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Dietary Assessment of Kashmiri Urban and Rural Women during Summer

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Abstract:

Introduction: People lead a variety of varied lifestyles, and this complexity may be seen in the way they consume and maintain their dietary routines. The nutritional intake of people varies greatly depending on their socioeconomic and demographic circumstances within the home, and occasionally even for the same people within the same household at various times. Unhealthy diets (inadequate intake of fruit and vegetables) and physical inactivity have been listed as the two main risks of NCDs. The importance of nutrition and exercise in preserving health and preventing disease is so widely acknowledged. In addition to the combined burden of post-transition, lifestyle-related degenerative diseases including obesity, diabetes, hypertension, cardiovascular diseases, and malignancies, India, as a developing nation, also struggles with the pre-transitional ailments of undernutrition and infectious diseases. Even among low-income and fast urbanising communities, it has recently been noted that there is a shift in dietary habits toward a modern diet (rich in saturated fat, sugar, and refined foods, and low in fibre). A few of the significant concerns that make the food intake study more complex and challenging to comprehend are changing lifestyles, expanding income and resource disparities, and the widening wealth and poverty gap. This statement is unquestionably true, particularly in a setting like India where there are significant health, socioeconomic, and demographic disparities both within and between areas. Women of adult age i.e. 20-65 years are considered vulnerable or special risk group for nutritional health problems. For women's quality of life, survival, and the proper development of their children, their nutritional and health status is crucial. The objective of this research is to study the dietary assessment of Kashmiri Urban and Rural Women. The aim of this study is to find out the dietary assessment among women in Kashmir (Rural and Urban population) with regard to summer season.

Method: The data was collected through a questionnaire from a sample of 400 Kashmiri women. The finding of the study reveals that there was a considerable discrepancy between the population's meal schedule and their living quarters. In terms of the urban population, majority (66.9%) followed the meal pattern religiously, while the bulk of the rural population (89.1%) strictly observed the meal routine. In the urban, 12.1% skipped their lunch while as 8.9% skipped their dinner, out of a total of 21% who skipped meals. In rural population, however, 6.2% skipped their lunch and 4.7% skipped their dinner. Obesity was observed to be the most common reason of skipping the meals.

Keywords: Dietary, Assessment, Kashmiri, Urban, Rural, summer

INTRODUCTION

A significant factor in determining obesity is dietary intake (WHO, 2002). Numerous studies have looked at the relationship between specific nutrients, particularly dietary fat, and obesity, although the relationship between dietary factors and weight increase is still debatable (Willett, 1998). This could be as a result of the complicated nature of diet as determined by dietary instruments using a variety of foods (Hu, 2002). To determine if the amount of exposure to diet is appropriate in connection to a specific nutritional health result, the complexity of dietary factors in epidemiological research frequently necessitates the use of unique methodologies (Martnez et al, 1998; Newby et al, 2004). Additionally, people consume meals that contain complex mixtures of foods and nutrients rather than just one component (Hu, 2002). The meal itself is the ultimate source of all nutrients, which are closely tied to one another. It is not an empty container conveying a single nutrient. Thus, the impacts of other chemicals in the diet may confuse analyses of individual nutrients in connection to obesity (Jacobs & Murtaugh, 2000). India has been rapidly urbanising, industrialising, and becoming more westernised over a number of decades. Understanding the shifting nutritional landscape is crucial since the Indian population is likewise going through a transitional period during which subsistence conditions are being replaced by abundant food but decreasing physical labour. India is one of the few nations where men greatly outnumber women, notwithstanding the country's success in the economic realm.

Even if their economic activities demand a lot of time and physical energy, women play a crucial role in child care and food processing (McGuire and Popkin, 1988). A woman's poor health affects her family as well as other women (Velkoff and Arjun, 1998). Therefore, women labour twice as much as males do both at home and at work. However, some claim that while though the women's added job helps to raise the household income, due to a shift in priorities, it may not always result in a better diet (Wande and Ottesen, 1992). Large transformations occur in our life as the seasons change. We alter our amount of physical activity just as we alter our bedding and furnishings. As we transition from outdoor grilling to indoor crockpots and ovens, our cooking style changes. This affects everything, even the meals we prepare. It's difficult to picture a hot summer day without considering consuming fresh fruits, vegetables, salads, and other items that are warmer in temperature.

