

## Introduction

Patient-family education provides an opportunity to improve perioperative care and thus patient outcomes in low- and middle-income countries (LMIC), where clinical staff are often limited<sup>1</sup>. The objective of this study was to evaluate the needs and barriers to patient-family education in a Ugandan tertiary hospital neurosurgical ward. This evaluation is essential for the development of appropriate educational interventions in the context of LMIC surgical care.

## Methods

- Mixed methods approach: quantitative surveys and qualitative interviews.
- Surveys: 10 hospital staff, 30 family members
  - Demographics, languages, caregiver tasks, symptoms reported to clinical staff
- Interviews: 6 family members and 7 clinical staff were interviewed about their experiences in the ward.
- Qualitative and quantitative data were analyzed statistically and through content analysis, respectively.

## Results

### Quantitative Data Analysis

Figure 1: Languages spoken by caretakers

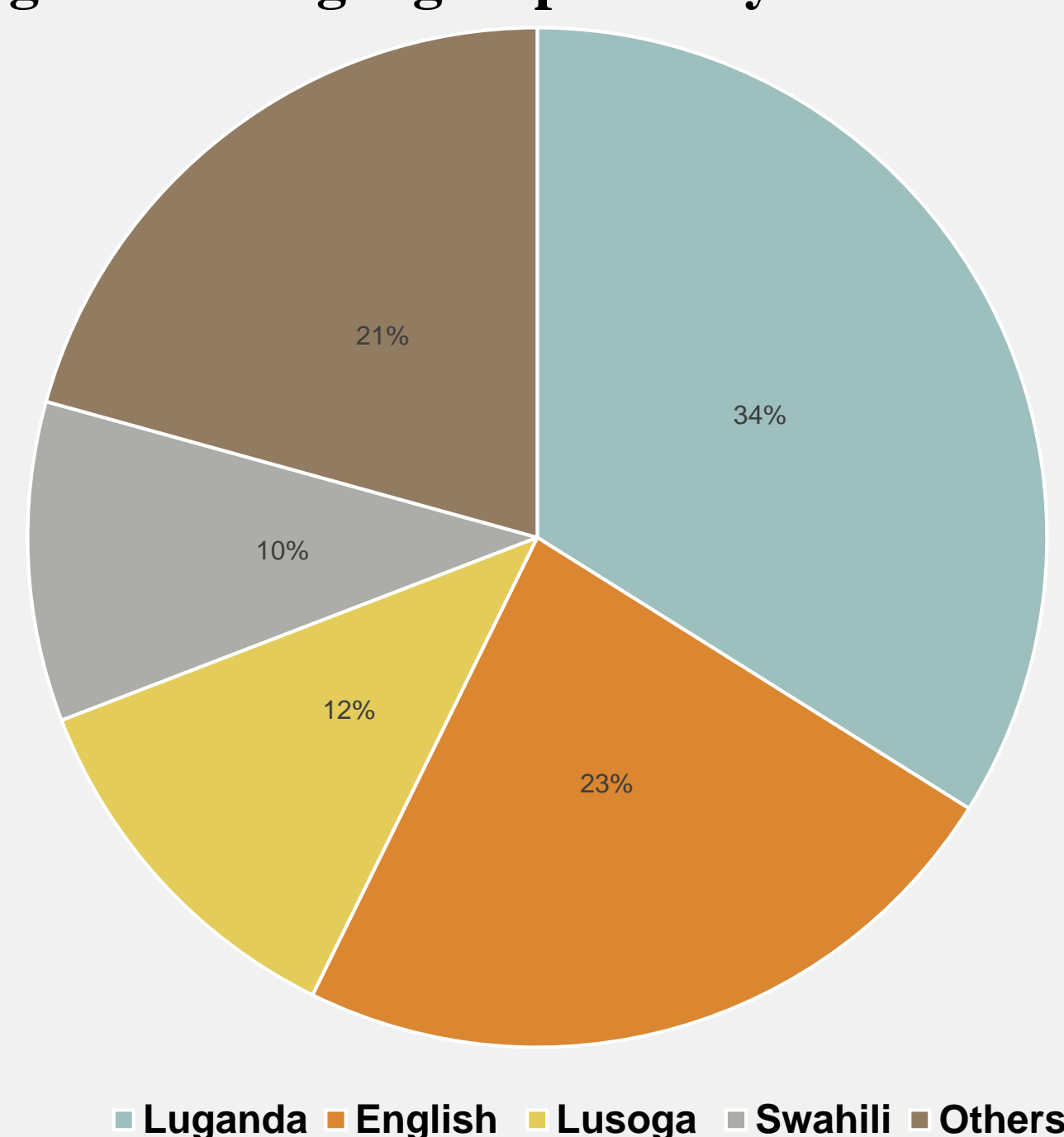


Figure 2: Number of caretakers per patient

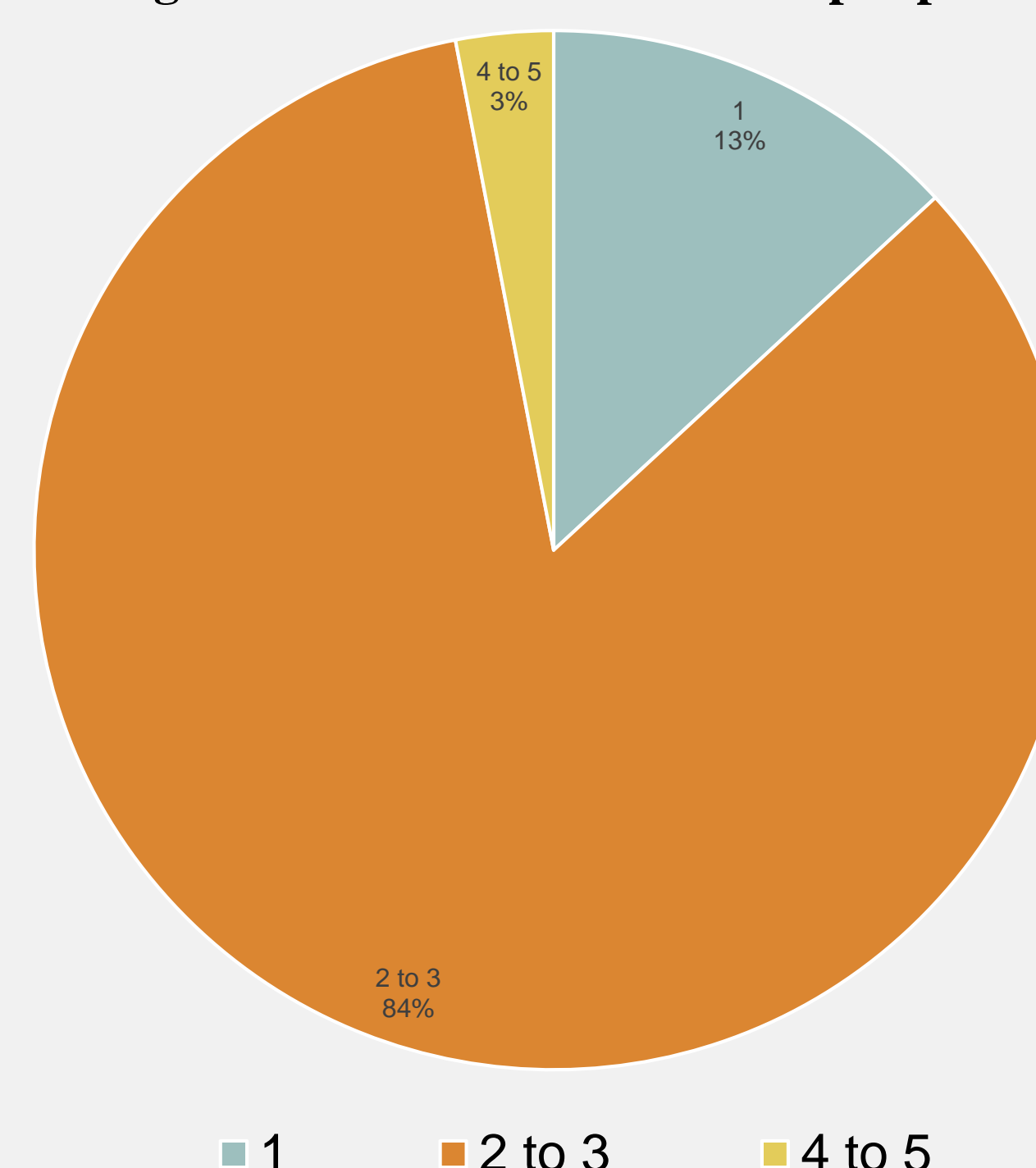
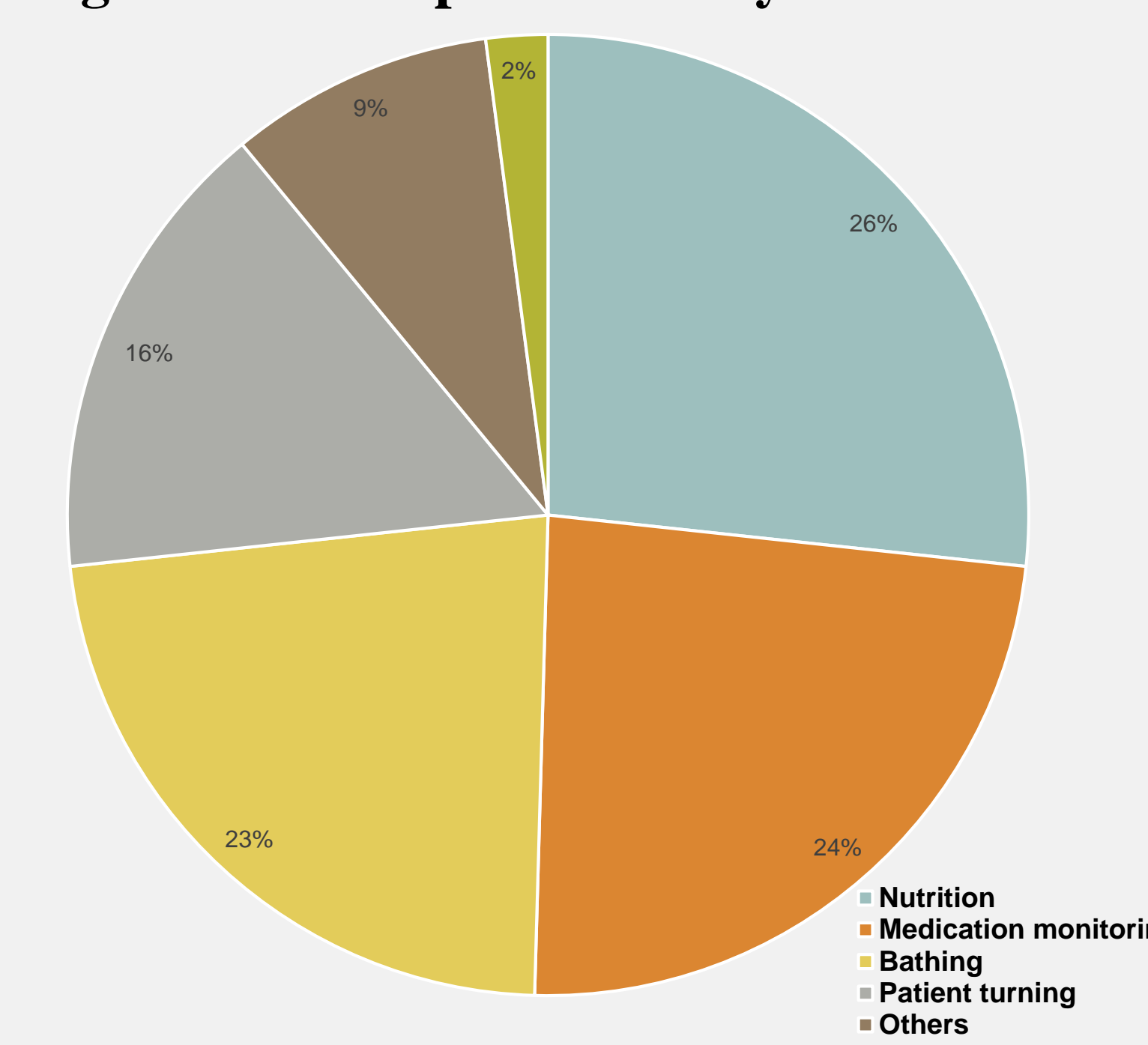


