

**FACTORS INFLUENCING THE ADOPTION OF MINIMALLY INVASIVE
APPROACHES DURING SURGERY AMONGST TIER FOUR HOSPITALS
IN NAIROBI COUNTY, KENYA**

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ABSTRACT

Surgical service delivery is a key component in the service delivery pillar of the Health System. Due to the nature of resources required for surgical services, cost is a major concern for health systems and therefore it's difficult to discuss the delivery of good quality of surgical service without anchoring it in the financing pillar as well. Few health system facilities can afford to equip themselves for surgical services and as a result, there are an overwhelming number of clients in the waiting lists for surgical services. Clear outlines of reasons for low uptake of these approaches are not available for use by decision makers hence no evidence based remedial actions can be taken as yet. The objectives of this study were to determine the influence of Institutional, Patient and Surgeon factors on the utilization of minimally invasive approaches to surgery in tier 4 hospitals of Nairobi County. A cross sectional survey was carried out in a population of 100 surgeons. A purposive sampling was done, 80 surgeons in two specialties namely General Surgery & Obstetrics Gynaecology who operate in tier 4 health facilities were subjected to questionnaires and key informant interviews. The data was collected for a period of five months yielding a 100% response rate and analysis done using SPSS version 23. A total of 9 surgical interventions emerged from the respondents as they were required to consider an intervention for which they had the option to use either of the two possible approaches-open and minimally invasive approaches. On a scale of 1 (least recurring) to 5(most recurring), Hospital not having the required devices/equipment and equipment being non-functional emerged as the most common impediments to MIS (mean score, 2.61) Hospital not having competent nurses came in second (mean score, 2.21). Hospital policies not encouraging adoption came in least (mean score, 2.10). For the patient related factors, Patient presentation-obesity, co-morbidities, age) emerged as the most prominent patient factor that leads to an open approach for a procedure (mean score 2.87) followed by intra-operative complications presentation (mean score, 2.80). Out of pocket came in third (mean score 2.60) while patient insistence was the least significant (mean score,1.71). Lack of confidence in the MIS approach for the cited procedure emerged as the most important consideration for surgeon related factor (mean score, 2.55). Surgeon preference followed (mean score 2.55). The research concluded that the availability of functional enabling technologies was the most significant institutional factor in the adoption of MIS approaches. The absence of intra-operative complications and the surgeon's level of comfort in an approach emerged as the most significant for the patient and surgeon factors respectively. The research recommended the development of health economics driven budgets for enabling technologies, financing for surgical interventions and a review of surgical registrar training to incorporate MIS approaches for surgical procedures.