

Chirurgische Versorgung in Ostuganda
**Eine qualitative Studie zu Perspektiven von Nutzungs-,
Angebots- und Entscheidungsseite**

Inaugural-Dissertation
zur Erlangung des Doktorgrades
der Hohen Medizinischen Fakultät
der Rheinischen Friedrich-Wilhelms-Universität
Bonn

Paula Kristina Rauschendorf

aus Düsseldorf

2024

Angefertigt mit der Genehmigung
der Medizinischen Fakultät der Universität Bonn

1. Gutachter: Prof. Dr. med. Walter Bruchhausen
2. Gutachter: Prof. Dr. med. Lukas Radbruch

Tag der Mündlichen Prüfung: 02.09.2024

Aus dem Institut für Hygiene und Öffentliche Gesundheit/Public Health (IHPH)

Direktor: Prof. Dr. med. Nico T. Mutters, MPH

Inhaltsverzeichnis

Abkürzungsverzeichnis	4
1. Deutsche Zusammenfassung	5
1.1 Einleitung	5
1.2 Material und Methoden	7
1.3 Ergebnisse	11
1.4 Diskussion	25
1.5 Zusammenfassung	30
1.6 Literaturverzeichnis der deutschen Zusammenfassung	31
2. Veröffentlichung	36
Abstract	37
Introduction	37
Materials and Methods	38
Results	39
Discussion	43
References	45
Appendices	47
3. Danksagung	51
4. Veröffentlichungen	52

Abkürzungsverzeichnis

DALY	Verlorene gesunde Lebensjahre (Disability-Adjusted Life Years)
DHO	District Health Officer
ECP	Ehemalige*r chirurgische*r Patient*in
G	Gemeinnützige Gesundheitseinrichtung
GM	Gemeinschaftsmitglied ohne direkten Kontakt zu chirurgischer Versorgung
LMIC	Länder mit niedrigem und mittlerem Einkommen (Low- and Middle-Income Countries)
MAXQDA	Eine Software für qualitative Datenanalyse
MD	Medical Doctor
MO	Medical Officer
MP	medizinisches Personal
Ö	Öffentliche Gesundheitseinrichtung
P	Private Gesundheitseinrichtung

1. Deutsche Zusammenfassung

1.1 Einleitung

Der Lancet-Kommissionsbericht zu globaler Chirurgie von 2015 hat die Ungleichheit im Zugang zu chirurgischer Versorgung und die Belastung durch chirurgische Erkrankungen weltweit in den Fokus gerückt (Meara et al., 2016). Rund 1,4 Millionen Todesfälle und 77 Millionen verlorene gesunde Lebensjahre (DALY) könnten durch basis-chirurgische Versorgung in Ländern mit niedrigem und mittlerem Einkommen (LMIC) verhindert werden (Bickler et al., 2015). Gleichzeitig haben über 70% der Weltbevölkerung keinen Zugang zu adäquater chirurgischer Versorgung (Meara et al., 2015). Zugang ist definiert als die rechtzeitige Nutzung von Gesundheitsdiensten, um das bestmögliche Ergebnis zu erzielen (Institute of Medicine (U.S.) Committee on Monitoring Access to Personal Health Care Services, 1993).

Um optimalen Zugang zu gewährleisten, müssen verschiedene Faktoren in einem Gesundheitssystem zusammentreffen. Bei Penchansky und Thomas (1981) werden diese benannt als Verfügbarkeit (Availability), Anpassungsfähigkeit (Accommodation), Erreichbarkeit (Accessability), Bezahlbarkeit (Affordability) und Annehmbarkeit (Acceptability).

Die Verfügbarkeit von chirurgischer Versorgung wird in LMIC durch das Fehlen von qualifiziertem Personal, fehlenden Ressourcen für den Erwerb von Verbrauchsmaterialien wie Einmalartikel und Medikamente, sowie von medizinischem Gerät und den damit verbundenen Instandhaltungskosten, den baulichen Zustand der Gesundheitseinrichtungen sowie Engpässen bei der Versorgung mit fließendem Wasser und Strom stark limitiert (McCord et al., 2015). Diese Faktoren schränken auch die Anpassungsfähigkeit des Gesundheitssystems ein. Gemeint ist hierbei die Fähigkeit der Bereitstellenden von Gesundheitsdiensten sich auf die Bedürfnisse der Nutzenden einzustellen, zum Beispiel durch Öffnungszeiten, Notfallsprechstunden etc. (McLaughlin und Wyszewianski, 2002). Bezahlbarkeit ist ebenfalls ein wichtiger Faktor, insbesondere in LMIC, in denen Armut den Zugang zu Versorgung durch Krankenhausgebühren oft unmittelbar einschränkt (Raykar et al., 2016). Die Erreichbarkeit stellt die Frage nach Entfernung und Transportmöglichkeiten zur nächsten Gesundheitseinrichtung, die den notwendigen Dienst anbietet (McLaughlin und Wyszewianski, 2002). Annehmbarkeit von Gesundheitsversorgung

wurde von Sekhon et al. (2017) beschrieben als facettenreiches Konstrukt, das darauf hinweist, inwieweit die Personen, die eine Gesundheitsversorgungsmaßnahme durchführen oder erhalten, diese als angemessen betrachten, basierend auf erwarteten oder erlebten kognitiven und emotionalen Reaktionen auf die Maßnahme.

Das ostafrikanische Land Uganda hat einen hohen ungedeckten Bedarf an chirurgischer Versorgung, national betrachtet liegt er bei mehr als 10% (Farber et al., 2017) und in höheren Altersgruppen bei 28% (Tran et al., 2019). Der ungedeckte Bedarf an pädiatrischer Chirurgie wurde auf 17% geschätzt (Butler et al., 2017). Aufgrund einer durchschnittlichen jährlichen Bevölkerungszunahme von 3,0 % (Uganda Bureau of Statistics, 2020), mehr Verkehrsunfällen und einer steigenden Lebenserwartung ist zu erwarten, dass die Anzahl derer, die eine Operation benötigen, steigen wird.

Die Kapazität zur Deckung dieses chirurgischen Bedarfs wird maßgeblich von der stark eingeschränkten *Verfügbarkeit* (Availability) chirurgischer Versorgung beeinflusst. Die Gesundheitseinrichtungen wurden in der Regel für kleinere Versorgungsgebiete gebaut (Albutt et al., 2018b), wodurch die Überbelegung von Stationen ein erhebliches Problem darstellt (Nwanna-Nzewunwa et al., 2016). Im Schnitt stehen pro 100.000 Einwohner nur 0,2 große Operationssäle zur Verfügung (Linden et al., 2012). Mit einer Dichte von nur 0,73 Chirurg*innen pro 100.000 Einwohnenden (Butler et al., 2017) führt der Mangel an qualifizierten Fachkräften zur Durchführung chirurgischer Eingriffe durch nicht spezialisiertes ärztliches Personal. Grundlegende Voraussetzungen wie die zuverlässige Bereitstellung von Wasser und Strom werden nicht erfüllt, was die Bereitstellung einer sicheren chirurgischen Versorgung zusätzlich erschwert. Medizinisches Gerät ist oft nicht verfügbar, defekt oder veraltet (Raykar et al., 2016) und auch der fehlende Zugang zu Blutbanken begrenzt die chirurgische Kapazität der ugandischen Krankenhäuser (Albutt und Yorlets et al. 2018).

Die *Erreichbarkeit* (Accessibility) chirurgischer Versorgung wurde in Uganda ausgiebig erforscht. Im Jahr 2017 hatten weniger als 25% der Bevölkerung innerhalb von 2 Stunden Zugang zu einer Einrichtung, die die sogenannten Bellwether-Operationen durchführen konnte (Albutt K, Namanya D, Anderson G, Kayima P, 2017). Nur 62,5% der Privatkrankenhäuser (Albutt et al., 2019) und 56,3% der öffentlichen Krankenhäuser (Albutt et al., 2018a) waren in der Lage, alle Bellwether-Operationen durchzuführen. Als Bellwether-

Operationen gelten Kaiserschnitte, Notfall-Laparotomien und die Behandlung offener Frakturen (World Health Organization, 2022). Diese sind gute Indikatoren für die Durchführung aller Operationen aus der „Essential Surgical Procedures“-Liste der WHO (O'Neill et al., 2016).

Laut einer umfangreichen Studie von Anderson et al. (2017) zur *Bezahlbarkeit* (Affordability) chirurgischer Behandlung in einem staatlichen Krankenhaus lebten 46% der Patienten in extremer Armut (1,90 USD/Person/Tag). Nach der Operation befanden sich von 295 Befragten weitere zehn in extremer Armut und fünf wurden gemäß der Definition der Weltbank (3,10 USD/Person/Tag) neu in Armut gestürzt. Aufgrund eines Krankenhausaufenthalts mussten 53% der Haushalte Geld leihen und 21% Teile ihres Besitzes verkaufen, während 17% ihren Job verloren und 5% etwas Geld von Wohltätigkeitsorganisationen erhielten. Dies zeigt, dass für viele Patient*innen auch die Versorgung in einem kostenlosen staatlichen Krankenhaus aufgrund von Ausgaben für Handschuhe, Verbände, Medikamente und weiteres Material nicht bezahlbar ist.

Die *Annehmbarkeit* (Acceptability) chirurgischer Versorgung ist in Uganda bisher weitgehend unerforscht. Das Verständnis von Annehmbarkeit und den Faktoren, die diese in einem bestimmten Kontext beeinflussen, kann dabei helfen Ressourcen effektiver einzusetzen und gesundheitspolitische Entscheidungen positiv zu beeinflussen. Dazu werden in dieser Arbeit die Sichtweisen bzw. Standpunkte auf Nutzungs- und Angebotsseite sowie kommunalpolitischer Entscheidungsebene untersucht und Einflussfaktoren zur Annehmbarkeit chirurgischer Versorgung dargelegt.

Fragestellung

Welche Faktoren beeinflussen die Annehmbarkeit chirurgischer Versorgung in Ostuganda?

1.2 Material und Methoden

Studiendesign

Diese Arbeit basiert auf einer qualitativen Herangehensweise nach Grounded Theory. Es wurden 72 semi-strukturierte qualitative Interviews in sieben Distrikten Ugandas mit vier

verschiedenen Gruppen durchgeführt. Die befragten Gruppen waren: ehemalige chirurgische Patient*innen (ECP), Gemeinschaftsmitglieder ohne direkten Kontakt zu chirurgischer Versorgung (GM), an chirurgischer Versorgung beteiligtes medizinisches Personal (MP) und die District Health Officers (DHO) der Distrikte. Die Interviews wurden anschließend transkribiert, wenn notwendig übersetzt und methodengeleitet analysiert.

Kontext

Die Forschung wurde in Jinja und den umliegenden Distrikten Mayuge, Kamuli, Iganga, Luuka, Buikwe und Buvuma durchgeführt. Die Distrikte liegen im Osten des Landes und befinden sich im Gebiet der Basoga-Volksgruppe mit Ausnahme von Buikwe, welches im Gebiet der Baganda liegt. Ostuganda hat im nationalen Vergleich eine deutlich höhere Armutsrate (Uganda Bureau of Statistics et al., 2019).

Die Anzahl von Gesundheitseinrichtungen unterscheidet sich zwischen den Distrikten erheblich. Jinja ist die zweitgrößte Stadt in Uganda mit etwas über 500.000 Einwohnenden und hat eine große Anzahl an medizinischen Einrichtungen vorzuweisen, so zum Beispiel das Jinja Regional Referral Hospital. Iganga, Buikwe und Kamuli befinden sich entlang der Haupttransportachsen und verfügen über größere Gesundheitseinrichtungen in ihren Zentren. Mayuge und Luuka sind deutlich schlechter angebunden. Buvuma ist eine im Viktoriasee gelegene Insel, welche nur per Fähre zu erreichen ist. Diese Unterschiede in den Distrikten führen zu verschiedenen Problemen bei der chirurgischen Versorgung ihrer Bevölkerung.

Erstellung des Interviewleitfadens

Der Interviewleitfaden wurde durch die Autorin (PR) erstellt und durch den Doktorvater (WB) korrigiert. Die Feldforschungsassistentin (RN) trug durch Hinweise auf kulturelle Besonderheiten und Übersetzung ins Lusoga oder Luganda zur Erstellung bei. Die Interviewbögen können in den ergänzenden Materialien bei Rauschendorf et al. (2023) auf den Seiten 46-49 eingesehen werden.

Der Interviewleitfaden für ECP begann mit einer allgemeinen Frage zu Erfahrungen mit chirurgischer Versorgung. Anschließend folgten spezifische Fragen zum Entscheidungsprozess chirurgische Hilfe aufzusuchen und anzunehmen. Hier wurde zum Beispiel nach

der Dauer zwischen dem Auftreten der Symptome und der Behandlung sowie nach denjenigen, die die Entscheidung trugen, gefragt. Weitere erfragte Kategorien waren Art der erfolgten Behandlung, Abläufe im Krankenhaus und Zufriedenheit mit der Behandlung. Außerdem wurden Fragen nach der Einstellung zu chirurgischer Versorgung gestellt und um Verbesserungsvorschläge gebeten.

Die GM wurden nach ihrer Wahrnehmung und Einstellung zu chirurgischer Versorgung befragt. Es wurde außerdem nach Vorsorge, Krankenversicherung und dem Wissen über chirurgische Krankheitsbilder gefragt.

MP wurden gebeten ihre Erfahrung mit chirurgischer Versorgung zu beschreiben. Insbesondere wurde nach Schwierigkeiten bei der Bereitstellung gefragt. Es wurde versucht Gründe für diese Schwierigkeiten sowie mögliche Lösungsvorschläge zu ermitteln. Weiterhin wurden Teilnehmende nach der Beurteilung von chirurgischer Versorgung durch Patient*innen und die Bevölkerung im Allgemeinen befragt.

DHO wurden zunächst gebeten, einen Fragebogen zu chirurgischer Versorgung in ihrem Distrikt auszufüllen und dann nach der politischen Sicht auf die Bereitstellung chirurgischer Dienste für die Bevölkerung befragt. Der Interviewleitfaden enthielt hierfür Fragen nach Gesundheitskampagnen, Logistik, Personalstrukturen und der Einbeziehung ausländischer Hilfsorganisationen.

Datenerhebung

Das Ziel war in jedem Distrikt sieben Interviews durchzuführen. Hierfür wurden jeweils drei Orte ausgewählt, um eine möglichst weite Streuung der Antworten zu erreichen. Davon lagen einer im Zentrum des Distrikts, einer in der Nähe der Haupttransportachse durch den Distrikt und einer weiter im Inland. In jedem Ort wurden zwei ECP und ein GM befragt.

