

## Supplementary Material 3: Key Characteristics of Included Studies

Supplementary Table 3.1. Key characteristics of included studies

Author	Year	Country	Perspective	Design	Population	Surgery area	Setting	Aim	Main message
Ababulgu et al.	2022	Ethiopia	Patients	Descriptive - survey and health records	288 adult women who underwent CS (median age 28 yrs range 18-45)	Obstetrics & Gynaecology	1 tertiary hospital	To assess the quality of informed consent in caesarean section	Women who undergo caesarean section receive inadequate informed consent
Ankeambom et al.	2022	Cameroon	Both patients and providers	Descriptive - cross sectional survey	70 adult patients (mean age 41 yrs; 74% male) and 20 healthcare providers (no age info)	Neurosurgery	2 centres (level one and two according to national system)	To assess ethical dimensions of informed consent for neurosurgery in Cameroon and their relationship with patient satisfaction and outcomes	The majority of patients were pleased with their involvement in the decision-making process and felt their autonomy was respected, but they had poor comprehension and recall of information conveyed to them by neurosurgeons
Aremu et al.	2011	Nigeria	Patients	Intervention study - RCT	50 adult patients (average age 43 yrs, range 16-76; 60% male)	Otorhinolaryngology	1 teaching hospital	To evaluate how much patients remember of the risks discussed with them regarding their otorhinolaryngologic surgeries and whether a simple intervention, the addition of an information handout, could improve their recall	Written handouts can improve patient comprehension (e.g. risks and potential complications from surgery)
Ayele et al.	2022	Ethiopia	Patients	Descriptive - cross sectional survey	404 elective surgery adult patients (mean age 40 yrs , SD 15; 40% male)	Multiple	3 hospitals	To assess patients' satisfaction and associated factors of informed consent process among elective surgical patients	Patient satisfaction with the surgical informed consent process is relatively low

Bakker et al.	2021	Malawi	Providers practices	Qualitative	22 clinical officers, nurses-midwives, midwifery students (median age 30 yrs; 59% male)	Obstetrics & Gynaecology	1 rural mission hospital	To explore health workers' beliefs and experiences related to principles and practices of informed consent for caesarean section	Health workers are familiar with the principles around informed consent and aware of its advantages, but fear of blame and litigation, partial disclosure of risks and barriers to communication hamper the process of obtaining informed consent
Biyazin et al.	2021	Ethiopia	Patients	Descriptive - cross sectional survey	372 adult women (mean age 29.5 yrs, SD 3.5)	Obstetrics & Gynaecology	1 teaching hospital	To assess the mode of decision-making approach in surgical procedures among women who have undergone obstetrics and gynaecologic surgeries	Paternalistic mode of decision-making, where patients rely on the opinion of health providers, is still in practice in Ethiopia. Good patient-health care providers' relationships is vital for facilitating clients reaching decisions on their own
Biyazin et al.	2022	Ethiopia	Patients	Descriptive - cross sectional survey	372 adult women (mean age 29.5 yrs, SD 3.5)	Obstetrics & Gynaecology	1 tertiary hospital	To assess the health care provider-patient relationship during preoperative care in obstetric and gynaecologic surgeries	More than half of the respondents did not have good patient-health care provider relationship
Biyazin et al.	2022	Ethiopia	Patients	Descriptive - cross sectional survey	372 adult women (mean age 29.5 yrs, SD 3.5)	Obstetrics & Gynaecology	1 tertiary hospital	To assess patient satisfaction with surgical informed consent	Patients' satisfaction with the surgical informed consent process was relatively low. Aspects of the process that scored particularly low were: the information received on an indication of operation; patients' chance to express their opinions and to ask questions.
Chane et al.	2020	Ethiopia	Patients	Descriptive - cross sectional survey	135 major surgery adult patients (evenly distributed among age groups from 18 to 60+; 49% male)	Surgery - not specified	1 tertiary hospital	To assess the quality of informed consent among patients who underwent major surgery	The quality of informed consent is poor in the surgical ward

