

Knowledge regarding Dietary Pattern among Female Adolescents of a Secondary School, Bhaktapur

Rai J

Asso.Prof. HOD of Paediatric Nursing Faculty, Maharajgunj Nursing Campus

Abstract

Adolescence marks a time of rapid and intense emotional and physical changes. There is increase value placed on peer acceptance and approval. During this development phase, a adolescent girl begins to focus on their physical appearance. The experience of body dissatisfaction can lead to poor health habits associated with poor eating habits, dieting and severe eating disorder for the purpose of losing body weight and to achieve specific body image leading to various nutritional deficiency disorders. This research was conducted to assess the Knowledge and Attitude regarding Dietary Pattern among Adolescent Girls.

The design of the study was descriptive in nature which was carried out in secondary school of Madhyapur Thimi, in Bhaktapur district. In this study 100 Samples of class 8, 9 and 10 were selected by using non- probability purposive sampling method. A semi-structured, self administered questionnaires were used for data collection and analysis was done by using descriptive statistics.

In this study majority of the adolescents had knowledge about the beneficial and non beneficial food items. According to finding, all of the respondents (100%) expressed that chapati, mango are beneficial and Icecream is nonbeneficial. Similarly majority of respondents (88%) had expressed that hot drinks are beneficial than cold drinks (90%). Majority of the respondents (86%) think that exercise is the best way to control overweight whereas 60% of them think that dieting helps to maintain body figure. For this 30% of them prefer to skip lunch, dinner (10%) and break fast (8%). Similarly they also preferred lemon water (26%), water (20%), tea and coffee (12%) and nothing by mouth (12%) respectively.

From this study, it is concluded that knowledge regarding dietary pattern among adolescents is good even though they prefer to skip the foods by supplementing it by non food to maintain their body figures.

Key word: Dietary pattern, Adolescent, Skipped Meals, Knowledge, Attitude

Introduction

Proper food and good nutrition are essential for survival, physical growth, mental development, performance and productivity, health and well-being of each individual. Adolescence is a time when young people change their eating pattern and lifestyles and become susceptible to environmental influences. Inadequate nutrition during adolescence can potentially retard growth and sexually maturity, affect current health and

put them at high risk of chronic diseases and other adverse lifestyle behaviors. Adolescent girls are at particularly high risk of malnutrition because of gender discrimination in distribution of, and access to food within the family. An inadequate nutrition of girls during adolescence can have serious consequences throughout the reproductive years and beyond.

Total nutrient needs are higher during adolescence than any other time in the lifecycle. Nutrition and

physical growth are integrally related; optimal nutrition is a requisite for achieving full growth potential. Failure to consume an adequate diet at this time can result in delayed sexual maturation and can arrest or slow linear growth (Kotecha PV et al 2011). A cross-sectional and longitudinal research has shown that young people who regularly eat breakfast are less likely to be overweight than those who skip breakfast (Barton BA, 2005). Despite such health benefits, young people are more likely to skip breakfast than any other meal (Dwyer JT 2001).

Poor food choices, skipped meals, increased snacking instead of regular, balanced meals and lower vitamin and mineral intake at a time when good nutrition is especially important. Energy giving diet of adolescents is influenced by activity level, basal metabolic rate, and increased requirements to support pubertal growth and development.

Adolescent girls are the most vulnerable population when it comes to dieting, unhealthy eating patterns, and eating disorders. Poor diet and physical inactivity are established risk factors for chronic disease. In young people, physical activity and healthy diets including regular breakfast consumption and adequate levels of fruit and vegetables, have important short- and long-term health protective effects. For example, physical activity in young people may benefit cardiovascular disease (CVD) risk factors, adiposity and bone health, which could influence health in adulthood (Biddle SJ, Gorely T, 2004).

Adolescent girls are bombarded with messages from the media about thinners, images of so-called beauty, and ways to achieve a lower body weight. These images combined with a society that places a high value on physical beauty send mixed messages to teenagers and may result in unhealthy, frequently unnecessary attempts to lose body weight. Dieting is commonly practiced by adolescent girls to maintain physical beauty by frequently attempting to lose body weight in developed countries but it is emerging in developing countries also due to globalization and exposure to Medias.

It is important for adolescents to select their foods carefully to ensure that their nutrient and

calorie needs are met. Sometimes the workload of adolescent girls and boys increases, as they begin to have greater responsibilities for carrying out household tasks and additional jobs to help the family. When this is the case, their needs for energy (calories) for the additional work they are doing, along with their needs for growth, will have to be met. Some adolescents, however, become less physically active and have to meet their nutrient needs without eating more calories than they need to maintain a healthy body weight (Ghai OP 2004).

