Factors Shaping Good and Poor Nurse-Client Relationships in Maternal and Child Care in Rural Tanzania

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Abstract

Background

Evidence indicates that poor nurse-client relationships within maternal and child health (MCH) continues to impact trust in formal healthcare systems, service uptake, continuity with care and MCH outcomes. This necessitates contextualized innovative solutions that places both nurses and clients at the forefront as agents of change in optimizing intervention designs and implementation. This study explored nurses and clients' perspectives on the factors shaping nurse-client relationships in MCH care to generate evidence to guide designing effective strategies for improving therapeutic relationships by piloting human-centered design (HCD) in Shinyanga, Tanzania.

Methods

Qualitative descriptive design was employed. About 9 Focus Group Discussions (FGDs) and 12 Key Informant Interviews (KIIs) with purposefully selected nurses and midwives, women attending MCH services and administrators were conducted using semi-structured interview guides in Swahili language. Data were transcribed and translated simultaneously, managed using Nvivo Software and analyzed thematically.

Results

Factors shaping nurse-client relationships were heuristically categorized into nurse, client and health system factors. Nurse contributors of poor relationship ranged from poor reception and hospitality, not expressing care and concern, poor communication and negative attitudes, poor quality of services, job dissatisfaction and unstable mental health. Client contributors of poor relationship include being 'much know', late attendance, non-adherence to procedures and instructions, negative attitudes, poor communication, inadequate education and awareness, poverty, dissatisfaction with care, faith in traditional healers and unstable mental health. Health system contributors were inadequate resources, poor management practices, inadequate policy implementation and absence of an independent department or agency for gathering and management of complaints. Suggestions for improving nurse-client relationship included awards and recognition of good nurses, improving complaints mechanisms, continued professional development, peer to peer learning and mentorship, education and sensitization to clients, improving service quality and working conditions, improving renumeration and incentives, strengthening nursing school's student screening and nursing curriculum and improving mental health for both nurses and clients.

Conclusions

The factors shaping poor nurse- client relationships appear to extend beyond nurses to both clients and healthcare facilities and system. Implementation of effective interventions for addressing identified factors considering feasibility and acceptance to both nurses and clients using novel strategies such as HCD could pave the way for employing good nurse-client relationships as a tool for improving performance indicators and health outcomes within MCH care.

Background

Nurses and midwives form a critical component of maternal and child health (MCH) services globally. They play a vital role in the delivery of primary health-care services related to pregnancy monitoring, delivery and postnatal care for women and newborns around the world [1–4]. In sub-Saharan Africa, nurses and midwives are often respected members of the community and provide advice and evidence-based information on a range of health issues, including care of newborns and young children [2–4]. In the presence of sufficient, well supported and competent nurses and midwives, 83 per cent of maternal deaths, stillbirths and neonatal deaths could be prevented [5–7]. It is considered that competent nurses and midwives have the potential to increase client service uptake, continuity, and consequently improve health outcomes, such as increased breastfeeding initiation and duration, reductions in caesarean sections, maternal infections, postpartum hemorrhage and preterm births [8]. Literature suggests that investing in nurses and midwives has the potential to yield a 1,600 per cent (16-fold) return on investment resulting from improved MCH outcomes [9].

Despite their critical role, there has been increasing clients' dissatisfaction with nurses and midwives' interpersonal and perceived technical competences within MCH care in the recent years [10–19]. Perceived technical incompetence associated with skills, reliability, assurance, confidentiality and patient engagement and, behavioral incompetence involving demeanor/attitudes empathy, communication skills/language, violation of client rights and respect, continue to obscure the positive value of nurses and midwives in the delivery of MCH interventions in Tanzania and elsewhere [10–21]. Recent studies indicate that clients' dissatisfaction with nurses' interpersonal and technical aspect of care continues to erode client trust in formal healthcare system, service uptake, continuity and MCH outcomes [19–23].

To address clients' dissatisfaction, healthcare service governance instruments including policies, client service charters, health facility governance committees, complaints mechanisms and professional bodies have been emphasized in both high- and low-income settings but their effectiveness is not well-established. Consequently, political interventions such as employment termination remain the cornerstone of addressing this complex problem which further creates tension between clients and the politically pronounced 'bad, lazy and incompetent' nurses contributing to loss of providers' morale [24–25]. Competence based interventions focusing on provider communication skills and patient centered care and, patient literacy, information seeking, participation and questioning skills are often implemented on adhoc basis yielding unsatisfactory results. A major challenge with existing interventions documented in literature is the failure to address all the complexities of nurse-client relationships along the continuum of MCH care. Patient's socio-economic fragility, literacy and behaviors as well as providers' competence

and behaviors, and health system challenges add to the complexity of nurse-client relationships. This complexity necessitates targeted contextualized innovative solutions that places nurses and clients at the forefront as agents of change in optimizing intervention designs and implementation [26–28]. A human centered -design (HCD) is one of the innovative approaches to problem-solving that leverages insights from the end-users of services, and experiences in order to develop best-fit solutions that are rapidly prototyped and iteratively refined [26–32]. The aim of this study was to explore nurses and clients' perspectives on factors shaping nurse-client relationships in MCH care. The findings of this study are expected to generate evidence to guide designing effective strategies for improving nurse-client relationships by piloting a HCD in Shinyanga, Tanzania.

