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Public Awareness of Weight loss Surgeries in Al-Ahsa, Saudi Arabia

Medicine

KEYWORDS:

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Introduction

Obesity is one of the most prevalent diseases[1,2] that people have been having difficulty dealing with. Obese individuals start by changing their lifestyle including strict diet and physical exercise.

Sadly, Diet and exercise usually fail to treat obesity for a large percentage of the population, especially in long term[3]

One other method that Obesity usually responds to well to is Bariatric surgery[4].

In 1991, the National Institutes of Health made guidelines for indications of bariatric surgeries depending on their Body Mass Index: BMI of 40, or BMI of 35 in the presence of significant comorbidities.[5]

Literature on bariatric surgeries regarding their outcomes, and adverse effects associated with them has been discussed in many research articles.[6] But we have had difficulties finding papers related to public awareness about bariatric surgeries.

We have conducted a study to measure public awareness about bariatric surgeries regarding their indications, weight loss outcome, and complications.

Objective:

To find out the level of public awareness about bariatric surgeries in general, and to measure the need for education about the various weight loss procedures available for morbidly obese individuals.

Terminology:

BMI: Body Mass Index.

Which is a main indicator for obesity, calculated as follows:
BMI = Weigh (in Kilograms) / Height (in Meters) 2

Bariatric Surgeries.

There is wide variety of bariatric surgeries, but they are categorized into the following:
1- gastric banding
2- gastric bypass
3- gastroplasty (principally vertical banded gastroplasty),
4- biliopancreatic diversion or duodenal switch,
5- mixed and other (biliary intestinal bypass, ileogastrostomy, and jejunoileal bypass,). [7]

Weight Loss. Identified as the average percentage of excess weight loss, which is the standard in the bariatric surgery nomenclature.

It is calculated as follows:

Average % of excess wt. loss = (weight loss/excess weight) x 100

excess weight is reported as the difference between preoperative weight and ideal weight (according to height).

Methodology:

Study design

A cross-sectional study was conducted in Al-Ahsa, Saudi Arabia in the period from 20 December 2016 to 20 January 2017.

Target population:

Adult from the age of 15 to 65 years in different area in Al-Ahsa, Saudi Arabia were targeted in order to assess their knowledge, attitude and practice toward the bariatric surgery.

Data collection:

A standardized questionnaire was used to collect information upon knowledge, attitude and practice toward the bariatric surgery.

The questionnaire consisted of:
(i) socio-demographic data,
(ii) knowledge about bariatric surgery,
(iii) indications of bariatric surgery,
(iv) benefits of bariatric surgery.

The questionnaire was pre-tested and translated into Arabic language and then back-translated to English to validate the translation. verbal informed consent was obtained. Sample size was determined by using the Raosoft sample size calculator using a margin of error of 5%, a confidence interval of 95%, a population size of 1,063,112 people, and an expected response of 50% [8].

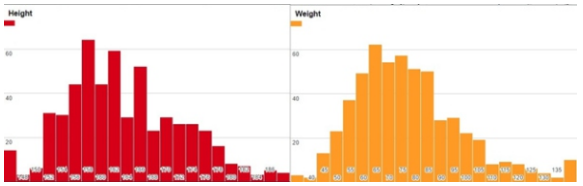
The minimum sample size estimated for the study was 385. Assuming a response rate of 50%, a larger sample size of (549) were enrolled in the study.

Data analysis:

Data entry and analysis was performed using Microsoft Office Excel 2007.

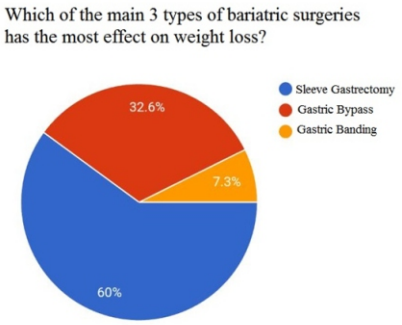
Results:

A total of 549 Individuals have participate in the study. In the data analysis, all participants were included. There were 387 (70.5%) Females, and 162 (29.5%) Males. The study was done on age groups 15-65years old, showing most participants of the age group from 21-30 years old (40.8%), with a mean age of 31 years old. Most participants had an education degree of bachelor or higher (74.1%), and 9.5% of respondents working in the medical field.