Adolescence is a time to reinforce good food habits and establish regular meal patterns. Dietary habits and food preferences are developed in childhood and particularly in adolescence. As they become more independent, many adolescents begin to have more meals away from the family, often resulting in poor food choices, skipped meals, increased snacking instead of regular, balanced meals and lower vitamin and mineral intake at a time when good nutrition is especially important (Kotecha PV et al. 2013).

Adolescents also tend to follow food fads and slimming diets which do not meet all of their nutritional needs. It is important at this age to eat a variety of foods, including carbohydrates, plentiful fruits and vegetables, daily protein and dairy foods or other foods containing calcium to avoid excess fat and sugar. In Nepal, a study among school children revealed that fast foods (ready-to-eat snacks, chips, etc.) were referred by more than two-thirds of them and that advertising influenced preferences in 80% (Sharma I. 1998).

Methodology

Descriptive research design was used to assess the knowledge and attitude regarding dietary pattern among adolescents. The population of the study were the female adolescent age group between 13 to 18 years, who are studying in class 8, 9 & 10 of Binayak Secondary School of Madhyapur Thimi, Bhaktapur. Hundred respondents who meet the criteria are selected among 250 students by using non probability purposive sampling technique by using lottery method. Prior to data collection, permission was taken from concerned authorities (principle and teachers of the school) and verbal

consent was also taken from the respondents. Data was collected by using pre-designed and pretested semi-structured self administrative questionnaire on August 21st 2012. The data were entered in SPSS version 16 and analyzed by using simple descriptive and inferential statistics.

Results

Regarding the age of the respondents, 44% of them were 15 years of age. Sixty four percent of them were Hindu, 26% respondents were from Brahmin ethnicity and 86% of them were from nuclear families. According to educational status of parents, majority of them were literate (father 100%, mother 84%). According to their occupation, 60% of their fathers had involved in business and 74% mothers were housewives.

TABLE 1
Knowledge of Respondents regarding Beneficial and Non-beneficial Food Items
n=100

Food Items	Beneficial %	Non-beneficial %
Noodles	6.0	94.0
Mo Mo	46.0	54.0
Ice Cream	0.0	100.0
Chocolate	12.0	88.0
Burger	22.0	78.0
Chapatti	100.0	0.0
Mango	100.0	0.0
Pastry	12.0	88.0
Cold Drinks	10.0	90.0
Hot Drinks	88.0	12.0

*Multiple response

Table 1 shows that majority of respondents had knowledge about nutritious food. All of them have focused on chapatti and Mango (100%), and hot drinks as beneficial food (88%). They had done negative score on ice cream (100%), followed by cold drinks (90%), chocolate & pastry (88%).

TABLE 2:
Knowledge of Respondents regarding Importance of Nutrition
n=100

Response	%
For growth and development	55
For good health	70
To maintain body figure	50
To prevent illness	34
To look nice (beautiful)	45
To control disease	55
To prevent accidents/injuries	12
To gain energy	25

*Multiple response

Table 2 shows that majority (70%) of respondents had indicated the importance of nutrition for good health while 55% respondents had responded on growth and development and next 50% to maintain body figure. Likewise 55% respondents expressed it to control diseases, 45% had indicated it to look nice (beautiful) and very few of them had expressed it to gain energy (25%).

TABLE 3
Knowledge of Respondents regarding Nutrition related Diseases

Response	%	n=100
Malnutrition	88.0	
Nightblindness	40.0	
Diarrhoea	26.0	
Hypertension	4.0	
Anemia	2.0	

*Multiple responses

In table 3 majority of the respondents had expressed malnutrition (88%) which can occur due to deficiency of nutrition followed by night blindness (40%), diarrhea (26%) and hypertension (4%). But only few of them had expressed anemia (2%) which is very common among adolescent girls.

TABLE 4
Respondents' Attitude regarding Dieting
n=100

Response	%
Good for health	40.0
Bad for health	60.0
Good for health (n=40)	
To maintain body figure	60.0
To become healthy	30.0
To prevent disease	10.0
Bad for health (n=60)	
Hampers health	50.0
Occurs disease	37.0
Deteriorates body function	13.0
Total	100.0

Above table shows that majority of respondents (60%) understand that dieting is bad for health. Among them, it is harmful for health (50%) and causes disease (37%), and deteriorates body functions(13%). Likewise 40% respondents had expressed it is good. Among them most of them (60%) had replied that, it maintains body figure, 30% expressed that it helps to become healthy and few of them(10%) had expressed that it prevents diseases.