Methods

Design

Qualitative descriptive study design was employed. Qualitative descriptive design was selected because is a well-accepted design within the qualitative domain for answering the questions of 'what' are the drivers of poor-nurse client relationships in MCH care [33]. Although a mixed method was also considered, it was deemed impractical for this inquiry because a focus was on generating rich perspectives on nurse-client relationship to guide further HCD steps.

Settings

This study was conducted in Shinyanga, a region located in the Lake Zone and predominantly inhabited by Bantus. Isangula [23] offers a detailed description of the region. Briefly, Shinyanga falls within the low-income category of the regions in Tanzania. It is administratively divided into five districts: Shinyanga Municipal Council (MC), Shinyanga District Council (DC), Kishapu DC, Kahama MC and Kahama DC. The choice of Shinyanga Region is twofold. First, the region ethnically, is predominantly inhabited by Sukuma who share a range of socio-cultural beliefs and practices with minimal diversity. Due to its near homogeneity, the region is a perfect exemplar of many other rural regions of Tanzania. Second, despite a number of capacity building interventions, local data indicate enormous concerns of poor provider-client relationships in MCH care [23]. Within Shinyanga Region, Shinyanga DC was purposefully selected because patients in these districts have wealthier access to both the formal healthcare system (mostly public and few private and faith-based facilities) and traditional care [23].

Study population, Sample size and sampling method

A total of 9 FGDs with purposefully selected nurses and MCH clients and 12 KIIs with MCH stakeholders were conducted. While equal representation is not a primary focus in qualitative studies [33], the level and ownership of facility (public, private & faith based and; dispensary, health center, and district hospital) were considered during participants' enrollment. No age preference was made for this qualitative inquiry other than being a nurse/midwife who has been working in MCH for at least two years OR a client

currently attending to MCH clinics and has made at least three visits in a year OR MCH service administrator in Shinyanga.

Recruitment of participants

Recruitment for FGDs participants commenced by purposeful selection of healthcare facilities considering ownership, level and availability of MCH services. Then, a courtesy visit made to Shinyanga district medical officer for approval to visit the facilities. This was followed by a physical introductory visit to the facilities where the study information was provided to the incharge and the incharge assisted with identification of providers to facilitate enrolment of MCH clients. Enrolment assistants were briefly oriented on the study. The enrolment assistant shared information about the study during clinical meetings and MCH visits and registered clients who expressed interest. This was followed by subsequent visits by research assistants for scheduling and conducting interviews. Recruitment for KII was done by initial phone contact with MCH administrators after obtaining the phone numbers from the district medical office. During phone calls with administrators, interviews were scheduled considering participant preferences of place and date.

Data collection tools

Semi-structured FGDs and KII guides were developed and translated through a consultative process involving experts at the Aga Khan University. The English versions of interview guides were translated into Swahili language then back translated to English and checked for conceptual equivalence. Questions within the interview guide ranged from those examining experiences of poor and good nurse client relationships, contributors of poor nurse client relationships to those examining suggestions and considerations for improving nurse-client relationships.

Three research assistants were recruited, trained on the use of interview guides and techniques pertaining to this study. The interview guides were pre-tested in purposefully selected settings. After pre-testing, the guides were refined to ensure readiness for use in the actual data collection process. Close and supportive supervision of research assistants was conducted throughout data collection and analysis stages to ensure data quality.

Data collection

Interviews were conducted in a place and date preferred by the participants. Before commencement of FGDs and KII, participants were given information about the study, risk and benefits of participation (information sheet was part of the interview). A verbal consent for interview and voice recording were sought in advance. Then, interview sessions lasting for approximately 30–60 minutes were conducted in a safe environment. In view of recent Covid-19 pandemic, all participants and research assistants were provided with face masks and hand sanitizers and social distance was maintained throughout the interviews.

Data management and analysis

FGDs and KIIs data transcription and translation occurred simultaneously by research assistants and verified by the research team. After transcription and translation, interview transcripts were de-identified, pseudonyms generated for each participant and the data uploaded into NVivo 12 software (QSR International, Australia) for management and deductive thematic coding. Qualitative data analysis employed thematic analysis strategy described by Braun & Clarke [34]. A stepwise approach was used for a deductive thematic analysis of the interview transcripts. To begin with, first, the research team examined the research questions and generated several themes on a consensual basis. This resulted into an analytical matrix of the main themes and subthemes. Individual transcripts and phrases (codes) representing participants' responses to investigators' probes were exported to relevant themes and related subthemes within Nvivo Software. A consensus-based approach was then used by the research team on whether to include codes that do not fit within the developed subthemes and themes or disbandment when subjectively and objectively deemed of no critical value to the study. Then, the data within the Nvivo were exported to Ms Word for report generation.

Results

Participant's demographics

The study involved 12 KIIs with MCH administrators and stakeholders and, 9 FGDs with nurses and MCH clients. On the one hand, majority of KII participants were Female (67%), aged between 40–49 years (67%) with university education (75%) and more than 5 years of experience in MCH leadership (75%). On the other hand, majority of nurses and clients were female (94%), aged less than 39 years (83%) and married. Most clients had primary education and 1–2 children with most nurses having college/university education (Table 1).