The variables influencing how diet behaviour as a lifestyle component fluctuates from season to season, as well as the seasonality of diet-related disease and death, can be revealed through understanding the seasonality of diet quality. Additionally, it contributes to the ongoing discussion regarding the factors that can be effectively managed to improve diet quality and identify how specific food groups affect diet quality.

In the state of Jammu and Kashmir much work has not been done to study nutritional status and dietary habits of Kashmiri Women with regard to the season. A need was hence felt to go into

the study. Therefore, the researcher has undertaken the present study entitled "Dietary Assessment of Kashmiri Urban and Rural women during summer". The present study in the long run will help to improve dietary habits which in turn will have impact on nutritional status of women. As already mentioned, women form very important group of our society, therefore in order to prepare them for being healthy women, nutritional status and dietary habits play an important role. Dietary assessment enables connections to be drawn between dietary-related diseases and a group of people's eating behaviours. Here, a dietician or the patients themselves monitor and record the frequency, types, and amounts of food consumed during a specified period using a variety of methods such a 24-hour recall, food frequency questionnaire, food diaries, or food records.

LITERATURE REVIEW

A woman's poor health affects not just her but also her family. Low birth weight babies are more likely to be delivered by women who are unhealthy and undernourished. Additionally, they are less likely to be able to give their kids healthy food and proper care. Finally, a woman's health has an impact on the financial stability of the home because she will be less productive if she is unwell. Women experience stress when trying to adequately balance job and family. He claims that perceptions of stress at work, insufficient financial benefits, and stress brought on by inadequate safety and security are the main causes of stress among working women. The phrase "the demands of the work interfere with satisfying family responsibilities" is used to describe the work-family conflict (Wharton and Blair-Loy 2006).

Dhingra, Sharma & Azad (2014) explored the health status of affluent children in order to investigate into their dietary patterns and activity pattern. The study noted mild anemia in 50 per cent of the children. In addition, the study also found dental problems was common in these children. Ganie et al (2020) did a cross-sectional study on Kashmiri tribal population to investigate into their demo-economic status and behavioural risk factors. The study found that there is widespread poverty illiteracy and even lack facilities among the tribal people in Kashmir.

A significant middle-aged and elderly Dutch population-based cohort was used in the Janine et al. (2019) study to examine seasonal fluctuation in food quality. Diet quality was found to have a seasonal pattern, peaking in the winter (seasonal variation = 0.10 points, peak in December), especially in male individuals who were obese and from affluent socioeconomic backgrounds. The seasonal variations in the intake of dairy (seasonal variation = 17.52 g/day, June-peak), nuts (seasonal variation = 0.78 g/day, January-peak), sugar-containing beverages (seasonal variation = 12.96 milliliters/day), and legumes (seasonal variation = 3.52 g/day, December-peak) were the main contributors to this pattern.

Regarding the importance of seasonal variation in the intake of fat and carbs, there has been a lot more consensus. According to data, the intake of each nutrient varies seasonally. According to

earlier research, consumption of carbs peaks in the fall or winter (De Castro, 1991; Krauchi and Wirz-Justice, 1988) and troughs in the summer.

When compared to the spring, the daily calorie intake increased by 86 kcal/day during the fall. With a high in the spring for carbohydrate intake and the fall for total fat and saturated fat intake, the percentage of calories from carbohydrate, fat, and saturated fat showed a minor seasonal change. Winter saw the lowest levels of physical activity, while spring saw the highest. Throughout the year, body weight changed by nearly half a kilogramme, reaching its highest point in the winter (P 0.001 winter versus summer). Male, middle-aged, non-White, and less educated respondents showed greater seasonal fluctuation.

Although there is seasonal variation in nutrition, exercise, and body weight in this population, the shift in magnitude is typically minimal.