Figure 3: Tasks performed by caretakers



### Qualitative Data Content Analysis

Themes	Raw Themes	Quotes from Participant Interviews
<b>Education</b>	<ul style="list-style-type: none"> <li>• Need for educational posters and materials on feeding, handling patients and medication management</li> <li>• Periodical demonstration of some tasks to family members by hospital staff</li> </ul>	<p>"Maybe every time they admit a patient, educate them thoroughly, giving them all of the information not just a little. How to handle them, bathing, eating..." (Family member 011)</p>
<b>Patient Care</b>	<ul style="list-style-type: none"> <li>• Physical and financial barriers to adequate care; poorly managed follow-up system</li> <li>• Aggression from patients and patient's mental state impacts care</li> </ul>	<p>"Some patients don't know how to take care of themselves, some mental cases. There was a patient here... whenever they wanted to treat him he wanted to fight" (Family member 010)</p>
<b>Infection Control</b>	<ul style="list-style-type: none"> <li>• Adequate handwashing sources are limited and inaccessible</li> <li>• Little hand washing compliance and hand sanitizers by staff and family members</li> </ul>	<p>"...hand washing is a problem. We don't have water. We don't have a towel in the ward... The clinic system is poor. Toilet facilities are outside. Bathrooms are outside the ward" (Hospital Staff 004)</p>
<b>Medication</b>	<ul style="list-style-type: none"> <li>• Medications are not readily available or affordable for family members</li> <li>• Poor medication adherence and management due to multiple caretakers per patient</li> </ul>	<p>"Very few patients adhere to the medication. The reasons could be one they have very many caregivers.... It's like the passing of the information they're going to skip some information, there is going to be misinterpretation of the medication." (Hospital Staff 002)</p>
<b>Interactions in the ward</b>	<ul style="list-style-type: none"> <li>• Some family members are uncooperative and do not follow staff instructions</li> <li>• Norms and beliefs impact caretakers decisions concerning patient care</li> </ul>	<p>"you find they opened the wound and put something... either Colgate or they open these capsules and pour on the wound [to] heal faster, yes. And some of them they still have those beliefs and they practice even when they are here in the ward." (Hospital Staff 001)</p>
<b>Ward Limitations</b>	<ul style="list-style-type: none"> <li>• Small ward capacity limits the number of caregivers per patient</li> <li>• Overcrowding in the ward interferes with health care administration and patient care</li> </ul>	<p>"They congest the ward. Most times they (caretakers) get confused. One will do this, one would want to do this, and another one... They all mess up the place" (Hospital Staff 004)</p>

**Table 1: Key and common themes from interviews with research participants (hospital staff and family members) that identify some of the needs and barriers to patient-family education in MNRH.**

## Conclusions

### Framework for future interventions include:

- **Barriers to education:**
  - Ward overcrowding
  - Educating multiple caregivers.
- **Needed educational content:**
  - caregiver responsibilities
  - medication management
  - symptoms to report to hospital staff
- **Format:** picture-focused posters, pamphlets, mHealth (SMS) intervention
- **Key languages:** Luganda, Swahili, and English

## References

1. Grantham-McGregor S, Cheung YB, Cueto S, Glewwe P, Richter L, Strupp B. Developmental potential in the first 5 years for children in developing countries. *Lancet*. 2007;369(9555):60-70. doi:10.1016/S0140-6736(07)60032-4.