Table 1
Participants demographics

PARTICIPANT DEMOGRAPHIC				
KII	**(n = 12)**	**Total (%)**		
Gender	Male	4 (33)		
	Female	8 (67)		
Age	< 30	0		
	30–39	3 (25)		
	40–49	8 (67)		
	> 50	1 (8)		
Education	Secondary	1 (8)		
	College	2 (17)		
	University	9 (75)		
Years of Leadership in MCH	< 2	1 (8)		
	2–4	2 (17)		
	> 5	9 (75)		
FGD	**N = 66**	**CLIENTS (n = 36)**	**NURSES(n = 30)**	**Total (%)**
Gender	Male	0	4	4 (6)
	Female	36	26	62 (94)
Age	< 30	22	6	28 (42%)
	30–39	13	14	27 (41%)
	40–49	0	5	5 (8%)
	> 50	1	5	6 (9%)
Marital status	Single	8	3	11
	Married	28	27	55
Education	None	5	0	5
	Primary	17	1	28
	Secondary	9	6	15
	College/University	5	23	28
Number of children	1–2	21		

PARTICIPANT DEMOGRAPHIC		
	3–4	8
	> 5	7

Factors shaping poor nurse-client relationship

The contributors of poor nurse-client relationship in this rural Tanzanian context emerging from the data can be heuristically categorized into three groups: *Nurse contributors*, *client contributors* and *healthcare system contributors* (Table 2). Considering nurse and client's contributors to poor nurse-client relationship, there was a tendency among nurses to post blames to clients on the one hand and, clients posting blames to nurses on the other hand. Nevertheless, participants' accounts indicated that nurse contributors were mainly *related* to behaviors and actions that portray poor reception and hospitality, not expressing care and concern, poor communication, failure to offer adequate information about medical interventions and side effects, negative attitudes and poor quality of services. Other nurse contributors related to poor relationship among peers, job dissatisfaction and unstable mental health.

The client contributors to poor nurse-client relationship were related to being 'much know', late attendance, failure to adhere to established procedures at the facility, negative attitudes towards nurses, poor communication, inadequate education/awareness/poverty, hurrying/forcing to receive certain services, dissatisfaction with care, faith in traditional healers and unstable mental health. Some participants commented:

For example, if a child receive vaccination she may develop fever and we as clients do not know that this is normal…that the child may not breastfeed well after vaccination or may cry excessively. We are not told that we should not worry because when you reach the facility they just inject 'chwi…chwi…chwi' and tell you to go home. You reach home the child is not breastfeeding or develops fever and you have to go back to the hospital. This increases the cost and you reach the hospital they tell you that this is normal. Something which the nurse should have told me before instead going back the second time. Therefore, the relationship becomes poor because the nurse did not give me adequate education about side effects of vaccine (Client, Health Centre)

Most of the clients nowadays knows everything. We call them 'Bishololo' because they know everything and you ask yourself why did they come to the hospital when they appear to know everything. They know which medications they need…'eeh write me amoxicillin caps…write me that' so it is like they teach a nurse to do her work. You may be inserting an IV drip and they keep instructing you where and how to insert…this contributes to many conflicts especially in urban areas because rural people are much calmer…they do not know many things but this (not knowing many things) may also contribute to poor relationship when they miss certain services (MCH administrator)

Most of us are suffering from mental health diseases. Both nurses and clients are suffering…we are facing many stresses of life and no support… this contributes to poor relationships (Client, Hospital)
Furthermore, healthcare system contributors ranged from inadequate resources (nurses, medicines, medical supplies, infrastructure and guidelines) in relation to client load, poor human resource for health management practices (mistreatment of staff by leaders, inadequate financial incentives, small and delayed salaries and promotions) to the lack of trust towards facilities and healthcare providers, inadequate policy implementation and absence of an independent department or agency specifically responsible for gathering, analyzing and communicating clients and providers' complaints. One participant detailed how the absence of PoP (Plaster of Paris)- a medical supply commonly used for injuries resulted into poor nurse-client relationship:

My child had an injury and we went to the facility and the doctor wrote a prescription and when we went to the nurse to give us the materials, she told us that they are not available. My husband became so angry and furious that he slapped the nurse … asking that why a big hospital like that has no POP materials…It was a big conflict and I even became afraid. Yes, patient themselves often contribute to poor relationship with nurses (Client, Health center)

Factors shaping good nurse-client relationship

We also examined factors shaping good nurse-client relationships. These were mainly nurse and clients' *good behaviors and actions* that transpire *during physical therapeutic interactions* within MCH clinics and *good outcomes after such interactions*. Good behaviors, attitudes and actions of nurses included those related to good reception of the client, expressing care, good communication, better services, ongoing support, friendship and trust, and positive reputation within the community. During therapeutic interactions, *good reception* was characterized by exchanging greetings, introducing oneself, addressing worries, offering hope, asking what the problem is and promoting equality. Furthermore, *expression of care* was characterized by nurse's willingness and readiness to help, promoting clients' rights, closeness to clients, showing interest in clients' concerns and cooperation. Moreover, *good communication* was characterized by good and soft language, positive body language, calmness, avoidance of harshness and harassment, listening, consensus building/shared decision making and being able to speak local language. Likewise, *better healthcare services* were characterized by timeliness, correct treatment, good counseling and post-care instructions, and friendly services. After therapeutic interactions, confidentiality of patient information, continued friendship and continued communication and support surfaced as shaping good nurse-client relationship. Although nurses' positive behaviors and actions dominated as shaping good relationship, clients' good behaviors, attitudes and actions were also mentioned. For instance, during therapeutic interactions, timely arrival to the clinic, client's positive attitude and trust towards nurses, adherence to instructions, good communication, openness and understanding what services they deserve and thankfulness were cited as shaping good nurse-client relationship. After the interaction, satisfaction with care/absence of complaints, friendship beyond MCH clinics often accompanied with gifts and promoting of goodness of nurses in the community were cited as shaping good nurse-client relationship. Some participants commented:

