, availability of food, religion and culture , while dieting pattern of individuals affected within a country by socio-economic factors, status, personal liking and disliking and health concern. To maintain good health, diets must provide essential amounts of vitamins, proteins and energy (Oxford Dictionary). Daily eating pattern appear from daily eating perform generally pass on to daily food in-take during the appropriate food or between the meals or on any exacting eating event. Eating mold persuade nutrient intake; for example, Dwyer found that as the number of eating occasions improved, so did the overall energy intake (Dwyer, 1995).

Many studies on dietary pattern efforts to explain the relationship between a single dietary elements and health outcomes or experiences influence consumption. Although these studies are valuable but they do not represent the interplay of all the individual food choices that describe a complete food pattern (Popkin *et al*., 1999; Messina *et al*., 2001; (Kant, 2004). Over all diet quality depends on the time of taking meal. An analysis attribute a total diet approach may clarify how foods alternate for (e.g. skim milk for whole milk) or harmonize each other (e.g., milk and cereal). It provides a complete assessment of the grouping of foods consumed and may be helpful in recognizing rising dietary patterns in a population, dietary pattern inconsistent with dietary recommendations or dietary patterns related to definite health outcomes (Tucker *et al*., 1992; Wirfalt and Jaffery, 1997; Green-wood *et al*., 2000; Millen *et al*., 2001; Tucker *et al*., 2002; Quatromoni *et al*., 2002; Rasanen *et al*., 2002; Newby *et al*., 2003).

For poor people food is the highest priority need which demands their all money and time. In poor countries kitchen budget is a major portion of their available budget, while in rich countries people spend more on services and non-food items.

For example, people in USA, Canada, and Netherlands spent 10.4, 13.7 and 14.4 percent of their income on food, respectively; however, in less developed countries like Sudan, India, Philippines, more than 50 percent of a household budget is spent on food commodities (Korab and Cochrane, 1989). A big section of the world inhabitants is poor and more than three-fourths of it is living in rural areas. Forty percent of people in rural areas in the slightest developed countries live in absolute poverty (IBRD, 1981).

Whereas, 60 percent of 181 million total population with an annual growth rate of 2.3 percent, spent less than US $ 2 per day in Pakistan (PRB, 2009). In case of eating patterns of Pakistan the majority eat paratha (49%) in breakfast followed by rotti (18%), tea (9%) and bread (10%). Rotti is eaten by (81%) and rice (20%). It is notable that 44 % of Pakistanis claiming that they take lite lunch and dinner. While 52 % Pakistanis take three times meal, 37 % have two meals, 5 % have one time meal and 5 % taken meal more than three times in a day (Gallup, 2011). Ramadan is the holy month of all Muslim Ummah and ninth month of calendar and in Islam, necessary for Muslims to fast daily in this month. In this month Muslims refrain from smoking and eating during fast, which begins from the dawn to ends with the sunset. In this month aftar menu included the variety of dishes (Website. 2011).

Khan (1999) studied household expenditure on food items consumed in district Charsadda, Pakistan. He originate that an average household spent Rs.6278.00 per month on food possessions. This included flour 16.7, meat 15.9, milk 13.8, fruit 13.2, edible oils 10.1, vegetables 9.7, and pulses 6.4 percent, of the household expenses, correspondingly. He observed that expenditures on flour, meat, milk, edible oils, vegetables and fruit were related to the quantity consumed and household total income. About two-thirds of the population in Pakistan are still living in rural areas and are facing a number of problems in attaining their minimum daily food needs, particularly in the Southern Punjab. This study was therefore undertaken to determine the nutritional pattern which are prevailing in Kot Addu tehsil of district Muzaffar Garh.

Objective

1. To assess the knowledge of the people about nutritional pattern.

2. To explore the attitude a people about nutritional pattern.

3. To examine food pattern practices among its users.

Data and Methodology

The researcher used the simple random sampling technique in the present research. Tehsil Kot Addu was universe of the data. A questionnaire was prepared for the purpose of data collection. Data was collected from KAPCO colony and Railway chowk of Kot Addu was selected as target population. Sample size for this study was 140 respondents. After the collection of data Chi square test was used to see the relationship between the variables by using MINITAB software. A descriptive and frequency table was also done by using SPSS. After the collection of data the researcher used SPSS computer software for data analysis. Afterward the data was scattered and interpret in the frequency tables. Cross tabulation was also done to see the relationships between different variables. Chi square test was used to see the relationship between the variables.

Chi-Square test

Chi-square was applied to find out the relationship between certain independent and dependent variables. The chi-square was calculated with following formula:

$$\chi^2 = \Sigma \frac{(fo - fe)^2}{fe}$$

Where
O = Observed
E = Expected value
S = sum of value

In order to judge the significance of results, the calculated value of chi-square were compared with the tabulated value at a given degree of freedom. The result was considered significant of the calculated value of chi-square was greater than the table value otherwise it was regarded non-significant.