Ozge et al. (2018) investigated how seasonal fluctuations affected university students' food intake, dietary practices, anthropometric measurements, and serum vitamin levels. This study's objective was to investigate how seasonal fluctuations affected adult females' dietary practices, food consumption, anthropometric measurements, physical activity, and some serum vitamin levels. The study was carried out throughout the course of four seasons: autumn in October, winter in January, spring in April, and summer in July (summer). Participants' exposure to seasonal variation revealed that they feel better in spring and summer (57.1 and 65.7 percent, respectively), are more social (42.9 and 54.3 percent, respectively), eat less (27.3 and 66.7 percent, respectively), and lose weight (27.3 and 69.7 percent, respectively); however, in autumn and winter (59.4 and 46.9 percent), they feel worse, are less social, and gain weight (17.1 percent and 65.7 percent, respectively). 91.4 percent of the study's participants said that the seasons had an impact on their food and drink preferences.

Research suggests that problems like obesity and over-weight (Upadhyay, 2012) is more common among urban females and their socio-economic status is a key determinant for such diseases. Owing to rapid economic development, industrialization and urbanization the problem of obesity has increased drastically in India. One of the most significant elements affecting the health of women in Kashmir is their dietary and lifestyle choices. Many academics have hypothesized that Kashmiri society has poor eating habits. The activity behaviour and eating habits of teenagers between the ages of 15 and 18 in the district of Pulwama, Kashmir, were investigated in a study by Sidiq, Bhat, Khan, and Ganai (Activity Behaviour and Eating Habits Among Adolescents of District Pulwama Kashmir, 2016).

(Al-Shehri, et al., 2017) evaluated undergraduate students' eating and lifestyle habits. It has been stated that academic success at the university is significantly influenced by one's health. At the University levels, most students stay away from their families which in turn sometimes lead to unhealthy food habits and lifestyle disorders. The lifestyle and food habits of young adults are

generally considered negatives. Only 18% of the students were found to consume fruits and vegetables on a daily basis. Only about one third students reported to have proper breakfast which is very important for a healthy life and brain. The study concluded that the students followed an unhealthy food habit and a flawed lifestyle.

The dual role of women as mothers and productive workers coupled with poor diets and ill health, affect not only their own well-being but also that of the whole family. A heavy workload may push a woman with marginal food intake over the brink into a state of malnutrition (Latham 1997). Women in developing countries face a lot of nutritional problems, the most common among these problems being deficiencies in energy, protein, iron, folic acid and vitamin A. These problems negatively influence the health and well-being of women and their children. Nutritional deficiencies pose a serious health concern not only because they are a direct cause of illness but also because poor nutritional status inhibits the proper functioning of the immune system, thereby increasing susceptibility to other diseases (Tinker et al 1993). Overall, the dietary status of the women needs to be improved to enable them and their daughters to break away from the cycle of under nutrition due to poor intake of food. Nevertheless, the nutritional needs and reproductive health of the women should not be justified by the aspect of their maternity only, but also by their total well-being and health (Sai et al 1989).

OBJECTIVES OF THE STUDY

1. To study the dietary (meal) pattern during summer among urban and rural Kashmiri women.
2. To study skipping of meals if any and the reasons thereof.
3. To study the consumption of food, meals preferred during summer and preferred method of cooking.

METHODOLOGY

The study was conducted in four (4) districts of Kashmir vis-à-vis Srinagar, Budgam,

Baramulla and Anantnag. The sample group included women in the age group of 20-60 years. Both primary as well as secondary sources of data were utilized to obtain the information. The tool used for collection of data in the present study was a questionnaire followed by interview.

On the basis of this estimation, the sample size derived from the above formula is 124 samples from Srinagar, 104 from Anantnag, 100 from Baramulla and 72 from Budgam.

Table 3.6.1: Distribution of the Sample Subjects

S.No	Districts	Sample size	Categorization
1.	Srinagar	124	URBAN
2.	Baramulla	100	RURAL

3.	Budgam	72	RURAL
4.	Anantnag	104	RURAL
Overall		**400**	**URBAN + RURAL**

Tools Used

The tool used in the present study devised as per objectives of the study was essentially a questionnaire supplemented by an interview schedule. After a thorough and detailed study of the problem and the review of literature, a preliminary questionnaire was framed. This was pre-tested on 10% of the sample size to ensure the validity and feasibility and was then used in the study.

