



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

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Course

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Advanced project Management

Instructions:

- اخر موعد للتسليم هو يوم الخميس 2021-05-8-20 في تمام الساعة 9 مساءً.
- الإجابة متاحة باللغة الإنجليزية أو اللغة العربية مع مراعاة أن تكون المصطلحات العلمية باللغة الانجليزية.
- يتم تسليم المشروع في صيغة ملف pdf مع الالتزام نموذج الجامعة ولن تقبل أي مستندات أخرى.
- يجب مراعاة أقسام البحث الرئيسية (مقدمة Introduction، دراسات علمية سابقة Literature Review، طريقة البحث Methodology، النتائج والمناقشة Results and Discussion، وأخيراً المراجع References. وان كان هناك ملحقات Appendices يتم إضافتها)
- يجب الالتزام بـ Theme موحد كما يلي:
- حجم الخط 12.
- نوع الخط Arial.
- لون الخط أسود.
- المسافة بين الأسطر 1.5 line spacing
- عدد صفحات البحث (لا يقل عن ثلاث صفحات ولا يزيد عن ست صفحات).

Instructor's Name: ~~Eng. Amaal Aburumman~~ Eng. Dr. Akram M. S. Ali

The Obesity Surgery Center (OSC) Project

Introduction:

Obesity is one of the leading causes of preventable deaths in Saudi Arabia aside from being link to risk factors for illnesses such as diabetes, hypertension and cardiovascular diseases. However, only few healthcare institutions in the region are available to address the needs of obese patients. Also, the level of awareness for this health condition is not high and educational materials are limited. The lifestyle of its people also contributes to the high obesity rate.

Purpose/ Rationale/Significance of the Study:

The Obesity Surgery Center (OSC) Project is driven from the customer needs since the number of obese patients continuously increased based from clinic visits and patients diagnosed with diabetes and other cardiovascular diseases. Given the increasing demand for this healthcare intervention, we are proposing the Obesity Surgery Center as a solution to the above mentioned problems.

Project Objective:

To have a fully operational OSC with modern facilities to serve all obesity customer healthcare needs and to comply with international standards and evidenced-based practices to reach the desired patients' weight.

Project Scope:

The scope of the project includes all patients who come to the center for treatment and health services. This includes all processes from appointment, admission to discharge.

Project Goals:

Goal (1):

To ensure 100% availability and access to high quality care and services and diet programs offered by the OSC.

Goal (2):

To reduce the percentage of obese patients by the end of the first 6 months from operation of the OSC project

Goal (3):

To improve the health condition of 100 obese patients as samples in order for the Body Mass Index (BMI) to reach the fitting level

Goal (4):

To improve the lifestyle of obese patients by providing weight loss programs and related activities

Literature Review and Conceptual Framework

Studies reveal that seven out of 10 Saudis are suffering from obesity and 37 percent of Saudi women are facing problems related to overweight. As per statistics, nearly 60 percent of the population aged over 16 in the kingdom is overweight (*3rd International Obesity Conference held in 2014*).

In the study conducted by Althumiri NA, Basyouni MH, et al. entitled “*Obesity in Saudi Arabia in 2020: Prevalence, Distribution, and Its Current Association with Various Health Conditions*”, it was stated that Obesity is currently associated with many health conditions that can affect the individuals' quality of life, impose stress on the healthcare system and impose an economic burden on the country. Overweight and obesity were more prevalent among illiterate, high-income subjects who were residing in urban communities according to al-Nuaim AR et al on their study: “*High prevalence of overweight and obesity in Saudi Arabia*”. These evidences highlight the need for action to focus more on obesity in Saudi Arabia.

Methodology

The project utilizes different approaches and techniques ranging from estimation, scheduling, tracking and prioritizing stakeholders. It also required the use brain-storming and multi-voting techniques. For data collection, checklist and survey form were applied to obtain information from patients. Tables and Action Plan were developed for more detailed presentation of the project.

Selection of Team Members:

The project team consists of the following members: Chief Operating Officer, Assistant Chief Medical Officer, Government Relations, Business Development, Switchboard Operators and Appointments, Emergency Services, Quality and Medical Staff.

Customer Identification and Prioritization:

To identify the customers of our project we have developed project processes and identified the internal and external customers using tools for estimation, scheduling, tracking and prioritizing stakeholders.

