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Surgical informed consent practices and influencing factors in sub-Saharan Africa: a scoping review of the literature

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► Additional supplemental material is published online only. To view, please visit the journal online (<http://dx.doi.org/10.1136/bmjqs-2023-016823>).

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Received 12 October 2023

Accepted 11 December 2023



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To cite: Pittalis C, Sackey C, Okeny P, et al. *BMJ Qual Saf* Epub ahead of print: [please include Day Month Year]. doi:10.1136/bmjqs-2023-016823

ABSTRACT

Introduction Current international standards in consent to surgery practices are usually derived from health systems in Western countries, while little attention has been given to other contexts such as sub-Saharan Africa (SSA), despite this region facing the highest burdens of disease amenable to surgery globally. The aim of this study was to examine how the concept of informed consent for surgery is interpreted and applied in the context of SSA, and factors affecting current practices.

Methods A systematic search of Medline, Embase and African Journal Online databases as well as grey sources was executed in May 2023 to retrieve relevant literature published since 2010 in English language against a set of given criteria. The socioecological framework for health was used for organising and summarising the identified evidence.

Results A total of 27 papers were included in the review. Findings revealed that consent to surgery practices is generally substandard across SSA and the process is not adequate. Patients' understanding of informed consent is limited, likewise awareness of their rights to decision-making. A range of factors at the individual, interpersonal, institutional and system/societal levels affect the informed consent process.

Conclusion There is a need to find more culturally acceptable and ethical ways to include the participation of patients in the decision-making process for surgical treatment in the SSA and define standards more closely aligned with the local context.

INTRODUCTION

Quality within health systems depends on the availability of essential physical resources and on the processes of care delivery and how these affect health outcomes.¹ Good processes should align with patients' needs, experiences and preferences and their right to be treated with respect.^{1,2} Informed consent supports one of the cardinal values of high-quality ethical care: respecting the autonomy of people who use health services and their right to be involved in

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ The informed consent process is an essential element in the delivery of quality surgical care and constitutes a legal obligation of the service provider. While it has been well documented that the practice of obtaining consent differs across countries and contexts, details of the differences have not been studied.

WHAT THIS STUDY ADDS

⇒ Our study provides the first-ever systematic overview of how surgical informed consent is interpreted and applied in the sub-Saharan African context. It also identified factors affecting the practices of healthcare workers involved in the process.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This study highlights the need for context-specific solutions to improve the surgical informed consent process in sub-Saharan Africa. Such solutions will require a whole system approach, with a range of different interventions accounting for the multitude of factors affecting interactions between patients and providers.

decisions concerning their health.^{3,4} This includes assisting patients, as required, to make informed decisions about the care and treatment they receive.

Current legal, medical and ethical thought lists five elements for valid informed consent, comprising two preconditions—the patient must have the *capacity* to give their consent and

do so *voluntarily*; two information elements—health providers must *disclose* enough *information* for which to base their decision, including treatment options and risks involved, and must ensure *understanding*; and a *decision* element—consenting or refusing.^{4 5}

In surgery, due to the invasiveness of the procedures and the higher risk of adverse events compared with other medical treatments, informed consent is a cornerstone of the care relationship.⁶ As such, related practices⁷ and measures to improve them⁸ have been widely studied, but the bulk of the available evidence pertains to high-income countries. To our knowledge, no systematic effort has been undertaken to explore this field in low and middle-income countries.⁹ This is despite alarming reports of failures to meet professional standards in informed consent to surgery, especially in the maternal care literature—such as patients not being adequately informed of risks and benefits before surgery, or performance of unconsented procedures (eg, tubal ligation, sterilisation, hysterectomy, episiotomy).^{2 10 11}

