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Beyond the Scale: Exploring Patient Awareness of Obesity and Overweight Factors

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Abstract

Background: The global rise in the overweight and obesity is a major public health issue. Obesity has been doubled since 1990s. Overweight can be defined as having BMI ≥ 25 kg/m^2 and obesity as a BMI ≥30kg/m$^{2.}$

In Kerala, NFHS data showing increasing obesity rate higher than the national average. According to the WHO, in 2022 43% of the global adult population were overweight whereas 16% were obese. The study explore the prevalence and need for the awareness and intervention to step down from obesity.

Objective: To assess patient knowledge regarding overweight and obesity among adults.

Materials and methods: A cross-sectional study was conducted to assess the prevalence of overweight and obesity and data were collected from various sites and colleges of Pathanamthitta district. The sample size of the study was 729 and the duration of study was approximately about 6 months (November 2023- April 2024

The participants were asked to fill out the questionnaire with their knowledge, then conducted an awareness class after 1-month similar questionnaire is provided to evaluate the progress of the research participants. Questionnaires were filled with face-to-face interview with the willing research participant.

Results: assess patient knowledge regarding overweight and obesity among adults .

Conclusion: The result of the study points out the lack of physical activity and improper dietary pattern has act as major factor to being overweight and obese. The sedentary lifestyle practices should be avoided It is important to have future developmental and managerial strategies to prevent from overweight and obesity.

Keywords: Obesity, Overweight, Prevalence, Adults, Body mass Index.

INTRODUCTION

Obesity is the excessive accumulation of body fat that negatively impacts health, contributing to a global health crisis. It affects both physical and mental well-being, increasing the risk of chronic conditions like

cardiovascular disease, diabetes, hypertension, and mental health issues such as depression and anxiety. Abdominal obesity, characterized by excess fat around the waist, is particularly concerning due to its association with higher risks of metabolic disorders. Since 1997, the World Health Organization (WHO) has recognized abdominal obesity as a critical health marker, recommending waist circumference measurements to identify individuals at increased risk. This focus on fat distribution, especially around the abdomen, helps in diagnosing and managing obesity-related diseases.

Patient knowledge plays a crucial role in the prevention and management of obesity and overweight. Individuals who are well-informed about the causes, consequences, and preventive measures of obesity are more likely to make healthier lifestyle choices, such as adopting balanced diets, engaging in regular physical activity, and maintaining a healthy weight. Knowledge about the risks associated with obesity, such as diabetes, heart disease, and mental health issues, can motivate individuals to take proactive steps to manage their weight. Conversely, lack of awareness or misconceptions about obesity may lead to poor dietary habits, sedentary behaviour, and inadequate health practices, exacerbating weight gain. Therefore, increasing patient knowledge through education and awareness programs is essential to promote healthier behaviours and reduce the prevalence of obesity and overweight.

This study seeks to evaluate the effect of patient knowledge on obesity and overweight among adults in Thiruvalla, considering both BMI and lifestyle habits as important factors. By identifying these knowledge gaps, the study aims to provide valuable insights that could inform strategies to enhance patients' lifestyles and increase awareness of diseases linked to obesity.

OBJECTIVE

This study aims to assess the impact of patient knowledge on obesity and overweight among adults in Thiruvalla Taluk, Pathanamthitta District, Kerala. It seeks to understand how awareness of obesity's causes, risks, and prevention influences lifestyle choices and weight management, highlighting knowledge gaps to improve public health strategies in the region.

Materials and methodology

Methodology

This cross-sectional study aimed to evaluate the impact of lifestyle factors on obesity and overweight among adults in Pathanamthitta district, India. Conducted between November 2023 and April 2024 with 729 participants, the study received approval from the Institutional Review Board of Nazareth College of Pharmacy. Adults aged 18-60 were included, while pregnant and lactating women, as well as those unwilling to participate, were excluded. Data were gathered through a structured questionnaire from schools and colleges in the district. The study began with an awareness program addressing obesity risks and lifestyle changes. Participants completed a pre-assessment questionnaire, followed by a similar one after one month to assess changes in knowledge and behaviour. The data were analysed statistically to determine obesity prevalence and examine the long-term health risks associated with physical activity and diet. The findings provide valuable insights into the role of lifestyle choices in obesity and underscore the need for targeted health interventions.

