

Patient-Provider Interaction in Primary Healthcare Facilities in Tanzania: Findings from Star Rating Assessment

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Abstract

Background: Effective patient-provider interaction plays a critical role in ensuring high-quality healthcare. Tanzania implemented the Star Rating Assessment (SRA) program since 2015/2016 to evaluate service delivery quality in primary healthcare (PHC). The SRA evaluates various aspects, including patient-provider interaction. This study analyzes data from the latest nationwide assessment conducted in 2017/2018 to provide insights into the status of Tanzanian facilities in this area and identify potential influencing factors. **Methods:** The quality of patient-provider interaction was assessed using five indicators: provider's friendliness, thorough history-taking, complete examination, effective communication of diagnosis and treatment, and sufficient time spent with the patient. Facilities scoring at least four indicators ($\geq 80\%$) were deemed to have good interaction. Proportions of facilities with good interaction overall and for each indicator were determined. Multiple logistic regression analysis was performed to investigate the associations between good interaction and different characteristics of PHC facilities, including lo-



cation (rural or urban), facility level (dispensary, health center, or hospital), ownership (public or private), gender of the facility's in-charge, and type of provider (nurse, clinician, or other non-clinical staff). Associations were considered statistically significant if the p -value was less than 0.05. **Results:** In our study, we included 6663 primary healthcare (PHC) facilities, of which 50.3% (3350) exhibited good interaction. The lowest scores were recorded for complete patient examination (50.4%) and thorough history taking (51.5%). The findings suggested that privately owned facilities, urban facilities, and facilities overseen by male facility in-charges were associated with good interaction. Provider type, consultation room facilities, and tracer medicines availability showed no significant associations with the quality of interaction. **Conclusion:** The quality level of patient-provider interaction in PHC facilities in Tanzania is still unsatisfactory. Improvements in infrastructure should go hand in hand with strengthening service delivery management, especially in rural areas and public PHC facilities.

Keywords

Patient-Provider Interaction, Primary Health Care, Star Rating Assessment, Tanzania

1. Introduction

Efforts aiming at strengthening the delivery of quality of health services in primary health care (PHC) facilities in low- and middle-income countries (LMICs) require among others “considerations of safety, knowledge, and patient perspectives” (Organisation for Economic Cooperation and Development—OECD, 2020). Patient-provider communication is an essential element in improving quality of services provided to patients/clients. Importance of building capacity of health service providers in a way that will improve communication and interaction with patients/clients has been noted in several studies in LMICs (Akiba et al., 2020; Chandra & Mohammadnezhad, 2021; Isangula et al., 2022; Asim et al., 2023; Isangula et al., 2023; Setlhare & Madiba, 2023).

Patient-provider interaction has also been an integral component of the World Health Organization (WHO) “*framework for the quality of maternal and newborn health care*”, in terms of improving “*experience of care*” (WHO, 2016). Improving patient-provider interaction is essential in ensuring people-centered care and strengthening utilization of health services towards attainment of universal health coverage (UHC) target (Kwame & Petrucka, 2022). O'Hara and Canfield, have reminded us of the importance of strengthening the relationship between providers and patients as an integral element for ensuring patient safety (O'Hara & Canfield, 2023). The Tanzanian Health Sector Strategic Plan V: July 2021 - June 2026, has emphasized the importance of strengthening the quality of interaction between health care providers and patients through “*improvement of*

respectful and compassionate patient-centred care” (Ministry of Health, Community Development, Gender, Elderly and Children, 2021). This article describes the situation of patient-provider interaction in PHC facilities in Tanzania. It is organized into five main sections as follows: introduction; literature review; methods; results; discussion; and conclusion.

2. Literature Review

A scoping review by Camara, and colleagues in 2020 has shown that patient provider interaction in sub-Saharan Africa is characterized by “*poor communication and several types of mistreatments (service denial, oppressive language, harsh words and rough examination)*” (Camara et al., 2020). A systematic review by Pinto and colleagues found that good communication can help to strengthen “therapeutic alliance” with patient (Pinto et al., 2012).