The identification of the internal customers/stakeholders:

Internal customers are comprised of center director, health record, dietician, nurses, physicians, pharmacists, laboratory, radiology, health educators, receptionists, and anesthesiologist. From this list, we selected a priority group using multi-voting technique consisting of physicians, health educators, receptionists, dieticians.

Identification of external stakeholders:

We have identified the external stakeholders using brain storming techniques with the help of the flow chart of the project processes. The list of identified external customers are the following: Ministry of Health, Patients, visitors and accreditation bodies e.g. JCI and CBAHI.

The Unit of Measure, Sensor and Goal:

Customer Needs	High Level Flow	Detailed Flow	Unit of Measure	Sensor	Goal
Positive lifestyle change	Best way of doing sleeve	Losing weight	Kilograms BMI	Weight scale	Average weight loss
Fast track	Smooth flow	Patients must be seen within 20 minutes	Minutes	Qmatic System	80% of overall waiting time does not exceed 30 minutes
Convenient OR	Well-equipped OR	Sterilized Area	Culture Test	Surgical Site Infection must be less than 1 percent	To cover all culture tests. SSI less than 10,000
Educational Center	Patient level of knowledge	Giving lectures	Number of patients	Attendance Sheets	To cover 100% of obesity patients

Control Subject	Target Goal	Who	When	Where	Calculation Formula	Included People	Excluded People	Report to Whom	Criteria for Action	Action by Whom	What should be done
Infection Control Rate	Overall SSI of less than 1 %	Lab Tech Infection Prevention and Control Department	Quarterly	OR room	# of surgery with infections/ # of clean of surgery x 100	Infection Control Coordinator	Staff	Quality Committee Surgery Center Chairman IPC	SSI more than 1 Percent	Infection Control Medical Staff	Sterilization of the OR room Monitoring of Surgical Site infection ate
Knowledge tests 90% awareness and knowledge	To cover educating 100% of obesity patients visiting the clinic	Educator	Per Visit	Education Center	#of patients who completed the tests/Total number of patients who visited the clinic	Obesity patients' family	Staff	Quality Committee Chairman Surgery Center	Results of the tests are 50% or less	Educator	Check information in the educational material Increase the number of sessions Monitor knowledge and comprehension
BMI percentage within 3 months	80% of the patients average weight loss of 20% in 6 months	Coordinator OR Nurse Educator Quality Coordinator Committee	Quarterly	EMR System	#of patients losing 20% weight/ total number of patients	Obesity people with BMI range of 35- 40%	Obesity people with BMI over 40%	Quality Committee Center Chairman	60% of samples did not lose 20% weight	Educator Dietician Nurse	Check for understanding educational materials Understanding the diet plan Re-adjust the diet plan
Waiting Time	90% of overall waiting time does not exceed 30 minutes	Clerk Coordinator	Monthly	Registry System Reception		Patients	Center Staff	Quality Committee Center Chairman	20% of patients exceeds 30 minutes waiting time	Coordinator	Revised Staffing Plan Monitor physicians for patient flow Review Tasking schedule

Result and Discussion

After the project was implemented there was a positive impact among the patients from the Obesity Center Project. Specifically, it obtained the following results:

- The infection control rate was less than 1 percent.
- Around 83 percent of the obesity center patients reported an average weight loss of 20 percent or more within six months after the operation.
- More than 90 percent of the patients reported average waiting time of 25 minutes or less.
- The level of knowledge and awareness is high after all of the patients were given education.
- Positive lifestyle changes from the patients.

References

Althumiri NA, Basyouni MH, AlMousa N, AlJuwaysim MF, Almubark RA, BinDhim NF, Alkhamaali Z, Alqahtani SA. Obesity in Saudi Arabia in 2020: Prevalence, Distribution, and Its Current Association with Various Health Conditions. *Healthcare (Basel)*. 2021 Mar 11;9(3):311. doi: 10.3390/healthcare9030311. PMID: 33799725; PMCID: PMC7999834.

al-Nuaim AR, al-Rubeaan K, al-Mazrou Y, al-Attas O, al-Daghari N, Khoja T. High prevalence of overweight and obesity in Saudi Arabia. *Int J Obes Relat Metab Disord*. 1996 Jun;20(6):547-52. PMID: 878

