Awareness about Complications of Bariatric Surgery among General Population in Aseer Region

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ABSTRACT

Study Design: Cross sectional.

Background: Obesity is still a serious health concern around the world, and the number of people affected is increasing. It is defined as a BMI of 30 kg/m2 or more, and it can affect people of all ages, especially women of reproductive age. Unfortunately, in patients with morbid obesity, dieting and behavioural changes are ineffective. Until now, the only effective long-term treatment for morbid obesity has been surgical intervention, also known as "Bariatric surgeries.

Methods: In this cross-sectional study, data were collected by the purposely constructed questionnaire. A questionnaire composed of the demographic items and items related to the awareness and knowledge about the Bariatric surgery awareness and complications. Cronbach alpha of the questionnaire was calculated. The study was conducted in the Aseer region of Saudi Arabia. After collection of data, data were coded and entered in the SPSS ver.20 software for analyses.

Results: Out of 930 total respondents, 67.7% were males while 32.3% were females, the mean (SD) of age was 39.6(8.6). Cronbach alpha was 0.84. 45% were not adopting this surgery because of the cost, while 35% were not adopting this because of the complications, 14% and 6% have alternatives and other options.

Conclusion: More workshops, seminars are required to promote more awareness and educate the people regarding the benefits and procedural information about bariatric surgery

Keywords: Bariatric surgery, Awareness, Complications, Obesity

INTRODUCTION

Obesity is still a serious health concern around the world, and the number of people affected is increasing. It is defined as a BMI of 30 kg/m2 or more, and it can affect people of all ages, especially women of reproductive age. According to a national multistage survey done in Saudi Arabia, women have a greater obesity rate than men, accounting for 33.5 % and 24.1 %, respectively, while the overall obesity rate was 24.1 % (28.7 %)[1-4]. Unfortunately, in patients with morbid obesity, dieting and behavioural changes are ineffective. Until now, the only effective long-term treatment for morbid obesity has been surgical intervention, also known as "Bariatric surgeries"[5]. In 2011, around (340,768) bariatric surgeries were conducted worldwide, with (7000) being performed in Saudi Arabia[5,6]. Obese women in their reproductive years appeared to make up the majority of patients seeking bariatric surgery, accounting for nearly half of all cases (80 %)[1]. Obesity is thought to be the major cause of comorbidities such hypertension, type 2 diabetes, hyperlipidemia, osteoarthritis, and obstructive sleep apnea[4]. It is widely established that maternal obesity is linked to a higher risk of negative pregnancy outcomes for both the mother and the foetus. Preterm birth, stillbirth, and surgical deliveries are examples of gestational diabetes, hypertension, miscarriage, macrosomia, congenital abnormalities, and congenital malformations[6,7].

Obesity and overweight also contribute to polycystic ovarian syndrome (PCOS) and menstruation irregularities[8]. Patients with PCOS have had their monthly cycles restored and their hirsutism resolved after bariatric surgery, according to studies[9,10]. Furthermore, women who have undergone bariatric surgeries have a lower risk of macrosomia, large for gestational age, gestational diabetes, and hypertension, according to various studies[6,11,12]. However, there was an increase in the chance of small for gestation[6,13]. Although studies have indicated that bariatric surgery improves fertility and sexual desire, some contraception techniques may be harmed as a result of these procedures[15-17]. There are a variety of bariatric operations that have been linked to nutritional deficits[18]. Restrictive operations, such as the LAGB (laparoscopic adjustable gastric band), have been linked to an increased risk of

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folate and thiamin insufficiency., primary care physicians play an important role in post-operative care, ensuring that patients' conditions are optimized and that the surgery's benefits are maximised[19]. As far as we know, there are no studies in the literature about the obstetrical and gynecological consequences of bariatric surgery. The goal of this study was to determine the Awareness about complications of bariatric surgery among general population in Aseer region

METHODS

In this cross-sectional study, data were collected by the purposely constructed questionnaire. A questionnaire composed of the demographic items and items related to the awareness and knowledge about the Bariatric surgery awareness and complications. A questionnaire was constructed after the series of discussions between the panel of experts this panel was composed of a subject specialist, researcher, language expert. Cronbach alpha of the questionnaire was calculated. The study was conducted in the Aseer region of Saudi Arabia.

After collection of data, data were coded and entered in the SPSS ver.20 software for analyses descriptive statistics (mean standard deviation, frequencies, and %s were computed), to measure the significance differences chi-square test was used at 5% level of significance. Data was collected from the general public of the region Ethical approval was obtained from King Khalid University, Saudi Arabia. The study duration was from January-2022 to April-2022

RESULTS

Out of 930 total respondents, 67.7% were males while 32.3% were females, the mean (SD) of age was 39.6(8.6). Cronbach alpha was 0.84.

Table 1: Demographics

	Variables	Frequency	%
Age (Mean , SD)		39.6(8.6)	
Gender	Male	630	67.7%
	Female	300	32.3%
BMI	Under weight	350	37.6%
	Normal	450	48.4%
	Over weight	95	10.2%
	Obese	35	3.8%
Education	School level	450	48.4%
	Bachelor's	348	37.4%
	Masters	100	10.8%
	PhD	32	3.4%
Living in	City	600	64.5%
	Village	330	35.5%

As per table 1, 48.4% have normal weight, while 3.8% were obese, 48.4% have school level education, 3.4% were phD, 64.5% were living in cities while 35.5% were living in villages.