A study in Pakistan has shown that good communication between providers and pregnant women can help to minimize anxiety among pregnant women (Kazi et al., 2021). A study in Senegal has shown that “*interventions making patients more active in their consultations by providing more information at the start of consultation*” has a potential of improving quality of service they receive (Kovacs et al., 2022). A study in Mozambique has shown that “*communicative performances during interactions*” is essential in building trust for patients/clients (Rodrigues, 2021). A survey of internet users in four countries (India, Kenya, Mexico and Nigeria) that was done in November 2016 found that a “*high perceived respect from the provider or staff was most highly associated with excellent ratings of quality*” by patients (Kim et al., 2021).

A study by Xu and colleagues in Beijing China has shown that “*lack of patient-provider interaction time*” is one of the barriers which affected adherence to medication (Xu et al., 2021). Also, underperformance among providers (due to inadequate knowledge, motivation, or poor accountability systems, among others) and inadequate knowledge on the side of patients may contribute to “*health care wastage*” (King et al., 2021). Analysis of data from Service Provision Assessment surveys in 11 LMICs (Afghanistan, Democratic Republic of Congo, Haiti, Kenya, Malawi, Namibia, Nepal, Rwanda, Senegal, Tanzania, and Uganda) showed low performance in most of the countries (less than 50%) in terms of “*patients’ experience and provider competence*” on the provision of nutrition services in PHC facilities (Ramadan et al., 2023).

This paper aims at describing the situation of patient-provider interaction in PHC facilities in Tanzania. The objectives of the study are to: 1) analyse performance of PHC facilities in terms of patient-provider interaction indicators; and 2) identify structural factors that affect patient-provider interaction.

3. Methods

This is a secondary data analysis of star rating assessment of PHC facilities that was done in 2017/2018 (Yahya & Mohamed, 2018; Gage et al., 2020; Kinyenje et

al., 2020). The analysis involves the indicators contained in the assessment tool and also adds other factors in the analysis such as infrastructure and equipment of the PHC facilities and demographic data of health providers such as education (Larson et al., 2017).

3.1. Study Design

A retrospective cross-sectional study was conducted utilizing secondary data from the District Health Information System 2 (DHIS2), a national data warehouse. The data related to patient-provider interaction was derived from the Star Rating assessment carried out between July 2017 and December 2018.

3.2. Study Area, Target and Study Population

All healthcare facilities at the PHC level were the target populations of this study except stand-alone facilities such as independent pharmacies, laboratories, and maternity homes. The PHC facilities in Tanzania are categorized into three groups: dispensaries, health centers, and hospitals at the council level. These facilities encompass both public establishments, such as those managed by Local Government Authorities (LGAs), the military, police, prisons, parastatals, and various government ministries, departments, and agencies (MDAs). Additionally, there are private facilities operated by Faith-Based Organizations (FBOs), Non-Governmental Organizations (NGOs), and for-profit entities.

Dispensaries in Tanzania exclusively provide outpatient services and cater to a population of approximately 10,000 individuals. Health centers, on the other hand, act as referral points for dispensaries and offer a wider range of services, including inpatient care and Comprehensive Emergency Obstetric and Newborn Care (CEmONC), serving a population of around 50,000 people. At the council level, there are hospitals known as level 1 hospitals, which serve a population of approximately 250,000 and receive referrals from the lower-level facilities (Hokororo et al., 2021). During the data collection period, Mainland Tanzania had 184 councils divided across 26 regions. The assessment included the participation of all 7289 PHC facilities that were operational during the years 2017/2018. This study encompassed the entirety of these facilities, which represent the majority (approximately 97%) of healthcare establishments in Tanzania.

3.3. Inclusion and Exclusion Criteria

This study included all facilities whose performance and characteristics could be identified from the DHIS2 after undergoing data cleaning. During the analysis, facilities with incomplete data pertaining to the relevant questions under study were excluded from the study.

3.4. How Data Was Collected and Managed in SRA Database

The SRA database, managed by the Health Quality Assurance Unit (HQUA) under the Ministry of Health, is a component of the DHIS2 platform. Data from

facilities were collected electronically using a Personal Digital Assistant (PDA) equipped with standardized Star Rating Tools (SRT). The SRT comprises 12 quality assessment areas, with area number 11 focusing on clinical services. In addition to other indicators, the clinical service area includes five specific measures that assess the quality of interaction between patients and providers. These indicators include the presence of a friendly and courteous provider, thorough patient history-taking, complete patient examination, effective communication of diagnosis and treatment to the patient, and adequate time dedicated to the patient-provider contact. A score of “Yes” (1) was assigned if any of the indicators mentioned earlier were met, indicating a positive outcome. Conversely, a score of “No” (0) was given if the indicator was not satisfied, indicating a negative outcome.