Sub-Saharan Africa (SSA) faces one of the highest burdens of disease amenable to surgery globally, with an estimated surgical disability-adjusted life years of 38 per 1000 population, compared with the 27 per 1000 for the world,¹² and patients twice as likely to die after surgery compared with the global average for postoperative deaths.¹³ With 35% of its population (389 million) living below the international poverty line,¹⁴ SSA is also one of the two regions in the world with the highest risk of catastrophic expenditure for individuals requiring surgery.¹⁵ Efforts to improve surgical, obstetric and anaesthesia care have recently been intensified in a number of SSA countries through the development of dedicated national plans and interventions,¹⁶ but obstacles to the delivery of safe surgical care continue to exist. These encompass personnel and resource shortages,^{17 18} weak quality control systems¹⁹ and poor supervision and oversight in surgery.^{12 20}

In this environment, the surgical informed consent (SIC) process is of increased importance as risks for patients are substantial.²¹ However, explaining such risks and their implications is a difficult task considering the low health literacy of the general population in these settings.^{21–23} Limited health literacy has been associated with poorer health outcomes.^{24 25} For example, when patients fail to comprehend and comply with preoperative instructions, this could lead to delays, cancellation of surgeries or even negative outcomes.²⁶

Another challenge for sectoral leaders and health-care providers trying to improve practices is the lack of a clear definition of SIC. From a theoretical point of view there is general agreement over what are the core domains of the consent process—as mentioned above, yet in practice SIC may be interpreted differently by healthcare providers in their daily work,^{27 28} depending on a multitude of influencing factors (eg,

education levels, age, local cultural practices, regulations, etc).^{5 7 23}

Understanding the extent of variations in SIC practices and exploring the causes of poor practices across different contexts is essential to improve patients' experiences, surgical services' accountability and, ultimately, quality of care. Current international standards are usually derived from health systems in high-income Western countries, little attention has been given so far to realities in other contexts. Hence, the aim of this study is to examine how the concept of informed consent for surgery is interpreted and applied in the context of SSA, and factors affecting current practices.

METHODS

We conducted a scoping review, following the guidelines by the Joanna Briggs Institute²⁹ and the Preferred Reporting Items for Systematic Review and Meta-analysis Extension for Scoping Review (see online supplemental material 1).³⁰ The study protocol was registered with the Open Science Framework Registry (osf.io/kr3ud).

Search strategy and data sources

The search strategy was built around terms related to 'informed consent', 'surgical procedures' and 'Sub-Saharan Africa', and executed in three databases in May 2023. Methods and criteria used are reported in [table 1](#) and online supplemental material 2.

Screening, data charting and analysis

Search results were recorded in EndNote V.20 for initial deduplication, and imported in Covidence for review. The screening process (first titles and abstract, second full texts) was independently conducted by two reviewers, with a third reviewer mediating disagreements.

Data from the final selection of studies included in the review were extracted into a standardised Microsoft Excel form by two independent reviewers with discrepancies in the extracted information resolved through discussion and consensus. These included details about study participants, context, methods and key findings relevant to the review questions.

Non-interventional data from observational and other studies on SIC practices and factors affecting them were also extracted and a thematic analysis was performed in NVivo V.12. The socioecological framework (SEF) for health^{31 32} was used for organising and summarising the evidence concerning the factors affecting SIC practices. A strength of the SEF is the notion that individual behaviours both shape and are shaped by multiple societal influences that are not immediately apparent.³³ The SEF classifies these influences into four levels: (1) individual, (2) interpersonal, (3) institutional and (4) systemic/societal—with interaction and reciprocal causation across levels.³² Data