Enabudoso & Igarumah	2012	Nigeria	Patients	Descriptive - cross sectional survey	197 adult women who underwent CS (mean age 31 yrs, SD 5)	Obstetrics & Gynaecology	1 teaching hospital	To examine the level of patient autonomy using maternal preference to sign the consent for caesarean section as the assessment tool	Increasing maternal age and having a tertiary education were shown to be associated with increasing autonomy (signing consent for caesarean section)
Ezeome et al.	2011	Nigeria	Consent forms	Descriptive - quantitative	33 consent forms	Surgery in general	49 federal tertiary health institutions	To evaluate the content and textual readability of surgical consent forms used in public tertiary institutions in Nigeria	The content of majority of the informed consent forms used in Nigerian tertiary health institutions are poor and they are written in too technical, a language for most patients to understand
Friedland et al.	2011	Zambia & Swaziland	Patients	Mixed-Method	228 male circumcision clients in Zambia (of which 159 adults and 69 adolescents aged 13-17 yrs) & 953 MC clients in Swaziland (756 adults and 69 adolescents aged 13-17 yrs)	VMMC	23 clinics providing male circumcision services	To assess comprehension of concepts of informed consent among adult and adolescent clients undergoing male circumcision	Although a majority of participants were able to pass the comprehension test, several important concepts were not well understood, and there were notable differences in comprehension between adults and adolescents. Risk communication may be particularly difficult in the context of MC, because the term "risk" is used (in English and in local languages) to outline potential negative consequences of the MC surgical procedure while simultaneously describing the primary benefit of MC (reduced "risk" of HIV)
Gebrehiwot et al.	2022	Ethiopia	Patients	Descriptive - cross sectional survey	422 adult patients (majority ranged 18-30 yrs, 62% female)	Multiple	1 specialised and 1 general public hospital	To assess patients' perception of informed consent and its associated factors among surgical patients attending public hospitals	One-third of surgical patients had a poor perception of informed consent for surgical procedures

Grema et al.	2022	Nigeria	Patients	Descriptive - cross sectional survey	244 elective adult patients (mean age 34.8, yrs SD 14.3; 62% female)	Multiple	1 tertiary hospital	To assess the surgical patients' experience of informed consent	There are deficiencies in the process of obtaining consent (e.g. 38.5% and 48.8% of patients did not receive information about surgical procedures' immediate and long-term complications, respectively). However, most patients are satisfied with the process of securing consent
Kebede et al.	2023	Ethiopia	Patients	Descriptive - cross sectional survey	372 adult women (median age 28% yrs)	Obstetrics & Gynaecology	1 tertiary hospital	To assess the knowledge of surgical informed consent and associated factors among patients who underwent obstetric and gynaecologic surgery	Knowledge of patients towards surgical informed consent for their obstetric and gynaecologic surgical procedures was significantly low
Moyer et al.	2022	Eswatini	Patients	Qualitative	48 male adolescents (between 10-19 yrs)	VMMC	1 clinic providing VMMC services	To examine the social complexities of informed consent and assent among young males undergoing voluntary medical male circumcision	Respect for young males' rights and decision-making in the VMMC consent process is limited by complex social, economic and political realities
Negash et al.	2021	Ethiopia	Providers	Descriptive - cross sectional survey	621 nurses, midwives, physicians, anaesthetists and emergency surgery officers (median age 29 yrs, SD 5.7; 59% male)	Surgery - not specified	5 public hospitals (referral and district levels)	To assess practice and factors associated with the informed consenting process for major surgical procedures among health-care workers in public hospitals	Only half of health-care workers practiced good informed consent

