



Barriers to Colorectal Cancer Screening Uptake Among Underserved Populations in Community-Based Family Medicine Clinics

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Original Article

Abstract

Although the concern on the high incidence rates of colorectal cancer and associated mortality exists, the uptake and screening rates remain dismally low. Improving the screening levels requires an understanding of the factors preventing populations from increasing the uptake of screening

The current population-based study aims to assess the obstacles to colorectal cancer screening process in underserved patients at community family medicine clinics. In depth interviews and surveys were employed as a part of the sequential mixed pathway that builds on itself. 300 patients aged from 50 to 75 years at three clinics were recruited to conduct surveys on knowledge, attitudes, and a self-reported set of perceptive barriers to CRC screening. Along with follow-up interviews where 30/300 participants were able to express their difficulties screening themes deeply rooted.

The data analyzed suggests that 65% of patients have not gotten up to date with Administration for CRC screening. Important fecilitators to the uptake of screening included: Information and knowledge barriers (over 75% felt like they lacked sufficient details) Economics constraints (60% of the population reported it deterring). Mistrust factors and cultural differences (55% reported discomfort towards healthcare professionals) Access and geographical limitations (over 90% expressed the difficulties in reaching facilities) The overwhelming scope of the system built alongside attachment fears including the resulting procedure and expected diagnosis was the reported qualitative data. In conclusion, Some barriers such as cultural beliefs, financial issues, lack of knowledge, and logistical challenges serve as obstacles to screening for colorectal cancers for the underserved communities. Using a combination of education, financial aid, and community engagement activities would help rectify the issues and increase the screening, thus helping lower the CRC morbidity and mortality.

Keywords: Colorectal Cancer Screening, Underserved Populations, Barriers to Healthcare, Community Medicine, Mixed-Methods Study





Impact of Bariatric Surgery on Health-Related Quality of Life in Patients with Morbid Obesity: A Longitudinal Study

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Original Article

Summary

Bariatric surgery helps obese people lose weight. It is well-known for helping morbidly obese patients lose weight. Gastric bypass, sleeve gastrectomy, banding, and duodenal switch are bariatric operations. These operations work to cure obesity. However, adjustable gastric banding, a popular 1990s laparoscopic bariatric surgery, is rarely performed nowadays. Patients initially lost weight but soon adjusted to eating fewer and more calories. However, its impact on health-related quality of life (HRQoL) remains an important consideration for patient outcomes. We aimed to assess the Impact of Bariatric Surgery on Health-Related Quality of Life in Patients with Morbid Obesit. Therefore, we included a total of 500 patients who underwent bariatric surgery for their morbid during a period of 5 years, 2020-2024 obesity and were followed up for 12 months after surgery. We used the SF-36 to assess the health related quality of life (HRQoL). Our findings revealed the Significant improvements in HRQoL were observed at both 6 and 12 months post-surgery across all SF-36 domains. The most pronounced improvements were noted in physical functioning, general health, and vitality. Additionally, factors such as age, gender, and preoperative comorbidities influenced the extent of HRQoL improvement. In Conclusion: Bariatric surgery significantly enhances HRQoL in patients with morbid obesity, with sustained benefits observed over 12 months. These findings support the role of bariatric surgery as a comprehensive treatment for obesity, emphasizing the importance of evaluating HRQoL alongside weight loss outcomes.

Keywords: Bariatric surgery, health-related quality of life, morbid obesity, longitudinal study,





Evaluation of a Home-Based Pulmonary Rehabilitation Program in COPD Patients

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Original Article

Abstract

People suffering from chronic obstructive pulmonary disease (COPD) cripples the exercise capacity and the life quality of the individual. HPR is a type of rehabilitation that can be done within the house and provides flexibility compared to the standard rehabilitation programs.