In jedem Distrikt wurden zusätzlich der oder die District Health Officer (DHO) oder die Vertretung befragt. Gleichzeitig wurde um Erlaubnis gebeten, das medizinische Personal in den Gesundheitseinrichtungen (MP) zu interviewen. Nach Möglichkeit wurde dann jeweils ein Interviewpartner in einer öffentlichen (Ö), privaten (P) und gemeinnützigen (G) Gesundheitseinrichtung befragt. Allerdings war dies in manchen Distrikten aufgrund des Fehlens von privaten oder gemeinnützigen Einrichtungen nicht möglich. In diesem Fall

wurde nur ein Interview oder auch ein zweites Interview in einer öffentlichen Einrichtung durchgeführt.

Interviewpartner*innen wurden durch direktes Aufsuchen in den Gemeinden, Institutionen und Gesundheitseinrichtungen rekrutiert. Allen Teilnehmenden wurde die Studie ausgiebig erklärt und sie wurden ausdrücklich auf die Freiwilligkeit der Teilnahme hingewiesen. Daraufhin wurden sie um schriftliche Zustimmung zu ihrer Teilnahme gebeten. In einem Fall wurde die Teilnahme an der Studie abgelehnt. In allen anderen Fällen erklärten sich die Angesprochenen bereit an der Studie teilzunehmen. Die Interviews fanden an einem von der befragten Person gewählten Ort statt, wobei auf Privatsphäre geachtet wurde.

Die Interviews mit ECP und GM wurden von der Feldforschungsassistentin (RN) auf Lusoga, Luganda oder Englisch durchgeführt. Die Interviews mit MP und DHO wurden durch die Autorin (PR) auf Englisch durchgeführt. Bei Rückfragen durch die Interviewten half RN mit Übersetzungen ins Lusoga oder Luganda. Interviewende und befragte Personen kannten sich vorher nicht.

Am Ende der Datenerhebung schien die theoretische Sättigung erreicht, da in den letzten Interviews kaum neue Informationen aufkamen.

Datenanalyse

Die Interviews wurden auf Tonband aufgezeichnet. Im Anschluss wurden sie in MAXQDA eingelese, transkribiert und gegebenenfalls übersetzt. Daraufhin wurden die Aussagen der Teilnehmenden nach Grounded Theory kodiert. Die Codes wurden dann immer größeren Themenbereichen zugeordnet. Der Zielrichtung der Arbeit entsprechend erfolgte dann eine Konzentration auf die Themenbereiche, die mit der Annehmbarkeit von chirurgischer Versorgung in Verbindung standen.

Ethik

Diese Studie wurde von der Mildmay Uganda Ethikkommission unter der Referenz #REC REF 0102-2019 genehmigt. Die Untersuchung wurde auf der Grundlage der revidierten Deklaration von Helsinki des Weltärztebundes (1983) und den entsprechenden gesetzlichen Grundlagen durchgeführt.

1.3 Ergebnisse

Es wurden insgesamt 72 Interviews durchgeführt, 32 hiervon mit ECP, 16 mit GM, 7 mit DHO und 17 mit MP.

In der untenstehenden Tabelle sind Merkmale des medizinischen Personals aufgeführt. Diese Tabelle ist eine Adaptation von Tabelle 2 aus Rauschendorf et al. (2023).

Merkmal	Anzahl (Prozent)
Geschlecht	
Weiblich	4 (23.5%)
Männlich	13 (76.5%)
Berufsbezeichnung	
Krankenschwester	1 (5.9%)
Hebamme	1 (5.9%)
OP-Assistenz	1 (5.9%)
Medical Officer	4 (23.5%)
Medical Doctor	6 (35.3%)
Facharzt für Chirurgie	3 (17.6%)
Facharzt für Gynäkologie und Geburtshilfe	1 (5.9%)
Art der Gesundheits-einrichtung	
Öffentlich	8 (47.1%)
Gemeinnützig	5 (29.4%)
Privat	4 (23.5%)

Die Untersuchung ergab, dass die Annehmbarkeit von chirurgischer Versorgung maßgeblich von den nachfolgend aufgeführten Faktoren beeinflusst wurde, die jedoch Überlappungen aufwiesen:

- Wahrnehmung der Chirurgie
- Gesundheitsverständnis
- Gesundheitskompetenz
- Soziales Umfeld
- Qualität der Versorgung und Behandlung
- Medizinisches Personal: Vertrauen, Motivation, Arbeitsumfeld

Wahrnehmung der Chirurgie

Im Allgemeinen wurde chirurgische Versorgung als Möglichkeit gesehen, die Ursache der Krankheit zu identifizieren, zu entfernen und damit den Gesundheitszustand des*der Erkrankten zu verbessern.

- *"reducing the sickness that is bothering you" [ECP, G] (Rauschendorf et al., 2023)*
- *"cutting you open to see the cause of sickness and remove the unwanted stuff" [ECP, P] (Rauschendorf et al., 2023)*

Chirurgische Behandlung wurde von ECP und GM vielfach als letzte Option und notfallmäßige Behandlung angesehen.

- *"the patient is in a critical and not understandable condition, then why can that patient not be taken to be operated" [GM] (Rauschendorf et al., 2023)*
- *"when the condition that calls for the operation is very extremely severe, when the pain is so so so beyond, without giving you time to eat, drink or walk, I mean when the illness is at its maximum, then there you can decide to go for the operation" [GM] (Rauschendorf et al., 2023)*
- *"survived accidents on the road", "couldn't even see someone near" [ECP, Ö]*
- *"I over delayed. As you know when you over delay, that hernia gradually grows. I delayed a bit. I think it was around [...] 10 years." [ECP, P] (Rauschendorf et al., 2023)*
- *"So, when they come, you tell them it is surgical, they think there is something that you have not done. They think you should have given some medication for that condition." [MO, Ö] (Rauschendorf et al., 2023)*

Auch Gesundheitsversorgung im Allgemeinen wurde häufig erst spät aufgesucht. Es wurde zum Beispiel auch von Selbstmedikation als Alternative berichtet.

- *"When I am sick, I just buy medicine of 2000 to 3000 shillings and if that sickness doesn't respond to the treatment, I continue changing the type of treatment until I get better." [GM] (Rauschendorf et al., 2023)*

Auch Mitarbeitende im Gesundheitswesen beobachteten diese Tendenz erst spät chirurgische Versorgung aufzusuchen. Es wurde beschrieben, dass dies vielfach zu Komplikationen oder inoperablen Tumoren führte.

- *"hernia, they believe it should get mature, it should be huge, you know those really are the attitudes. And because anything which does not put you down, the big go-itres, as long as there is no problem swallowing, they move around with it." [Chirurg, Ö]*
- *"Most of them come at stage four because there is no one to diagnose or they take long to come to the clinic." [Chirurg, G]*

Die Wahrnehmung chirurgischer Versorgung wurde geprägt vom Risikoempfinden der Befragten. Teilweise schien die Wahrnehmung zu bestehen, dass die Überlebenschance bei Operationen nur bei ca. 50% lag. Andere beschrieben Sorgen, dass sie nach der Operation nicht mehr arbeitsfähig sein würden. Eine häufig beschriebene Angst war, dass vom Operierenden Tücher oder Instrumente im Körper des Patienten zurückgelassen werden könnten und dadurch eine erneute Operation notwendig sein würde. Diese Wahrnehmung war vor allem bei GM vorhanden.

- *"they make you more disabled not allowed to do certain work" [GM] (Rauschendorf et al., 2023)*
- *"you can come back or not come back" [GM] (Rauschendorf et al., 2023)*
- *"they forgot either the scissors or the cotton in the stomach" [GM]*
- *"that if they are going to operate you, they connect you some electric source and then it kills you off and then when you wake up, that electricity remains in you. So, you can't go near fire, you can't work, so they say post-operative you will be weak. You cannot do your normal work. You know they have a lot of those myths." [MO, G]*

ECP hatten häufig eine positivere und weniger mystifizierte Sicht auf die Chirurgie.

- *"healthcare providers can operate and after the operation you can wake up and resume with normal walking, healthy person, and the illness is taken away you can become better and you live a healthy life" [ECP, G] (Rauschendorf et al., 2023)*

- *“Considering the situation I was in before and after the operation, my life became better” [ECP, Ö]*

Die negative Wahrnehmung wurde vom MP in Zusammenhang mit schlechten Ergebnissen von Operationen in der Vergangenheit gestellt. Dieser Unsicherheit versuchte das Personal durch Gespräche und Rückversicherung entgegenzuwirken.

- *“In the past the results from surgery have not been good. It has been between life and death. And so, any patient that you tell that you have to go through surgery, you have to take more time to explain that they are going to be safe afterwards. So, the perception is still very poor of the patients as far as surgical care is concerned.” [Chirurg, G] (Rauschendorf et al., 2023)*
- *“How operations were done in the past, it was a bad procedure, and people always doubted whether they would wake up. That past way of operation scared people so much but now someone is operated and you can hardly know that he/she was operate” [GM]*
- *“Of course, fear must be there because going to the theater means coming back alive or not but operation of nowadays changed, it’s not like the one we used to have during the past years” [GM]*

Weiterhin wurde die Angst erwähnt, dass Patient*innen intraoperativ Organe gestohlen werden. Es wurde vorgeschlagen, einer Vertrauensperson des zu Operierenden zum OP-Saal Zutritt zu erlauben, damit diese verifizieren kann, dass keine gesunden Organe entnommen werden.

- *“rumours that health workers steal certain organs from the patients” [GM] (Rauschendorf et al., 2023)*
- *“They don’t allow care takers to enter the theatre, so we don’t know what exactly they did to her but the baby was fine” [GM]*
- *“see the procedures of the operation and what they have removed from the patient” [ECP, Ö] (Rauschendorf et al., 2023)*

Um diese negative und angstvolle Haltung abzubauen, wurde vom MP ein Fokus auf die adäquate Aufklärung gelegt. Viele hatten den Eindruck durch ausführliche Kommunikation Patient*innen beruhigen zu können.

Gesundheitsverständnis

Während der Interviews wurde deutlich, dass unterschiedliche Vorstellungen darüber existieren, wie Gesundheit und Krankheit miteinander interagieren, wobei sowohl traditionelle medizinische Ansätze als auch biomedizinische Konzepte Berücksichtigung finden.

Einige Teilnehmende unterschieden Krankheitsgruppen in solche, die biomedizinischer Versorgung bedürftig sind und solche, die traditionell behandelt werden müssten. Dementsprechend entstünden Probleme, wenn man eine Krankheit mit der falschen Art von Medizin behandelte. Hierbei fällt es den Erkrankten und eventuell ihrem Umfeld zu die Art der Erkrankung zu identifizieren.

- *"sickness that is meant for operation still goes for operation, there is no alternative" [ECP, G] (Rauschendorf et al., 2023)*
- *"illnesses for ghosts/demons (mizimu), all those in this category, those who have been bewitched (obuloge), inherited family problems/ghosts of the clan (obulwaire obuletebwa empewo edhe' ekika)" [GM]*
- *"even health workers can advise such patients with those signs to consult traditional healers" [GM]*
- *"cannot differentiate a medical problem from a traditional one" [GM] (Rauschendorf et al., 2023)*
- *"think that they have been bewitched, even if the sickness is not traditional" [ECP] (Rauschendorf et al., 2023)*
- *"consuming medicines from the small jerricans. Can you imagine, the illness was a medical one but then I was managing it traditionally" [ECP, Ö]*

Andere sahen Kräuterheilkunde als Alternative bei chronischen chirurgischen Krankheitsbildern wie Hernien und Hämorrhoiden. Dies galt allerdings nicht bei Notfällen. Teilweise

wurde von präventiver Anwendung der Kräuterheilkunde berichtet, um das Auftreten von Krankheiten zu verhindern, die chirurgische Intervention benötigen würden.

- *"Someone went to those healers and was given herbs and his hernia disappeared. So, I also went there and used those herbs for one day but when I noticed no improvement, I gave up on them." [ECP, P] (Rauschendorf et al., 2023)*
- *"I was to have a normal delivery if I used the local herbs" [ECP, Ö] (Rauschendorf et al., 2023)*

Wieder andere vertraten die Ansicht, dass traditionelle Medizin im Anschluss an chirurgische Versorgung nötig werden kann, um die zugrundeliegende Ursache zu behandeln.

- *"Those other things of bewitching can come later after going to the health facility" [GM] (Rauschendorf et al., 2023)*
- *"Can a health worker tell you issues of the home? [...] But it is the traditional healer to tell you the facts. The health worker can suspect the cause of illness and tell the patient that maybe the patient delayed getting treatment, but when you go to these ones, they can tell you." [GM] (Rauschendorf et al., 2023)*

Viele ECP, GM, MP und DHO hatten eine kritische Sicht auf traditionelle Heilkundige. Es wurde die Ansicht vertreten, dass diese die Erkrankten davon abbringen würden biomedizinische Versorgung in Anspruch zu nehmen. Auf der anderen Seite wurde allerdings auch anerkannt, dass traditionelle Heilkundige mehr Zeit mit der Behandlung verbrächten und daher eine bessere Beziehung mit den Behandelten aufbauen könnten.

- *"traditional healers or herbalists who keep misguiding or giving false information to our clients" [Chirurg, P] (Rauschendorf et al., 2023)*
- *"When I applied the herbs, the piles went back but after some time, it re-occurred, and when I asked them about that, they told me that, the piles can only be healed with traditional medicine and so I continued with that medicine." [ECP, P] (Rauschendorf et al., 2023)*
- *"they tend to give more time to their patients actually and convince them adequately" [MD, P] (Rauschendorf et al., 2023)*

- *“When they want money, they just divert you from seeking medical care, yet they can't treat the problem at hand, they just confuse patients by assuring them how they can manage their health condition in just minutes.” [GM]*
- *“those who go there, you just know that they are being deceived, most times you find them with one herb and then he tells people that it heals many sicknesses like malaria, cough, like many sicknesses, just one herb to cure like 80 illnesses, so for someone who understands, you can't believe in such.” [GM]*
- *“they could be helped. But because we still have that way how we are managing things, bringing in the issue of the culture, there are so many conditions, medical conditions that my people in the villages believe they manage them.” [DHO]*

Gesundheitskompetenz

GM wurden nach Erkrankungen gefragt, die chirurgischer Behandlung bedürfen. Hierbei wurden erwähnt: physisches Trauma, Amputation, Kaiserschnitt, Eileiterschwangerschaft, Gebärmutterfibrom und -infektion, Hysterektomie, Tubenligatur, Krebs, Kropf (Struma), Geschwür, Hernie, Darmverschluss, Erkrankungen von Herz, Milz, Hirn, Augen und Zähnen. Hierbei wurden nicht alle Erkrankungen und Behandlungen gleich häufig genannt, ein Fokus waren gynäkologische und geburtshilfliche sowie Hernienoperationen.

Im Allgemeinen wurde von ECP ein mangelndes Bewusstsein für die möglichen Auswirkungen ihrer Erkrankung oder die Notwendigkeit einer Operation berichtet. Ein Beispiel war ein Patient, bei dem während einer Operation zur Behebung eines Darmverschlusses ein Milztumor erkannt wurde. Er war im Anschluss an die Behandlung des Darmverschlusses nicht zu weiteren Untersuchungen der Milz gegangen.