Table 2: Items related to Information and practices regarding Bariatric surgery

	Yes		No	
	Frequency	%	Frequency	%
Do you know about bariatric surgery	250	27%	680	73%
Did you experienced any bariatric surgery	150	16%	780	84%
If you have obesity, do you want do bariatric surgery	365	39%	565	61%
did your relative do bariatric surgery	236	25%	694	75%
If you know someone with obesity, would you advise him to do bariatric surgery	450	48%	480	52%
Do you think about bariatric surgeries are more effective than natural methods for losing weight	269	29%	661	71%
Do you know about sleeve gastrectomy	369	40%	561	60%
Do you know about gastric bypass surgery	159	17%	771	83%
Do you know about intragastric balloon	196	21%	734	79%
Do you know about complications that occur after bariatric surgery	123	13%	807	87%

As per table 2, 27% of the respondents aware about bariatric surgery, 16% have experiences of bariatric surgery, 39% agreed if they will lie in obese category they will go for bariatric surgery, 25% have relatives who had experienced of this surgery, 48% will give advice for bariatric surgery to suitable patients, 29% agreed the bariatric surgery is more effective than others treatment methods, 40% were aware about sleeve gastrectomy, 13% were about the post-surgical complications, 39% agreed that.

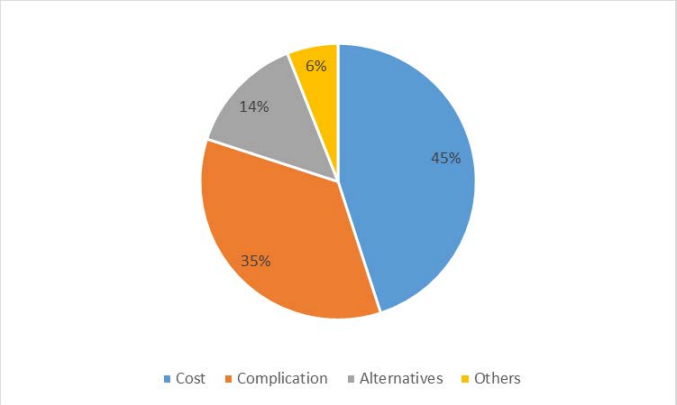

Figure 1: Reasons for not adopting Bariatric surgery

As per figure 1, 45% were not adopting this surgery because of the cost, while 35% were not adopting this because of the complications, 14% and 6% have alternatives and other options.

Table 3: Comparisons between awareness and gender

	Awareness regarding bariatric surgery		
	Yes	No	Total
Male	200	430	630
Female	50	250	300
Total	250	680	930
p=0.00001			

DISCUSSION

Bariatric operations have a huge impact on women's health[21]. The research hypothesis is that women in Saudi Arabia's eastern area have an excellent understanding of the health consequences of weight loss

surgery. According to the literature, health care providers' awareness of obesity and bariatric surgery is still lacking[22]. The general public is not expected to know more than health-care professionals. Adequate people were aware about the bariatric surgery. This is consistent with previous research, which indicated that Greek doctors lacked expertise of bariatric surgery[22]. In our study, students from various specialization's had greater knowledge. Furthermore, a study conducted on final-year medical students in Saudi Arabia, indicated that they have a low level of understanding on obesity and bariatric surgery[23].

However, in a 2019 study, patients' perceptions of their primary care doctors' attitudes, support, and understanding about bariatric surgery were assessed. The majority of patients thought their doctors were helpful and informed, according to the findings. In our study we have found significant differences between gender and awareness, which is in line with many studies[24].

A study in Turkey to determine the amount of knowledge about obesity, BMI, and bariatric surgery. According to the findings, a minimum of 13.4 % of respondents recognized what BMI was and were aware of their own BMI. Surprisingly, 15.1 % of the people in the study had never heard of bariatric surgery. Those who had heard about bariatric procedures, on the other hand, were unaware of the many types, techniques, and complications. The predominant source of information for the investigated population was television, according to the same study[25]. However, the internet and social media were the primary sources of information in our community. Despite the fact that there was no significant correlation between BMI and knowledge level in this study, those with a normal BMI had superior knowledge than those with a high BMI.

Despite the fact that the study was a cross-sectional study with respondents chosen at random, the inferences drawn from it lack internal validity due to the absence of randomness and treatment effects. As a result, the research may be classified as descriptive. Obesity is an issue that affects people of all ages, but only adults were included in the current study due to consent and research ethics. According to the general description of the sample, the majority of the respondents have a normal BMI, with roughly 40% of the respondents being overweight or obese.

Only 36.3 % of participants agreed that having a BMI of greater than 35 and a chronic condition is also a sign that bariatric surgery is necessary. A person with a BMI of more than 40 without chronic diseases or a BMI of more than 35 with a chronic condition would be eligible for this intervention anywhere in the world[21].

The benefits and complications of these procedures are not confined to women; the broader public is also affected. A primary care physician, working as part of a multidisciplinary team including surgeons, nutritionists, and other physicians involved in patient care, can provide early assessment and long-term monitoring of various post-operative changes and consequences[25].

CONCLUSION

It is strongly advised that awareness efforts addressing the general public, particularly ladies, be implemented. It is also suggested that the quality of physician education for bariatric clinic visits be improved. More workshops, seminars are required to promote more awareness and educate the people regarding the benefits and procedural information about bariatric surgery.

Authorship Contribution: All authors share equal effort contribution towards (1) substantial contributions to conception and design, acquisition, analysis and interpretation of data; (2) drafting the article and revising it critically for important intellectual content; and (3) final approval of the manuscript version to be published. Yes.

Potential Conflict of Interest: None

Competing Interest: None

Acceptance Date: 22 August 2022

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