Nnabugwu et al.	2020	Nigeria	Patients	Descriptive - surveys	95 men (mean age 68.6 yrs, SD 6.2) scheduled for elective prostate biopsy	Urology	1 tertiary hospital	To evaluate the role of a third party check on patient's recall of consent information	Recall of consent information on nature of disease condition, the nature of the planned procedure, and the risks involved in the planned procedure are significantly higher among patients that positively attested to a third-party that the consent processes satisfactorily addressed all their concerns. Use of "third-party checks" could be useful in low-literacy setting, and may encourage patients feeling "freer" to exercise their autonomy in decision-making
Nnabugwu et al.	2017	Nigeria	Patients	Descriptive - cross sectional survey	369 elective patients (mean age 44.1 yrs, SD 17.7; 53% male)	Multiple	1 teaching hospital	To evaluate the relationship between satisfying consent and the extent of recall of consent information	Appropriate recall of consent information as an index of understanding by the patients is better among patients whose concerns relating to the disease conditions and treatment decisions are satisfactorily addressed than those whose concerns are not

Ochieng et al.	2014	Uganda	Providers	Mixed-Method	132 intern doctors, residents and specialists participated in the survey (mean age 33.1 yrs, SD 8.4; 80.5% male) + 20 interviews with doctors + 384 patient files	Multiple	3 university teaching hospitals	To evaluate informed consent practices of surgeons in teaching hospitals	No significant differences in obtaining informed consent among doctors among the different specialties, levels of education or experience. Yet, informed consent administration and documentation for surgical care is still inadequate at University teaching hospitals in Uganda. There is need for development of an informed consent template with adequate information and room for modification to facilitate the informed consent process and accompanying training for surgeons.
Ochieng et al.	2015	Uganda	Patients	Descriptive - cross sectional survey	371 adult patients (mean age 32 yrs, SD 12.3; 51% female)	Multiple	3 university teaching hospitals	To evaluate patients experiences and perspectives of informed consent process following surgery	Patients' perceptions of what constitutes informed consent are diverse and many undergo surgery without full understanding. Patients' age, sex (male) and having all questions answered prior to the operation are significantly associated with the likelihood of patients giving their own permission for the operation
Ogundiran & Adebamowo	2010	Nigeria	Providers	Descriptive - cross sectional survey	102 consultants & surgical trainees (58.8% were aged 31–40 yrs; 85% male)	Multiple	Hospitals in major cities and towns in South-western Nigeria	To examine opinions and practices of surgeons in Nigeria about informed consent in their practice	Most Nigerian surgeons whose opinions were sampled demonstrated a good knowledge of the informed consent requirements and process but fall short in practice. There is a need to improve the surgeon–patient relationship

Okonta	2015	Nigeria	Providers	Descriptive - cross sectional survey	135 trainee OBGYN residents at the 2013 revision course (77.6% aged 30-39 yrs)	Obstetrics & Gynaecology	National Postgraduate Medical College of Nigeria	To investigate obstetrics and gynaecology residents' knowledge of the informed consent process and its practice in their training institutions	Residents in obstetrics and gynaecology in Nigeria have some, but not sufficient, knowledge of the informed consent process. There is a need to teach residents the rudiments of informed consent and bioethics in general.
Olatosi et al.	2016	Nigeria	Providers	Descriptive - cross sectional survey	56 physician anaesthetists attending a continuous medical education programme (38% in age group 31-40 yrs, 34% in age group 41-50 yrs, 2% in age group 21-30 yrs; 75% male)	Surgery & Anaesthesia	Nigerian Annual Scientific Meeting for Anaesthetists, 2015	To determine the attitudes and practices of informed consent among anaesthetists in Nigeria	Informed consent is believed to improve the doctor-patient relationship, to be important to respect the patient's autonomy and provided the surgeons and anaesthetists with protection against medical litigation. It is paramount to disclose all major risks, however patient's age, level of education and inquisitiveness may influence the amount of information disclosed