- *“people don't know that they require surgery” [Chirurg, G] (Rauschendorf et al., 2023)*
- *“they don't even know the impact of their condition” [MD, G] (Rauschendorf et al., 2023)*
- *“timely need for coming for health care” [DHO] (Rauschendorf et al., 2023)*

Mangelnde Allgemeinbildung und damit einhergehendes mangelndes Verständnis für Krankheiten wurde häufig erwähnt. GM erwähnten weiterhin, dass sie dem Personal im Gesundheitswesen blind vertrauen müssten, da sie nicht verstehen würden, was ihnen erklärt wird.

- *"I don't know whether I would attribute it to illiteracy or negligence or their perceptions" [MO, Ö].*
- *"perceptions are about education" [MO, Ö] (Rauschendorf et al., 2023)*
- *"ignorance, because I wasn't aware the illness needed a medical treatment" [ECP] (Rauschendorf et al., 2023)*
- *"those who never went to school don't know anything and you have to believe all what the health workers tell you" [GM] (Rauschendorf et al., 2023)*
- *"after taking blood samples from us, there's nothing you can understand" [GM] (Rauschendorf et al., 2023)*

Keine*r der befragten GM nahm Vorsorgeuntersuchungen in Anspruch. Um chirurgischen Krankheitsbildern vorzubeugen, wurde vorgeschlagen Arbeiten zu vermeiden, die zu chirurgischen Erkrankungen führen könnten. Hier stellt sich erneut die große Präsenz von Hernien im allgemeinen Bewusstsein dar.

- *"not doing work that can lead to have some challenges in terms of sickness." [ECP, Ö]*
- *"that was one measure to try and improve access. Decongest the hospital and take services nearer to the people." [DHO]*
- *"And health education, sensitizing communities" [DHO]*

Soziales Umfeld

Die Unterstützung durch das soziale Umfeld wurde als entscheidend zur Bewältigung der durch chirurgische Versorgung entstehenden Belastung beschrieben. Unterstützung innerhalb der (Dorf-)Gemeinschaft wurde einerseits als moralische Verpflichtung, andererseits als Absicherung im Falle eines eigenen Unglücksfalles gesehen.

- *“When you fail to support someone in need, then that means that you don’t know what’s going on in the world, because the problem may be mine today and then tomorrow it comes to your home.” [GM]*

Die häufigste Form der Unterstützung war die finanzielle Hilfe. Dies waren oft nur Kleinstbeträge (1000 UGX \approx 0.2 EUR), um zum Kauf von Medikamenten, Laboruntersuchungen etc. beizutragen. Gemeinschaftsmitglieder, die entweder ein Motorrad oder ein Auto besaßen, übernahmen die Transporte. Hier wurde dann jedoch erwartet, dass die Erkrankten oder deren Familie für das Benzin aufkommt. Sehr häufig wurde die emotionale Unterstützung durch Besuche beschrieben. Nach der Entlassung aus dem Krankenhaus wurden manche von Nachbar*innen in der Verrichtung täglicher Aufgaben wie Wasser holen unterstützt.

- *“they cared for me, gave me food and at most, even people came and visited me” [ECP, G]*
- *“money, others brought food for my care takers, while others brought traditional herbs” [ECP, private]*

Der Umfang der gegenseitigen Unterstützung unterschied sich zwischen den Gemeinschaften stark. Während manche beschrieben gar keine Unterstützung oder Besuche erhalten zu haben, berichteten Interviewte auf der Insel Buvuma von einem vom Dorfvorsteher geführten System. In Buvuma leben Menschen verschiedener ethnischer Herkunft zusammen, sodass die traditionellen familiengestützten Systeme der Unterstützung nicht greifen. Um dies auszugleichen, trugen alle zu einer Ortskasse bei, die vom Ortsvorstehenden verwaltet wurde. Im Falle eines Notfalls innerhalb der Gemeinschaft konnte so ausgeholfen werden.

- *“I never got any support apart from helping myself” [ECP, G]*
- *“no one came there” [ECP, Ö]*
- *“even a friend can fail to support you”*
- *“The good thing with the people of this community, [they] are full of a mixed reception, they all came from different locations, so they organized an arrangement that emphasizes that since we are all from different clans, and without unity it affects*

us, so people organized their own arrangement that in case one gets a problem, everyone has to be affected. [...] We formed groups and even the LC does his role of informing people of any problem in the area [...]. So, in case one does not have a father or relatives, it's a village arrangement through the LC to help out." [GM]

Die Familie spielt allerdings die Hauptrolle in der Unterstützung und Pflege. Sie trägt die finanzielle Verantwortung, ist ausschlaggebend bei der Entscheidungsfindung, stellt die Pflegeperson und ist für die Nachsorge verantwortlich. Der Umfang von Personen, die zu diesem direkt in die Versorgung einbezogenen Kreis gehörten, variierte von einer Person, wie Ehepartner*innen, dem Schwiegersohn, der Tante oder dem Onkel, zu den Eltern sowie größeren Strukturen, zum Beispiel den eigenen Kindern und den Kindern der Co-Frauen des Ehemannes.

- *"relatives from the maternal and paternal side and even my siblings"* [ECP, G]
- *"son-in-law sold the cow to cater for the medical bills"* [ECP, P]
- *"I was with my co- wives and they as well produced children, so in case one of us is sick, we support each other"* [GM]

Die Rolle der Familie bei der Entscheidungsfindung fand vielfach Erwähnung. ECP beschrieben häufig, sich mit Mitgliedern ihrer Familie bezüglich der Behandlung beraten zu haben. Bei jungen Patient*innen wurden oft Eltern als Entscheidungshilfen oder -träger genannt, während bei verheirateten Frauen der Ehemann genannt wurde. In einigen Fällen gaben Frauen jedoch an, die Entscheidung entweder aus Dringlichkeitsgründen oder geplant ohne ihren Ehemann getroffen zu haben. Ältere Patient*innen berieten sich häufig mit ihren Kindern. In Einzelfällen wurden Mitarbeitende im Gesundheitswesen als Entscheidungstragende genannt.

- *"I can't take any decision myself and then regret. When I am told anything, I tell my children [...] and it is the child to tell me, but with me I can't think for myself."* [ECP]
- *"I went for that operation to stop myself from producing more babies so as to be able to educate my children, I was very tired of producing and even tired of pushing, so I went without my husband's consent, I just decided on my own."* [ECP, P]

- *“I personally decided that if its death, let me die, even my husband never signed on the consent form, he reached when I had already signed due to the pain at that time” [ECP, Ö]*

Aus dem Kreis der Familie wird gewöhnlich eine Person den Erkrankten zur Pflege beigestellt. Diese Person übernimmt eine zentrale Aufgabe im Gesundheitssystem, da die Mitarbeitenden im Gesundheitswesen nur für die medizinische Versorgung verantwortlich sind. Das pflegende Familienmitglied sorgt für die Erfüllung der Grundbedürfnisse des*der Erkrankten, übernimmt also die Versorgung mit Essen, Getränken, sorgt für die Körperhygiene etc. Manchmal übernimmt die pflegende Person auch Aufgaben, die eigentlich medizinisch ausgebildetes Personal durchführen sollte. Dies wurde insbesondere von ärztlichen Befragten häufig bemängelt, da es ihres Erachtens nach zu schlechteren Ergebnissen führte.

- *“If you have no effective caregiver, it’s a big challenge.” [ECP, Ö] (Rauschendorf et al., 2023)*
- *“They carry the burden, the financial, emotional and so on” [Chirurg, Ö] (Rauschendorf et al., 2023)*
- *“responsibilities channel to the relatives” [MO, Ö] (Rauschendorf et al., 2023)*
- *“the health worker can just ignore you because no care taker has organized the treatment so they just pass you to another patient” [ECP, Ö] (Rauschendorf et al., 2023)*

Nach der Entlassung fand die Entlastung der Operierten durch Hilfe bei der Nachsorge sowie der Körperhygiene vor allem durch Angehörige Erwähnung.

Qualität der Versorgung und Behandlung

Die Definition guter Versorgung war bei den Teilnehmenden unterschiedlich. Während einige die medizinische Behandlung als ausschlaggebend empfanden, hoben andere vor allem soziale Aspekte hervor, zum Beispiel, wie die Mitarbeitenden im Gesundheitswesen mit Patient*innen sprechen.

- *“timely treatment” [ECP, P] (Rauschendorf et al., 2023)*
- *“in a friendly manner” [ECP, G] (Rauschendorf et al., 2023)*
- *“to be cared for, is when the health worker comes in the ward and greets you asking about how the night was, how you feel, the condition of the baby and other issues like that.” [ECP, Ö] (Rauschendorf et al., 2023)*

In beiden Bereichen wurden Mängel beschrieben. Eine Teilnehmerin berichtete, einen Monat ohne richtige Behandlung im Krankenhaus gewesen zu sein, bevor sie in eine Privatklinik ging, wo sie operiert wurde. Ein weiterer Patient beschrieb eine intraoperative Situation, bei der vor Einsetzen der Narkose scheinbar mit der Operation begonnen worden war, wodurch der Patient starke Schmerzen erlitten hatte. Es wurde außerdem eine Situation geschildert, in der eine Hebamme eine Patientin geschlagen hatte, da diese sich auf dem Weg in den Operationssaal für einen Kaiserschnitt während einer Wehe vor anderen Patienten entblößt hatte. Die Patientin berichtete, dass dies allerdings Konsequenzen für die Hebamme gehabt habe.

- *“when I was still half sedated, they cut me but the way they pulled my scrotum with much force I felt terrible pain in the intestines” [ECP, P] (Rauschendorf et al., 2023)*
- *“for a full month without proper treatment” [ECP]*
- *“felt something like a baby coming out then I widened my legs as if I was going to deliver, then the nurse slapped me for widening the legs, and exposing my nakedness to the people” [ECP, Ö] (Rauschendorf et al., 2023)*

ECP hatten häufig den Eindruck, dass die Qualität der Versorgung mit ihren finanziellen Mitteln zusammenhing. Personen, die die verlangten Gebühren zahlen konnten, erhielten demnach bessere Versorgung. Andere schrieben die gute Qualität der Versorgung, die sie erhalten hatten, ihren persönlichen Beziehungen innerhalb der Gesundheitseinrichtung zu, zum Beispiel als Familienmitglied, Bekannte*r oder ehemalige*r Lehrer*in eines Mitarbeitenden in der Gesundheitseinrichtung. Ein ECP hielt seinen Bildungsstand für ausschlaggebend.

- *“they respected me because first of all I am educated and I interacted with them in English during all the chats” [ECP, G] (Rauschendorf et al., 2023)*

- *“to pay her 60,000 shillings for quick treatment and we go home instead of being admitted in the ward” [ECP, Ö] (Rauschendorf et al., 2023)*
- *“There was that first one I saw, he had even refused to operate me, and if the second one had not shown up, I was going to die” [ECP, Ö] (Rauschendorf et al., 2023)*

Es wurde vielfach von postoperativen Schmerzen berichtet. In manchen Fällen waren diese so stark, dass ECP beschrieben, es würde sie von dem erneuten Aufsuchen chirurgischer Versorgung abhalten. Die postoperative Versorgung wurde auch seitens des medizinischen Personals bemängelt. Als Gründe hierfür wurden unter anderem nicht-spezialisierte Pflege und das Fehlen separater chirurgischer Stationen genannt.

- *“if you are lucky enough and your patient is operated, they carelessly stich and just dump him/her there for you. They are always not concerned with the aftereffects of the operation, it’s you to care for the patient.” [GM] (Rauschendorf et al., 2023)*
- *“lack of proper trained surgical nursing care” [Ärztlicher Leiter] (Rauschendorf et al., 2023)*
- *“let down by the postoperative care” [MO, Ö] (Rauschendorf et al., 2023)*

Das Fehlen guter poststationärer Möglichkeiten der Nachsorge wurde ebenfalls bemängelt. Manche ECP beschrieben, sie seien nie zu einer Nachsorgeuntersuchung gebeten worden. Auf der anderen Seite wurde vom medizinischen Personal beschrieben, dass Operierte nicht zu den Nachsorgeterminen erschienen und dies die Nachsorge erschwere. Außerdem gäbe es so kaum eine Möglichkeit nachzuvollziehen, ob Behandelte Komplikationen entwickelt haben. Manche MP schrieben sich die Telefonnummern von Operierten auf, um sie an Nachsorgetermine erinnern zu können. Ein Chirurg schlug Hausbesuche als Mittel zur adäquaten Nachsorge vor.

- *“not able to monitor them for any complications” [Chirurg, P] (Rauschendorf et al., 2023)*
- *“field visits” [Chirurg, P] (Rauschendorf et al., 2023)*

Medizinisches Personal: Vertrauen, Motivation, Arbeitsumfeld

Der Mitarbeitende im Gesundheitswesen wurde als entscheidender Faktor in der Gesundheitsversorgung angesehen.

- *“the health worker is the overall in this thing, he/she is the key to everything” [GM] (Rauschendorf et al., 2023)*

Der größte Teil des medizinischen Personals hatte den Eindruck, dass die Behandelten ihnen vertrauten. Ein Arzt meinte, dass die Patient*innen zwar dem medizinischen Personal vertrauten, jedoch nicht dem Gesundheitssystem. Auch bei ECP und GM gingen die Meinungen auseinander, je nach den individuellen Erfahrungen, die sie gemacht hatten. Einige drückten große Dankbarkeit aus, während andere gerade jungen Ärzt*innen gegenüber Vorbehalte hatten. Dies hängt wahrscheinlich mit der Tatsache zusammen, dass junge Ärzt*innen in Uganda in ihren ersten Jahren in entlegenen Gesundheitseinrichtungen arbeiten, wo sie häufig auf sich gestellt sind.

- *“saviour” [ECP, Ö] (Rauschendorf et al., 2023)*
- *“Those who come, trust us. What they don’t trust is the system. What they don’t trust is their government” [MO, Ö] (Rauschendorf et al., 2023)*
- *“most of the health workers are young boys, we don’t trust them” [ECP] (Rauschendorf et al., 2023)*
- *“health workers are difficult people, others care while others mind their own business, they just walk away from you yet you came expecting care” [GM]*

Finanzielle Interessen von medizinischem Personal wurden häufig im Zusammenhang mit Vertrauen genannt. Von ihnen wurde erwartet Entscheidungen auf Grundlage ethischer Grundsätze zu treffen. Geld sollte hierbei nur eine untergeordnete Rolle spielen. Es wurde häufig bemängelt, dass Mitarbeitende im Gesundheitswesen inoffizielle Gebühren erheben würden. Während die interviewten MP durchaus eine allgemein niedrige Arbeitsmoral wahrnahmen, beschrieben sie ihre eigene Motivation jedoch als hoch.