TABLE 5
Respondents' Attitude toward Loosing Body Weight
n=100

Response	%
Doing physical exercise	86.0
Skip lunch	30.0
Skip dinner	10.0
Breakfast	8.0
Supplement for skipping foods	
Drinking lemon water	26.0
Drinking more water	20.0
Drinking tea/coffee	12.0
Eating biscuits	2.0
Nothing	12

* Multiple response

Table 5. shows that majority of respondents preferred physical exercise to decrease body weight (86%). Similarly 48% respondents for skipping lunch(30%),dinner(10%) and breakfast(8%). In its substitutes 26% respondents prefer to drink lemon water, 20% of them to drink more fluid as well as to drink tea/coffee (12%), to eat biscuits(2%) and nothing 12% to loose their body weight.

Discussion

The study finding have shown that majority of the respondents of this study were 15 years of age (44%) and least of them were 16 years of adolescents(6%). Among them most of them were Hindu (64%), It may be due to national demographic status in which 80% of the population are Hindu. Most of them belongs to Brahmin ethnicity (26%), and majority of them were from nuclear families (86%). According to educational status of parents, majority of them were literate (father 100%, mother (84%). According to their occupation, most of their fathers had involved in business (60%), and mothers were housewives (74%).

According to this study finding, majority of adolescents have knowledge regarding food items which are beneficial and which are non-beneficial for health. All of them (100%) have indicated that chapatti and mangoes are beneficial whereas chocolate(88%), ice cream(100%), pastry(88%), burger(78%) and cold drinks(90%) are not beneficial for health. . The study was supported by the finding from earlier study conducted in Urban Baroda, in India, regarding Dietary Pattern of School going Adolescents (P.V.Kotecha et al.,2013 Dec.). The study reported that majority of respondents correctly responded about healthy eating habits meant eating green leafy vegetables, nuts, sprouted pulses (*mung, chana*), fruits, and drinking milk. However, among a few students, the knowledge regarding healthful foods was lacking.

Majority (70%) of respondents had focused the importance of nutrition for good health while other respondents(55%) focused it for growth and development whereas next 55% respondents had indicated to control illness and 50% for maintaining body figure.

Finding of present study revealed that 88% respondents had knowledge about nutrition

related diseases (Malnutrition) which occurs due to lack of nutrition in our bodies. Similarly they had also expressed night blindness(40%), and diarrhea(26%) which are caused by nutritional deficiency. But very few of them had indicated anemia which is also high prevalent and very severe consequences of nutritional deficiency.

In this study, most of the respondents(40%) had expressed that dieting is good for health, 60% of respondents had answered dieting is bad for health. The reason behind it was harmful for health (50%) and causes disease (37%), and deteriorates body functions (13%). The respondents who replied that it is good for health (40%), the reason was it helps to maintain body figure (60%) and keep healthy (30 %) and 10% had indicated that it is helpful to prevent diseases. It shows that majority of respondents have knowledge about the bad effect of dieting.

In response to lose of body weight, this study shows that majority (86%) of respondents know the physical exercise is the best way to decrease body weight which is the best method for reducing overweight. Similarly 48% respondents indicate skipping of lunch(30%),dinner(10%) and breakfast(8%) to control their body weight. In substitutes of it, 26% respondents focused to drink lemon water, followed by 20% to drink more fluid as well as to drink tea/coffee (12%) and 2%) to eat biscuits and nothing by 12% to lose their body weight. This result has adherence to the study finding of Dietary Pattern of School going Adolescents in Urban Baroda, India shows that the school going adolescents who want to lose their body weight consumed chocolates, and about one-third consumed fast foods. Nearly 60% of adolescents had their breakfast daily while the remaining missed taking breakfast daily. Nearly one-third of adolescents were missing a meal once or twice a week.

Conclusion

The result of this study concluded that majority of adolescents have knowledge about different aspect of dietary pattern. They know about the beneficial and non beneficial effect of food, importance of nutrition, and nutritional related diseases. Although most girls were aware of the potentially-

harmful effects of fast foods, and dieting they admitted a tendency to skip foods for losing body weight.

It is important to make aware to the adolescents about their dietary pattern and the effect of skipping foods in their health. Therefore, nutritional education, counseling and awareness program should be imparted in school and community level by using various resources and medias for adolescents' healthy dietary pattern.

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