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A CROSS SECTIONAL SURVEY ON SOCIAL, CULTURAL AND ECONOMIC DETERMINANTS OF OBESITY AMONG ADULTS IN SELECTED COMMUNITY OF BARDOLI.

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Abstract: **Background:** Obesity is a major public health problem that affects the physical, psychological, and social well-being of individuals. The prevalence of obesity is increasing worldwide due to various social, cultural, and economic factors. Understanding these determinants is essential for planning effective prevention and management strategies. Social factors such as family and community influences, cultural beliefs and practices related to food, and economic conditions such as income and food accessibility may contribute to obesity among adults. **Statement:** A Cross-sectional Survey on Social, Cultural and Economic Determinants of Obesity among Adults in Selected Communities of Bardoli. **Objectives:** 1) To identify the social, cultural, and economic determinants of obesity among adults. 2) To find out the correlation between social, cultural, and economic determinants of obesity among adults. 3) To find out the association between social, cultural, and economic determinants and selected sociodemographic variables. **Methodology:** A quantitative approach with a cross-sectional survey design was adopted for the study. A total of 294 adults aged 18–40 years were selected using a non-probability purposive sampling technique. Data were collected using a Socio-demographic Proforma, Social Perception Scale, Cultural Practices and Food Belief Scale, and Economic Status, Food Access and Lifestyle Scale. Data were collected through self-report after obtaining informed consent from the participants. **Results:** The findings revealed that the mean score of social determinants was 33.15 ± 7.41, economic determinants was 31.69 ± 9.82, and cultural determinants was 16.67 ± 4.17. Social determinants showed the highest influence on obesity, followed by economic determinants, while cultural determinants showed the least influence. The majority of adults had moderate levels of social determinants (52.0%) and cultural determinants (58.2%), whereas 45.9% had poor economic determinants. The correlation between social and cultural determinants (r = -0.014), social and economic determinants (r = -0.026), and cultural and economic determinants (r = 0.063) was not statistically significant. A significant

association was found between cultural determinants and marital status ($\chi^2 = 12.949$, $p = 0.012$). No significant association was found between social or economic determinants and selected sociodemographic variables. **Conclusion:** The study concluded that the majority of adults had moderate levels of social and cultural determinants of obesity, while nearly half had poor economic determinants. Social determinants showed the highest influence on obesity, followed by economic and cultural determinants. The findings highlight the need to educate adults about healthy dietary habits, regular physical activity, and lifestyle modifications to prevent and manage obesity.

Key Words: Obesity, Adults, Social Determinants, Cultural Determinants, Economic Determinants, Lifestyle Factors.

INTRODUCTION

Obesity is a growing public health concern worldwide and is recognized as one of the major risk factors for various chronic diseases. It is characterized by excessive accumulation of body fat that negatively affects health and well-being. The increasing prevalence of obesity is influenced by multiple factors beyond individual behavior, including social, cultural, and economic determinants. Social factors such as family influence, peer relationships, and community environment can affect dietary habits and physical activity patterns. Cultural beliefs, traditions, and food-related practices also play a significant role in shaping lifestyle behaviors. Economic factors, including income level, employment status, and access to healthy foods, may further contribute to the development of obesity. Understanding these determinants is important for developing effective prevention and management strategies. Therefore, assessing the social, cultural, and economic determinants of obesity among adults can provide valuable insights for healthcare professionals and policymakers to design targeted interventions and promote healthier lifestyles.[1]

NEED OF THE STUDY.