- *“first think about people’s health, then think about money” [GM] (Rauschendorf et al., 2023)*
- *“there are rewards in heaven” [GM] (Rauschendorf et al., 2023)*

- *“commitment to serve” [MO] (Rauschendorf et al., 2023)*
- *“sometimes it is necessary, where you see that life is more important” [MD, G] (Rauschendorf et al., 2023)*

Ein Chirurg sah es als problematisch an, dass Patient*innen kostenlose Versorgung erwarteten. Die dadurch entstehende Unterfinanzierung des Gesundheitssystems führe zu grundlegenden Problemen in der Versorgung, zum Beispiel zu hoher Arbeitsbelastung und niedrigen Gehältern, unregelmäßiger Bezahlung, fehlenden Geräten und Instrumenten sowie fehlenden Fortbildungsmöglichkeiten. Stipendien und Fortbildungen wurden als einfaches Mittel zur Erhöhung der Arbeitsmoral genannt. Ein DHO sah Kurzaufenthalte von Chirurg*innen aus dem Ausland als eine gute Möglichkeit an kurze Fortbildungen anzubieten.

- *“health care [...] being a basic need [...] we have to teach every individual to be responsible for their own lives and it costs something. Yes, just like food is a basic need, the government will not provide food for everybody” [Chirurg, G]*
- *“we are like 2 or 3 on duty and patients are many and we have to attend to them, sometimes you find that you have not reached up to that peak of caring for the patient.” (Rauschendorf et al., 2023)*
- *“Biggest one according to me is to put up scholarships for people to go and study. You know it is hard for someone to go for those trainings, to do further studies in those procedures when he is paying for himself.” [DHO]*
- *“Probably you might come with the skills where you come from, but the context differs. Then you also have something to learn with us, from us working with limited resources.” [DHO] (Rauschendorf et al., 2023)*

1.4 Diskussion

Neben Verfügbarkeit, Erreichbarkeit und Bezahlbarkeit sollte Annehmbarkeit als relevanter Faktor in der chirurgischen Versorgung untersucht und in die Versorgungsplanung einbezogen werden. Dies ist insbesondere in ehemaligen Kolonialstaaten relevant, da das

dortige Gesundheitssystem auf einem von den Kolonialmächten eingeführten biomedizinischen Konzept beruht, welches nur wenig Anpassung auf lokale Gegebenheiten und Vorstellungen erfahren hat.

In dieser qualitativen Interviewstudie ergaben sich sechs Themenbereiche, die Einfluss auf die Annehmbarkeit chirurgischer Versorgung in Uganda hatten:

- Wahrnehmung der Chirurgie
- Gesundheitsverständnis
- Gesundheitskompetenz
- Soziales Umfeld
- Qualität der Versorgung und Behandlung
- Medizinisches Personal: Vertrauen, Motivation, Arbeitsumfeld.

Die Ergebnisse können genutzt werden, um chirurgische Gesundheitsinitiativen und die allgemeine chirurgische Versorgung besser an die Anforderungen im Hinblick auf Annehmbarkeit der Zielgruppe anzupassen. Die Studie profitiert hierbei von den unterschiedlichen Perspektiven der interviewten Personen.

Eine zentrale Erkenntnis ist die Heterogenität in der Wahrnehmung der Chirurgie. Während einige die chirurgische Versorgung als letzten Ausweg und notfallmäßige Maßnahme betrachten, sehen andere sie als Möglichkeit die Ursache von Krankheiten zu identifizieren und zu beseitigen. Die Wahrnehmung von Chirurgie als letzte Option und Notfallmaßnahme führt dazu, dass die Patienten oder deren Eltern erst spät die Notwendigkeit einer Operation erkennen (Bearden et al., 2018; Butler et al., 2016). Dass chirurgische Behandlung andererseits auch als adäquate Therapie angesehen wird, zeigte sich in einer Studie von Mwaka et al. (2018) zur Wahrnehmung chirurgischer Behandlung von Gebärmutterhalskrebs. Diese unterschiedlichen Perspektiven können dazu beitragen gezielte Aufklärungskampagnen zu entwickeln, um das Verständnis und die Akzeptanz chirurgischer Eingriffe zu verbessern.

Auch die Wahrnehmung von den mit Operationen verbundenen Risiken spielt eine Rolle. Zu begründen ist dies zum Teil mit negativen Ergebnissen von Operationen in der Ver-

gangenheit. Gründe hierfür könnten der Mangel an spezialisiertem medizinischen Personal sein, was dazu führt, dass medizinische Maßnahmen oder Operationen durch weniger qualifiziertes Personal beziehungsweise nicht spezialisiertes ärztliches Personal durchgeführt werden (Baine et al., 2018; Lofgren et al., 2014; Albutt et al., 2018a). Nur erfahrene Ärzte sollten Operationen durchführen, wie bereits Befragte in einer Studie von Mwaka et al. (2018) forderten. Die Herkunft von Gerüchten, welche auch in den durchgeführten Interviews Erwähnung finden, wurde bereits bei Musambachime (1988) und White (2000) ausführlich besprochen. Negative Erfahrungen mit dem Gesundheitswesen an sich könnten ebenfalls eine abschreckende Rolle bei der Inanspruchnahme von Gesundheitsdienstleistungen spielen (Raykar et al., 2016).

Die Einstellung zu chirurgischer Versorgung wird wesentlich durch Gesundheitskompetenz beeinflusst. Mangelnde Allgemeinbildung schränkt die Fähigkeit ein, die vom medizinischen Personal erläuterten biomedizinischen Abläufe zu verstehen. Auch das Unwissen über die Abläufe im Operationssaal führt zu großer Unsicherheit in Bezug auf chirurgische Behandlung. Die Verbesserung der Gesundheitskompetenz, insbesondere im Bereich chirurgischer Zustände, sollte ein Schwerpunkt zukünftiger Interventionen sein, wie auch von Butler et al. (2016) in einer Studie vorgeschlagen wurde, die ergab, dass 25 % der unbehandelten pädiatrisch-chirurgischen Fälle auf nicht wahrgenommenen Bedarf zurückzuführen waren. Ähnliche Ergebnisse lieferten auch Bearden et al. (2018), bei denen 18 % der Kinder in ländlichen und 14,3 % der Kinder in städtischen Gebieten aus diesem Grund keine Behandlung für ihre chirurgischen Zustände erhielten. Allgemeine Bildung und Literalität können Erkrankte befähigen, bessere Entscheidungen bei der Suche nach medizinischer Versorgung für chirurgische Zustände zu treffen, wie auch von Fuller et al. (2018) und Davé et al. (2020) festgestellt wurde.

Das Gesundheitsverständnis spielt ebenfalls eine entscheidende Rolle. Die verschiedenen Vorstellungen von Krankheit und Gesundheit führen zum Aufsuchen unterschiedlicher Versorgungsmodalitäten. Als Alternativen zur biomedizinischen Versorgung gelten vor allem die sogenannten „witch doctors“ und Kräuterheilkundigen, wobei jedoch Uneinigkeit bezüglich der Behandlung durch traditionelle Heilkundige besteht. Manche suchen ausschließlich biomedizinische Einrichtungen auf, während andere durchaus Indikationen

für traditionelle Heilkunde sehen. Vorangegangene Studien berichteten, dass Patient*innen mit Erkrankungen des Gesichts, Schädels oder Halses zu 14.5% und Kinder mit chirurgischen Erkrankungen zu 19.7% traditionelle Heilkundige aufsuchten (Fuller et al., 2018; Butler et al., 2016). Medizinisches Personal und DHOs haben häufig eine negative Sicht auf die traditionelle Medizin aufgrund von Fehldiagnosen und Verzögerungen in der Behandlung. Unzureichende Behandlung durch traditionelle Heilkundige bei der alternden und pädiatrischen Bevölkerung wurde auch in vorangegangenen Studien beschrieben (Tran et al., 2019; Butler et al., 2016).

Umso wichtiger ist die Rolle des medizinischen Personals als primärer Interaktionspunkt zur biomedizinischen Versorgung. Während dem medizinischen Personal zum Teil großes Vertrauen entgegengebracht wird, wird auch von Skepsis dem Gesundheitssystem gegenüber berichtet. Eine mögliche Erklärung könnte die Kommunikation mit den Patient*innen und die Aufklärung über die Erkrankung und Behandlung sein, welche in der Literatur als nicht ausreichend oder nicht verständlich genug beschrieben wurde (Ochieng et al., 2015). Auch die Haltung den Patient*innen gegenüber spielt eine große Rolle. Soziale Aspekte werden als ebenso wichtig wie die medizinischen angesehen. Respekt und Mitgefühl wurden auch bei Close und Christie-de Jong (2019) als wichtige Faktoren in der chirurgischen Behandlung hervorgehoben. Das Empfinden, dass die Art der Behandlung vom sozio-ökonomischen Status, Bildungsgrad, Beziehungen zu medizinischem Personal und ihrer Möglichkeit Bestechungsgelder zu zahlen abhängt, wurde auch von Kagoya et al. (2013) berichtet. Informelle Zahlungen an medizinisches Personal, um Zugang zu Behandlungen zu erhalten, werden in Uganda seit langem beschrieben und erfuhren möglicherweise durch die Abschaffung der Nutzergebühren im März 2001 einen Aufschwung (Burnham et al., 2004; Anderson et al., 2017; Fonn et al., 2001).

Demgegenüber führen die schwierigen Arbeits- und Lebensbedingungen mit fehlenden Weiterbildungsangeboten, sowie der Mangel an Personal, Verbrauchsmaterialien und medizinischem Gerät zu einer starken Belastung des medizinischen Personals, die auch die Arbeitsmoral beeinflussen (Albutt et al., 2018b; Raykar et al., 2016). Fortbildungsmöglichkeiten werden als sinnvoll erachtet, um die Zufriedenheit des medizinischen Personals zu erhöhen. Hierbei bieten insbesondere Kurzaufenthalte von Chirurgen aus dem Ausland (surgical camps) eine gute Gelegenheit für die chirurgische Weiterbildung.

Neben dem medizinischen Personal spielt auch das soziale Umfeld eine große Rolle in der chirurgischen Versorgung. Bei Bearden et al. (2018), Tran et al. (2019) und Fuller et al. (2018) gaben mehrere Teilnehmende den Mangel an sozialer Unterstützung als Grund für ihr Fernbleiben von chirurgischer Versorgung an. Der Funktion des pflegenden Familienmitglieds kommt besondere Bedeutung zu. Sie ist entscheidend für die Behandlung, wie auch bei Sadigh et al. (2016) beschrieben, wo die emotionale Unterstützung und der Informationsfluss zur Familie durch Anwesenheit bei allen ärztlichen Kontakten positiv hervorgehoben wurden.

Im Allgemeinen besteht Zufriedenheit mit der chirurgischen Versorgung. Bei der chirurgischen Nachsorge bestehen allerdings viele Probleme. Das pflegende Familienmitglied spielt hier erneut eine große Rolle. Es erfolgt zum Beispiel das sogenannte „task shifting“, was bedeutet, dass Aufgaben, die eigentlich durch ausgebildetes medizinisches Personal ausgeführt werden sollten, durch Angehörige oder unausgebildete Hilfskräfte ausgeführt werden. Mangelndes Verständnis oder mangelnde Informationen zur postoperativ notwendigen Pflege, wie bei Barton et al. (2019) beschrieben, kann zu Komplikationen führen. Eigenständige Stationen mit speziell für die postoperative Versorgung ausgebildetem Pflegepersonal könnten eine Lösung sein. Dies ist jedoch aufgrund des Platzmangels in Gesundheitseinrichtungen nur eingeschränkt möglich. Zukünftige bauliche Maßnahmen sollten dringend unter Beachtung der Notwendigkeit separater chirurgischer Stationen durchgeführt werden.

Die poststationäre Nachbehandlung stellt eine große Schwierigkeit dar. Termine zur Nachsorge werden teils nicht angeboten, teils nicht wahrgenommen. Dies liegt mitunter an großen Distanzen vom Krankenhaus zum Wohnort und mangelnden finanziellen Mitteln (Barton et al., 2019). Hausbesuche wären zwar die ideale Form der Nachsorge, sind aber nicht umsetzbar. Eine größere Kapazität in den ambulanten Versorgungseinrichtungen könnte möglicherweise die Qualität der Nachsorge erhöhen (Barton et al., 2019).

1.5 Zusammenfassung

Diese Studie liefert Einblicke in die Faktoren, die die Annehmbarkeit der chirurgischen Versorgung in Uganda beeinflussen. Hierbei zeigt sich auch die Bedeutung einer angemessenen Berücksichtigung der kulturellen Rahmenbedingungen bei zukünftigen Interventionen. Neben dem biomedizinischen Behandlungsansatz, der manchmal als 'verwestlicht' wahrgenommen wird, sollten auch die sozialen und spirituellen Dimensionen chirurgischer Zustände berücksichtigt werden. Aspekte wie pflegende Familienmitglieder und die Bedeutung sozialer Unterstützung sollten als Teil des ugandischen Gesundheitswesens gewürdigt und in die chirurgische Versorgung integriert werden. Zur Verbesserung der Gesundheitskompetenz könnten Informations- und Aufklärungskampagnen zu chirurgischen Erkrankungen beitragen. Die Förderung der sozialen Kompetenz des medizinischen Personals hinsichtlich eines respektvollen Umgangs mit den Patienten wäre ein wichtiger Schritt hin zu einer positiveren Atmosphäre in Krankenhäusern und Gesundheitszentren. Strukturelle Verbesserungen und eine Erhöhung sowohl des Personalschlüssels als auch der Gehälter sind jedoch die grundlegende Voraussetzung für eine Arbeitsumgebung, in der eine angemessene und für die Patient*innen annehmbare chirurgische Versorgung stattfinden kann.