RESULTS

FASTING/ SKIPING MEALS IS A GOOD WAY TO LOSE WEIGHT

Table No.16 : Distribution of Patient Interpretation on Fasting/Skipping meals as a way to lose weight

Sl.no		Response	Frequency	Percentage
1	Overweight	Definitely	53	22.64%
		Probably	59	25.22%
		Probably not	34	14.54%
		Not so much	36	15.38%
		Definitely not	52	22.22%
2	Obesity	Definitely	31	34.44%
		Probably	27	30.02%
		Probably not	7	7.77%
		Not so much	13	14.44%
		Definitely not	12	13..33%

According to the graph, 34.44% of obese and 23% of overweight participants believed fasting between meals is definitely effective for weight loss; 30% and 25%, respectively, said probably; 7.77% and 15% said probably not; 14.44% and 15% said not so much; and 13.33% and 22% said definitely not.

CONSTANT STRESS IS RISK FACTOR FOR OBESITY

Table no. 17: Tabular Distribution of Patient Perception on Constant Stress as a risk factor for Obesity

Sl.no		Response	Frequency	Percentage
1	Overweight	Definitely	68	29.05%
		Probably	80	34.18%
		Probably not	36	15.38%
		Not so much	23	9.84%
		Definitely not	27	11.55%
2	Obesity	Definitely	30	33.33%
		Probably	30	33.33%
		Probably not	15	16.68%
		Not so much	5	5.55%

		Definitely not	10	11.11%

As shown in the graph, 33.33% of obese and 29.05% of overweight participants reported that constant stress definitely contributed to weight gain; 33.33% and 34.18% said probably; 16.68% and 15.38% said probably not; 5.55% and 9.84% said not so much; and 11.11% and 11.55% said definitely not.

I CONSIDER REGULAR BREAKFAST INTAKE TO BE A PART OF HEALTHY LIFESTYLE

Table No.18: Distribution of Patient Interpretation on Breakfast as a part of Healthy Lifestyle

Sl.no		Response	Frequency	Percentage
1	Overweight	Definitely	96	41.04%
		Probably	62	26.49%
		Probably not	36	15.38%
		Not so much	18	7.69%
		Definitely not	22	9.4%
2	Obesity	Definitely	28	31.11%
		Probably	22	24.46%
		Probably not	15	16.66%
		Not so much	5	5.55%
		Definitely not	20	22.22%

According to the graph, 31.11% of obese and 41.04% of overweight participants viewed regular breakfast intake as definitely part of a healthy lifestyle to reduce obesity; 24.46% and 26.49% said probably; 16.66% and 15.38% said probably not; 5.55% and 7.69% said not so much; and 22.22% and 9.40% said definitely not.

DO YOU THINK SUPPORT FROM FAMILY MAY HELP IN REDUCTION OF OBESITY

Table no.25: Distribution of Family Support in Weight Reduction

Sl.no		Response	Frequency	Percentage
1	Over weight	Yes	135	57.69%
		No	99	42.31%
2	Obesity	Yes	48	53.34%

		No	42	46.66%

In our study , it was found that in the obese population 53.34% believed that support from family help in weight reduction while 46.66% did not whereas in overweight population 57.69% believed that support from family help in weight reduction while 42.31% did not .

DO YOU THINK DISORTION IN SLEEP CAUSES OBESITY ?