Results and Discussion

Before analyzing the relationship between the independent and dependent variables it seems necessary to give general information about the sample. The sample of the present study consisted of 140 respondent which was selected from Tehsil Kot Addu district boys Muzaffar Garh.

Table 1: Percentage distribution with respect to age

Categories	Frequency	percent
10 to 20	14	10.0
21 to 30	77	55.0
31 to 40	31	22.1
Above	18	12.9
Total	140	100.0

Table 1 depicts that 10 percent respondent's age between 10-20, 55 percent respondent's age between 21-30, 22.1 percent respondent's age between 31-40 and 12.9 percent respondent's age between above 40. Majority of the 55 percent respondent age between 21-30.

Table 2: Percentage distribution with respect to education

Categories	Frequency	Percent
Matric	23	16.4
F.A / FSc	34	24.3
B.A / BSc	46	32.9
M.A / MSc	37	26.4
Total	140	100.0

Table number 2 depicts that 16.4 percent respondents education were Matric, 24.3 percent respondents education were F.A/ FSC, 32.9 percent respondents education were B.A / BSC and 26.4 percent respondents education were M.A / MSC. Majority of the 32.9 percent respondent's education were B.A / BSC.

Table 3: Percentage distribution with respect to do you know about balance diet

Categories	Frequency	Percent
Yes	123	87.9
No	17	12.1
Total	140	100.0

Table 3 depicts that 87.9 percent respondents respond that they know about the balance diet and 12.1 percent respondents respond that they don't know about the balance diet. Majority of the 87.9 percent respondents know about the balance diet.

Table 4: Percentage distribution with respect to do you know about calories

categories	Frequency	Percent
Yes	86	61.4
No	54	38.6
Total	140	100.0

Table 4 depicts that 61.4 percent respondents respond that they know about calories and that 38.6 percent respondent's respond that they don't know about calories. Majority of the 61.4 percent respondents know about calories.

Table 5: Percentage distributions with respect to which kind of food do you like

categories	Frequency	Percent
simple food	69	49.3
fast food	49	35.0
traditional food	22	15.7
Total	140	100.0

Table 5 depicts that 49.3 percent respondents respond that they like simple food, 35.0 percent respondents respond that they like fast food and 15.7 percent respondents respond that they like traditional food. Majority of the 49.3 percent respondents like the simple food.

Table 6: Percentage distributions with respect to fast food impacts on health

Categories	Frequency	Percent
Yes	71	50.5
No	69	49.5
Total	140	100.0

Table number 6 depicts that 50.5 percent respondents respond that fast food has impacts on health and 49.5 percent respondents respond that fast food has not impacts on health. Majority of the 50.5 percent respondents respond that fast food has impacts on health.

Table 7: Percentage distributions with respect to do you know that what the impacts are when food is not taken in time

Categories	Frequency	percent
Yes	129	92.1
No	11	7.9
Total	140	100.0

Table number 7 depicts that 92.1 percent respondents respond that they know what the impacts are when food is not taken in time and 7.9 percent respondents respond that they don't know what the impacts are when food is not taken in time. Majority of the 92.1 percent respondents respond that they know what the impacts are when food is not taken in time.

Table 8: Percentage distributions with respect to good food is the cause of longevity

Categories	frequency	Percent
Yes	118	84.3
No	22	15.7
Total	140	100.0

Table number 8 depicts that 84.5 percent respondents respond that good food is the cause of longevity and 15.7 percent respondents respond that good food is not the cause of longevity. Majority of the 84.5 percent respondents respond that good food is the cause of longevity.

Table 9: Percentage distributions with respect to disease occur due to over eating

Categories	frequency	percent
Yes	127	90.7
No	13	9.3
Total	140	100.0

Table 9 depicts that 90.5 percent respondents respond that disease occur due to over eating and 9.3 percent respondents respond that disease doesn't occur due to over eating. Majority of the 90.7 percent respondents respond that disease occur due to over eating**.**

Table 10: Percentage distributions with respect to are you conscious about your diet

categories	frequency	percent
Yes	85	60.7
No	55	39.3
Total	140	100.0

Table number 10 depicts that 60.7 percent respondents respond that they are conscious about your diet and 39.3 percent respondents respond that they are not conscious about your diet. Majority of the 60.7 percent respondents respond that they are conscious about your diet.

Testing of the Hypothesis

Hypothesis

Null hypothesis, there is no association between fast food and impacts on the health of citizen.

Alternate hypothesis: there is an association between fast food and impacts on the health of citizen

Table 11: Do you like fast food * fast food impacts on health Cross tabulation

Do you like fast food			
	Fast food impacts on health		
	Yes	No	Total
Yes	40	32	72
No	25	43	68
Total	65	75	140

Table 12: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.481[a]	1	.034		
Continuity Correction[b]	3.901	1	.048		
Likelihood Ratio	4.497	1	.034		
Fisher's Exact Test				.047	.024
Linear-by-Linear Association	4.458	1	.035		
N of Valid Cases	140				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 46.53.