Data collection from each facility involved a minimum of four trained personnel, representing various healthcare administrative levels, including national, regional, council, and facility-level. This approach was implemented to promote transparency and fairness in the data collection process (Yahya & Mohamed, 2018). To collect data on the quality of patient-provider interaction, the data collectors randomly selected consultation rooms that were being used for outpatient services on the day of assessment. For dispensaries and health centers, the data collectors were required to observe three interactions between patients and providers, while for hospitals, five interactions were needed. The data collectors were trained on proper ways to enter the provider’s room and observe the patient-provider interaction without influencing or modifying the usual practices. In an attempt to reduce bias in the findings, the data collectors did not mention observation as the primary objective of entering the consultation room, as this could have influenced the behavior of the providers. It is important to note that the data collectors had multiple tasks in the room, including document review, among others. The data collectors made an effort to observe at least one encounter for each provider, except in facilities where the number of consultation rooms was smaller than the required number of encounters.

3.5. Management of Study Variables and Statistical Analysis

3.5.1. Dependent Variable

In this study, the dependent variable was defined as the “quality of patient-provider interaction,” which had two possible outcomes: good or poor patient-provider interaction. The facility was regarded as providing good interaction if had scored at least 80% in all five indicators across all observations made. This cut-off point is provided in the National Guidelines for Recognition of Implementation Status of Quality Improvement Initiatives in Health Facilities (Ministry of Health and Social Welfare, 2014).

3.5.2. Independent Variables

Independent variables were categorized in two major groups; facility characteristics and infrastructural factors. Facility’s characteristics were location (rural or

urban), health facility level (dispensary, health centre or hospital), health facility ownership (public or private) and gender of the facility's in-charge.

The study considered the following infrastructural independent variables: the availability of essential equipment and furniture in the consultation room, the maintenance of patient privacy in the consultation/counseling room, the availability of tracer medicines and health products, and the presence of appropriate staff in the consultation room. A facility was considered to have essential equipment and furniture in the consultation room if the visited consultation rooms were equipped with the following five sets of equipment: an examination bed and screen, an office table and two chairs, a BP machine, a stethoscope, and a diagnostic kit (including a pen torch, patella hammer, laryngoscope, tape measure, tuning fork, otoscope, and spatula). A facility received a "partial" score if at least half of the items were present in the consulting room, while a facility was categorized as "no" if it had less than half of the items or if only half of the rooms had the items.

In evaluating the maintenance of patient privacy within the facility, a score of "yes" was assigned if the facility provided separate consultation/counseling rooms for each provider/clinician, equipped with closable doors to ensure both audio and visual privacy.

National guidelines were followed in using ten tracer medicines to assess the availability of medicines and health products at each facility on the assessment day. Assessors physically verified that the tracer was available for issue to clients. "Yes" was assigned if all 10 tracers were available, "partial" if at least 8 out of 10 tracers were available, and "No" if less than 8 tracers were available.

In scoring the availability of appropriate providers, we divided them into two main groups based on national standards: those with skills (trained healthcare providers with at least one year of training) and those with one-year training at a college (non-skilled staff). A facility where a patient was attended to by a skilled staff member received a score of "yes," while one where the provider was not skilled received a score of "no". To further analyze this, skilled staff members were also divided into two subgroups: clinicians and nurses. Based on this categorization, two independent variables were created, each collecting values indicating whether the patient was attended to by a clinician or not, or whether they were attended to by a nurse or not.

3.5.3. Statistical Analysis

Each facility was assigned an overall quality score for patient-provider interaction, categorized as either "good" or "poor," based on a cutoff score of 80%, as explained in detail above. We present the status of patient-provider interaction in facilities by calculating the proportion of facilities that scored a "good" status. Additionally, we also present the proportions of facilities that scored "good" for each of the five indicators.

We performed univariate logistic regression and then multiple logistic regression analysis to determine the association between the scores on quality of pa-

tient-provider interaction with the characteristics of the PHC facilities (both characteristics of the PHC facilities and other infrastructural factors, as explained above). *P*-value of < 0.05 was considered significant. The data cleaning process was performed using MS Excel 2016, while the analysis was conducted using R (R version 4.3.0).

