

Food Safety Awareness and Hygiene Practices Among Adolescent Girls in Cuttack, Odisha

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Abstract

Food hygiene is a fundamental component of overall health, especially during adolescence—a critical period marked by rapid physical growth, hormonal changes, and increasing independence in daily activities, including food selection and preparation. Adolescent girls, in particular, face unique nutritional and health challenges that heighten their vulnerability to foodborne illnesses. Poor hygiene practices during this stage can negatively influence physical development, cognitive function, academic performance, and long-term health outcomes. Recognizing the rising concern of foodborne diseases and the growing autonomy of adolescents in food-related tasks, this study was undertaken to assess food hygiene practices among adolescent girls in Cuttack, Odisha, and to explore the factors influencing these behaviors. A cross-sectional and descriptive research design was employed to gather a comprehensive understanding of food safety awareness and hygiene practices among girls aged 13 to 18 years. The study was conducted in two prominent areas of Cuttack—Cuttack Chandi and Buxi Bazar. From each area, 25 respondents were selected using purposive random sampling, resulting in a total sample size of 50 adolescent girls. Data collection was carried out through a structured questionnaire that included items on demographic information, personal hygiene practices, food handling behavior, consumption patterns, and awareness regarding foodborne risks. The collected data were analyzed using suitable statistical techniques such as mean, median, mode, and percentage distribution to interpret trends and relationships among different variables. The detailed analysis helped in identifying not only the existing levels of food hygiene practices but also the factors influencing them, such as educational background, family environment, availability of resources, and personal awareness. The findings of the study contribute valuable insights into the current status of food hygiene behaviors among adolescent girls in an urban setting like Cuttack. These insights are essential for designing targeted health education programs, creating awareness strategies, and implementing school- and community-level interventions aimed at promoting safe food-handling practices. Strengthening food hygiene knowledge among adolescent girls can have long-term health benefits, both for themselves and for the families and communities they influence, ultimately contributing to the reduction of foodborne illnesses and the promotion of public health.

Keywords- Hygiene, Public health, Awareness, Current status, educational background

1. Introduction

Food hygiene is an essential aspect of overall health, particularly in the developmental years of adolescence. This period, typically defined between the ages of 10 to 19, is a crucial time for physical, mental, and social development. Adolescent girls, in particular, undergo significant biological changes, including puberty, which influence their nutritional needs and susceptibility to foodborne illnesses. As they start to gain more autonomy in food choices and preparation, they must be equipped with the knowledge and skills to practice good food hygiene to ensure their health and well-being. Adolescence is also marked by increased independence, with many young girls taking on responsibilities related to meal planning, food shopping, and preparation. This growing independence, while positive in terms of empowerment, also brings about an increased risk of exposure to foodborne pathogens, especially if hygiene practices are inadequate. The importance of food hygiene cannot be overstated, as poor food safety practices can lead to foodborne illnesses, which, although often preventable, continue to be a significant global health concern. For adolescent girls, foodborne illnesses can have particularly adverse consequences. The nutritional needs of adolescent girls are distinct, given the rapid physical growth and development during puberty, the onset of menstruation, and the increased demands placed on their bodies. These factors make food hygiene practices even more critical for this demographic. Inadequate hygiene can lead to illness, which can affect their physical growth, cognitive function, school performance, and overall quality of life. In the worst-case scenarios, foodborne infections can cause severe dehydration, malnutrition, and long-term health complications, including reproductive issues, making the promotion of food hygiene practices among adolescent girls a crucial public health goal. Moreover, food hygiene education among adolescent girls also has broader implications. It not only impacts individual health outcomes but also shapes family and community behaviors. As adolescents learn and adopt proper food safety practices, they often act as agents of change, influencing family members and peers to embrace healthier food preparation habits. This ripple effect can contribute to community-wide improvements in food safety practices, reducing the overall burden of foodborne illnesses.

Objectives

The objectives of this study are:

1. To assess the current food hygiene practices among adolescent girls in cuttack.
2. To identify the factors influencing food hygiene practices among adolescent girls.

Methodology

1. **Design of the Study:** A cross sectional and descriptive design was used to assess food safety awareness and hygiene practices among adolescent girls (13-18 years) in cuttack, odisha.
2. **Area of the study:** Two areas were selected for the study namely Cuttack chandi and Buxi Bazar. 25 samples were selected from the each area.
3. **Population of the study:** Adolescent girls aged between (13-18) years were selected for the study.