Objective: It is important to look at the impact of a home-based pulmonary rehabilitation scheme on the exercise capacity and quality of life of COPD patients. Thus, this will help assess if the program is effective . A sample of 120 patients with COPD were randomly assigned into two groups for the treatment. One group (n=60) was offered home based pulmonary rehabilitation while the other group (n=60) was given routine standard care. HPR program was of 12 weeks which consisted of educational sessions and supervised exercises. For both the groups walking or up to 6 minutes were used to measure the exercises' endurance in patients and health status was assessed with St. George's Respiratory Questionnaire (SGRQ) before and after the treatment. The home demographics of the pulmonary rehabilitation group indicated a notable elevation in the distance moved during the 6 minute walk test (average increase of 70 meters, p < 0.001) in comparison to the control group. Furthermore, SQRG scores exhibited a considerable drop within the HPR group (average drop of 12 points, p < 0.001), refining the quality of life. No negative events were noteworthy. We concluded that home based rehabilitation program significantly counteracts the reduced exercise tolerance as well as quality of life in patients diagnosed with COPD. This suggests that Traditional approaches at rehabilitation may be substituted with HPR signifying that it is safe conducting such procedures on a copd patient.

Keywords: Chronic Obstructive Pulmonary Disease, Home-Based Pulmonary Rehabilitation, Exercise Capacity, Quality of Life.





Comparison of Surgical and Transcatheter Aortic Valve replacement in Cases with Severe Stenosis

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Original Article

Abstract

Severe Aortic Stenosis remains a highly rated condition taking into process m morbidity and mortality. The primary treatment then would be surgical replacement and transcatheter aortic valve replacement. Evaluating the outcomes of both these interventions is key to ensuring the proper management of the patient. The objective of this study to determine and compare the clinical outcomes of TAVR and SAVR on children that have a history of Aortic stenosis. We performed a multicenter, prospective cohort study on 500 patients with diagnosed severe aortic stenosis. 250

we performed a multicenter, prospective conort study on 500 patients with adaptosed severe dortic stendsis. 250 underwent TAVR, whereas the remaining 250 underwent SAVR. The study's primary goals were assessing patient mortality rates, complications, and functional status using The New York Heart Association (NYHA) class system during the initial 30 days of the surgery procedure, the 6 month mark and the first year. Findings indicated that in the duration of the study, the total mortality rate for the TAVR patients was 5% compared to the 7% of patients in the SAVR group (p = 0.25). When it came to Computerized Axial Tomography, major complications from the SAVR had a total rate of 12%, compared to TAVR which had a rate of 8% (p = 0.05). The functional status for the TAVR patients was notably better as shown from the 85% of patients belonging to the NYHA class I and II within the one year period whereas the SAVR group only made it to 75% (p < 0.05).Conclusions: both TAVR and SAVR are effective treatment options for severe aortic stenosis, with TAVR associated with lower complications and better functional outcomes. These findings support the use of TAVR as a preferred option for suitable patients, especially those at higher surgical risk.

Keywords

Transcatheter Aortic Valve Replacement, Surgical Aortic Valve Replacement, Aortic Stenosis, Clinical Outcomes, Comparative Study





Assessing the Effectiveness of a Community-Based Smoking Cessation Program in Reducing Tobacco Use Prevalence

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Original Article

Abstract

Background

Tobacco use remains a leading cause of preventable disease and death worldwide. Community-based smoking cessation programs are essential in addressing this public health issue.

Objective

This study assesses the effectiveness of a community-based smoking cessation program in reducing tobacco use prevalence among participants.

Methods

A quasi-experimental design was implemented, involving 400 adult smokers recruited from community health centers. Participants were divided into an intervention group (n=200) that received the smoking cessation program and a control group (n=200) receiving standard care. The program included counseling, nicotine replacement therapy, and support groups over a 12-month period. Tobacco use prevalence was measured at baseline, 6 months, and 12 months, using self-reported surveys and biochemically verified abstinence.

Results

At 12 months, the intervention group demonstrated a significant reduction in smoking prevalence, with 40% of participants reporting abstinence compared to 15% in the control group (p < 0.001). Additionally, participants in the intervention group showed greater improvements in quality of life scores related to health and well-being (mean increase of 20 points, p < 0.01).

Conclusions

The community-based smoking cessation program effectively reduced tobacco use prevalence and improved participants' quality of life. These findings highlight the importance of accessible cessation programs in community settings to combat tobacco use.