4. Results

The results are presented in three sub-sections as follows: description of study participants; Performance of PHC facilities in patient-provider interaction indicators; and Structural factors that affect patient-provider interaction

4.1. Description of Study Participants

As appears in **Table 1**, a total of 6663 PHC facilities were included in this study. Out of these, 5721 (86%) were dispensaries, 732 (11%) were health centres, and 210 (3.2%) were hospitals. Many of the facilities were located in rural areas compared to urban areas, with a ratio of 77.0% to 23.0%. Additionally, the majority of the facilities were publicly owned rather than privately owned (82% vs 18%). Overall, the majority of the facilities were led by male executives (62%).

4.2. Performance of PHC Facilities in Patient-Provider Interaction Indicators

The performance of PHC facilities in patient-provider interaction was measured using five indicators, which collectively showed that 50.3% (3350) of facilities had the recommended level of patient-provider interaction. **Table 2** provides a breakdown of the performance for all five indicators. While many facilities scored well in terms of having friendly and courteous providers (95.4%) and providing information on diagnosis and treatment (87.3%), a significant number of facilities scored lower in indicators related to conducting a full examination of the patient (50.4%) and taking a full patient history (51.5%).

Table 1. Description of study participants.

Characteristic	N = 6663 ¹
Facility Type	
Dispensary	5721 (86%)
Health Centre	732 (11%)
Hospital	210 (3.2%)
Location	
Rural	5130 (77.0%)
Urban	1533 (23.0%)

Continued

Ownership	
Private	1178 (18%)
Public	5485 (82%)
Gender of Facility's in-charge	
Female	2348 (38%)
Male	3761 (62%)
Missing	554
Availability of Clinician	
Yes	4139 (62.1%)
No	2524 (37.9%)
Availability of Nurse	
Yes	2720 (40.8%)
No	3943 (59.2%)
Availability of both clinician and nurse staff	
Yes	1980 (29.7%)
No	4683 (70.3%)
Availability of either clinician or nurse staff	
Yes	4879 (73.2%)
No	1784 (26.8%)
Facilities with audio and visual privacy ensured in the consultation/counselling room	
Yes	5315 (84.9%)
No	942 (15.1%)
Facilities with specified essential equipment and furniture in Consultation rooms (at least one room)	
Yes	1239 (19.6%)
Partial	4147 (65.6%)
No	934 (14.8%)
Facilities with ten tracer medicines and health products or specified therapeutic equivalent available on the day of assessment	
Yes	3692 (61.5%)
Partial	1705 (28.4%)
No	611 (10.2%)

Table 2. Performance of PHC facilities in patient-provider interaction indicators.

Indicator for patient-provider interaction	% of PHC scored for the indicator
Was the provider friendly and courteous?	
Yes	5992 (95.4%)
No	288 (4.6%)
Is a full history taken?	
Yes	3151 (51.5%)
No	2973 (48.5%)
Was there a full examination of the patient?	
Yes	3090 (50.4%)
No	3045 (49.6%)
Was the patient informed about the diagnosis and treatment?	
Yes	5460 (87.3%)
No	793 (12.7%)
Was sufficient time given for the consultation?	
Yes	5033 (80.8%)
No	1193 (19.2%)

4.3. Structural Factors That Affect Patient-Provider Interaction

The results in **Table 3** indicate that public facilities had a lower patient-provider interaction rate by 34% compared to private facilities [AOR = 0.66 (0.57, 0.77), $p < 0.001$]. Conversely, urban facilities had a 43% increase in patient-provider interaction compared to rural facilities [AOR = 1.43 (1.24, 1.64), $p < 0.001$]. The presence of a male facility in-charge was associated with a 17% increase in patient-provider interaction [AOR = 1.17 (1.04, 1.31), $p = 0.007$]. There was no difference in patient-provider interaction based on the type of provider; whether the patient was seen by a nurse, clinician, or other non-clinical staff (in our context, a medical attendant). Furthermore, there was no difference in interaction based on the presence of a consultation/counseling room, equipment and furniture in the consultation room, and availability of ten trace medicines and health products.

5. Discussion

Earlier research findings imply that healthcare providers from developing countries often demonstrate poor handling of their clients (Berlan & Shiffman, 2011;

Table 3. Structural factors that affect patient-provider interaction.