Table 1 Search methods and criteria	
Guiding research questions	How is the informed consent to surgery concept interpreted by patients and healthcare providers and applied in sub-Saharan Africa? What factors affect healthcare providers' SIC practices?
Data sources	Medline, Embase and African Journal OnLine. Additionally, we performed a grey literature search in Google and hand searched the references of identified papers for further possible evidence sources.
Restrictions	<ul style="list-style-type: none"> ▶ English language articles only. ▶ Publication date from 2010 onwards (to capture a fairly current situation). ▶ Study types: all considered, except text and opinion papers, conference proceedings and dissertations.
Selection criteria: defined according to the Population, Concept and Context (PCC) framework²⁹	
	Inclusion Exclusion
Population	Surgical patients and their healthcare providers involved in the surgical informed consent process.
Concept	<ul style="list-style-type: none"> ▶ Informed consent practices, including provision of information on surgical treatment, consent forms, patients' participation and autonomy in decision-making, understanding of and satisfaction with consent process. ▶ Studies on surgical services with a dedicated results section on consent.
Context	<ul style="list-style-type: none"> ▶ Healthcare facilities performing surgery. ▶ Sub-Saharan Africa countries.
SIC, surgical informed consent.	

analysis was carried out using a 'top down' thematic approach using the SEF as coding framework.

The SEF is a well-known model in the public health^{32 34} and health behaviour literature.³⁵ Recent studies from the Western world have demonstrated its value in examining relationships between contextual factors and individual health providers' ability to provide safe care.³³ Yet, to our knowledge, this

manuscript reports the first application of SEF to explore practices such as informed consent in SSA.

RESULTS

Our initial search resulted in a total of 446 papers after removal of duplicates. Following a thorough screening process (figure 1), 27 articles were included in this review.

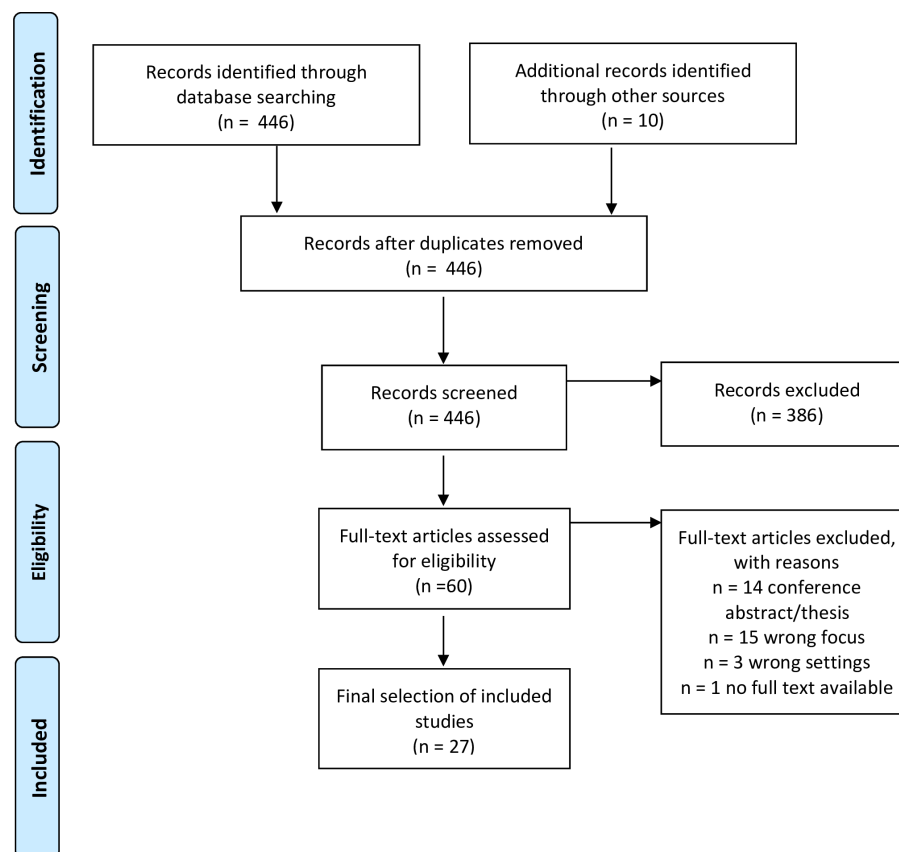


Figure 1 Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram. Source: Moher *et al.*⁶⁹