Table no 36: Distribution on correlation between sleep and obesity

Sl.no		Response	Before Counselling	After counselling
1	Over weight	Yes	149	152
		No	85	79
2	Obesity	Yes	45	60
		No	45	25

The study compares the distortion in sleep can cause obesity before and after counselling sessions, as depicted in the above graph. Before counselling sessions of obese population
,50% believed that sleep distortion can cause obesity while after the counselling session the percentage increased to 66.66%.

DO YOU THINK ANY SOCIAL HABITS CAN LEAD TO OBESITY ?

Table no.37: Distribution on patient perception on social habits as a causation to obesity

Sl.no		Response	Before Counselling	After Counselling
1	Over weight	Yes	149	156
		No	85	75
2	Obesity	Yes	44	43
		No	46	42

According to the aforementioned graph , before counselling sessions of the obese population, 48.88% believed that social habits can lead to obesity while after the counselling session the percentage increased to 54.44%.

DO YOU THINK MEDICATION CAUSES OBESITY ?

Table no.38:Distribution on patient perception on medication as a causative agent for being obese

Sl.no		Response	Before Counselling	After Counselling
1	Over weight	Yes	146	170
		No	88	61
2	Obesity	Yes	40	60
		No	50	25

The study compares the opinion on whether medications can cause obesity before and after counselling sessions, as depicted in the above graph. Before counselling sessions of the obese population ,44.44% believed that medications can cause obesity while ,after the counselling session the percentage increased to 67.77%.

DO YOU THINK DIET ALONE HELPS CONTROL OBESITY ?

Table no.39;Distrubution of patient perception on Dietary patterns which aid in weight reduction

Sl.no		Response	Before Counselling	After Counselling
1	Over weight	Yes	120	171
		No	114	60
2	Obesity	Yes	35	65
		No	55	20

According to the aforementioned graph , before counselling sessions of the obese population, 61.12% believed that diet alone could help in controlling obesity while after the counselling session, the percentage decreased to 27.78%.

CONCLUSION

This study reveals key insights into the patient perceptions regarding both overweight and obese and their knowledge regarding the various factors which contribute to Obesity and Overweight:

Fasting/Skipping Meals for Weight Loss: A significant portion of both overweight and obese individuals believed that fasting or skipping meals could aid in weight loss, with 64.46% of the obese population and 47.86% of the overweight population agreeing. However, there was still a considerable number who disagreed with this approach.

Stress as a Risk Factor: Stress was widely acknowledged as a contributing factor to obesity. A majority of both groups (63.23% of the overweight group and 66.66% of the obese group) identified stress as a significant risk factor, underscoring its impact on weight gain.

Breakfast Intake as Part of a Healthy Lifestyle: Regular breakfast intake was viewed favourably by a substantial portion of the overweight and obese populations. However, while 67.53% of the overweight population and 55.57% of the obese population considered it essential, a notable minority did not perceive it as crucial for a healthy lifestyle.

Family Support in Weight Reduction: Family support was seen as beneficial in the weight reduction process, with 57.69% of the overweight population and 53.34% of the obese population agreeing that family support helps in weight management.

Sleep Disturbance and Obesity: The perception of a link between sleep disturbances and obesity increased significantly after counselling. Before counselling, only 50% of the obese population believed sleep issues contributed to obesity, but this figure rose to 66.66% after counselling, highlighting the growing awareness of this connection.

Social Habits and Obesity: The belief that social habits contribute to obesity also grew post-counselling. Initially, 48.88% of the obese population acknowledged this connection, and after counselling, 54.44% held the same view, suggesting an increase in awareness of social influences on weight.

Medication and Obesity: There was a significant increase in the belief that medications can contribute to obesity after counselling. Before counselling, 44.44% of the obese population thought medication played a role, but this figure increased to 67.77% after counselling, indicating a shift in their perception.

Diet as a Primary Factor in Obesity Control: The perception that diet alone could control obesity decreased notably after counselling. Prior to counselling, 61.12% of the obese group believed diet alone was sufficient for weight control, but this belief dropped to 27.78% post-counselling, reflecting a more nuanced understanding of obesity management.