Obesity has become one of the most serious public health challenges worldwide. According to the World Health Organization (WHO, 2024), more than 1 billion people are living with obesity globally. Obesity increases the risk of diabetes, hypertension, cardiovascular diseases, stroke, and certain cancers, resulting in increased morbidity and mortality.[1]

In India, the prevalence of overweight and obesity has risen steadily over the past two decades. The National Family Health Survey-5 (NFHS-5, 2019–21) reported that 24 % of women and 22.9% of men aged 15 years and above were overweight or obese. Studies based on NFHS data have also shown that overweight and obesity are more common among adults living in urban areas, those with higher socioeconomic status, and married individuals. Age, education, wealth status, and lifestyle factors were found to be significant contributors to obesity.[2]

In Gujarat, the prevalence of overweight and obesity is higher than the national average in many urban regions. The NFHS-5 Gujarat Fact Sheet reported that 27.2% of women and 24.0% of men were overweight or obese. Rapid urbanization, increased consumption of energy-dense foods, reduced physical activity, and changing lifestyles have contributed to this rising trend.[3]

Obesity has become a major public health problem worldwide due to its increasing prevalence and its association with chronic diseases such as diabetes, hypertension, cardiovascular diseases, and certain cancers. In India and Gujarat, the number of overweight and obese adults has increased because of rapid urbanization, unhealthy dietary habits, reduced physical activity, and changing lifestyles. Social, cultural, and economic factors also play an important role in influencing obesity, but these determinants vary from one community to another. There is limited information regarding these determinants among adults in the selected community of Bardoli. Therefore, this study is needed to identify the social, cultural, and economic determinants of obesity among adults, which will help healthcare professionals and policymakers plan effective health education, prevention strategies, and community-based interventions to reduce obesity and promote healthy lifestyles.

PROBLEM STATEMENT:

A Cross sectional survey on social, cultural and economic determinants of obesity among adults in selected community of Bardoli.

OBJECTIVES:

1. To identify the social cultural and economic determinants of obesity among adults.
2. To find out the correlation between social, cultural and economic determinants of obesity among adults.
3. To find out the association between social, cultural and economic determinants with their selected sociodemographic variables.

METHODOLOGY:

This cross-sectional survey employed a quantitative approach to assess the cultural and economic determinants of obesity among adults in selected community of Bardoli by using the Raosoft sample size calculator, 294 adults were selected through non-probability purposive sampling technique. Inclusion criteria were Adults age group of 18 to 40 years. who understood English and Gujarati while who are not willing to participate were excluded. Data was collected involving Socio-demographic data Social Perception Scale, Cultural practices and Food Belief Scale, Economic Status, food access and Life style scale. Consent was signed by adults before data collection. Data were collected by self-reporting technique.

RESULT:

In this study, a total of 294 adults were included. Most adults were aged 21–30 years (125, 42.5%), followed by 18–20 years (79, 26.9%), 31–40 years (76, 25.9%), and above 40 years (14, 4.8%). Females (151, 51.4%) were more than males (143, 48.6%). More than half of the adults were married (154, 52.4%), while 128 (43.5%) were unmarried and 12 (4.1%) were divorced. The majority were Hindus (182, 61.9%), followed by Muslims (98, 33.3%) and Christians (14, 4.8%). Regarding monthly family income, 97 (33.0%) adults earned less than ₹5,000, 96 (32.7%) earned ₹5,001–10,000, 68 (23.1%) earned ₹10,001–25,000, and 33 (11.2%) earned ₹25,001–50,000. In terms of education, 90 (30.6%) adults had no formal education, 80 (27.2%) had primary education, 56 (19.0%) had secondary or higher secondary education, 45 (15.3%) were graduates, and 23 (7.8%) had postgraduate education. Most adults were employed in jobs (90, 30.6%),

followed by laborer's (70, 23.8%), farmers (68, 23.1%), homemakers (27, 9.2%), shopkeepers (21, 7.1%), and business owners (18, 6.1%). Half of the adults (147, 50.0%) had 4–6 family members, while 85 (28.9%) had 1–3 members and 62 (21.1%) had 7–9 members. Salaried employment was the main source of household income for 90 (30.6%) adults, followed by Labour or daily wages (83, 28.2%), agriculture or farming (74, 25.2%), and self-employment (47, 16.0%). Regarding meal pattern, 140 (47.6%) adults consumed two meals per day, 101 (34.4%) consumed three meals per day, and 53 (18.0%) reported consuming more than three meals per day.