Key characteristics of the included studies are summarised in online supplemental material 3. The majority employed observational/non-interventional methods (25 studies), of which 20 were quantitative cross-sectional studies based on surveys (19 studies) or content analysis (1 study), 3 were interview/focus group studies and 2 used mixed methods. Only two articles reported intervention studies—one had a before-after design and one was a randomised controlled trial. While all included studies examined SIC practices, either from the patients (19 studies) or providers' perspectives (7 studies) or both (1 study), their approach and focus varied considerably. There was also variation in surgical subspecialties: 10 studies focused on obstetrics and gynaecology, 1 on neurosurgery, 1 on otorhinolaryngology, 1 on urology, 3 on voluntary medical male circumcision and the rest on multiple surgical subspecialties. The patient-related studies predominantly included adult participants, with only three including adolescents (the ones on circumcision). No studies were identified on paediatric patients (age below 10 years).

In general, the most frequently explored implications of SIC were patients' understanding of the procedure and risks involved^{36–47} (including recall of information as proxy^{27 48 49}), autonomy in decision-making^{9 27 36 37 40 42 43 47 49–51} and satisfaction with the process.^{21 27 41 44–46 49 52–55}

Given the heterogeneous nature of the body of evidence retrieved, it was not possible to perform a quantitative comparison, hence the following sections provide a synthesis of key themes from the literature.

Current informed consent practices

The published literature reported gaps in SIC practices across SSA countries and surgical subspecialties—from failure to routinely obtain consent for every surgery (eg, 49% compliance in Uganda⁹ and 55% in Ethiopia⁵⁶) to overall inadequacy of the SIC process.^{36 47 52 55} A frequently documented issue, although in varying degrees, was the insufficient disclosure of information to patients, such as surgery's details,^{21 36 57} who would perform it,^{21 36 55} alternative choices,^{36 52} anaesthesia type,^{36 45 52 55} potential risks^{36 42 45 47 55} and postsurgery management steps.³⁷

There were divergent reports on whether patients were given enough opportunities to ask questions. In Ethiopia, for example, Teshome *et al*⁵² reported that 81% of obstetric patients were given the opportunity to ask questions, while in studies by Ababulgu *et al*³⁶ and Chane *et al*,⁵⁵ only 39% of obstetric patients and 51% of surgical patients, respectively, were able to ask questions prior to surgery. This was of note as a study in Uganda found that patients who had all their questions answered were eight times more likely to give their own permission for the operation.²¹

For ethical and legal reasons the duty to obtain patients' consent typically rests on the physician. Yet,

several studies^{9 40 44–46 54 55} in this review reported a range of healthcare providers obtaining SIC, including nurses or midwives not involved in the surgical procedure and not trained in SIC counselling.⁵²

For a consent process to be considered valid, it should be conducted timely and not under pressure. In Ethiopia, three studies reported patients spending less than 5 min with their responsible healthcare providers in the SIC process^{44 46 51}; one study found SIC most often obtained immediately prior to the surgery, irrespective of the urgency of the procedure⁵²; and in three studies patients explicitly mentioned not being given enough time to decide.^{36 43 46} In Nigeria, Grema *et al*⁴⁵ documented some patients being asked for SIC after the surgery.

In Ethiopia, quantitative assessments of the overall soundness of the patient–provider relationship, in both the obstetrics^{46 54} and other surgical subspecialties,⁴⁴ found large shares of patients experiencing poor relationships with their providers. However, these studies were limited in number and inconsistent in measurement.

Factors affecting informed consent practices

Individual level

The literature suggested that patients' sociodemographic characteristics played a role in the SIC process, but the evidence was scarce and inconsistent. For example, Ayele *et al*⁵³ reported that being male showed a statistically significant association with patients' satisfaction with SIC processes in Ethiopian hospitals, while in Nigeria Grema *et al*⁴⁵ found no association. One study in Uganda²¹ found that male patients were twice as likely to give their own consent for the operation, but there was no further evidence of this in the literature. Another grey area was the influence of patients' geographical background, with one study⁵³ reporting a positive association between rural residence and satisfaction with the SIC process, while others documented the opposite.^{41 44}