In conclusion, this study highlights that counselling significantly influenced the perceptions of both overweight and obese populations, increasing their awareness of factors like stress, sleep disturbances, social habits, medication, and the role of family support in weight management. Additionally, it shifted attitudes regarding fasting, diet, and the complexity of obesity control, emphasizing a more holistic understanding of weight loss and health.

DISCUSSION

This study highlights the perceptions of overweight and obese individuals regarding factors contributing to obesity Obesity is a complex condition influenced by various lifestyle, genetic, and psychological factors. Our recent study sought to explore the perceptions held by overweight and obese individuals regarding the causes of their condition, both before and after a targeted counselling session. The findings offer valuable insight into how individuals understand the roots of obesity and how these perceptions shift with increased awareness.

A notable observation from the study was the differing opinions between overweight and obese individuals concerning the primary cause of their weight gain. Among the overweight population, the majority (43.5% before counselling and 42.32% after) believed that physical inactivity was the major contributing factor. This view remained relatively unchanged even after the counselling session. In contrast, the obese group predominantly considered dietary habits as the leading cause of obesity, with 61.22% citing it prior to counselling and 66.66% afterwards. These findings align with a study by **Teshale Darebo et al.,** which found that 21.6% of participants acknowledged low physical activity as a significant contributor to obesity. Additionally, their study highlighted the impact of frequent consumption of sweets, meat, and eggs on weight gain, reinforcing the role of dietary patterns.

Stress also emerged as a perceived factor, particularly among the obese participants. Before counselling, 11.11% of them considered stress a contributing factor, which increased slightly to 13.35% post-counselling. This modest rise in awareness echoes the findings of Carmen R. Isasi et al., whose research revealed that chronic stressors could increase the likelihood of obesity by 50%. This suggests that while stress is not the most commonly acknowledged factor, its role is increasingly recognized with proper education and counselling.

When examining the role of smoking, our study found a small but noteworthy change. Before the counselling session, 3.33% of obese participants were smokers, which dropped to 2.22% afterward. This decline may indicate a growing understanding of the adverse relationship between smoking and obesity. Supporting this, a study by **Shadrach Rache et al.** found that heavy smokers are 60% more likely to be obese, emphasizing the health risks posed by tobacco use.

Genetics also featured prominently in participant perceptions. Our study found that 56% of individuals with a family history of obesity believed they were at a higher risk of becoming obese themselves. This finding is consistent with the study conducted **by P.K.E. Magnusson and F. Rasmussen**, which concluded that 36% of first-degree relatives of obese individuals are more prone to developing obesity. These results highlight the significance of hereditary factors in shaping obesity risk.

Interestingly, psychological factors were largely dismissed by the majority of our study participants. Among the overweight group, 61.97% saw no correlation between psychological issues and weight gain, while 66.67% of obese participants held the same view. This perception aligns with a recent study conducted in Seoul, Korea, by **Byung Sung Kim**, which concluded that there is no significant relationship between psychological behaviour and obesity. These consistent findings across different populations suggest that, although mental health is often discussed in relation to obesity, it may not be perceived as a direct contributor by those affected.

Lastly, our study revealed a significant shift in how participants conceptualize obesity itself. Before the counselling session, only 28.89% of participants regarded obesity as a disease. After receiving counselling, this number rose substantially to 78.88%. This change underscores the effectiveness of educational interventions in reshaping public understanding of obesity from a purely lifestyle-related issue to a medically recognized health condition.

In conclusion, our study highlights the evolving perceptions of obesity's contributing factors among overweight and obese individuals. While physical inactivity and diet remain dominant beliefs, awareness of stress, smoking, and genetic predispositions is growing. Importantly, counselling sessions play a pivotal role in informing individuals about the multifaceted nature of obesity, promoting more accurate and health-oriented understandings of this complex condition.

Compliance with ethical standards Acknowledgments

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Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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