1.6 Literaturverzeichnis

Albutt K, Drevin G, Yorlets RR, Svensson E, Namanya DB, Shrimé MG, Kayima P. 'We are all serving the same Ugandans': A nationwide mixed-methods evaluation of private sector surgical capacity in Uganda. *PLoS One*, 2019; 14: e0224215

Albutt K, Punchak M, Kayima P, Namanya DB, Anderson GA, Shrimé MG. Access to Safe, Timely, and Affordable Surgical Care in Uganda: A Stratified Randomized Evaluation of Nationwide Public Sector Surgical Capacity and Core Surgical Indicators. *World J Surg*, 2018a; 42: 2303–2313

Albutt K, Yorlets RR, Punchak M, Kayima P, Namanya DB, Anderson GA, Shrimé MG. You pray to your God. *PLoS One*, 2018b; 13: 1-16

Albutt K, Namanya D, Anderson G, Kayima P. Uganda. In: Johnson W, Lin Y, Mukhopadhyay S, Meara J, Hrsg. *Surgical care systems strengthening: developing national surgical, obstetric and anaesthesia plans*. Geneva: World Health Organization, 2017: 4–7

Anderson GA, Ilcisin L, Kayima P, Abesiga L, Portal Benitez N, Ngonzi J, Ronald M, Shrimé MG. Out-of-pocket payment for surgery in Uganda. *PLoS One*, 2017; 12: 1-13

Baine SO, Kasangaki A, Baine EMM. Task shifting in health service delivery from a decision and policy makers' perspective: a case of Uganda. *Hum Resour Health*, 2018; 16: 1–20

Barton SJ, Sandhu S, Doan I, Blanchard L, Dai A, Paulenich A, Smith ER, van de Water BJ, Martin AH, Seider J, Namaganda F, Opolot S, Ekeji N, Bility MM, Bettger JP. Perceived barriers and supports to accessing community-based services for Uganda's pediatric post-surgical population. *Disabil Rehabil*, 2019: 1–12

Bearden A, Fuller AT, Butler EK, Tran T, Makumbi F, Luboga S, Muhumuza C, Ssenono V, Galukande M, Haglund M, Smith ER. Rural and urban differences in treatment status among children with surgical conditions in Uganda. *PLoS One*, 2018; 13: e0205132

Bickler SW, Weiser TG, Kassebaum N, Higashi H, Chang DC, Barendregt JJ, Noorhamed EV, Vos T. Global Burden of Surgical Conditions. In: Debas HT, Donkor P,

Gawande A, Jamison DT, Kruk ME, Mock CN, Hrsg. Essential surgery. Washington, DC: World Bank Group, 2015

Burnham GM, Pariyo G, Galiwango E, Wabwire-Mangen F. Discontinuation of cost sharing in Uganda. *Bull World Health Organ*, 2004; 82: 187–195

Butler EK, Tran TM, Fuller AT, Brammell A, Vissoci JR, Andrade L de, Makumbi F, Luboga S, Muhumuza C, Ssenonono VF, Chipman JG, Galukande M, Haglund MM, Smith ER. Quantifying the pediatric surgical need in Uganda. *Pediatr Surg Int*, 2016; 32: 1075–1085

Butler EK, Tran TM, Nagarajan N, Canner J, Fuller AT, Kushner A, Haglund MM, Smith ER. Epidemiology of pediatric surgical needs in low-income countries. *PLoS One*, 2017; 12: 1-9

Close KL, Christie-de Jong FTE. Lasting impact: a qualitative study of perspectives on surgery by adult recipients of free mission-based surgical care in Benin. *BMJ Open*, 2019; 9: e028235

Davé DR, Nagarjan N, Canner JK, Kushner AL, Wong GB. Global Burden of Craniofacial Disorders: Where Should Volunteering Plastic Surgeons and Governments Focus Their Care? *J Craniofac Surg*, 2020; 31: 121–124

Farber SH, Vissoci JRN, Tran TM, Fuller AT, Butler EK, Andrade L, Staton C, Makumbi F, Luboga S, Muhumuza C, Namanya DB, Chipman JG, Galukande M, Haglund MM. Geospatial Analysis of Unmet Surgical Need in Uganda: An Analysis of SOSAS Survey Data. *World J Surg*, 2017; 41: 353–363

Fonn S, Mtonga AS, Nkoloma HC, Bantebya Kyomuhendo G, daSilva L, Kazilimani E, Davis S, Dia R. Health providers' opinions on provider-client relations: results of a multi-country study to test Health Workers for Change. *Health Policy Plan*, 2001; 16 Suppl 1: 19–23

Fuller AT, Corley J, Tran TM, Butler EK, Vissoci JR, Andrade L, Makumbi F, Luboga S, Muhumuza C, Ssenonono VF, Chipman JG, Galukande M, Haglund MM, Smith ER. Prevalence of Surgically Untreated Face, Head, and Neck Conditions in Uganda. *World Neurosurg*, 2018; 110: e747-e754

Institute of Medicine (U.S.) Committee on Monitoring Access to Personal Health Care Services. Access to health care in America. In: Millman ML, Hrsg. Access to health care in America. Washington D.C.: National Academy Press, 1993

Kagoya HR, Kibuule D, Mitonga-Kabwebwe H, Ekirapa-Kiracho E, Ssempebwa JC. Awareness of, responsiveness to and practice of patients' rights at Uganda's national referral hospital. *Afr J Prim Health Care Fam Med*, 2013; 5

Linden AF, Sekidde FS, Galukande M, Knowlton LM, Chackungal S, McQueen KA. Challenges of surgery in developing countries. *World J Surg*, 2012; 36: 1056–1065

Lofgren J, Makumbi F, Galiwango E, Nordin P, Ibingira C, Forsberg BC, Wladis A. Prevalence of treated and untreated groin hernia in eastern Uganda. *Br J Surg*, 2014; 101: 728–734

McCord C, Kruk ME, Mock CN, Cherian M, Schreeb J von, Russell S, English M. Organization of Essential Services and the Role of First-Level Hospitals. In: Debas HT, Donkor P, Gawande A, Jamison DT, Kruk ME, Mock CN, Hrsg. Essential surgery. Washington, DC: World Bank Group, 2015: 213–230

McLaughlin CG, Wyszewianski L. Access to care: remembering old lessons. *Health Serv Res*, 2002; 37: 1441–1443

Meara JG, Leather AJ, Hagander L, Alkire BC, Alonso N, Ameh EA, Bickler SW, Conteh L, Dare AJ, Davies J, Merisier ED, El-Halabi S, Farmer PE, Gawande A, Gillies R, Greenberg SL, Grimes CE, Gruen RL, Ismail EA, Kamara TB, Lavy C, Lundeg G, Mkandawire NC, Raykar NP, Riesel JN, Rodas E, Rose J, Roy N, Shrimme MG, Sullivan R, Verguet S, Watters D, Weiser TG, Wilson IH, Yamey G, Yip W. Global Surgery 2030. *Int J Obstet Anesth*, 2016; 25: 75–78

Meara JG, Leather AJM, Hagander L, Alkire BC, Alonso N, Ameh EA, Bickler SW, Conteh L, Dare AJ, Davies J, Mérisier ED, El-Halabi S, Farmer PE, Gawande A, Gillies R, Greenberg SLM, Grimes CE, Gruen RL, Ismail EA, Kamara TB, Lavy C, Lundeg G, Mkandawire NC, Raykar NP, Riesel JN, Rodas E, Rose J, Roy N, Shrimme MG, Sullivan R, Verguet S, Watters D, Weiser TG, Wilson IH, Yamey G, Yip W. Global Surgery 2030: evidence and solutions for achieving health, welfare, and economic development. *Lancet*, 2015; 386: 569–624

- Musambachime MC. The Impact of Rumor: The Case of the Banyama (Vampire Men) Scare in Northern Rhodesia, 1930-1964. *Int J Afr Hist Stud*, 1988; 21: 201
- Mwaka AD, Okello ES, Wabinga H. Perceptions and beliefs of lay people from northern Uganda regarding surgery for diagnosis and treatment of cervical cancer. *Psychooncology*, 2018; 27: 1965–1970
- Nwanna-Nzewunwa OC, Ajiko M-M, Kirya F, Epodoi J, Kabagenyi F, Batibwe E, Feldhaus I, Juillard C, Dicker R. Barriers and facilitators of surgical care in rural Uganda: a mixed methods study. *J Surg Res*, 2016; 204: 242–250
- Ochieng J, Buwembo W, Munabi I, Ibingira C, Kiryowa H, Nzarubara G, Mwaka E. Informed consent in clinical practice: patients' experiences and perspectives following surgery. *BMC Res Notes*, 2015; 8: 765
- O'Neill KM, Greenberg SLM, Cherian M, Gillies RD, Daniels KM, Roy N, Raykar NP, Riesel JN, Spiegel D, Watters DA, Gruen RL. Bellwether Procedures for Monitoring and Planning Essential Surgical Care in Low- and Middle-Income Countries: Caesarean Delivery, Laparotomy, and Treatment of Open Fractures. *World J Surg*, 2016; 40: 2611–2619
- Penchansky R, Thomas JW. The concept of access: definition and relationship to consumer satisfaction. *Medical care*, 1981; 19: 127–140
- Rauschendorf P, Nume R, Bruchhausen W. Acceptability of surgical care in Uganda: a qualitative study on users and providers. *BMJ Open*, 2023; 13: e070479
- Raykar NP, Yorlets RR, Liu C, Goldman R, Greenberg SLM, Kotagal M, Farmer PE, Meara JG, Roy N, Gillies RD. The How Project: understanding contextual challenges to global surgical care provision in low-resource settings. *BMJ Glob Health*, 2016; 1: e000075
- Sadigh M, Nawagi F, Sadigh M. The Economic and Social Impact of Informal Caregivers at Mulago National Referral Hospital, Kampala, Uganda. *Ann Glob Health*, 2016; 82: 866–874

Sekhon M, Cartwright M, Francis JJ. Acceptability of healthcare interventions: an overview of reviews and development of a theoretical framework. *BMC Health Serv Res*, 2017; 17: 88

Tran TM, Fuller AT, Butler EK, Muhumuza C, Ssenono VF, Vissoci JR, Makumbi F, Chipman JG, Galukande M, Haglund MM, Luboga S. Surgical need among the ageing population of Uganda. *Afr Health Sci*, 2019; 19: 1778–1788

Uganda Bureau of Statistics. 2020 Statistical Abstract. Verfügbar unter https://www.ubos.org/wp-content/uploads/publications/11_2020STATISTICAL__ABSTRACT_2020.pdf (Zugriffsdatum: 1/15/2021)

Uganda Bureau of Statistics, UNICEF, World Bank. Poverty Maps of Uganda. Verfügbar unter https://www.ubos.org/wp-content/uploads/publications/02_2020Poverty_Map_report__Oct_2019.pdf (Zugriffsdatum: 1/15/2021)

White L. *Speaking With Vampires*. Berkeley, Calif.: University of California Press, 2000

World Health Organization., 2022. Ensuring safe and affordable surgery. Verfügbar unter <https://www.who.int/westernpacific/activities/ensuring-safe-and-affordable-surgery> (Zugriffsdatum: 9/4/2023)

2. Veröffentlichung

BMJ Open Acceptability of surgical care in Uganda: a qualitative study on users and providers

Paula Rauschendorf ¹, Rosette Nume,² Walter Bruchhausen¹

To cite: Rauschendorf P, Nume R, Bruchhausen W. Acceptability of surgical care in Uganda: a qualitative study on users and providers. *BMJ Open* 2023;**13**:e070479. doi:10.1136/bmjopen-2022-070479

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2022-070479>).

Received 08 December 2022
Accepted 15 June 2023

ABSTRACT

Objectives This study was conducted to assess acceptability of surgical care in Eastern Uganda and enable better allocation of resources, and to guide health policy towards increased surgical care seeking.

Design This qualitative study used semistructured in-depth interviews that were transcribed and analysed by coding according to grounded theory.

Setting The study was set in Eastern Uganda in the districts of Jinja, Mayuge, Kamuli, Iganga, Luuka, Buikwe and Buvuma.

Participants Interviews were conducted with 32 past surgical patients, 16 community members who had not undergone surgery, 17 healthcare professionals involved in surgical treatment and 7 district health officers or their deputies.

Results The five intersecting categories that emerged were health literacy, perceptions, risks and fears, search for alternatives, care/treatment and trust in healthcare workers. It was also demonstrated that considering the user and provider side at the same time is very useful for a more extensive understanding of surgical care-seeking behaviour and the impact of user–provider interactions or lack thereof.

Conclusion While affordability and accessibility are well defined and therefore easier to assess, acceptability is a much less quantifiable concept. This study breaks it down into tangible concepts in the form of five categories, which provide guidance for future interventions targeting acceptability of surgical care. We also demonstrated that multiple perspectives are beneficial to understanding the multifactorial nature of healthcare seeking and provision.

INTRODUCTION

In 2015, the Lancet Commission Report on Global Surgery highlighted the inequity of the global burden of surgical disease and access to care.¹ Surgical care, which is defined as ‘any intervention directed at reducing the disability or premature death associated with a surgical condition’,² has been found to be highly effective in reducing the burden of disease and disability-adjusted life-years lost.³ Uganda faces a high unmet need for surgery,^{4–6} with few operating theatres (OTs) (0.2 major OTs per 100 000 people)⁷ and a low surgeon density of 0.73 surgeons per

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This study provides multiple perspectives by analysing interviews with local health officials, (potential) users, and providers of surgical care.
- ⇒ Among the interviewees of each group, diversity was created through purposive sampling.
- ⇒ This study is limited by its small sample size and geographical area, despite its attempt for representativity.
- ⇒ After analysis of the first set of interviews, some questions were rephrased following grounded theory to increase clarity.

100 000 persons.⁶ Wards are overbooked⁸ and shortages of necessities such as water, electricity, equipment and limited access to blood banks further hinder safe surgical care.⁹

The inequity in the burden of surgical disease and access to care, in the context of Universal Health Coverage as a target of the Sustainable Development Goal 3¹⁰ underscores the importance of accessible, affordable, and acceptable surgical care. While accessibility^{11–13} and affordability¹⁴ of surgical care have been thoroughly researched in Uganda, the acceptability of surgical care has not been a focus.

Acceptability of care was defined by Sekhon *et al* as ‘a multifaceted construct that reflects the extent to which people delivering or receiving a healthcare intervention consider it to be appropriate, based on anticipated or experienced cognitive and emotional responses to the intervention.’¹⁵ It is influenced by a multitude of factors such as the quality of healthcare facilities, availability and attitudes of and towards healthcare personnel, perceptions, risks, and fears associated with healthcare, available alternatives, and health literacy, which can be defined as ‘the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.’¹⁶



© Author(s) (or their employer(s)) 2023. Re-use permitted under CC BY. Published by BMJ.

¹Section Global Health, Institute of Hygiene and Public Health, University of Bonn, Bonn, Germany

²School of Women and Gender Studies, Makerere University, Kampala, Uganda

Correspondence to

Dr Paula Rauschendorf;
p.rauschendorf@outlook.de



Research on acceptability of care can provide insights into reasons for low uptake of surgical care and inform resource allocation and health policies. Acceptability of care needs to be assessed from multiple perspectives: patients, the broader public, healthcare providers, and health officials can each provide a unique viewpoint. Therefore, this study analyses interviews with former surgical patients (FP), community members (CM), surgical healthcare workers (HW) and district health officers (DHO).

METHODS

Study design

This qualitative study used semistructured in-depth interviews that were transcribed, translated if needed, and analysed by coding according to grounded theory. Grounded theory is a qualitative research method aimed at developing theories from data and their analysis^{17–19} that can increase understanding of social behaviours and processes, for example, in patient care.²⁰ Due to its inductive nature, it is often used in fields with little prior research.

Patient and public involvement

There was no patient or public involvement in the study prior to data collection.