[Good relationship] occurs when you receive the patient well, how you introduce yourself and offer medical services. At the end of the day, you build friendship, you stay connected and she may call you if she has a problem. It occurs when the client becomes satisfied with your services and you may become like family friends. She may even bring you gifts because you offered good care (Nurse, Health Centre)

What I know is that a good relationship between nurses and clients is shaped by four things. First is trust between client and nurse, meaning a client has high trust towards a nurse. Second, confidentiality meaning nurse keeps patient information confidential. Third, willingness and readiness of a nurse to leave all other things to offer care to the client, hospitality and treating the client like a king. If are done, there will always be good relationship between a nurse and client" (Client, Dispensary)

Table 2
Contributors to poor nurse-client relationships.

Nurse contributors	Client contributors	Healthcare sector contributors
• Poor reception and hospitality o *Negative reception* o *Self-pride among nurses* o *Not greetings clients* o *Not responding to greetings* • Not expressing care and concern o *Not conducting triage* o *Acting busy and ignoring patients* o *Doing personal activities instead of offering care (exchanging stories among fellows, chatting or preoccupation with phones)* o *Inadequate preparation for offering health care services* • Poor communication o *Bad and harsh language* o *Speaking with anger, shouting and verbal reprimands towards clients* o *Being or appearing naturally angry and troublesome* o *Not explaining things to clients clearly* o *Not listening to clients* o *Not making eye contacts when speaking* o *Not being able to speak local language (Sukuma)* o *Not setting adequate time to speak to clients* o *Lack of customer care skills*	• **The 'much know' client** o *Clients who know everything-medicine, how to give injection etc.* o *Clients basing their expectations on information from internet sources* • Delayed clinic attendance/coming outside scheduled clinic hours (without emergency) • Failure to adhere to established procedures for receiving care • Harboring negative attitudes towards nurses o *Negativity towards providers* o *Having negative information about nurses before facility visit* o *Having a negative experience with nurses in a similar or different facility* o *Believing that no better healthcare service without bride* o *Holding nurses in contempt* • Poor communication o *Being troublesome/ with bad language towards nurses* o *Having self-pride and disrespect towards nurses* o *Portraying anger when explaining problems* o *Being naturally non-civilized and angry*	• **Inadequate resources** o *Inadequate/shortage of nurses and other providers amidst high client load* o *Inadequate medicines and medical supplies* o *Inadequate healthcare infrastructure* o *Dysfunctional service delivery HIS e.g., GoTHOMIS not sending patient information to departments timely* o *Non-dissemination of guidelines and SOPs to facilities* • Poor human resource for health management practices o *Bullying and mistreatment of nurses by administrators and leaders* o *Inadequate financial incentives ad motivations* o *Small and delayed salaries* o *Delayed promotions and salary increments* • Lack of client trust towards facilities and healthcare providers o *Bad reputation of the healthcare facility among community members* o *Bad reputation of nurses in the community e.g., physical abuse of patients* o *Negative attitudes of community members towards nurses* o *Inadequate orientation of new employees on nurse-client relationship* • Inadequate policy implementation o *Delay in fund disbursement from central government for medicine*

Nurse contributors	Client contributors	Healthcare sector contributors
• Negative attitudes towards clients o *Thinking that clients are instructing or teaching them what to do when explaining what services/treatment they would like to receive* o *Nurses using phrases/language that may be perceived as humiliating/shaming e.g., 'you are giving birth every year without resting"* • Poor relationship among nurses for instance a nurse discrediting fellows to patients • Job dissatisfaction o *Not being satisfied with nursing job (i.e., income, working tools and transport)* o *Low work morale because of delated promotions or low income* o *Not meeting personal life goals as expected* o *Lack of 'nursing calling'* • Poor quality of services o *Inadequate technical competence on certain services (therefore become harsh as a defensive mechanisms)* o *Offering substandard and poor care* o *Offering care in a hurry* o *Not offering appropriate education about side effects* o *Not performing one's duties effectively* o *Extreme tiredness because of high work load and multiple shifts* o *Multiple responsibilities in different departments*	*because of cultural upbringing from childhood* o *Not receiving information early about absence of a certain service* • Inadequate education, awareness and poverty o *Limited understanding among community members on health issues and process of care* o *Limited understanding of instructions* o *Non adherence to instructions* o *Poor preparation before delivery* o *Failure to acknowledge many responsibilities nurses have* o *Non ownership of health insurance*o • Hurrying/forcing to receive certain services o *Lack of patience and wanting to receive care ahead of others who came early* o *Using social status or position to force faster treatment/care* o *Forcing to receive certain services that they do not deserve or contrary to nursing profession guides* • Dissatisfaction with care o *Coming with personal desires and expectations e.g., a nurse to receive care from or medications (lack of choices?)*	*and medical equipment which creates deficits that fuel client distrust towards nurses* o *Inadequate screening of nursing students in health training institutions leading to enrollment of those without nursing calling* o *Non adherence to labor laws e.g., required working hours* • Politicization of medicine for instance telling people that they would receive free care while no resources made available to fulfill such commitments • High cost of care fueling complaints and dissatisfaction • **Ineffective complaints mechanism** o *Dysfunctional suggestion box system* o *Absence of an independent department or agency specifically responsible for gathering, analyzing and communicating clients and providers complaints* • Absence of specific individuals/agency for continued capacity building and mentorship of nurses on provider-client relationships • Inadequate mental health support for both nurses and clients