Patients' age was reported as an important factor by those studies that included adolescents, namely Friedland *et al*⁴² and Moyer *et al*,⁴⁷ which examined SIC practices for voluntary medical male circumcision (VMMC) in Zambia, Swaziland and Eswatini. Both studies highlighted that adolescents had relatively low comprehension of the implications and risks of the surgery, and limited autonomy in decision-making over their health. Other patients who were reported to have limited autonomy were married women undergoing obstetric surgeries, who often relied on the decisions of their husbands and guardians,⁵¹ especially at younger ages.⁵⁰

Further insights on the particular status of women undergoing caesarean sections (CS) were provided by a qualitative study in Malawi which reported that labour pains and economic constraints negatively

impacted women's decision-making capacity in favour of accepting the surgery without questioning.⁴⁰

One factor influencing SIC that was well documented in the literature was the education and literacy level of patients. A lower level of education was found to be related to a poorer understanding of medical terms⁴⁷ and explanations,^{27 37 40} and the consent process⁴³; less adequate subjective consent³⁶ and satisfaction with the process.^{44 53} This was reported as a major barrier in patient-provider communication.^{37 40}

Interpersonal level

Providers have a considerable impact on patients, hence patient-provider interactions are meant to be iterative and respectful of the patients' capacity and level of understanding, to achieve proper SIC.^{9 57} Multiple factors were reported to influence these relationships.

First, as highlighted by the provider-focused studies in this review,^{9 40 56-59} the providers' own knowledge and interpretation of SIC affected their attitudes and behaviours towards patients. For example, five studies^{9 40 56-58} across different countries and settings showed that despite providers' familiarity with the concept, the SIC process was not always well understood and practised. As explained by Nigerian providers surveyed by Ogundiran and Adebamowo,⁵⁷ SIC practices often amounted to a mere medicolegal ritual rather than a truly participatory decision-making process, done as a momentary preoperative routine. Others⁴⁰ suggested that the value attributed to the legal aspect of SIC was partially fuelled by the providers' fear of blame and litigation in case of adverse surgical outcomes.

Another reported factor affecting the SIC process was the ethical dilemma between providing adequate, and possibly life-saving, care and respecting patients' autonomy to refuse treatment. One way for providers to overcome this conflict was to limit the disclosure of information (eg, on risks) or emphasise certain information to encourage patients to go ahead with the surgery.^{40 47} An example of this was offered by the study by Bakker *et al*,⁴⁰ where providers counselling women in labour requiring CS reported feeling reluctant to give information, seeing this as ineffective in encouraging timely treatment. Similar practices were described by Moyer *et al*⁴⁷ in the context of VMMC campaigns in Eswatini; however, the authors suggested that in this case providers' attitudes towards information disclosure might have been driven by the need to encourage uptake of VMMC to meet health facilities' targets. Ogundiran and Adebamowo⁵⁷ highlighted that the quality of the patient-provider communication process was also important. This should be a collaborative process in which adequate essential information is disclosed by the surgeon, fully comprehended by the patient, and voluntary consent for surgery is obtained. Regardless of providers' motivation in choosing the

amount/type of information given to patients, when the overall communication process is poor, this could contribute to patients' refusal of necessary surgical procedures.

Guardians and peers could also interfere with the patient-provider relationship, both positively (eg, aiding in counselling patients⁴⁰) and negatively (eg, exercising peer pressure⁴⁷ or when there were disagreements about the best course of action between patients and their families³⁷).