Setting and participants

The interviews were conducted from August to September 2019 in the districts of Jinja, Mayuge, Kamuli, Iganga, Luuka, Buikwe, and Buvuma. They are located in South-Eastern Uganda and have an estimated population of 2.84 million.²¹ The Eastern region of Uganda has a significantly higher poverty rate than the national average.²²

We interviewed members of four groups in each district:

- ▶ Six FPs and
 - ▶ Three CMs who had not had surgery from three different communities which were selected purposively with regards to distance to the next surgery providing healthcare facility and distance from the main road. One community was chosen near a surgical facility, one was chosen to be further from a facility but along the main road, and one was chosen further away from both the facility and the main road.
 - ▶ Three HW involved in surgical care, including representatives from a private for-profit (PFP), private not-for-profit (PNFP), and government (public) facility. In districts where PFP or PNFP facilities were lacking, either two interviews were conducted at a government facility, or one interview was conducted in the district. To ensure diversity and minimise selection bias, different medical cadres were interviewed in each sector, following purposive sampling.
 - ▶ The DHO.
- The sampling strategy is provided in [figure 1](#).

Interview guide

The process of developing the interview guides involved reviewing relevant literature, identifying key concepts or themes, and crafting open-ended questions to elicit in-depth responses from the interviewees. The final interview guides were structured in a logical sequence to facilitate a smooth flow of the interviews and to ensure that all relevant topics were covered. The interview guides served as a flexible tool that allowed for probing and follow-up questions based on the responses of the interviewees, ensuring that a rich and comprehensive data set was collected during the interviews. After analysis of the first set of interviews, some questions were rephrased for clarity.

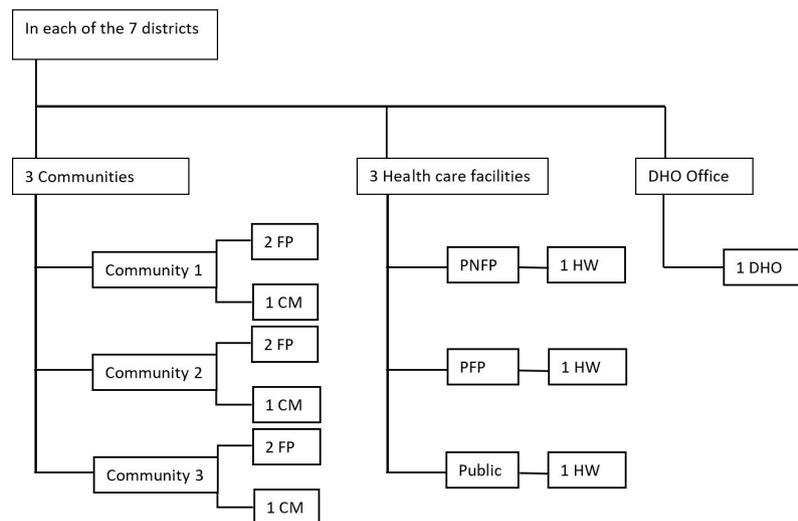


Figure 1 Sampling strategy per district. The goal was to conduct six interviews with former patients (FP) and three interviews with community members (CM) from three different communities, three interviews with healthcare workers (HW) from distinct types of facilities (one from a private for-profit (PFP) facility, one from a private not-for-profit (PNFP) facility, and one from a public facility), and one interview with the District Health Officer (DHO).



During the interviews, FPs were asked about their experience with surgery, delays in healthcare seeking, reasons for uncertainty, consultations outside of biomedical healthcare, decision making, the process of their surgical treatment, changes in perception of surgery, community support, and suggestions for improvement of health facilities. CMs were asked about their thoughts on surgery and perceived struggles, their health behaviours, knowledge of surgical conditions, financial impact, health insurance coverage, and their concerns pertaining to surgery.

HWs were asked about their experience in providing surgical care, difficulties, improvements and patient perceptions. Interviews with DHOs commenced with a question about obstacles in providing access to healthcare, particularly surgical care, followed by questions about supply chains, health education campaigns, the surgical workforce, and involvement of non-governmental organisations.

For full interview guides please refer to online supplemental appendix 1–4.

Data collection

Overall, 72 interviews were conducted. Community interviews were conducted in Lusoga. Interviews with HWs and DHOs were conducted in English or Lusoga depending on preference.

The DHO was approached for an interview and simultaneously permission was obtained to interview HWs in the district. Then HWs were invited to participate in the study at their respective healthcare facilities. CMs were engaged and asked if they had undergone surgery or could refer to someone who had. This process was repeated until two FPs and one CM were recruited.

Theoretical saturation was reached towards the end of sampling, defined as the ‘point in category development at which no new properties, dimensions or relationships emerge during analysis’²³ and ‘new data collection (indicated by theoretical sampling) does not lead to any further changes to the theory’.²⁴ This suggests that the sample size was sufficient for addressing the research questions and achieving the research objectives.

Interviews were audio recorded, transcribed verbatim, and anonymised. Translations to English were performed if the original language of the interview was not English.

Data analysis

Data were analysed using MAXQDA Pro Analytics. MAXQDA is a qualitative data analysis software that provides various tools and features for analysing qualitative data. The software allows researchers to organise, code and analyse text, audio, video, and image data in a systematic and rigorous manner. Interview transcripts were coded according to grounded theory by finding the keywords in each section. Codes were grouped into subcategories and sorted into larger categories.

RESULTS

Interviews were conducted with 33 FPs, 16 CMs, 17 HWs, and 7 DHOs or their deputies.

Demographic data of the sample can be found in tables 1 and 2.

During the analysis, five dimensions of acceptability of surgical care emerged. Health literacy was found to impact healthcare-seeking behaviour and shape expectations about surgical care, which were further influenced by fears and perceptions of surgery. Comparisons were made between surgical care and alternative healthcare options. Trust in the healthcare worker, as well as care and treatment, influenced patients’ experiences and attitudes.

Health literacy: impact and improvement

Low levels of health literacy impacted healthcare-seeking negatively according to many participants from all groups. A DHO lamented that patients did not know the ‘*timely need for coming for healthcare*’. HWs supported this and explained that ‘*people don’t know that they require surgery*’ (surgeon, PNFP) or ‘*the impact of their condition*’ (medical doctor (MD), PNFP). An FP mentioned that a mass in his spleen was discovered during an intestinal obstruction surgery one year before, but he did not seek further medical evaluation afterward.

Many FPs reported waiting for a long time before seeking care, as one said: ‘*I delayed a bit. I think it was around [...] 10 years*’ (FP, PFP). Along with other participants, another FP attributed the delay to his ‘*ignorance, because I wasn’t aware the illness needed a medical treatment*’ (FP). Some participants described self-medicating, as in this example: ‘*When I am sick, I just buy medicine of 2000 to 3000 shillings and if that sickness doesn’t respond to the treatment, I continue changing the type of treatment until I get better.*’ (CM)

Low levels of general education were discussed, since ‘*perceptions are about education*’ (medical officer (MO), public). An HW described struggling to find a comprehensible way to explain surgical conditions to the patients. CMs similarly said: ‘*after taking blood samples from us, there’s nothing you can understand*’ (CM) and ‘*those who never went to school don’t know anything and you have to believe all what the healthcare workers tell you*’ (CM).

While many CMs demonstrated knowledge of obstetric conditions and hernia, other conditions such as goitre, ulcer and cancer were less frequently mentioned. An HW attributed this to the fact that ‘*surgery doesn’t have enough advocacy, but obstetric, emergency obstetric care has received a lot of advocacy and a lot of funding*’ (MO, public). He described the increase in health education campaigns around obstetric emergencies had led to women ‘*coming to the facilities, seeking care, surgical care compared to general surgery.*’ (MO, public). Another MO (PNFP) confirmed the importance of such campaigns for recruiting patients.

Therefore, more health education specific to surgery was proposed to improve surgical care seeking. Suggestions included campaigns broadcasted via radio and

**Table 1** Demographic characteristics of FP and CM

Characteristic	FPs		CMs	
		Percentage		Percentage
Sex				
Female	21	63.6	10	62.5
Male	12	36.4	6	37.5
Age (years)				
<20	3	9.1	0	0.0
21–40	12	36.4	3	18.8
41–60	12	36.4	10	62.5
61–80	5	15.2	3	18.8
>80	1	3.0	0	0.0
Level of education				
Tertiary	3	9.1	2	12.5
Secondary	8	24.2	3	18.8
Primary	9	27.3	11	68.8
None	5	15.2	0	0.0
No answer	8	24.2	0	0.0
Employment status				
Self-employed	2	6.1	4	25.0
Unemployed	16	48.5	11	68.8
Formal employment	6	18.2	0	0.0
Retired	1	3.0	0	0.0
No answer	8	24.2	1	6.3
Time of surgery				
2015–2019	15	45.5		
2010–2014	4	12.1		
2005–2009	3	9.1		
Before 2005	1	3.0		
No answer	10	30.3		
Facility type				
Public	16	48.5		
PNFP	5	15.2		
PFP	8	24.2		
No answer	4	12.1		

CM, community member; FP, former patient; PFP, private for profit; PNFP, private non-for-profit.

television as well as outreaches and village health teams (VHTs) ‘to identify some of these complications—the illnesses—and educate, give some health education and refer these people to where they can get services’ (Surgeon, PFP). One HW raised concerns that educating the population had to be linked with building surgical capacity to accommodate the anticipated increase in surgical patients.

Perceptions and fears of surgery

Surgery was perceived by CMs and FPs as a way of ‘reducing the sickness that is bothering you’ (FP, PNFP) by ‘cutting you open to see the cause of sickness and remove the unwanted stuff’

(FP, PFP), oftentimes with urgency: ‘the patient is in a critical and not understandable condition, then why can that patient not be taken to be operated’ (CM). Surgical care was described as a last resort by CMs and FPs, often only an option ‘when the condition that calls for the operation is very extremely severe, when the pain is so so beyond, without giving you time to eat, drink or walk, I mean when the illness is at its maximum, then there you can decide to go for the operation’ (CM).

The risk associated with surgery was often named as ‘you can come back or not come back’ (CM). A surgeon (PNFP)

**Table 2** Demographic characteristics of HW

Characteristic	HWs	
		Percentage
Sex		
Female	4	23.5
Male	13	76.5
Profession		
Nurse	1	5.9
Midwife	1	5.9
Theatre assistant	1	5.9
Medical officer	4	23.5
Medical doctor	6	35.3
Surgeon	3	17.6
Obstetrician	1	5.9
Facility type		
Public	8	47.1
PNFP	5	29.4
PFP	4	23.5

HW, healthcare worker; PFP, private for profit; PNFP, private non-for-profit.

attributed these sceptical attitudes to the fact that *‘in the past, the results from surgery have not been good. It has been between life and death.’* One of the DHOs mentioned that cases with complications are overly emphasised causing a prevalent misconception that surgery is unsafe. Seeming medical malpractice in anaesthesia was described by one FP (PFP): *‘When I was still half sedated, they cut me but the way they pulled my scrotum with much force I felt terrible pain in the intestines’.*

Participants mentioned the fear that surgeons would leave instruments or swabs in the patient with possible complications and reoperations. One recounted that the people *‘normally say that when they go for surgery, they make you more disabled, not allowed to do certain work’* (CM). Another example was the fear that putting a patient *‘on oxygen means he’s going to die’* (nurse, PNFP). Also, there were *‘rumours that healthcare workers steal certain organs from the patients’* (CM) which led to fear in the community. One FP (public) suggested having a relative of the patient in the theatre to *‘see the procedures of the operation and what they have removed from the patient’.*

One midwife (PFP) saw an increase in trust after successful operations, which was also apparent in some interviews with FPs: *‘healthcare providers can operate and after the operation, you can wake up and resume with normal walking, healthy person, and the illness is taken away you can become better, and you live a healthy life.’* (FP, PNFP) Another FP (PFP) described how she was asked after her surgery *‘not to scare my fellow women that the health facility was a terrible place; they told me to advise my friends to go for medical procedures’.* This demonstrates that staff feels the need for improving the reputation of surgical treatment. As a way

of counteracting patient fear, effective preoperative counselling was suggested by FPs and HWs.

Understanding of illness and the search for alternatives

Surgical conditions as seen from a biomedical perspective were mostly regarded by FPs and CMs as necessitating biomedical treatment, and many participants named biomedical facilities as their only source of healthcare. Patients mostly became aware that their condition was surgical after it had been identified as such by an HW. One FP (PNFP) stated: *‘sickness that is meant for operation, still goes for operation, there is no alternative’.* In contrast to the view that surgical conditions always necessitate surgery, one medical officer described that pertaining to surgical diagnosis *‘they [the patients] think there is something that you have not done. They think you should have given some medication for that condition.’*

Herbal medicine, for example, was described as a way of preventing surgery under certain circumstances: *‘I was to have a normal delivery if I used the local herbs’* (FP, public). It was only mentioned in the context of chronic conditions like hernia, not as an alternative in emergency or trauma cases. An FP described *‘someone went to those healers and was given herbs and his hernia disappeared, so I also went there and used those herbs for one day but when I noticed no improvement, I gave up on them.’* (FP, PFP). Another example was given by an FP (PFP) with haemorrhoids, who was later operated: *‘when I applied the herbs, the piles went back but after some time, it re-occurred, and when I asked them about that, they told me that, the piles can only be healed with traditional medicine and so I continued with that medicine.’* HWs expressed frustration but blamed it on the *‘traditional healers or herbalists who keep misguiding or giving false information to our clients’* (surgeon, PFP) and the lack of knowledge concerning surgical conditions.

Similarly, when asked about traditional healers in the area, many respondents voiced distrust because they would not *‘reveal that your condition needs surgical treatment. When they want money, they just divert you from seeking medical care, yet they can’t treat the problem at hand.’* (CM) However, some participants also saw fault with the patients that sometimes *‘cannot differentiate a medical problem from a traditional one’* (CM) and *‘think that they have been bewitched, even if the sickness is not traditional’* (FP). This shows an understanding of ill-health and healing of two separate spheres with different illnesses and their corresponding healthcare, that is, an alternative between ‘medical’ and ‘traditional’.

Differing from this understanding of two completely distinct types of illness and treatment, a CM argued *‘those other things of bewitching can come later after going to the health facility’* (CM). Here, the common view of complementary functions is expressed that biomedicine may—even quickly—remove the damage like hernia, but not the underlying cause like bewitchment, as one said: *‘Can a healthcare worker tell you issues of the home? [...] But it is the traditional healer to tell you the facts. The healthcare worker can suspect the cause of illness and tell the patient that maybe the*



patient delayed getting treatment, but when you go to these ones, they can tell you.' (CM).

Care and treatment

The received care was commonly described as good. Good was, however, defined differently by FPs, for example, as not being mistreated or being spoken to *'in a friendly manner'* (FP, PNFP). Others voiced more specific expectations: *'to be cared for, is when the healthcare worker comes in the ward and greets you asking about how the night was, how you feel, the condition of the baby and other issues like that.'* (FP, public) For others, the focus was more on the medical aspects like receiving *'timely treatment'* (FP, PFP).