Nurse contributors	Client contributors	Healthcare sector contributors
• Unstable mental health o *Mental health problems resulting from stresses of life* o *Inadequate mental health support*	o *Dissatisfaction with care when desires and expectations are not met* • Trust in traditional healers and traditional birth attendants than in formal healthcare • Unstable mental health o *Mental health problems resulting from stresses of life* o *Loss of hope because of prolonged suffering from a disease*	

Suggestions for improving nurse-client relationship

A range of suggestions were mentioned for strengthening nurse-client relationships. These included those focusing on nurses, clients and health system (Table 3). Of note, most of the recommended strategies are those focusing on health system. Suggestions focusing on nurses included: awards and recognition of good nurses, continued professional development, peer to peer learning and mentorship including pairing good and experienced nurses with bad and inexperienced nurses in service delivery, learning local language (Sukuma) for easy communication and insisting on personal devotion to nursing professional and work ethics in different platforms. The suggestions focusing on clients included: education and community sensitization and insisting on good behaviors and attitudes towards nurses on different platforms. Finally, suggestions focusing on health system included: improving service quality and working conditions, improving complaints mechanisms, increasing and better management of nursing workforce, reducing politicization of healthcare services, improving remuneration and incentives, extended mentorship and, strengthening screening of students seeking to join nursing schools and improving nursing curriculum to generate graduates with self-drive and good relationship with clients. Some participants commented:

Experienced nurses need to support less experienced ones. If possible, leaders should pair nurses with bad reputation and less experience with those with good reputation and more experiences for them to gain desired competences which are needed to reduce conflicts with clients (MCH stakeholder)

A major strategy is continued community education so that our clients become aware of the importance of coming early to the clinic. Nurses need to be trained on customer care skills, on how to give health education and counsel clients effectively (Nurse, Dispensary)

Nurses need to lean local language for the to communicate smoothly with clients…. At least few words (Client, Dispensary)

Politics and health are different professions. If you are a politician talk politics and leave health issues to health experts. Politicians tell lies to our clients. People are given empty promises by politicians just to find that they have to purchase some things when they come to hospitals. Politicians need to let health experts do their work while they focus on politics…this will reduce conflicts in healthcare settings (Nurse, Health Centre)

Table 3
Suggestions for strengthening nurse-client relationships

Strategies focusing on nurses	Strategies focusing on Clients
Awards and recognition of good nurses Continued professional development on: • *Customer care skills* • *Skills for improving nurse-client relationship* • *Time management skills* • *Communication skills* • *Nursing service delivery competences* • *Respective nursing care skills* • *Counseling skills* • *Delivery of health education session for low literacy clients* • *Develop a habit of updating one's nursing skills* • *Basic clients' rights in MCH care* • *Induction course for new employees on nurse- client relationships* Promoting peer to peer learning and mentorship • *Training nurses as peer mentors on nurse-client relationship* • *Pairing good and/or experienced nurses with bad or junior nurses when planning for working shifts* • *Nurse to develop a habit of sharing/giving feedback to peers what they have learnt in seminars and workshops* • *Learning from best performing private sectors* • *Improving relationship and cooperation among nurses* Insisting on personal devotion to nursing professional in different platforms on these aspects: • *Valuing nursing work* • *Reminding nurses to fulfil their responsibilities, adherence to nursing ethics and having a nursing call* • *Respect of clients' views* • *Respect of client's rights including choice of a nurse to receive care from* • *Willingness to receive feedback and improve oneself*	**Education and community sensitization on**: • *The importance of early healthcare seeking* • *The type of services they deserve* • *Swahili language (in rural areas) or coming with interpreters* • *Communication skills in healthcare settings* • *Reputable sources of information* • *Basic clients' rights within healthcare settings* **Insisting on the followings on different platforms** • *The importance of coming early to the clinic (within scheduled time)* • *Reducing anger in order to receive good care* • *Being respectful and thankful to nurse's efforts* • *Using good language and using civilized communication* • *Reliance on reputable health information sources* • *Adherence to instructions from nurses*

Strategies focusing on nurses	Strategies focusing on Clients
• *Learning local language (Sukuma)* Others • *Peer policing- a tendency of nurses to monitor and warn fellow nurses* • *Linking nurses' performance evaluation to renumeration* • *Nursing leaders to fulfil their responsibilities*	
Strategies focusing on health facilities/health sector	
Improving quality of services and working conditions • *Improving availability of medicine and medical equipment* • *Improving friendliness of working environment* • *Improving MCH infrastructure* • *Ensuring availability of medicine and medical supplies for exemption groups* • *Establishing health service grades (based on ability to pay) without compromising the basic quality of care* • *Expanding formal healthcare service options in rural areas to promote patient choice* Increasing and better management of nursing workforce • *Employing more nurses* • *Increasing facility income to generate funds needed to recruit more nurses* • *Ensuring nurses are paid as per their job contracts* • *Employing volunteers' nurses to cover for deficits* • *Ensuring nurses work within hours stipulated in labor laws* Feedback and punishments • *Leaders to offer feedback to nurses on their quality of services* • *Demotion of nurses with bad reputation or moving them to rural areas* Improving renumeration and incentives for nurses • *Improving salary of nurses/ salary increments* • *Timely salary and oncall/overtime payments* • *Offering financial incentives for nurses to reach clients at different levels* • *Financial motivation to those performing well* Extended Mentorship	