Variable	Patient-provider interaction				Bivariate analysis			Multivariate analysis		
	Yes	%	No	%	COR	SE	<i>p</i> -value	AOR	SE	<i>p</i> -value
Facility type							0.012			0.49
Health Centre	338	46.2	394	53.8	1.19	0.08		1.09	0.09	
Hospital	90	42.9	120	57.1	1.36	0.14		1.50	0.52	
Dispensary	2885	50.4	2836	49.6	Ref			Ref		
Ownership							<0.001			<0.001
Public	2871	52.3	2614	47.7	0.55	0.06		0.66	0.08	
Private	442	37.5	736	62.5	Ref			Ref		
Location							<0.001			<0.001
Urban	614	40.1	919	59.9	1.66	0.06		1.43	0.07	
Rural	2699	52.6	2431	47.4	Ref			Ref		
Gender of Facility's in-charge							<0.001			0.007
Male	1790	47.6	1971	52.4	1.28	0.05		1.17	0.06	
Female	1262	53.7	1086	46.3	Ref			Ref		
Nurse availability							0.74			0.73
Yes	1359	50.0	1361	50.0	0.98	0.05		0.98	0.07	
No	1954	49.6	1989	50.4	Ref			Ref		
Clinician availability							0.69			0.30
Yes	2050	49.5	2089	50.5	1.02	0.05		1.11	0.10	
No	1263	50.0	1261	50.0	Ref			Ref		
Either nurse or clinician							0.87			0.27
Yes	2429	49.8	2450	50.2	0.99	0.06		0.88	0.12	
No	884	49.6	900	50.4	Ref			Ref		
Consultation/counseling room available							0.79			0.86
Yes	2649	49.8	2666	50.2	0.98	0.07		0.99	0.08	
No	465	49.4	477	50.6	Ref			Ref		
Equipment and furniture available in Consultation room							0.81			0.87
Yes	614	49.6	625	50.4	0.95	0.09		1.00	0.10	
Partial	2073	50.0	2074	50.0	0.97	0.07		0.97	0.08	
No	2529	49.8	2552	50.2	Ref			Ref		

Continued

Essential medicines availability						0.41	0.57	
Yes	1834	49.7	1858	50.3	0.88	0.09	0.95	0.09
Partial					0.93	0.09	0.90	0.10
No	1159	50.0	1157	50.0	Ref		Ref	

p-values are calculated using chi-square test, *Predictors whose association were found significant in the final logistic regression model. COR = Crude/unadjusted Odds Ratio, AOR = Adjusted Odds Ratio, SE = Standard Error.

Kujawski et al., 2015; Larson et al., 2014). This situation undermines the delivery of high-quality services (Kujawski et al., 2015; Larson et al., 2014; Nabbuye-Sekandi et al., 2011; Khamis & Njau, 2014). However, there are numerous factors that can contribute to this situation. Our study focused on determining the level of patient-provider interaction as an indicator of the quality of services provided in PHC facilities (Mirzoev & Kane, 2017). Additionally, we evaluated the performance of these facilities based on five indicators used to measure patient-provider interaction in Tanzania. These indicators were developed by experts in accordance with international and national guidelines. Finally, we explored whether there was an association between the facility's infrastructure and the level of patient-provider interaction.

On average, only half of the facilities were able to meet the criteria for patient-provider interaction in our study. Public facilities had lower performance compared to private ones, similar to findings from other studies conducted in developing countries (Berlan & Shiffman, 2011; Khamis & Njau, 2014; Peltzer, 2009; Leonard & Masatu, 2007; Andaleeb, 2001). Research findings indicate that employees in private facilities work under closer supervision (Agyemang-Duah et al., 2020), they are given more attention and have better interpersonal relationships with patients (Agyemang-Duah et al., 2020), and they may be likely to receive better on job training (Leonard & Masatu, 2007). In some cases, private facilities may have clinical staff who are less qualified, access the same medicines, and follow the same guidelines, but still provide better quality services than those available in public facilities (Leonard & Masatu, 2007); which may be contributed by better management practices (Powell-Jackson et al., 2022).