The above table shows that the relationship between fast food and impacts on the health of citizen. The extracted results show significant results. So the alternate hypothesis statement may be assumed as true and it is concluded that people use the fast food that is why fast food impacts on the health of citizen.

Conclusion and Recommendations

Everything needs energy to grow and performed .our daily food is actually not fulfilling the basic nutritional requirements of our body. There is always a better way and ever better solution for every problem that come in our life. Balance diet provides us a way to prevent the bad health condition in early age, we had better food, but now the situation is different**.** The major finding reveals that Majority of the 83.5 percent respondents respond that good food is the cause of longevity while fast food has impacts on health. Some respondent that disease occur due to the over eating.

The researcher gave the suggestion that people should use the balance diet and avoid the fast food and over eating. So the study conclude that there is an association between fast food and impacts on the health of citizen and People should be use the balance diet because the balance diet is the cause of longevity of health.

References

Popkin, B.M., P.S. Haines and A.M. Siega-Riz, 1999. Dietary patterns and trends in the United States TheUNC-CH approach. Appetite, 32: 8-14.

Messina, M., J.W. Lampe, D.F. Birt, L.J. Appel, E. Pivonka, B. Berry and D.R. Jacobs, 2001. Reductionism and the narrowing nutrition perspective time for re-evaluation and emphasis onfood synergy. J. Am. Diet. Assoc., 101: 1416-1419.

Kant, A.K., 2004. Dietary patterns and health outcomes. J. Am. Diet. Assoc., 104: 615-635.

Tucker, L.K., E.G. Dallal and D. Rush, 1992. Dietary patterns of elderly Boston-area resident defined bycluster analysis. J. Am. Diet. Assoc., 92: 1487-1491.

Wirfalt, K.A. and W.R. Jaffery, 1997. Using cluster analysis to examine dietary pattern nutrient intakes, gender and weight status differ across food pattern cluster. J. Am. Diet. Assoc., 97: 272-279.

Tucker, L.K., H. Chen, T.M. Hannan, A.L. Cupples, P. Wilson, D. Felson and P.D. Kiel, 2002. Bone mineral density and dietary patterns in older adults the Farmingham Osteoporosis Study. Am. J. Clin. Nutr., 76: 245-252.

Newby, K.P., D. Muller, J. Hallfrisch, N. Qiao, R. Andres and L.K. Tucker, 2003. Dietary pattern and changes in body mass index and waist circumperences in adults'. Am. J. Clin. Nutr., 77: 1417-1425

Rasanen, M., C.J. Lehtinen, H. Niinikoski, S. Keskinen, S. Ruottinen, M. Salminen, T. Ronnemaa, J. Viikariand O. Sinell, 2002. Dietary pattern and nutrient intake of 7 years old children taking part in arteriosclerosis prevention project in Finland. J. Am. Diet. Assoc., 102: 518-524.

Quatromoni, A.P., L.D. Copenhafer, B.R. D'AAgostino and E.B. Millen, 2002. Dietary pattern predict the development of overweight in women The Gramingham Nutrition Studies. J. Am. Diet. Assoc., 102: 1240-1246.

Millen, E.B., A.P. Quatromoni, L.B. Copenhafer, S. Demissie, E.C. O'Horo and B.R. D'Agostine, 2001. Validation of dietary pattern approach for evaluation Studies. J. Am. Diet. Assoc., 101: 187-194.

Green-wood, C.D., E.J. Cade, A. Draper, H.J. Barrett, C. Calvert and A. Green Halgh, 2000. Seven uniue food consumption patterns identified among women in the UK Women's Cohort Study, Eur. J. Clin. Nutr.,

54: 314-320.

PRB. 2009. world population data sheet. Population Reference Bureau. Washington DC 2009 USA.

Khan, M. A. 1999. Household expenditure and its determinants: a quantitative analysis. M.Sc. (Hons) Thesis KP Agricultural University Peshawar.

Khan, M. A. A. and M.A.A. Khan. 1989. Food consumption as measure of poverty in India. 427-431, BLDSC. Jaipur.)

Dwyer, J., 1995. The school nutrition dietary assessment study (Editorial). Am. J. Clin. Nutr.,61(suppl): 173S-177S.

Oxford food and nutrition dictionary) http://www.answers.com/topic/dieting.

2011, Website http://daaira.com/eating-habits-in-pakistan-yummy-too-tasty/)

Gallup, 2011. 30 Years polling on eating habits of Pakistanis (1980-2010). Perception and preferences of Pakistan public. Gallup, International.

Oxford Dictionary,   http://www.answers.com/topic/dieting.

IBRD. 1981. World development report. International Bank of Reconstruction and Development.