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THE INSIGHT OF REPRODUCTIVE HEALTH CARE AMONG THE CULTURAL INTENSE MAASAI COMMUNITIES OF ORKESUMET, NORTHERN TANZANIA

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ABSTRACT:

Introduction: The Maasai are Nilotic ethnic groups of semi-nomadic people who are sometimes thought of as archetypical pastoralists in East Africa. Due to their unique ways of pastoralism they have faced sustainable health access challenges. The Maasai presents with a remarkable knowledge and skills for herbal medicine that cures most of infectious diseases at the same time affects the community acceptance of facility based health care. The purpose of the study is to gain an understanding socio-cultural factors underlying this divergent patterns of reproductive health.

Methods: The descriptive qualitative cross-sectional study in *Orkesumet* ward of Simanjiro district was conducted using expert opinions, in-depth interview, focused group discussion and observations through ward leaders' support.

Findings: Majority of remote rural Maasai of *Orkesumet* ward still rely on traditional medicine for their health care despite availability of nearby health facilities in the district. Some Maasai women presented an experience of antenatal visits unfortunately, majority prefer home delivery with a trust of herbal medicine practice. The community offers a clear description safety, outcome and privacy in their practice of traditional reproductive health versus facility based service. We identified a potential pharmaceutical discoveries from Maasai culture and at the same a gap in accessing of quality reproductive health due to traditional boundaries.

Conclusions: It is important to review the community specific and cultural boundaries towards accessing quality health. The pragmatic strategies to clear traditional boundaries with evidence based behavior change communications are needed in implementing a change for marginalized in ethnic groups.

INTRODUCTION

The Maasai are a Nilotic ethnic group of semi-nomadic people thought of as archetypical pastoralists in East Africa with a unique cultural heritage[1]. Due to their distinctive customs, dress and residence near the many game parks of East Africa they present a striking traditional health practices[2].

The Maasai are a semi-nomadic people living in *Inkajijik* (Maasai word for a house), loaf-shaped houses made of mud, sticks, grass, cow dung and cow's urine while women serve the families at large[3].

The Maasai of Tanzania are subject to socioeconomic challenges showing a gap in facility health access, sustainability of reproductive health[4] based on their lifestyle[5].

Traditionally the Maasai travel seasonally and migrate over large distances for pastures and water [6] therefore disrupting them for accessing sustainable facility based health services [4] particularly for antenatal care, facility delivery and postnatal care[7].

There are reports that Maasai women's preferences for a home birth and planning for delivery are reinforced by the gap between the community and health facility[8]. Culturally, the husbands typically serve as gatekeepers of women's attendance to antenatal sessions and postnatal care. While husbands have been targeted to participate in programs to prevent maternal-to-child transmission of HIV and skilled delivery care for all women, the community response has not been quite promising[9].

Some reports claim that the Maasai trust and to utilize their traditional medicine as a sacred resource for health in a sustainable manner[10]. They use the word for tree, *olchani*, plural *ilkeek*, is the same as the word for medicine[11]. This is in contrast to the modern medical practice being, affected by the seasonal variation[4]. For these reasons, it is doubtfully that pregnant mothers and children are highly affected[12].

We conducted the situational analysis with an objective of gaining an understanding of the health systems and socio-cultural factors underlying this divergent pattern of reproductive health among the Maasai of *Orkesumet* ward.

METHODS

From 24th January to 27th January 2011, the technical staff of Vijiji International conducted a qualitative cross sectional study as part of a situational analysis in Langai division, Oleketsumet ward, in Simanjiro District of Manyara region North-east Tanzania (see Figure 1).

Study Area

The study was conducted in Langai division of *Orkesumet* ward, Simanjiro district (Figure 1) as one of the five districts of the Manyara Region of Tanzania. The district is bordered to the north by Arusha Region, to the northeast by Kilimanjaro Region, to the south east by Tanga Region, to the south by Kiteto District, to the south west by Dodoma Region and to the west by Babati District. According to the National Bureau of Statistics of Tanzania, the population of the

Orkesumet ward is around 5,325 people while the Simanjiro District populated by 178,693 people [13].

The Simanjiro District is administratively divided into 12 wards: Emboreet, Loibor-Siret, Loiborsoit, Mererani, Msitu wa Tembo (English meaning: *Elephant Forest*), Naberera, Ngorika, Oljoro, Orkesumet, Ruvu-Remit, Shambarai and Terrat

Sampling techniques

A sample size of 25 was determined by convenient techniques with respect for little funding and time available. We recruited 3 mothers from each of 8 villages of Langai division in *Orkesumet* ward. The division leader (See Figure 2) led a technical data collection team to select women with key challenges in reproductive health. Eligible women were invited to join the study following group information sessions held at the recruitment locations. All participants were interviewed once. Women key informants were provided with information regarding the broad research aim of pregnancy and delivery care in Simanjiro district) and the background and affiliation of the interviewers.