All these factors are important as the retrieved evidence showed that patients who had poor relationships with healthcare providers were less knowledgeable of consent,⁴⁶ had less autonomy in decision-making⁵¹ and satisfaction with the SIC process.^{41 44 46}

Institutional level

At the level of healthcare institutions, one of the paramount factors affecting SIC practices was the absence of standard SIC regulations and clear protocols—reported across SSA countries.^{9 39 43 47 52 56}

This included lack of protocols and standards around consent forms for surgical procedures. A particular issue highlighted in the literature was the use of consent forms, if at all available,⁹ that were not sufficiently informative to support patients' decision-making nor explicit about their rights, and generally scant in content.^{39 55 56} The lack of adequate forms was compounded by the variability in the format of consent forms used across health facilities.^{39 43} Some suggested this may reflect differences in how liability for adverse events was managed and perceived by different healthcare institutions.⁴³ A national assessment of consent forms used at Nigerian tertiary health institutions pointed also to consent forms being written too technically for most patients to understand.³⁹

A further communication barrier was posed by the language of care delivery in settings with multilingual populations.^{40 42 44 52} For example, in Malawi, a country with 16 languages, Bakker *et al*⁴⁰ reported that despite many health providers speaking Chichewa (widely spoken along English, the official national language), they had to rely on ad hoc translations by guardians and others when dealing with patients with different mother tongues. Their study participants found medical information difficult to express even in Chichewa, believing this language lacked words covering medical terminology.

Another influencing factor within healthcare institutions documented by Moyer *et al*⁴⁷ was the pressure of performance-based financing for donor-supported interventions such as VMMC campaigns. As financing was usually tied to time-sensitive targets, this might indirectly have led to looser SIC standards to meet the targeted surgical volumes.

System/societal level

The institutional practices described above were linked to the fact that despite most countries legally requiring their healthcare providers to obtain patients' written consent before carrying out surgeries, there was a lack of exhaustive national guidelines on the process.^{39 43} For example, Nigeria had no regulatory guidelines on the nature of the information to be provided to patients in informed consent.³⁹

SIC was indirectly influenced also by cultural factors and social norms. Culturally, it was reported that in the SSA settings patients were not always fully aware of their rights^{38 40} and, to some extent, there was a paternalistic tendency to rely on health providers for care decisions.^{40 51 59} A strong influence on patients' medical decisions was posed by the deep-rooted respect for the opinion of figures of authority in African cultures, such as senior members of the community—who have oversight for the well-being of their communities; husbands—who have responsibilities for their households; and parents—who guide their descendants' morals and behaviours.^{47 50} Disobeying their advice would be seen as disrespectful. These social dynamics were further complicated by cultural and religious beliefs. An example of this was provided by Bakker *et al*⁴⁰ who documented some women being reluctant to undergo CS for fear of being cursed and dying if they failed to give birth vaginally.

Finally, Moyer *et al*⁴⁷ warned that the use of incentives (eg, food or sports gear) to stimulate patients' interest in health interventions such as for VMMC in Eswatini, while beneficial in increasing uptake, might have had a coercive effect on patients at the expense of their autonomy in the consent and assent process.

DISCUSSION

This review documents that across SSA considerable gaps exist between the practice of informed consent and its intended goals. The socioecological framework enabled us to bring to light individual, interpersonal, institutional and system/societal-level factors affecting SIC practices (figure 2) and identify specific difficulties that may be addressed.

A comparison with a related literature review by Convie *et al*,⁷ mostly including evidence from Western countries, shows some similarities with our findings. First, inherent patients' characteristics impact the conduct of SIC, and their education and literacy levels may hamper their ability to participate in the process. A second similarity is the feeling among some patients that they should comply with the providers' recommendation for treatment, despite not necessarily fully understanding what they had agreed to. A third common trait is patients relying on the opinion of important other people (eg, family and friends) in their decision-making process. These findings support the notion that the SIC process has different meanings for individual patients, hence achieving adequate SIC requires a patient-centred consent process, based on effective transfer of knowledge and a good patient-provider relationship.^{7 60}

In particular, it is advocated that personalised communication, as opposed to top-down exposition or standardised interactions, should take place between the provider and the patient to maximise patient understanding.^{37 61} A range of interventions to improve patients' comprehension in SIC has been reported, but the evidence to date is very heterogeneous and Western centred (only one study from Africa).⁸ We have identified a further study through this review by Aremu and colleagues,⁴⁸ who tested