Table 1: Finding Related to level of Social, Cultural and Economic Determinants of obesity among Adults. **N=294**

Social, Cultural and Economic Determinants	Frequency (f)	Percentage (%)
1. Level of Social Determinants		
a) Low (13-30)	125	42.6
b) Moderate (31-48)	153	52.0
c) High (49-65)	16	5.4
2. Level of Cultural Determinants		
a) Low (13-30)	100	34.0
b) Moderate (31-48)	171	58.2
C) High (49-65)	23	7.8
3. Level of Economic Determinants		
a) Poor (12-28)	135	45.9
b) Moderate (29-4)	94	32.0
c) Good (45-60)	65	22.1

As shown in the table 1, most of the participants had a moderate level of social determinants (52.0%), while 42.5% had a low level and only 5.4% had a high level. Regarding cultural determinants, the majority of participants (58.2%) had a moderate level, 34.0% had a low level, and 7.8% had a high level. In terms of economic determinants, 45.9% of the participants had poor economic determinants, 32.0% had a moderate level, and 22.1% had good economic determinants. The findings indicate that most participants had moderate social and cultural determinants, whereas nearly half of the participants had poor economic determinants.

Table 2: Findings related to social, Cultural and economic determinants of obesity among adults.

N=294

Social, Cultural and Economic Determinants	Mean	Median	Mode	SD	Range
Social	33.15	31.00	29	7.41	20-57
Cultural	16.67	16.67	19	4.17	6-30
Economic	31.69	29.00	24	9.82	17-52

The mean score of economic determinants was 31.69 with a median of 29, mode of 24, and standard deviation of 9.82, which was slightly lower than that of social determinants the mean score of economic determinants was 31.69 with a median of 29, mode of 24, and standard deviation of 9.82, which was slightly lower than that of social determinants. The mean score of cultural determinants was 16.67 with a median of

16.67, mode of 19, and standard deviation of 4.17, which was lower than both social and economic determinants. This indicates that social determinants had the highest influence on obesity among adults, followed by economic determinants, while cultural determinants had the least influence.

Table 3: Finding related to correlation between social, Cultural and Economic determinants of obesity among adults. N=294

Variables	Mean	SD	r value	p value	Type of correlation
Social determinants	33.15	7.41	-0.014	0.817 (NS)	Low negative
Cultural determinants	16.67	4.17			
Social determinants	33.15	7.41	-0.026	0.662 (NS)	Low negative
Economic determinants	31.69	9.82			
Cultural determinants	16.67	4.17	0.063	0.284 (NS)	Low positive
Economic determinants	31.69	9.82			

NS- Not Significant

As shown in the table 3, the correlation between social determinants and cultural determinants was very weak and negative ($r = -0.014$, $p = 0.817$), indicating no significant relationship between the two variables. Similarly, the correlation between social determinants and economic determinants was also very weak and negative ($r = -0.026$, $p = 0.662$), showing no significant association. The relationship between cultural determinants and economic determinants was very weak and positive ($r = 0.063$, $p = 0.284$), but it was also not statistically significant. The findings suggest that there was no significant relationship among social, cultural, and economic determinants in the study population.

Finding related to Association.

The study found no significant association between social determinants and any selected sociodemographic variables such as age, gender, marital status, religion, income, education, occupation, family size, source of income, and number of meals per day ($p > 0.05$). This indicates that social determinant scores were similar across all demographic groups.

A significant association was found between cultural determinants and marital status ($\chi^2 = 12.949$, $p = 0.012$), indicating that cultural practices differed according to marital status. However, there was no significant association was observed with other sociodemographic variables such as age, gender, religion, income, education, occupation, family size, source of income, and number of meals per day ($p > 0.05$).

No significant association was found between economic determinants and any of the selected sociodemographic variables, including age, gender, marital status, religion, income, education, occupation, family size, source of income, and number of meals per day ($p > 0.05$). This suggests that economic determinant levels were similar among participants from different demographic backgrounds.