Strategies focusing on nurses	Strategies focusing on Clients

• *CHMT to frequently visit facilities for extended onsite mentorship (e.g., full day mentorship)*

• *The Ministry of health to visit facilities for mentorship and developing solutions to existing challenges*

• *Establishment of a specific agency/ focal persons for continued capacity building and mentorship of nurses on provider-client relationships*

Reducing politicization of medicine

• *Politicians to avoid making unrealistic healthcare commitment and promises to people*

• *Politicians to avoid interference with nurses' work*

Debates, conferences, seminars and workshops

• *Holding debates among nurses to identify challenges they face*

• *Meetings bringing together nurses and clients to identify challenges in their relationship and generating joint solutions*

• *Conferences, seminars and workshops of nurses at different levels (e.g., districts and regions) to sensitize and remind nurses about nursing ethics and nursing care*

Improving complaints mechanisms

• *Establishment of independent system or agency for tracking, gathering, analyzing and publishing clients and nurses' complaints. The agency could share with responsible authorities, track implementation and give feedback to people who made the complaints*

• *Giving timely feedback to clients about their complaints and suggestions*

Nursing school student screening and curriculum

• *Adequate screening of students joining nursing schools to maximize enrollment of those with nursing call*

• *Strenghethern nursing school curriculum by including topics on nurse-client relationships and patient centered care*

• *Ensure availability of trainers of nurse-client relationships in nursing schools*

Improving efficiency of the Nursing Professional Council

• *Nursing council to develop and implement customer care training programs (seminars and workshops)*

• *Nursing councils to remind nurses their work ethics, take actions to those with no work ethics and congratulating (letters) those with better performance on work ethics*

Community education and sensitization

• *Use of TVs and Radio to offer health education to the community*

• *Educating community on early health care seeking and male engagement, and adherence to medical advice and medications*

• *Educating community on service delivery process*

Strategies focusing on nurses	Strategies focusing on Clients
• *Engagement of CHWs in community sensitization and education* • *Educating community on clients' rights* MCH leaders to be responsible • *MCH leaders to lead by example i.e., participate in service delivery not just sitting in offices* • *Leaders to channel nurses' concerns to the MoH, make follow up and give feedback to nurses* • *Leaders to follow up closely and timely on requests for medicine and medical supplies* Others • *Establishing a system to monitor, control and regulate the quality of health information in internet platforms and social media* • *Establishing a public relations department/focal person in every facility and charge it with community education and sensitization* • *Reducing the cost of care* • *More research on how to strengthen nurse -client relationships* • *Making use of the findings of this research for improvement* • *Stakeholder (clients and nurses) engagement in developing health service delivery policies* • *Ensure adequate implementation of existing policies to create positive image of health sector among community members* • *Improving cooperation between the facility and local governance in surrounding communities*	

Discussion

This study was conducted as the first step of the ongoing HCD intervention to co-design an intervention package for improving nurse-client relationships in MCH care in rural Tanzania. The study was conducted with an overarching question, 'what are the contributors of poor nurse-client relationship in MCH care that could form the basis for co-designing effective intervention? Ideally, to address the contributors of poor nurse-client relationship, a consideration of an innovative approach that brings nurses and MCH clients together as partners in the intervention design and evaluation process need to be made. It is for this reason, HCD approach is being embraced because it is considered to facilitate improvements in client, provider, and community satisfaction and increased efficiency and collaboration in public health intervention development and implementation process [27–32]. Furthermore, HCD is considered to result into more successful and sustainable interventions when compared to traditional problem-solving approaches in health care and public health in general [27–32]. Melles, Albayrak and Goossens [32] recently proposed that the implementation of HCD in healthcare need to focus on developing an understanding of the people facing a particular challenge and their needs and engaging the stakeholders from early on and throughout the design process and embracing a system-wide approach by considering

interactions of factors at different levels and harmonizing individual interests to form collective interests when developing solutions to the identified challenges. Therefore, we first sought to generate an understanding of the factors shaping poor nurse-client relationships to guide future steps of HCD process.

Our findings unmasked a range of factors shaping poor nurse-client relationships in MCH care. Nurses' behaviors, attitudes and actions that portray poor reception and hospitality upon client's arrival to the facility constructs poor relationships. Likewise, nurses' failure to express care and concerns towards the clients and their suffering, poor communication in terms of abusive, and unfriendly language, and even the harsh tone, negativity towards clients and poor services dominated as the main drivers of poor relationship. However, expressing positive behaviors, attitudes and actions emerged to fuel positive relationships. At the heart of poor behaviors, attitudes and actions was the concern that nurses' dissatisfaction with working conditions, remuneration and poor motivation as well as associated mental instability impacts how they construct relationships with their clients. Most of these findings are not novel. A large body of literature have always linked poor provider-client relationship with providers' behaviors, attitudes and actions [12–23, 35–40]. For instance, a systematic review of 81 articles, 68% of which were from Africa by Mannava et al [20] indicated that positive nurses' behaviors including expression of care, respect, sympathy and helpfulness construct good relationship while negative attitudes including verbal abuse, rudeness and poor communication not only constructed poor relationship but also reduce client healthcare seeking and health outcomes. This indicates that interventions that promote positive nurses' behaviors, attitudes and actions manifesting during therapeutic interactions in MCH forms an important partway to improving nurse -client relationships, client healthcare seeking behaviors and health outcomes. It is also important to note that similar findings have also been reported by Isangula [23] when examining trust in doctor- client relationship in a similar setting. Meaning, promotion of positive behaviors, attitudes and actions need to extend beyond nurses to other healthcare providers who interacts with clients across MCH service points within healthcare facilities.