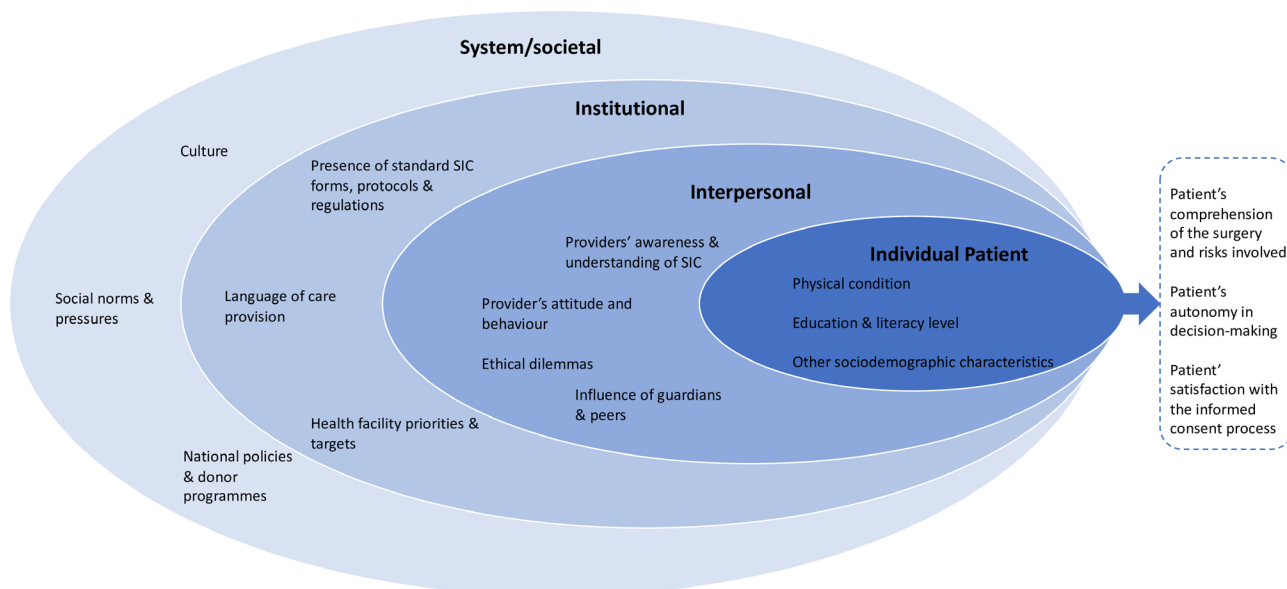


Figure 2 Multilevel factors affecting the surgical informed consent (SIC) process from the retrieved evidence.

the use of information handouts to improve patients' comprehension and retention of surgical information in Nigeria, but with mixed results. Nnabugwu *et al*⁴⁹ demonstrated that third-party checks after a consent session may be useful to ensure patients' satisfaction with the information received, but it is not clear from their study how this may be institutionalised and supported long term.

Another common finding between our review and Convie *et al*⁷ is patients having different preferences for information and involvement in the decision-making process. This highlights the need for providers to learn what and how to communicate, and be able to find a balance between disclosing essential information and avoiding overload, which may impair patient understanding.⁶⁰ Given the generally lower literacy levels of populations in SSA and the particular sociocultural characteristics, some authors suggest that in SSA settings it may not always be appropriate for information disclosure to be as expansive as in Western countries.^{23 39} This is certainly an area that would benefit from further research as controversies persist around the optimal amount of information that should be disclosed in the consent process.^{39 62 63}

Despite these shared traits across surgical patients in different settings, we stress the importance of the context that patients and providers find themselves in and our review provides evidence of a number of issues specific to the African context. A prevalent problem across SSA highlighted by our research is the weak governance system for SIC. This starts with a lack of sufficiently detailed regulatory guidelines at the national level, which leads to high variation in SIC protocols and approaches across health institutions, trickling down to healthcare providers who may struggle to follow standards in the absence of proper guidance and oversight. Tighter regulations are needed to improve adherence to SIC protocols, including around the format and content of consent forms.^{9 39 52}