4. **Sampling methods:** The selection of the respondents was based on purposive random sampling. The process of selecting the sample was done by arranging the adolescent in alphabetical order.
5. **Sample size:** Total 50 samples was selected for the population of the study.
6. **Collection of the data:** Collection of the data was done by survey method. A questionnaire was used to collect necessary information from the respondents
7. **Data Analytics:** The analyzing of collected was done with the help of some appropriate statistical procedure such as mean, median, mode and percentage considering some independent variables

RESULT AND DISCUSSION

TABLE-1(PERSONAL BACKGROUND)

SL.NO	VARIABLE	PARTICULAR	FEMALE	
			f	%
1	AGE	11-13 yrs	4	7.5%
		14-18 yrs	21	39.6%
		OTHERS	28	52.8%
2	GENDER	MALE	3	5.7%
		FEMALE	50	94.3%
		OTHER	0	0%
3	EDUCATIONAL QUALIFICATION	9 TH	7	13.1%
		10 TH	9	35.8%
		OTHER	27	50.9%
4	LOCATION	URBAN	30	60%
		RURAL	16	30%
		OTHER	4	10%
5	RELIGION	HINDU	39	68%
		MUSLIM	11	22%
		CHRISTIAN	0	0%
		OTHER RELIGION	0	0%
		GENERAL	31	62%
		ST	12	54%
		SC	5	0%

6	CASTE	OBC	2	4%
7	TYPE OF FAMILY	JOINT FAMILY	16	32%
		EXTENDED FAMILY	0	0%
		NUCLER FAMILY	34	78%
		OTHER TYPE OF FAMILY	0	9%

The data shows that a majority of the participants belong to the “others” age group (52.8%), followed by those aged 14–18 years (39.6%), while only a small portion (7.5%) are between 11–13 years. The sample is predominantly female, with 94.3% females and only 5.7% males. In terms of educational qualification, half of the respondents (50.9%) fall under the “other” category, while 35.8% are in the 10th grade and 13.1% in the 9th grade. Most individuals come from urban areas (60%), while 30% are from rural backgrounds and 10% from other locations. Regarding religion, the majority are Hindus (68%), followed by Muslims (22%), with no participants identifying as Christian or other religions. Caste-wise, 62% belong to the General category, 54% to ST (as per the data provided), 5% to SC, and 4% to OBC. Finally, the family type distribution shows that most respondents (78%) live in nuclear families, while 32% come from joint families, and none reported belonging to extended or other family types.

TABLE-2 EVALUATE THE KNOWLEDGE AND ATTITUDES OF ADOLESCENT GIRLS TOWARDS FOOD HYGIENE.

SL.N O	VARIABLE	PARTICULAR	f	%
1	HOW IMPORTANTANCE FOOD HYGIENE	NOT Y IMPORTANT	7	14
		VERY IMPORTANT	43	86
2	HOW CONFIDENT ARE3 YOU IN YOUR ABILITY TO HANDEL AND PREPARE FODD HUGIENE	VERY CONFIDENT	3	6
		NOT VERY CONFIDEN T	2	4
		SOME TIMES	31	62

3	HOW OFTEN YOU CONSUME JUNK FOODS	DAILY	19	38
4	HOW OFTEN YOU CLEAN AND SANITIZE FOOD PREPARATION SURFACE	ALWAYS	2	4
		MOST OF THE TIME	17	34
		SOME TIMES	23	46
5	HOW OFTEN DO YOU EAT MEALS WITH YOUR FAMILY	ALWAYS	9	18
		MOST OF THE TIMES	14	28
		SOME TIMES	22	44

The findings reveal that a large majority of respondents (86%) consider food hygiene to be very important, while only 14% feel it is not very important. Regarding confidence in handling and preparing food hygienically, only 6% feel very confident and 4% are not very confident, indicating generally low confidence levels. In terms of dietary habits, 62% of participants consume junk food sometimes, while 38% consume it daily. For cleaning and sanitizing food preparation surfaces, only 4% always do so, 34% do it most of the time, and 46% do it sometimes, suggesting inconsistent hygiene practices. Eating habits within families show that only 18% always eat meals with their family, 28% do so most of the time, and 44% only sometimes, indicating irregular family mealtime routines.

Conclusion

Food hygiene is a critical issue for adolescent girls, as it impacts their overall health, nutrition, and well-being. The practices they adopt during this stage of life can have lasting effects on their physical and mental health as they transition into adulthood. It is essential to recognize the multiple factors that influence food hygiene, including knowledge, culture, resources, and personal habits. By addressing these factors through education, improved access to resources, and community engagement, it is possible to empower adolescent girls to adopt better food hygiene practices.

Adolescent girls are the future of our communities, and investing in their health and hygiene education today will have significant benefits for public health in the long term. Empowering them with the tools and knowledge to make safe food choices will not only improve their own lives but also contribute to healthier families and communities. By prioritizing food hygiene education and supporting adolescents in their journey toward health and independence, we are fostering a healthier, safer, and more resilient generation.

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