While most literature have focused on providers' behaviors, attitudes and actions that fuel poor nurse-client relationships in health care [12–23, 35–40], there appears to be paucity of literature focusing on clients' contributors of poor nurse-client relationships. Consequently, most of the existing interventions - whether governance instruments, competence based or political- prioritize or lays blames to providers (nurses included) as the prime source of poor provider-relationships in therapeutics encounters [17–25]. However, the finding of this study indicate that clients have a notable contribution to poor nurse-client relationships. A tendency of clients being 'much know' meaning they often 'instruct' nurses what to do, late attendance, non-adherence to established procedures at the facility, negative attitudes towards nurses, poor communication, inadequate education and awareness, poverty, hurrying and forcing to receive certain services, dissatisfaction with care, faith in traditional healers and unstable mental health emerged as contributors. These findings point to a suggestion that attempt at improving nurse-client relationships need interventions that not only focus on nurses but also clients' behaviors, attitudes, and

actions as well as improving client's awareness on health issues, process of care and health service purchasing power.

One issue that need close examination is a tendency of nurses citing clients as '*much know*'. This is complex problem and may be reflecting deeper issues of medical knowledge custodianship and the prevailing power-dynamic between nurses and clients. On the one hand, medical providers are often considered the custodians and reliable sources of 'correct' medical knowledge and practices. However, some research indicate clients often consider easiness of accessibility of medical information at the risk of inaccuracy and non- reliability [41–43]. A recent evidence synthesis study [42] indicated that clients "tend to prefer the Internet for the ease of access to information although they continue to trust providers because of their clinical expertise and experiences. Receiving medical information from internet sources for example may mean that nurses like other medical providers may be challenged as clients are becoming more and more empowered through other sources of medical information. This imply that empowering clients by facilitating easy access to information about medical topics should be approached with care since they may access incorrect information that could negatively impact their therapeutic interactions medical providers in healthcare settings.

On the other hand, citing clients as '*much know'* may portray the prevailing power dynamics between nurses and clients. The education disparity between nurses and clients noted in this rural setting (see demographic information) may contribute to feelings of superiority or authoritarian tendency among some nurses. Therefore, some nurses may resist accommodating clients' insights and preferences on the treatment process. This may also indicate limited understanding of the value of client participation in decision making as part of promotion of client-centered care among some nurses. It is important to note that power-dynamics and poor engagement of clients in treatment decision making has been reported as common in the study settings and other low-income healthcare settings [20–23]. Consequently, some authors encourage nurses to focus on working with the clients through power sharing and negotiation rather than being preoccupied with doing everything to' them without engagement [44–45]. Some authors recommend adapting the traditional approaches to provider-client and communication in therapeutic settings to and optimize client engagement in health decision making as a means of minimizing the negative impact of client access to health information through non-medical sources [43]. This approach is expected to result into client empowerment, partnership, client-centered care and shared decision making which positively impact healthcare seeking and outcomes [43, 45].

Literature in low- and middle-income countries suggest that availability of healthcare resources (enough providers, medicines and medical equipment) is essential in creating smooth environment where provider-client relationships can be established and sustained [23]. This partly explain why a range of health system factors emerged in this study appears to impact how nurse-client relationships are constructed within MCH care. Inadequate resources (medicines, medical supplies and equipment), infrastructures, financial resources and nursing workforce, poor human resource for health management practices, and inadequate policy implementation emerged to create frequent tensions and frictions among clients and nurses consequently impacting their relationships. Inadequate resources for instance may influence

negative nurses' behaviors and attitudes towards clients [20]. Relatedly, inadequate resources limit nurses' capacity to utilize the full potential of her expertise and create blames and conflicts with clients who miss specific services due to lack of resources [17–23, 46]. It is important to also note that inadequate resources may create tensions between nurses and clients due to prevailing politicization of medicine where politicians often make promises of quality and free MCH care to clients contrary to what facilities could actually offer [23, 46]. A study of providers in Tanzania [46] indicated that politicians make promises of free health service to pregnant women when the healthcare facilities have limited budget to ensure availability of resources to meet these political commitments. Consequently, the nurses and other providers carry the burden and become the targets of attacks and abuse by unsatisfied/angry clients who are not happy with inadequate resources for healthcare services and are often considered corrupt [46]. This is evidenced by an incident described by one of our participants where a nurse was physically abused by the client for the healthcare facility not having the POP (see above).