Schenk et al.	2014	Zambia & Swaziland	Patients	Qualitative	In Zambia 34 adults (mean age 26.2 yrs, range 18-43 yrs) and 28 adolescent (mean age 15.7 yrs, range 13-17 yrs) male circumcision clients, and 13 key informants (85% male). In Swaziland: 16 adult (mean age 23.6, range 21-32) and 14 adolescent (mean age 15.1 yrs, range 13-17) male circumcision clients	VMMC	11 clinics providing VMMC services	To assess clients' understanding and experience of the informed consent process for voluntary medical male circumcision	Informed consent is not well understood in poorly educated communities. It is imperative that the fidelity to a high-quality informed consent process is not lost in the rush to implement circumcision services on a national scale
Teshome et al.	2018	Ethiopia	Patients	Descriptive - cross sectional survey	230 adult women (40% aged 25-29 yrs)	Obstetrics & Gynaecology	1 tertiary hospital	To assess the comprehensiveness of the surgical informed process for women undergoing obstetric and gynaecological surgeries	There is gap in the provision of comprehensive and standardised pre-operative counselling for obstetric and gynaecologic surgeries in the study hospital
Teshome et al.	2019	Ethiopia	Patients	Intervention study - pre/post	457 adult women (majority aged 25-34 yrs)	Obstetrics & Gynaecology	1 tertiary hospital	To assess whether an intervention designed to improve SIC in obstetric and gynaecologic surgeries is associated with receipt of SIC components	The institutionalisation of a standard SIC delivery approach is associated with receipt of a higher number of standard counselling components. However, the improvement may not endure without sustained intervention



Supplementary Table 3.2. Relevant data related to the review questions

Author	Year	SIC practices						Individual level influencing factors			Interpersonal level influencing factors				Institutional level influencing factors			System/societal level influencing factors		Implications		
		Is informed consent always sought?	Who does it?	Timing	Extent of information disclosure	Opportunity to ask questions	Overall adequacy of SIC	Patient's sociodemographic characteristics	Patient's literacy level / education	Patient's health status	Providers' understanding of consent	Providers' attitude and behaviour, incl. relationship with patients	Ethical dilemmas	Influence of guardians and peers	Consent forms, protocols & regulations	Language of care provision at the health facility	Health facilities' priorities and targets	Culture and social norms	National policies and donor programmes	Patient's comprehension	Patient's autonomy	Patients' satisfaction
Ababulgu et al.	2022			x	x	x	x	x	x	x				x			x		x	x		
Ankeambom et al.	2022				x					x			x						x	x		
Aremu et al.	2011							x						x					x			
Ayele et al.	2022							x	x	x											x	
Bakker et al.	2021		x					x	x	x	x	x	x	x	x		x	x	x	x		
Biyazin et al.	2021		x	x			x										x			x		
Biyazin et al.	2022		x	x				x						x						x	x	
Biyazin et al.	2022		x	x	x			x	x	x					x				x		x	
Chane et al.	2020		x	x	x	x	x							x							x	
Enabudoso & Igbarumah	2012							x	x				x				x			x		

Ezeome et al.	2011				x									x				x	x				
Friedland et al.	2011				x			x							x				x	x			
Gebrehiwot et al.	2022		x	x				x	x					x	x					x		x	
Grema et al	2022		x	x	x	x	x	x												x		x	
Kebede et al	2023		x	x						x										x		x	
Moyer et al	2022		x	x	x	x	x			x				x	x	x		x	x	x	x		
Negash et al	2021	x								x	x				x								
Nnabugwu et al	2020		x	x	x			x	x											x	x	x	
Nnabugwu et al.	2020	x	x		x			x	x														
Ochieng et al.	2014	x	x	x											x								
Ochieng et al.	2015				x	x	x	x													x	x	
Ogundiran & Adebamowo	2010				x								x	x		x							
Okonta	2015		x	x	x			x															
Olatosi et al.	2016	x			x																	x	
Schenk et al	2014			x	x			x	x						x	x						x	x
Teshome et al.	2018		x	x	x	x			x						x	x							x
Teshome et al.	2019			x	x			x	x						x	x							x