Data analysis shows average BMI of male participants of 30.6 kg/m2, and average BMI of female participants of 28.8kg/m2.

Regarding the indicated BMI suitable for bariatric surgeries, 58.8% of participants suggested 40+ as an indication. 21.7% suggested a BMI of 35+, and 19.5% suggested a BMI of at least 30+. When comparing between the 3 most common types of weight loss surgeries, 60% of respondents believe that Sleeve Gastrectomy procedure is most effective on weight loss, 32.6% believe that Gastric bypass surgery is most effective, while only 7.3% think that Gastric band procedure has the most effect on weight loss.



Participants were asked if bariatric surgeries could treat or improve the condition of other chronic illnesses, like Diabetes mellitus. 43.7% answered yes. 22.2% answered no, and 34.1% answered by 'I don't know'.

On the subject of duration of maximum weight loss post bariatric surgeries, 41.5% believe that to be 1 year only, 29.5% believe the duration to be 2years, 20.9% believe it to be 5years post surgery, and only 8% believe the duration to be 10 years after bariatric surgeries.
Participants were asked if patients could revert back to their previous weight after years of undergoing the bariatric surgery. 63.4% answered yes. 11.7% answered no, and 25% answered by 'I don't know'.

72.7% of participants agreed that patients need to adhere to strict diet as well as exercise regulary after the surgery to achieve optimal weight. 21.3% believe that patients should only stick to regular exercise post surgery, and they can eat any type of food. Only 6% of participants believe that patients do not need to exercise nor adhere to certain diet, and that the surgery itself is enough to achieve optimal weight.

We also asked participants if they think that patients need to be on life-long medications or supplements. 30.1% answered yes, regardless of procedure type. 63.2% answered yes, depending on procedure type. 6.7% answered no, regardless of procedure type.

79.1% of participants know a relative or a friend who has undergone a bariatric surgery.

Regarding morbidly obese individuals reasons not to undergo bariatric surgery, 57.5% of respondents believe that side effects of the procedure is the main reason. 32.4% believe that financial state is the reason not to undergo bariatric surgery. While 5.6% believe that refusal is due to social reasons. 4.4% believe there are other reasons for refusal, like fear from surgery.

We asked participants if they would recommend bariatric surgery to morbidly obese individuals. 63.5% would recommend it . 36.5% would never recommend it.

Finally, we asked participants to evaluate their general knowledge of bariatric surgeries. 20.4% believe that they know a lot about them. 63.9% believe that their knowledge level is average. And 15.7% know very little about bariatric surgeries.

76% of participants would like to know more about bariatric surgeries.

Discussion

This study is aimed to give an idea about public awareness of bariatric surgeries in Al-Ahsa, Saudi Arabia.

This study showed public need for more education about benefits and risks of bariatric surgeries, aswell as its indications. A large percentage of participants wanted to know more about bariatric surgeries, so, we encourage organizing public campaigns to educate the local population.

A large percentage of study participants know a friend or a relative who have undergone bariatric surgeries, which may lead to the question of how prevalent bariatric surgeries in Al-Ahsa, Saudi Arabia are.

We noticed that Individuals who work in the medical field are more knowledgeable about bariatric surgeries. Also, participants who have lower BMI are more knowledgeable about bariatric surgeries (average BMI of 29 for high level of knowledge compared to 32 for those who have a mediocre level of knowledge about bariatric surgeries).

Conclusion

In this study we concluded that the general population of Al Ahsa, Saudi Arabia, have limited knowledge overall of bariatric surgeries, and we recommend education programs for the public.

Limitation:

The study used an electronic questionnaire form, which could limit study targets to individuals with electronic access only.
Further studies on larger population is recommended for more accurate results.

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