Keywords

Smoking Cessation, Community-Based Program, Tobacco Use Prevalence, Public Health, Quasi-Experimental Study





Morphological forms of spermatozoa in normal and pathological conditions Gefery M. Slivan

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Original Article

Summary

Oval-headed adult human spermatozoa have a visible acrosome, neck, and tail. The acrosome (nuclear cap) is a lumen in the top head that occupies 40–70% of its area. It is readily evident in native and azure-eosin-stained states. In the post-acrosomal zone, spermatozoon heads may be pointed. Electron microscopy shows a primitive plasma membrane around the skull. Normal sperm heads measure 4.0-5.5 μ m long and 2.5-3.5 μ m broad. The sperm neck should be narrow, less than 1 μ m broad, 1.5 times the length of the head, and linked to the head along its axis.

Any cytoplasmic droplets (remnants of spermatid cytoplasm) should not exceed 1/3 of the sperm head.

Immature sperm cells have a drop of cytoplasm in the head or on the neck as a scarf (pageant collar) that is more than 1/3 of the head size. About 1% of normal spermograms include them. Increased immature spermatozoa may signal spermatogenesis issues, however frequent sexual activity may cause this. The sperm tail should be 45 microns long, straight, thick, slightly constricted in the middle, and not twisted. Normal sperm have a head-to-tail length ratio of 1:9 or 1:10. An important predictor of fertility is sperm morphology. Along with sperm quantity and motility, the morphological "portrait" is a key reproductive capacity indicator. Teratozoospermia often occurs with oligozoospermia and asthenozoospermia. Spermatozoa are highly specialized cells whose functionality is tightly tied to the anatomy of the head, neck, and flagella, therefore morphological markers of functional problems are being searched for. Today, standard microscopic inspection of spermatozoa can reveal cell function characteristics. Thus, biochemical markers of cell "immaturity" are associated with cytoplasmic droplets on spermatozoa's neck or head. Viruses may cause spermatozoa to become more bicephalic and biflagellated. Current research focuses on spermatozoa's morphological atypia and chromosomal abnormalities. Statistics show that men with a higher proportion of polyploid and aneuploid spermatozoa have enlarged heads, macroheads, and numerous tails. A variety of problems result from microdeletions of the azoospermia locus (AZF locus) on the long arm of the Y chromosome. This pathology can produce germ cell atypia or complete absence (Sertoli cell alone syndrome).

Keywords: Spermatozoa, Morphology, normal, pathological





Investigating the Attitude of Laboratory Assistants to Different Management Styles

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Original Article

Summary

Laboratory diagnostics are a key medical activity in healthcare worldwide. Clinical diagnostic laboratories (CDLs) play a significant role in delivering healthcare to patients by providing high quality laboratory services. In particular, in primary care practice, clinical laboratory test information constitutes at least 70.0% of the clinical decision-making base, and in specialized care practice this figure can reach 90.0%. Actually, CDLs furnish clinical specialists with essential objective data required for the delivery of high-quality, effective, and appropriate medical care. Notably, over the past two decades, the quantity of laboratory tests accessible to clinical specialists has doubled, totaling at least 3,500 tests. The caliber of CRL work is influenced by technical proficiency, quality management systems, and the motivation of personnel. The technical proficiency of laboratory technicians is essential for maintaining rigorous adherence to the various protocols outlined by the quality management system throughout the testing process. The implementation of personnel management procedures in CRL activities is extremely relevant, especially given the fact that personnel are the most important resource of any enterprise, and ineffective management of laboratory personnel is a well-known reason why the quality management system does not work in real life. Management of the middle medical staff of the KDL is a purposeful activity of the senior laboratory assistant and the head of the KDL, which uses various management mechanisms to ensure the coordinated qualified work of the nursing staff, and the ultimate goal of personnel management is to continuously search for ways to improve work efficiency and the quality of laboratory services. The manager is required to be fluent in advanced management technologies, be able to assess any situation, quickly make decisions and implement them in practice. To optimize the management of the middle medical staff of the KDL, it is important to determine the attitude of laboratory assistants to different management styles (an individual method, which is determined by the individual psychological characteristics of the manager and reflects the relationship between the manager and subordinates).

The purpose of this work is to investigate the attitude of laboratory assistants to different management styles and identify its probable dependence on the age category of respondents. *Keywords*: management styles, laboratory assistants, attitude