Previous studies in Tanzania, as well as other developing countries, have shown a shortage of appropriate clinical staff in rural areas compared to urban areas (Leonard & Masatu, 2007). This can have an impact on the quality of services. However, this study has shown that the quality of patient-provider interaction at the PHC level did not significantly vary depending on the availability of clinical staff. This could be attributed to improvements in staffing levels at PHC facilities in the country until 2018, where the country increased employment of skilled staff in rural areas. However, urban facilities have shown better performance compared to rural facilities in this study. This could be attributed to better staff management in urban areas, favorable working conditions, and the

presence of necessary infrastructure (Kruk et al., 2009). Indeed, Tanzania could benefit from learning from other developing countries like Uganda, where providers working in rural areas were given incentives that boosted their work morale and resulted in an enhancement of service delivery (Berlan & Shiffman, 2011).

On average, nearly all PHC facilities performed well in the indicator that requires providers to be friendly and courteous. This may be a true reflection at the PHC level, or it is possible that providers modified their attitudes due to the presence of visitors at the facility. However, the true nature of human behavior is not easily hidden. Many studies showing providers are not friendly predominantly come from referral hospitals rather than the PHC level. This could be attributed to the complexity and overload faced by providers in higher-level hospitals (Khamis & Njau, 2014). Furthermore, this study has shown that there were no challenges regarding clients being uninformed about their diagnosis and treatment, and many facilities allocated sufficient time to listen to patients. The research indicates that the major challenges for many facilities are centered around accurately taking patient histories and conducting thorough examinations.

Inadequate history taking and physical examinations may cause harm to patients (Russo et al., 2020) and has been associated with inadequate consultation venues, busy clinics, and lack of incentives to providers working in developing countries (Oyedokun et al., 2016; Bastos, 2003). In our context, we believe that the lack of incentives to work in challenging environments such as rural areas, as well as the absence of accountability and participatory management, could be contributing factors. These insights are derived from the findings of this study and previous research (August et al, 2023; Francetic et al., 2019; Mayumana et al., 2017).

Our study has the following limitations. In this study, we did not evaluate the workload of healthcare providers as a potential factor influencing the patient-provider interaction. However, it is worth noting that in Tanzania, many PHC facilities have relatively less demanding workloads compared to referral facilities as measured by productivity levels and efficiency in health facilities (Mæstad & Mwisongo, 2013; Benjamin W. Mkapa HIV/AIDS Foundation, 2015; Nnko et al., 2019; Binyaruka & Anselmi, 2020).

If healthcare providers become aware of the assessment on their service delivery, there is a possibility of obtaining non-representative findings. However, as detailed in the methodology section, assessors were trained on how to address this challenge. Additionally, the availability of medical equipment, medicines, and health products reflected their actual availability on the day of data collection. In cases where facility leaders are not trustworthy, there is a possibility of procuring some of these items to make them available on the day of assessment. However, many of the items included in the research questionnaire are expensive for the actual context of Tanzanian PHC facilities, and it was not easy to

acquire them within a short period.

6. Conclusion

This paper has used SRA data for PHC facilities to assess the situation of patient-provider interaction in order to inform quality improvement efforts and decision-makers for informed decisions. Literature has shown that there is little attention to improving patient-provider interaction among developing countries (Khan et al., 2021). This interaction is a key component of health system responsiveness. The findings of our study in Tanzania have brought forth unsatisfactory results in the area of patient-provider interaction. While the country continues to improve its infrastructure in primary healthcare, patients still do not receive the level of interaction they deserve, particularly in public facilities and those located in rural areas.

The findings of this study serve as a reminder to the authorities that the quality of healthcare services goes beyond infrastructure, availability of medicines, supplies, and availability of personnel. Therefore, it is important for the authorities to invest more in managing and improving the behaviors and attitudes among healthcare providers to enhance service delivery. This includes regular supportive supervision, motivation to providers and performance appraisal. Emphasis on regular supportive supervision, mentorship and training as interventions that can improve patient-provider interaction has been documented (Camara et al., 2020). Therefore, the Ministry of Health in collaboration with the President's Office—Regional Administration and Local Government as well as development and implementing partners should invest in those interventions in order to improve patient-provider interaction in PHC facilities. It is also essential for the authorities to ensure that PHC facilities adopt a national client service charter and oversee its implementation. As Tanzania prepares to implement universal health insurance as an integral component of universal health coverage, it is crucial to improve customer service in healthcare facilities, including enhancing patient-provider interaction measurement, monitoring, and evaluation (Endalamaw et al., 2022; Yanful et al., 2023).

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Note

Authors with affiliations 1 - 4 were all part of the implementation of SRA during assessment in 2017/2018.

Conflict of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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