The type of care received was commonly attributed to the patient's financial situation, where paying the asked amount was linked to good care and medical treatment, whereas patients with financial constraints were often mentioned to receive worse treatment. Other FPs attributed the good care they received to personal relationships with the HWs. One FP (PNFP) reported that *'they respected me because first of all I am educated, and I interacted with them in English during all the chats'*.

Despite general satisfaction, some complaints were voiced like going through episodes of extreme pain after surgery, some to the extent, that it would prevent future surgical care seeking. Other FPs mentioned mistreatment by HWs, for example, a female FP (public) was on a trolley to the operation theatre for a C-section when she *'felt something like a baby coming out then I widened my legs as if I was going to deliver, then the nurse slapped me for widening the legs, and exposing my nakedness to the people'*. The nurse was held accountable for her actions. A CM lamented: *'if you are lucky enough and your patient is operated on, they carelessly stitch and just dump him/her there for you. They are always not concerned with the aftereffects of the operation, it's you to care for the patient.'*

This alludes to the important role of informal caregivers in Ugandan healthcare. *'They carry the burden, the financial, emotional, and so on'* (surgeon, public). Their importance was highlighted multiple times throughout interviews, for example when one FP (public) said, *'if you have no effective caregiver, it's a big challenge'*. The informal caregiver has different responsibilities, mainly taking care of the basic needs of patients while at the hospital and providing emotional support. One FP (public) stated, that when patients did not have their treatment readily prepared by their informal caregiver, nurses *'just pass to another patient'*.

The *'lack of proper trained surgical nursing care'* (medical superintendent) led to some surgeons feeling *'let down by the postoperative care'* (MO, public). A nurse (PNFP) explained: *'we are like 2 or 3 on duty and patients are many and we have to attend to them, sometimes you find that you have not reached up to that peak of caring for the patient'*. Therefore, sometimes *'responsibilities channel to the relatives'* (MO, public) that should be carried out by medical personnel. A surgeon noted that this led to problems in the after-care of operations. HWs also highlighted that the lack

of separate surgical wards was a challenge to providing specialised care. To counteract these challenges, more training, a separate surgical ward, and an increase in staff were suggested.

Follow-up of operations was another theme that emerged. Some FPs said they had not been asked back for follow-up. HWs commonly said that review dates were scheduled with patients, but attendance varied. This was a challenge for surgical staff, as doctors were then *'not able to monitor them for any complications'* (Surgeon, PFP). Varying commitment from HWs was apparent, with some recording patients' numbers and calling to check-up and some visiting their patients at home. A surgeon (PFP) suggested that regular *'field visits'* could improve follow-up.

Healthcare workers: trust and misbehaviour

Closely linked to care and treatment was the patient–HW relationship. As one CM stated: *'the healthcare worker is the overall in this thing, he/she is the key to everything'*. Trust and lack thereof were commonly mentioned.

Most interviewed HWs agreed that they felt trusted by patients. Some FPs described a trustful relationship, with one mentioning being taken care of by a doctor off-duty and another calling the doctor a *'saviour'* (FP, public). One medical officer (public) differentiated: *'Those who come, trust us. What they don't trust is the system. What they don't trust is their government'*. Contrastingly, distrust in the surgical skills of healthcare workers was also mentioned with one FP saying: *'most of the healthcare workers are young boys, we don't trust them'*. This is caused by the regulation that demands service in remote communities in the first years after graduation. One doctor (PFP) highlighted that this was a major difference to traditional healers, as they *'tend to give more time to their patients actually and convince them adequately'*. The overwhelming workload and little time spent with the patient were given as reasons for the lack of trust in the healthcare system and HWs.

HWs were expected to *'first think about people's health, then think about money'* (CM) because *'there are rewards in heaven'* (CM). Work ethics of HWs were a concern to participants from the community, who described nurses and doctors commonly asked for informal payments. One FP (public) described being asked *'to pay her 60 000 shillings for quick treatment and we go home instead of being admitted in the ward'*. Some mentioned, HWs would let the patient die if they could not pay: *'There was that first one I saw, he had even refused to operate me, and if the second one never showed up, I was going to die'* (FP, public). Participants suggested to raise salaries of HWs, so they would stop demanding informal payments.

Medical personnel generally described their own work ethics as high, with one medical officer calling it a *'commitment to serve'*. One doctor (PNFP) described having to pay for medical equipment when the patient cannot afford it: *'sometimes it is necessary, where you see that life is more important'*. Nevertheless, many saw issues with motivation and work morale in the health workforce in



general, attributing it to frustration due to poor salaries, long working hours, poorly equipped facilities, and little opportunity for continued education and mentorship. Scholarships for further education and mentorship were mentioned as important. Training programmes through foreign exchange or as part of surgical camps were seen as beneficial for both sides: *'Probably you might come with the skills where you come from, but the context differs. Then you also have something to learn with us, from us working with limited resources.'* (DHO)

DISCUSSION

In providing surgical care to communities, such as in Uganda, factors beyond accessibility and affordability necessitate careful consideration. While some commonly used models such as the behavioural model of health service use by Andersen²⁵ consider mostly the user side, this study aims to showcase the user, the provider and the health officials' perspective. The five areas found to impact acceptability of surgical care were: health literacy, perceptions of surgery, the search for alternatives, care and treatment and the relationship to the healthcare worker. These categories, however, had some overlap.

Higher health literacy has been shown to increase acceptance of surgical care²⁶ while limited health literacy has been linked to worse outcomes and lower satisfaction²⁷ and to overall non-adherence to preoperative and postoperative instructions.²⁸ Participants of our study, especially on the provider side, also viewed health literacy on surgical conditions as impactful for improving surgical care seeking. This should be a focus of future interventions, as suggested by Butler *et al* in a study where lack of perceived need left 25% of children with surgical needs untreated.²⁹ Health literacy assessments have been shown to be feasible and to enable increased patient satisfaction.³⁰ General education and literacy were also discussed by participants as enabling patients to make better decisions on healthcare seeking for surgical conditions, which was also found by Fuller *et al*³¹ and Davé *et al*.³² Both studies were based on the Surgeons Over Seas Assessment of Surgical Need, a cluster randomised, cross-sectional, national survey employing quantitative methods to assess the prevalence of surgical conditions and related healthcare seeking behaviour.

A thorough understanding of the perceptions of surgery and concepts of illness is necessary to provide acceptable care. The question of what is at stake for those people most concerned by a surgical condition needs to be addressed for meeting important expectations and creating trust. Understandably sceptical attitudes due to former negative experiences with formal education and biomedical healthcare³³ as well as unfavourable surgical outcomes³⁴ have a large impact on surgical healthcare seeking.

While the surgical treatment was often described as successful by patients, negative perceptions were commonly mentioned. Risks and fears related to surgical

interventions act as a barrier for their uptake. Perceptions were also shaped by rumours, like concerns of organ stealing. Rumours like this have existed in many African societies and have been discussed extensively by White³⁵ and Scheper-Hughes.³⁶ Other rumours noted were specific to surgical care and the proceedings of an operating room. Improving health literacy, setting a focus on communication with patients and improved education prior to surgery could play an important part in counteracting rumours. It could also reduce self-medication and change the current role of surgery as a last resort or for emergencies only.

With 4.0% of rural children with surgical conditions not receiving care due to fear,³⁷ trust and positive interactions with surgical care providers are important. While most healthcare personnel felt trusted by patients and many patients voiced trust, some scepticism towards surgical skills particularly of medical officers was expressed. Similar concerns about seniority and skill level were voiced by participants in a study by Mwaka *et al* suggesting that only senior and skilled doctors were regarded as fit to successfully operate on cancer patients.³⁸ Due to a lack of specialists, non-specialised personnel commonly conducts surgery in Uganda.³⁹

Participants in our study, especially medical officers, wished for more mentorship and further specialisation. This would also provide an opportunity for more training on interpersonal skills to improve communication with patients, as suggested by Bohren *et al*.⁴⁰ Surgical camps were suggested as possible training opportunities. Modern technology was also proposed to improve mentorship, where medical officers in remote areas would be able to consult with colleagues in Uganda or abroad via telecommunication.

Most FPs and CMs recognised the need for operative care in case of surgical conditions. These findings align with results from a previous study investigating surgery beliefs of lay people, where surgery was seen as 'the appropriate healing method', although there was also 'fear of negative outcome of surgery'.³⁸ In our study, some participants mentioned attempting alternative treatments under the category of 'traditional medicine', which was also a common theme among providers. Participants from communities often agreed there were indications for traditional medicine, however rarely including surgical conditions such as hernia.

Many participants from all groups highlighted the dangers of misdiagnosis and delay of treatment, which has been previously reported^{5 29} and was discussed by WHO in their traditional medicine strategy.⁴¹ However, patients continue to seek care from traditional healers, which healthcare providers attributed to the fact that traditional healers often spend more time with patients. This could be due to the ratio of 1 traditional healer per population of 500, compared with 1 medical doctor per 25 000 people in Uganda.⁴² Participants also discussed their role as holistic healers. Some of these features could be a starting point for developing a healthcare system



encompassing the underlying needs of patients answered by traditional medicine.

Overall, patients in this study were satisfied with the received care but noted that factors such as financial situation, education level, and relationships with health-care workers influenced the type of care received. Similar findings were reported in other studies, citing bribes, socioeconomic class, political affiliation and tribal favouritism⁴³ as well as social capital and financial leveraging⁴⁴ as factors impacting care. Participants in our study linked these behaviours to the work ethics of HWs. While HWs expressed high motivation, many described low overall morale among the health workforce, due to factors such as low salaries, difficult work environments, and lack of mentorship.

Participants described negative interactions between healthcare providers and patients, including harsh treatment and neglect. This is consistent with previous findings from Benin.³⁴ Kagoya *et al* found a lack of negotiating power among patients at the Ugandan National Referral Hospital caused by 'illiteracy, language barriers, low socioeconomic status, feeling inferior to HWs and perceived favour to access free services'.⁴³

Some FPs described situations that could be interpreted as malpractice or errors in surgical care. A study on general medical errors reported how they occurred and that healthcare professionals were mostly aware of them.⁴⁵ In regards to surgical errors, 'inappropriate preoperative management, omitting preoperative investigations and omitting postoperative notes'⁴⁶ were most commonly found by reviewing patient records. A lack of error reporting on medication errors was also found by Kiguba *et al*.⁴⁷

Postsurgical care and follow-up were seen as major challenges by patients and healthcare providers. Lack of trained nursing staff leads to task shifting to informal caregivers, as highlighted by participants. In postoperative caregiving, informal caregivers often lack the necessary training, education, and understanding of medical conditions necessary to provide the best care possible. Formerly proposed caregiver training to increase capacity of postsurgical care⁴⁸ was not suggested by participants in this study, who laid more focus on increasing the surgical workforce.

Previous research suggests that receiving follow-up care is strongly dependent on socioeconomic status and distance to access points.⁴⁸ Our findings support this. Healthcare professionals in our study suggested taking phone numbers of patients and making fixed appointments to combat this problem. Home visits were mentioned as ideal, but not feasible. A study on maternal and newborn care practices also suggests that a combination of home visits by VHTs and mobile phone consultations improves care.⁴⁹ Interventions linked to VHTs should be strengthened and possibly expanded to include regular basic health check-ups to facilitate earlier interventions on complications and remissions.

LIMITATIONS

In its aim to provide a broad overview of perspectives on surgical care, this study is limited by its small sample size and geographical area, despite its attempt for representativity. However, the broader categories that emerged may apply to the country and could even find application beyond. The study also showed that grounded theory can be applied to study acceptability of care in specific contexts.

In the first interviews, participants were not asked to provide the year of their surgery. In the selection of participants, no exclusion criteria were defined regarding the year of surgery. While this approach may have limited representativity for current surgical care, it was intentional as it was believed that experiences from the past may still shape perceptions and attitudes within the communities, even if the surgery occurred long ago.

The educational, social science, medical and cultural backgrounds of the researchers conducting the interviews, being a Ugandan graduate student and a German medical doctoral student, may have created a sense of authority or power dynamic that could have impacted the participants' answers. This introduces the potential for observer bias in the study, as the presence of the researchers during the interviews could have influenced the responses of the participants.

Concerning both, reliability and validity, some questions needed rephrasing after grounded theory analysis of the first set of interviews since they had been misunderstood.

CONCLUSION

This study emphasises the need to consider the views of users, providers, and local health officials for a comprehensive understanding of factors influencing the acceptability of surgical care. Expectations of surgical care emerged to be shaped by health literacy and perceptions of illness and surgery. Extensive information and health education campaigns on surgical conditions could improve healthcare seeking and empowerment of patients and their relatives. Reasons for seeking out alternative treatments can provide insights for future interventions. The care and treatment at large as well as the relationship with the healthcare worker impacted acceptability. Negative experiences by patients could be addressed by improving the training of medical personnel, enhancing interpersonal skills, and promoting a respectful environment in hospitals and healthcare settings. The needs of providers should be taken into consideration to improve motivation and workplace satisfaction. Structural improvements and an increase in qualified staff are the basis for a work environment in which acceptability can be given the necessary attention. Finally, our findings suggest the need for more extensive research on the underlying mechanisms of acceptability of surgical care, as an important foundation to tackle delays in surgical care seeking.



Acknowledgements We thank Global Health at University Hospital Bonn for the financial support, Ando-Modular aid e.V. for the inspiration for this study, Hatika Namyalo for helping us navigate the Ugandan health care system and Grace Meara for helpful discussions.

Contributors PR, a German medical doctoral student at the time of the study, and WB, a professor for Global Health at the Universities of Cologne and later Bonn, developed the study design and the interview guides. Data collection was carried out collectively by PR and RN, a master's student at the School of Women and Gender Studies. PR then conducted the data analysis and prepared the manuscript. WB oversaw all aspects of this research. All authors contributed to the article and approved the submitted version. PR is the guarantor for the overall content of this article.

Funding This work was supported by the Open Access Publication Fund of the University of Bonn. The field work for this study was supported by the Section Global Health at the University Hospital Bonn, University of Bonn.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval This study involves human participants and was approved by Mildmay Uganda Research Ethics Committee under #REC REF 0102-2019. Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement No data are available. We provided all relevant excerpts within the manuscript as raw data cannot be shared publicly due to the significant and valid confidentiality concerns of interviewees, small sample size and ethics approval requirements.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution 4.0 Unported (CC BY 4.0) license, which permits others to copy, redistribute, remix, transform and build upon this work for any purpose, provided the original work is properly cited, a link to the licence is given, and indication of whether changes were made. See: <https://creativecommons.org/licenses/by/4.0/>.