In doing so, however, new guidelines should also enable a move beyond questions of strict legal compliance to ensuring the delivery of effective health services which put the needs of individual patients at their heart. As reported in our findings, many providers prioritise the medicolegal aspect of SIC, so guidance is needed to shift the focus to providing more person-centred care, and how best to ensure a SIC process that values personal choice and decision-making, appropriate to the local context.

Compared with patients in Western countries, our review found patients in SSA being less aware of their health rights and more reliant on doctors and guardians' opinions. This can be explained by a mix of medical paternalism⁶² and local cultural practices of customary obedience to those 'above you' in age or social rank.²⁸

Consulting with family and other trusted sources in health decisions is not unique to African settings,⁶⁴

but there is a concern for the autonomy of 'dependent' patient groups such as young adults and women to decide what is best for them in contexts where social authority is rarely questioned and almost never challenged.⁴⁷ A recent development in this area is the promotion of 'respectful maternity care' by national and international health organisations which, among other things, emphasises expectant mothers' right to information, informed consent and refusal, and respect for their choices and preferences during childbirth. Advocates of this approach to maternity care also call for more collaborative decision-making between the expectant mothers, their families and healthcare providers.⁶⁵ However, the operationalisation of these principles is still at early stages.⁶⁶

Another contextual factor is that in SSA informed consent practices are further complicated by the historical presence of surgical interventions funded by or involving international agents. As raised by some of the literature found during the search for this review (but not meeting the inclusion criteria), these interventions at times may clash with contextualised bioethical understandings, norms and practices on the ground, compromising the SIC process.^{47 67} This can happen in the ethically questionable use of incentives to promote intervention uptake or when health providers are under pressure to reach donors' targets.⁴⁷ Another instance is when international surgical teams, especially when on short-term visits, may not be aware of local cultural and social norms surrounding the SIC process in the host country and fail to achieve truly informed consent.^{67 68}

One limitation of this review is that the disparity in the focus and approach of the retrieved sources of evidence made it difficult to draw definite conclusions. A formal assessment of the methodological quality of the studies was not required,²⁹ but some may have scored low and this could have contributed to their inconsistent results (eg, influence of specific patient characteristics on SIC—reported above). We sought to minimise these weaknesses by focusing on uncovering the range of factors that influence SIC practices in SSA, rather than trying to quantify the effect of individual factors. This exercise allowed us to create a comprehensive picture of issues around SIC practices in SSA and to highlight their interconnectedness, filling a crucial gap in the SIC-related literature.

What is certain from the retrieved evidence is that, given the particular challenges reported in SSA, there is a need to find more culturally acceptable and ethical ways to include the participation of patients and their support groups in the decision-making process for surgical treatment in this context.²⁸ There may also be a need to redefine SIC standards to more closely reflect realities on the ground rather than relying on evidence from the Western world, to develop more feasible protocols and to facilitate better adherence to such protocols. To inform this process, our review

provides two important contributions: (1) it has identified a number of specific areas that would need attention to strengthen SIC practices in the immediate future; (2) it has highlighted the need for a whole systems approach, with a range of different interventions at the various levels of the socioecological model.

We hope that the knowledge generated by this review will contribute to dialogue about what is important in consent to surgery in SSA, and it may help guide clinicians and decision-makers in further research efforts and service improvement interventions to better meet the needs of surgical patients in SSA.

Contributors CP, JG and BN conceived the study. CP, CS and JG designed the study, conducted the search and analysed the data. CP, JG, BN and PO contributed to data interpretation, and critically reviewed and edited the first draft. All authors read and approved the final manuscript. CP is the guarantor responsible for the overall content of this manuscript.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement All data relevant to the study are included in the article or uploaded as supplementary information.

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