RESULTS AND INTERPRETATION

Table 1.0: Is Proper Meal pattern followed during summer (Yes/No)

		Urban		**Rural**		**Total**	
		F	**%age**	**F**	**%age**	**F**	**%age**
		(X^2 = 28.870; df= 1; p=0.000)					
Is Proper Meal pattern followed	Yes	83	66.9	246	89.1	329	82.2
	No	41	33.1	30	10.9	71	17.8
	Total	124	100.0	276	100.0	400	100.0

Table 1.0 presents the data about the meal pattern followed by women during summer.

In terms of urban population, majority (66.9%) strictly followed the meal pattern while 33.1% didn't follow it. However, in terms of rural population, majority (89.1%) strictly followed the meal pattern. A highly significant difference was seen between the meal pattern followed by the population and their dwelling.

Table 1.1: Skipping of any meals during summer (Yes/No)

		Urban		**Rural**		**Total**	
		F	**%age**	**F**	**%age**	**F**	**%age**
		(X^2 = 7.247; df= 1; p=0.007)					
Skipping of any meals	Yes	26	21.0	30	10.9	56	14.0
	No	98	79.0	246	89.1	344	86.0
	Total	124	100.0	276	100.0	400	100.0

Table 1.1 presents the data about being habitual of skipping any of their meals during summer.

In terms of urban population, majority (79%) was not habitual of skipping any of their meals and same trend was seen for majority (89.1%) of rural women who did not skip any of their meals. A highly significant difference was seen between skipping of any meals by the respondents and their dwelling.

Table 1.2: Most skipped meal during summer

		Urban		Rural		Total	
		F	%age	F	%age	F	%age
		(X^2 = 7.253; df= 2; p=0.027)					
most skipped meal	No	98	79.0	246	89.1	344	86.0
	Breakfast	0	0.0	0	0.0	0	0.0
	Lunch	15	12.1	17	6.2	32	8.0
	Dinner	11	8.9	13	4.7	24	6.0
	Total	124	100.0	276	100.0	400	100.0

Table 1.2 presents the data about the most skipped meal by the women during summer. In terms of urban population, out of 21% who skipped their meals, 12.1% skipped the lunch and 8.9% skipped the dinner. However, in terms of rural population, out of 10.9%, 6.2% skipped the lunch and 4.7% skipped their dinner. Statistically, a significant difference was observed between the variables i.e. skipped meal and the dwelling.

Table 1.3 Reasons of skipping meals during summer

		Urban		Rural		Total	
		F	%age	F	%age	F	%age
		(X^2 = 14.063; df= 4; p=0.007)					
Reasons of skipping meals	No	98	79.0	246	89.1	344	86.0
	Obesity	18	14.5	16	5.8	34	8.5
	Metabolic disorder	4	3.2	2	0.7	6	1.5
	Not enough time to take meals properly	2	1.6	10	3.6	12	3.0
	Not enough physical activity	2	1.6	2	0.7	4	1.0
	Total	124	100.0	276	100.0	400	100.0

Table 1.3 present the data to know about the reasons for skipping the meal. In terms of urban population, majority (14.5%) pointed out obesity as the reason of skipping their meals followed by 3.2% who had metabolic disorder. 1.6% each skipped their meals because of lack of time and lack of physical activity. However, in terms of rural population, 5.8% skipped their meals because of obesity followed by 3.6% who skipped it because of lack of time. A highly significant difference was observed between the variables i.e. reasons of skipping meals by the respondents and their dwelling.

Table 1.4 Number of meals preferred during summer

		Urban		**Rural**		**Total**	
		F	**%age**	**F**	**%age**	**F**	**%age**
		(X^2 = 28.166; df= 1; p=0.000)					
Number of Meals preferred	Two	29	23.4	15	5.4	44	11.0
	Three	95	76.6	261	94.6	356	89.0
	Total	124	100.0	276	100.0	400	100.0

Table 1.4 presents the data about number of meals preferred by the women during summer. In terms of urban population, majority (76.6%) preferred three meals a day while as 23.4% preferred only two meals a day. However, in terms of rural population, majority (94.6%) also preferred three meals a day while 5.4% preferred only two meals a day. A highly significant difference was seen between meals preferred by the respondents with respect to their dwelling.

