

CHAPTER EIGHT

SUMMARY

This thesis aims to answer the following main research question – has task shifting to anesthetists in Ethiopia increased access to safe anesthesia services?

Chapter One provides an introduction to the thesis, and provides the context and evidence for the problem statement addressed. The introduction highlights the global burden of surgical disease and lack of access in resource-poor settings, the shortage of a health workforce to provide anesthesia services in these settings, and the task-shifting approach that has been used in Ethiopia and elsewhere to address this shortage.

Chapter Two documents the competency levels of graduating anesthetist students, as well as the current status of the infrastructure and other learning materials at the training institutions. A cross-sectional study assessed skills and knowledge of 122 students graduating from anesthetist training programs at six public universities and colleges in Ethiopia, and obtained data on the adequacy of the learning environment. Findings suggested gaps in student performance in various skills, with an overall mean competence score of 61.5%. Male students performed better than female students, as did students from university programs. There were critical gaps in the infrastructure, staffing and resources available to students at the institutions.

Chapter Three examined the perceptions of trainers (instructors, clinical lab assistants and preceptors) towards the adequacy of students' learning experience and implications for achieving mastery of core competencies. A qualitative analysis of in-depth interviews with 78 trainers found common challenges including poorly prepared and un-motivated students, shortages in skills lab and equipment, and limited access to adequate clinical practice opportunities.

Chapter Four looked closely at the tasks performed routinely by deployed anesthetists. A cross-sectional study was conducted with 137 anesthetists working in the public health sector. Overall, respondents felt that they were adequately prepared to perform a majority of the tasks in their scope of practice. The findings identified tasks that should be prioritized in pre-service education and in-service training for this cadre, as well as those that should be included in licensure exams.

Chapter Five analyzed data on anesthetists intention to leave their current job in the next year, which is widely accepted as a predictor of actual turnover intentions. Using a cross-section design, data were collected from 251 anesthetists, of whom almost half (47.8%) planned to leave the job in the next year. This suggests that they may be dissatisfied with their jobs, and may have low motivation. Younger anesthetists were more likely to plan to leave, as were those that were posted at district hospitals.

Chapter Six used a cross-sectional design to collect quantitative data from 252 anesthetists, who were asked to rate 37 items related to job-satisfaction and working and living conditions using a likert-scale. Less

than half (42.5%) of the respondents stated that they were satisfied with their job, with work environment and more than 10 years of experience being a predictor of satisfaction in a multivariable logistic regression.

Chapter Seven presented implications of the studies, and provided recommendations to 1) improve the quality of education for anesthetists, and 2) improve the enabling environment for task shifting of anesthesia services to the association clinician anesthetist cadre. The recommendations are below:

- Strengthen student selection and address gender disparities
- Standardize learning outcomes in curricula across institutions
- Strengthen clinical education
- Strengthen student assessment and address gender disparities
- Address gaps in infrastructure and supplies in the learning environment
- Strengthen governance and regulation of anesthetists
- Increase professional stature of anesthetists

Implement strategies to motivate and retain anesthetists