DISCUSSION:

The present study revealed that the majority of adults were aged 21–30 years, female, married, Hindu, had a monthly income of Rs. 5,001–10,000, had no formal education, were employed, belonged to families with 4–6 members, had salaried employment as the main source of household income, and consumed two meals per day. These findings suggest that obesity-related determinants are more common among adults from low- and middle-income backgrounds. Study was supported by Luhar et al. (2020) using data from the National Family Health Survey (NFHS-4) reported that overweight and obesity were more prevalent among married adults, women, and individuals with higher household wealth and increasing age**,** demonstrating that sociodemographic characteristics significantly influence obesity in India.[4]

The mean score of social determinants was 33.15 with a median of 31, mode of 29, and standard deviation of 7.41. The mean score of economic determinants was 31.69 with a median of 29, mode of 24, and standard deviation of 9.82. The mean score of cultural determinants was 16.67 with a median of 16.67, mode of 19, and standard deviation of 4.17. The mean score of social determinants was higher than economic and cultural determinants, indicating that social factors had a greater influence on obesity among adults. Economic determinants also showed a considerable influence, whereas cultural determinants had the lowest influence on obesity. These findings are consistent with Krishnamoorthy et al. (2022) highlighted that socioeconomic and lifestyle-related factors are major contributors to obesity among Indian adults.[5]

The present study revealed that the majority of participants had a moderate level of social determinants (52.0%) and cultural determinants (58.2%). Nearly half of the participants (45.9%) had poor economic determinants. These findings suggest that social and cultural factors moderately influenced obesity, while economic challenges were common among the participants and may have contributed to obesity. Williams et al. (2024), who reported that social, environmental, and economic factors significantly influence obesity.[6]

The present study found no significant correlation among social, cultural, and economic determinants of obesity. Although weak positive and negative correlations were observed, they were not statistically significant. This suggests that these determinants may independently influence obesity.

study revealed a significant association between cultural determinants and marital status. This suggests that dietary practices, lifestyle habits, and cultural beliefs may vary according to marital status. Similar findings were reported by Singh et al. (2025), who found marital status to be an important factor associated with obesity and related behavioural practices among adults.[7]

The present study found no significant association between economic determinants and selected sociodemographic variables. This suggests that economic influences on obesity were relatively similar across different demographic groups. Similar finding was reported by Dinsa GD et al. (2012), In some settings, economic status is not significantly associated with obesity-related outcomes after adjustment for other factors.[8]

LIMITATIONS:

- This study is limited to adults within a selected community of Bardoli. Therefore, the findings may not be generalizable to other adults.
- The study included a specific sample size of 294 adults who were selected using purposive sampling

technique, hence sampling bias may exist.

- Only selected social, cultural, and economic determinants of obesity were assessed.

RECOMMENDATIONS:

- Similar studies can be conducted on a larger sample size for better generalization of findings.
- Comparative studies can be carried out between rural and urban populations.
- Studies can be conducted to assess the impact of social, cultural, and economic determinants on obesity-related health outcomes.
- Qualitative studies can be carried out to explore adults' perceptions regarding obesity and its determinants.

NURSING IMPLICATIONS:

- Nurses should identify adults at risk of obesity through regular screening, health assessment, and counselling.
- Nurses can promote healthy dietary habits, physical activity, and lifestyle modifications through health education and awareness programs.

CONCLUSION:

The study concluded that the majority of adults had moderate levels of social and cultural determinants of obesity, while nearly half had poor economic determinants. Social determinants showed the highest influence on obesity, followed by economic and cultural determinants. The findings highlight the need to educate adults about healthy dietary habits, regular physical activity, and lifestyle modifications to prevent and manage obesity.

CONFLICT OF INTEREST:

There was no conflict of interest reported.

SOURCE OF FUNDING: Self-funded

ETHICAL CLEARANCE:

The permission was obtained from Community Health Centre. The researcher had taken consent from Adults for meeting the inclusion criteria. The researcher obtained ethical clearance from the ethics committee of Maniba Bhula Nursing College.

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