Most importantly, lack of patient trust towards health facilities and healthcare providers and high faith in traditional medicine emerged to contribute to poor nurse-client relationships. While similar findings have been previously reported in a similar setting with respect to doctor- patient relationships [23], it may be that nurses' behaviors, attitudes and actions portraying poor hospitality and non- expression of care as well as concerns of inadequate resources in formal healthcare system pushes clients to have higher trust and faith in informal practices [23]. Furthermore, conducting a study in a rural region with wealth traditional practices that appears to compete with formal western care may explain high preference to traditional healers [23]. An important finding was the absence of an independent agency for gathering, processing and sharing clients and nursing feedbacks within healthcare system. This emerged as important because of many concerns of dysfunctional suggestion box system in terms of lack of education among clients, delay in working on suggestions and lack of feedback to the people who offered complaints. Similar challenges have been detailed previously in a similar setting [23]. What these findings points to is that efforts to improve nurse client-relationship requires combination of interventions that not only seek to promote positive behaviors among nurses and clients but also ensuring availability of resources, nurse workforce management practices and building confidence and faith of community members towards formal western care.

Taken together, all these findings indicate that there may not be a single best fit solution that could be employed to strengthen nurse-client relationships. This is because such relationship is impacted by complex factors operating at the level of nurses themselves, clients and health system. This may explain why a combination of intervention were proposed. First, those focusing on nurses such as awards and recognition, continued professional development, peer to peer learning and mentorship including pairing good and experienced nurses with bad and inexperienced nurses in service delivery and using nursing platforms (meetings, conferences, workshops etc.) to insist on personal devotion and adherence to nursing professional and work ethics. Most of these suggestions have been proposed in previous literature [17–23]. For instance, Kumbani et al [20] proposed strengthening workforce development, including training in communication and counselling skills as a pathway to improving nurses' behaviors and attitudes as attempt to improve maternal health services and outcomes in Malawi. Second, those

focusing on clients including education and community sensitization and insisting on good behaviors and attitudes towards nurses on different platforms. Third and final, those focusing on health system including improving service quality and working conditions, increasing and better management of nursing workforce, improving remuneration and incentives, extended mentorship, improving complaints mechanisms and, strengthening nursing school's student screening and nursing curriculum. It is important to note that most of these suggestions are among the key recommendations of studies on provider-client relationships in low- and middle-income countries [10–23; 35–40]. Underemphasis on the role of improving provide-client relationships in health care and inadequate funding may have contributed to less implementation of most of these suggestions.

Limitations

This study is not without limitations. First, it was conducted with the purpose of generating evidence to guide co-design of interventions using HCD design. The focus on contributors that could shape development of intervention may have limited the scope of our findings by excluding issues that may not be seen from intervention design perspective. Second, the study uses nurses as providers, to generate insights to facilitate the co-development of a prototype for strengthening interpersonal relationships in MCH care in a rural setting. However, patients interact with a multidisciplinary team of providers across different service points within healthcare settings. Conducting a similar study with other providers such as doctors, clinicians, allied workers, and, in a different clinical setting may yield a different result. However, this being the first study in this rural context, a belief is that if deemed successful, the prototype could be tested/applied in diverse clinical settings. Future inquiries may extend beyond nursing profession and rural contexts.

Conclusions

The factors shaping poor nurse- client relationships appear to extend beyond nurses to both patients and healthcare system and facilities. These results may inform the design of new initiatives and the policies that support them in order to strengthen interpersonal relationships in health care settings more broadly. Therefore, implementation of effective interventions for addressing identified factors considering feasibility and acceptance to both nurses and clients using novel strategies such as HCD could pave the way for employing good nurse-client relationships as a tool for improving performance indicators and health outcomes within MCH care.

List Of Abbreviations

FGD- Focus Group Discussions

HCD- Human Centered Design

KII- Key Informant Interviews

MCH- Maternal and Child Health

NatHREC- National Health Research Ethics Sub-Committee

NIMR- National Institute for Medical Research

Declarations

Ethics approval and consent to participate

The study was conducted in accordance with relevant local guidelines and regulations. The study approved by National Health Research Ethics Sub-Committee (NatHREC) of the National Institute for Medical Research in Tanzania (Ethics Clearance Certificate No: NIMR/HQ/R.8a/Vol. IX/3906). At the regional level, permission to conduct the study was granted by the Regional Medical Office of Shinyanga and the Municipal Medical Office in Shinyanga. Informed verbal consents were obtained from all research participants before participation and recorded as part of the interview transcript and were approved by the National Health Research Ethics Sub-Committee (NatHREC) of the National Institute for Medical Research in Tanzania (Ethics Clearance Certificate No: NIMR/HQ/R.8a/Vol. IX/3906). We opted for informed verbal consent because it was deemed sufficient as the study did not directly or indirectly expose nurses and clients to any form of diagnosis or treatment. As safeguards, all participant responses were made confidential, and data analysis and reporting were conducted at an aggregated level within Shinyanga Region. Also, all data gathered were not used for purposes other than the present research. Due to the global COVID-19 pandemic, face masks, sanitizers and social distancing were observed to mitigate infection transmission during fieldwork activities.

Consent for publication

Not applicable

Availability of data and materials

The data that support the findings of this study are available from the School of Nursing and Midwifery at the Aga Khan University but restrictions apply to the availability of these data under the current study, and so are not publicly available. Data are however available from the corresponding author upon reasonable request and with permission of the School of Nursing and Midwifery at the Aga Khan University.

Competing interests

The authors declare that they have no competing interests

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Authors' contributions

K.I and C.S designed the study. K.I solicited for funding and developed initial draft of the manuscript. E.S, C.M and E.N.M participated in the project conception and design and critically reviewed and provided input to the manuscript.

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