Table 1.5 Preferred method of cooking during summer

	Method of cooking		**Urban**	**Rural**			**Total**
		F	**%age**	**F**	**%age**	**F**	**%age**
			(X^2 = 118.115; df= 3; p=0.000)				
Preferred method of cooking	Boiling	5	4.0	157	56.9	162	40.5
	Pressure Cooking	95	76.6	66	23.9	161	40.2
	Sautaeing	7	5.6	17	6.2	24	6.0
	Deep frying	17	13.7	36	13.0	53	13.2
	Total	124	100.0	276	100.0	400	100.0

Table 1.5 presents the data about method of cooking preferred by the women during summer. In terms of urban population, majority (76.6%) preferred pressure cooking followed by 13.7% who preferred deep frying. While as majority (56.9%) of rural women preferred boiling followed by 23.9% who preferred pressure cooking. A highly significant difference was observed between the urban and rural population in terms of method of cooking used.

Table 1.6 Consumption of food from outside during summer

	Frequency	Urban		Rural		Total	
		F	%age	F	%age	F	%age
		(X^2 = 23.965; df= 2; p=0.000)					
Consumption of food from outside	Once a week	25	20.2	15	5.4	40	10.0
	1-3 times per week	12	9.7	16	5.8	28	7.0
	4-6 times per week	0	0.0	0	0.0	0	0.0
	Daily	0	0.0	0	0.0	0	0.0
	Never	87	70.1	245	88.8	332	83.0
	Total	124	100.0	276	100.0	400	100.0

Table 1.6 presents the data about consumption of food from outside during summer.

Majority (70.1%) of urban women didn't consume food from outside while 20.2% had their food from outside once in a week. In terms of rural population, majority (88.8%) never had food from outside while only 11.2% consumed it from outside either once in a week or 2-3 times per week.

A highly significant difference was observed between the variables i.e. frequency of food eaten outside with respect to their dwelling.

CONCLUSION

In terms of the urban population, majority (66.9%) followed the meal pattern religiously, while 33.1% did not. However, bulk of the rural population (89.1%) strictly observed the meal routine. There was a considerable discrepancy between the population's meal schedule and their living quarters. The majority of urban (79%) and rural (89.1%) women did not skip any of their meals. The respondents missing any of their meals and their dwelling showed a significant difference. In the urban, 12.1 percent skipped their lunch while as 8.9 percent skipped their dinner, out of a total of 21% who skipped meals. However, in the rural population, 6.2 percent skipped their

lunch and 4.7 percent skipped the dinner. The factors skipped meal and dwelling, showed a statistically significant difference.

In terms of the urban population, majority (14.5%) cited obesity as the cause for skipping their meals, followed by 3.2 percent who claimed to have a metabolic problem. Due to lack of time and physical exercise, 1.6 percent of respondents skipped their meals. While as 5.8% of the rural population skipped meals due to obesity, followed by 3.6 percent who skipped the meals due to lack of time. The factors, namely the respondent's reasons for skipping meals and their dwelling, showed a statistically significant difference.

In the urban, majority (76.6%) liked three meals per day while as 23.4% preferred only two meals a day. However, majority (94.6%) of rural women also chose three meals each day, whereas 5.4 percent preferred only two meals per day. There was a statistically significant difference between the variables i.e. number of meals consumed with respect to their dwelling. Pressure cooking was the preferred mode of cooking for majority (76.6 %) of urban women, followed by deep frying by 13.7% while as majority (56.9%) of rural women choose boiling as a preferred method, followed by 23.9% who chose pressure cooking. In terms of cooking methods, there was a substantial disparity between the urban and rural population. 20.2% of urban women preferred to eat their food from outside at least once in a week. However, in terms of the rural population, the vast majority (88.8%) never ate food from outside sources, whereas only 11.2% chose to eat it from outside. The factors i.e., the frequency of meals eaten outside in relation to their dwelling, showed a significant difference.

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