ORCID iD

Paula Rauschendorf <http://orcid.org/0000-0003-1343-5516>

REFERENCES

- Meara JG, Leather AJM, Hagander L, et al. Global surgery 2030: evidence and solutions for achieving health, welfare, and economic development. *Lancet* 2015;386:569–624.
- Bickler S, Ozgediz D, Gosselin R, et al. Key concepts for estimating the burden of surgical conditions and the unmet need for surgical care. *World J Surg* 2010;34:374–80.
- WHO Executive Board. Strengthening emergency and essential surgical care and anaesthesia as a component of universal health coverage. Secretariat; 2014.
- Butler EK, Tran TM, Nagarajan N, et al. Epidemiology of pediatric surgical needs in low-income countries. *PLoS One* 2017;12:e0170968.
- Tran TM, Fuller AT, Butler EK, et al. Surgical need among the ageing population of Uganda. *Afr Health Sci* 2019;19:1778–88.
- Farber SH, Vissoci JRN, Tran TM, et al. Geospatial analysis of unmet surgical need in Uganda: an analysis of SOSAS survey data. *World J Surg* 2017;41:353–63.
- Linden AF, Sekidde FS, Galukande M, et al. Challenges of surgery in developing countries: a survey of surgical and anesthesia capacity in Uganda's public hospitals. *World J Surg* 2012;36:1056–65.
- Nwanna-Nzewunwa OC, Ajiko M-M, Kirya F, et al. Barriers and facilitators of surgical care in rural Uganda: a mixed methods study. *J Surg Res* 2016;204:242–50.
- Albutt K, Yorlets RR, Punchak M, et al. You pray to your God: a qualitative analysis of challenges in the provision of safe, timely, and affordable surgical care in Uganda. *PLoS One* 2018;13:e0195986.
- UN General Assembly. Transforming our world: the 2030 agenda for sustainable development. 2015.
- Albutt K, Punchak M, Kayima P, et al. Access to safe, timely, and affordable surgical care in Uganda: a stratified randomized evaluation of nationwide public sector surgical capacity and core surgical indicators. *World J Surg* 2018;42:2303–13.
- Albutt K, Drevin G, Yorlets RR, et al. "we are all serving the same Ugandans": a nationwide mixed-methods evaluation of private sector surgical capacity in Uganda". *PLoS One* 2019;14:e0224215.
- Albutt K, Namanya D, Anderson G, et al. Developing national surgical, obstetric and anaesthesia plans. In: Johnson W, Lin Y, Mukhopadhyay S, et al, eds. *Surgical care systems strengthening*. Geneva, 2017: 4–7.
- Anderson GA, Ilcisin L, Kayima P, et al. Out-of-pocket payment for surgery in Uganda: the rate of impoverishing and catastrophic expenditure at a government hospital. *PLoS One* 2017;12:e0187293.
- Sekhon M, Cartwright M, Francis JJ. Acceptability of healthcare interventions: an overview of reviews and development of a theoretical framework. *BMC Health Serv Res* 2017;17:88.
- U.S. Department of Health and Human Services. Health literacy in healthy people 2030 - healthy people 2030. 2023. Available: <https://health.gov/healthypeople/priority-areas/health-literacy-healthy-people-2030> [Accessed 22 Apr 2023].
- Charmaz K. *Constructing grounded theory*. London: Sage publications, 2014.
- Corbin J, Strauss A. Techniques and procedures for developing grounded theory. In: *Basics of qualitative research*. Thousand Oaks: Sage publications, 2014.
- Glaser BG, Strauss AL. *The discovery of grounded theory: strategies for qualitative research*. USA: Transaction Publishers, 2009.
- Higginbottom G, Lauridsen EI. The roots and development of constructivist grounded theory. *Nurse Res* 2014;21:8–13.
- Uganda Bureau of Statistics. Projected population by District(2015-2030). 2019.
- Poverty maps of Uganda: mapping the spatial distribution of poor households and child poverty based on data from the 2016/17 Uganda national household survey and the 2014 National housing and population census. Technical Report; 2019.
- Strauss AL, Corbin JM. Techniques and procedures for developing grounded theory. In: *Basics of qualitative research*. 2nd edn. edn. Thousand Oaks: Sage Publ, 2003.
- Taber K. *Classroom-based research and evidence-based practice*. Los Angeles, Calif: SAGE, 2013.
- Andersen R, Davidson P. Improving access to care in America: individual and Contextual indicators. In: *Changing the US Health Care System: Key Issues in Health Services Policy and Management 2014*;2007.
- Biyik I, Usturali Mut AN, Albayrak M, et al. Effect of health literacy on help-seeking behavior: a comparison of patients accepting surgery and refusing surgery for urinary incontinence. *J Gynecol Obstet Hum Reprod* 2021;50.
- Roh YH, Lee BK, Park MH, et al. Effects of health literacy on treatment outcome and satisfaction in patients with mallet finger injury. *J Hand Ther* 2016;29:459–64.
- De Oliveira GS, McCarthy RJ, Wolf MS, et al. The impact of health literacy in the care of surgical patients: a qualitative systematic review. *BMC Surg* 2015;15:86.
- Butler EK, Tran TM, Fuller AT, et al. Quantifying the pediatric surgical need in Uganda: results of a nationwide cross-sectional, household survey. *Pediatr Surg Int* 2016;32:1075–85.
- Komenaka IK, Nodora JN, Machado L, et al. Health literacy assessment and patient satisfaction in surgical practice. *Surgery* 2014;155:374–83.
- Fuller AT, Corley J, Tran TM, et al. Prevalence of surgically untreated face, head, and neck conditions in Uganda: a cross-sectional nationwide household survey. *World Neurosurg* 2018;110:e747–54.
- Davé DR, Nagarjan N, Canner JK, et al. Global burden of craniofacial disorders: where should volunteering plastic surgeons and governments focus their care? *J Craniofac Surg* 2020;31:121–4.
- Raykar NP, Yorlets RR, Liu C, et al. The how project: understanding Contextual challenges to global surgical care provision in low-resource settings. *BMJ Glob Health* 2016;1.
- Close KL, Christie-de Jong FTE. Lasting impact: a qualitative study of perspectives on surgery by adult recipients of free mission-based surgical care in Benin. *BMJ Open* 2019;9:e028235.



- 35 White L. Speaking with vampires: rumor and history in colonial Africa. Berkeley, Calif: University of California Press, 2000.
- 36 Scheper-Hughes N. Parts unknown. *Ethnography* 2004;5:29–73.
- 37 Bearden A, Fuller AT, Butler EK, *et al.* Rural and urban differences in treatment status among children with surgical conditions in Uganda. *PLoS One* 2018;13:e0205132.
- 38 Mwaka AD, Okello ES, Wabinga H. Perceptions and beliefs of lay people from northern Uganda regarding surgery for diagnosis and treatment of cervical cancer. *Psychooncology* 2018;27:1965–70.
- 39 Baine SO, Kasangaki A, Baine EMM. Task shifting in health service delivery from a decision and policy makers' perspective: a case of Uganda. *Hum Resour Health* 2018;16:20.
- 40 Bohren MA, Titiloye MA, Kyaddondo D, *et al.* Defining quality of care during childbirth from the perspectives of Nigerian and Ugandan women: a qualitative study. *Int J Gynaecol Obstet* 2017;139 Suppl 1:4–16.
- 41 World Health Organization. *WHO traditional medicine strategy 2014 - 2023*. Genève: WHO, 2013.
- 42 Abdullahi AA. Trends and challenges of traditional medicine in Africa. *Afr J Tradit Complement Altern Med* 2011;8(5 Suppl):115–23.
- 43 Kagoya HR, Kibuule D, Mitonga-Kabwebwe H, *et al.* Awareness of, responsiveness to and practice of patients' rights at Uganda's national referral hospital. *Afr J Prim Health Care Fam Med* 2013;5:491.
- 44 Stephens T, Mezei A, O'Hara NN, *et al.* When surgical resources are severely constrained, who receives care? determinants of access to Orthopaedic trauma surgery in Uganda. *World J Surg* 2017;41:1415–9. 10.1007/s00268-017-3874-1 Available: <https://pubmed.ncbi.nlm.nih.gov/28097413>
- 45 Mauti G, Githae M. Medical error reporting among physicians and nurses in Uganda. *Afr Health Sci* 2019;19:3107–17. 10.4314/ahs.v19i4.33 Available: <https://pubmed.ncbi.nlm.nih.gov/32127887>
- 46 Peter KS, Anguyo R, Onzima D, *et al.* Common medical errors and error reporting systems in selected hospitals of central Uganda. 2015.
- 47 Kiguba R, Waako P, Ndagije HB, *et al.* Medication error disclosure and attitudes to reporting by healthcare professionals in a sub-Saharan African setting: a survey in Uganda. *Drugs Real World Outcomes* 2015;2:273–87.
- 48 Barton SJ, Sandhu S, Doan I, *et al.* Perceived barriers and supports to accessing community-based services for Uganda's pediatric post-surgical population. *Disabil Rehabil* 2021;43:2172–83.
- 49 Mangwi Ayiasi R, Kolsteren P, Batwala V, *et al.* Effect of village health team home visits and mobile phone consultations on maternal and newborn care practices in Masindi and Kiryandongo, Uganda: A community-intervention trial. *PLoS One* 2016;11:e0153051.

Appendix 1 - Interview Guide District Health Officers

1. In your opinion, what are the main obstacles for the provision of access to healthcare?
2. In your opinion, what are the main obstacles to the provision of surgical care?
3. How do the supply chains for medical equipment work?
4. How do the supply chains for medication work?
5. Which interventions are planned in order to improve access to healthcare, especially to surgical care?
6. Are there campaigns or continuous educational programmes to inform the public about surgical conditions and access to surgical care? Have they proven effective?
7. How much importance is given to the provision of surgery in policy making?
8. What do you see as the most effective measure to increase the surgical workforce?
9. In your opinion, what would be the most effective way for NGOs involved in health care to support the local structures?
10. How could short stays of specialists, e.g. for eye or reconstructive surgery or fistula repair, be integrated into public surgical care for all?

Appendix 2 - Interview Guide Health professionals

Age:

Gender:

Profession:

Place of work:

Position:

Time period of work at current work place:

1. Please tell me about your personal experience with the provision of surgical care.
2. What are the key obstacles that [profession of interviewee] face at this health care facility?
3. What are the main difficulties in the provision of surgical care?
4. How do you deal with these difficulties?
5. How is the aftercare of surgical procedures organised and do you think it works effectively?
6. According to your experience with surgical care, what do you think are the main areas that need to be improved on?
7. What do you perceive as the main difficulties for patients?
8. In your opinion, what is the best way to address these difficulties for the patients?
9. Would you say patients trust in the expertise of health care professionals? How do patients perceive surgical conditions and treatment in your experience?
10. What are areas that you would describe as well-functioning when it comes to surgical care?

Appendix 3 - Interview Guide - Community Members (Former patients)

Age:	When were you operated?
Education:	Surgical condition:
Occupation:	Where were you operated from?
	Length of hospital stay:

1. Please tell me about your experience with surgery.
2. How much time passed from your first symptoms to the diagnosis? And from the diagnosis to the surgical treatment?
3. Were you at any point unsure whether to have surgery and if yes why?
4. Did you consult any party outside of the hospital concerning the health condition you were in?
5. Who took the final decision of whether you would have the surgery?
6. Are you covered by a health insurance?
7. Were there any struggles to reach the hospital?
8. How did the health workers treat you? Were you respected? Were you taken care of?
9. How well did you feel informed about the procedure?
10. How successful was the operation in your opinion?
11. How was the aftercare of the operation? Where was it done? Did you face any struggles taking care of the wound after being discharged from hospital? Did you go through any episodes of extreme pain after the operation?
12. How did your operation change your attitude towards surgery? [This question was amended and changed to: If someone in your family needed to have surgery, what would you advise them?]
13. Throughout the entire process what were the main struggles you faced? In your opinion, which suggestions do you have to improve health facilities in Uganda or your community?
14. In which way did your community support you during that operation and your stay at the hospital?
15. Do you have any questions concerning what we have discussed with you?

Appendix 4 - Interview Guide - Community Members (general population)

Age:

Education:

Occupation:

1. Please tell me about your thoughts on surgery.
2. What do you think are the biggest barriers to surgical care that members of your community face?
3. Do you know where the closest surgical facility is and how long would it take you to get there?
4. What do you think are health problems for which surgery is needed?
5. Do you go to healthcare facilities regularly for check-up or only in case you experience symptoms?
6. How would you estimate the financial impact of a surgical operation on your livelihood?
7. Are you covered by a health insurance?
8. Would you be concerned if you were told by a healthcare provider that you had to have surgery?
9. If yes, what would be your major concerns?
10. Which things would you take into consideration before opting for surgery?
11. In your opinion, are patients treated right by healthworkers at the hospital?
12. How do people in this community support each other in case someone needs to go to the hospital?
13. Do you think consultations with traditional healers are helpful for possible surgical conditions?
14. Do you have traditional healers in your area? If yes, why do you think patients first consult them instead of going to the health facility directly? For the treatment of which cases are these traditional healers best known for?
15. Which measures would improve access to surgical care for your community in your opinion?

3. Danksagung

Mein herzlicher Dank gilt meinem Doktorvater Prof. Dr. Walter Bruchhausen für die ausgezeichnete und geduldige Betreuung, ohne die die Publikation nicht möglich gewesen wäre. Dr. Jan Wynands danke ich vielmals für seine Beratung und die Möglichkeit Teil des LAMU-Krankenhausprojekts zu sein. Einen besonderen Dank möchte ich der Sektion Global Health des Instituts für Hygiene und öffentliche Gesundheit/Public Health des Uniklinikums Bonn, ANDO-modular aid e. V. und meinen Eltern für die finanzielle Unterstützung der Feldforschung in Uganda aussprechen. Dem Open Access Fund der Universität Bonn sowie der Sektion Global Health möchte ich für den finanziellen Beitrag zu den Publikationsgebühren danken. Weiterhin möchte ich den vielen Menschen danken, die mich durch das Studium und diese Arbeit begleitet haben, insbesondere meiner Familie, die unermüdlich hinter mir gestanden hat, den ‚Rätsselfreunden‘ für Rat und Tat und meinem Partner für die stetige Unterstützung. Ohne euch wäre das alles nicht möglich gewesen.

4. Veröffentlichungen

- 2023 Rauschendorf P, Bou Saba G, Meara GK, Roodaki N, Conde-Agudelo A, Garcia DEC and Burke TF (2023) Effectiveness of a novel bubble CPAP system for neonatal respiratory support at a referral hospital in the Philippines. *Front. Pediatr.* 11:1323178. doi: 10.3389/fped.2023.1323178
- 2023 Rauschendorf P, Nume R, Bruchhausen W. Acceptability of surgical care in Uganda: a qualitative study on users and providers. *BMJ Open* 2023; 13:e070479. doi: 10.1136/bmjopen-2022-070479