Data collection

Data were collected by triangulation of expert opinions, in-depth interviews, FGD and observations. Triangulation was made on the basis of access to reproductive health and the use traditional health services in relation to perceptions of quality of health care. As a qualitative approach, the team collected expert opinion from the ward leader and ward health executive officers and district medical officer of Simanjiro district. The ward leader then led the team to access informants for in-depth interviews as mothers with a special medical history of challenges of access to reproductive health, then focused group discussions from special key informants noted from in-depth interviews. Lastly the team made observations of traditional medicine by village leaders and *Laibon* (Head of traditional healing) and or village leader. Whenever necessary pictures were taken for description of evidence.

In-depth interviews

A total of 25 key informants were recruited to the study. Our piloted interview guide consisted of broad, open-ended questions regarding the antenatal visits, description of delivery and how hard is it to access the primary health facility for delivery. Then informants were asked if they ever used traditional medicine for reproductive health. This provided a simple framework to aid the initiation and flow of the interview and allows exploration of relevant themes during the unstructured in-depth interviews.

FOCUS GROUP DISCUSSION

Recruitment of study participants for Focused Group Discussion (FGD), followed the in-depth interviews where five mothers expressed their unique perceptions during FGD on access to reproductive health care in Langai division. A ward leader, a village leader, an investigator from Vijiji international researchers and research assistant were part of FGD. The main discussions for FGD were on options for health care, challenges and supports if any.

Data analysis

Data was managed and analyzed using NVivo (QSR International, Doncaster, Australia), and presented in accordance with COREQ guidelines for reporting qualitative research. Evaluation using the constant comparative method of content analysis was undertaken. A basic coding network was created, extended and altered with the emergence of further themes as analysis progressed (data coded by two researchers). A final set of themes and sub-themes were created upon refinement and completion of analysis. Interview

Ethics

The ethical approval was given by the Manyara Regional Council Health Management Team (RHMT) and the Council Health Management Team (CHMT) of Simanjiro District. The data collection tool was developed by the Vijiji Internal technical team following a consultation with CHMT of Simanjiro District and the *Orkesumet* ward administration. The proposal was approved by Tanzanian public health specialist who are technical supporters of Vijiji International to the Ethical committee of Kilimanajaro Christian Medical center and Kilimanjaro Clinical Research Institute.

Verbal and written informed consent was obtained from all participants. Interviews were collected in Maasai language after being translated by the Langai division lenders from a Swahili version of the questionnaire. The technical team of Vijiji International explained clearly that there was no harm in participating in the study and the respondents could withdraw any time before, during or after data collection.

RESULTS

Culture towards Health by expert opinion from Ward leader

The expert opinion from ward leader mentioned that: *"We have community healers, called the Laiboni, who are are deeply experienced in the medicinal plants from our surroundings as a heritage from generation to generation. They offer knowledge of olchani, plural ilkeek, (for medicine). The leaves, roots or bark can be used to treat a wide variety of diseases that you think they can only be treated in hospital. They are the only ones needed to do sacrifices and communicate to God Ngai (The almighty God) in a special vision and dreams. The Laiboni in this capacity are especially consulted whenever misfortune arises, in most cases with a rise of epidemics and deaths of unknown causes from a community. They are only few and we have only one Laibon in Orkesumet. I am sorry we cannot meet him now"*.

When asked about the source he said;"*The Ndorobo (hunter-gatherers) they contributed a lot in the discovery. We have other leaders called olaiguenani, chosen before circumcision are used to lead the youths in peer groups until they attain old age they support cultural health issues".*

He asked community members to present herbal medicine (Figure 3 to 7) went further mentioning that *"The other leaders Elder lead a clan with multiple Maasai defined roles, one of them being officiating and direct cultural ceremonies. They remind the families on ethical approaches and making sensitive decision that husbands have a key role and or otherwise the family can make a choice for a pregnant mother. The Elders also offers a counselling and moral support on health matters. They also update the clans on the availability of medical products and methods of application as guided by the Laiboni"*

Facility delivery among the Maasai communities of Tanzania

Our qualitative findings could reflect as mother ASL 35 years, of age a mother of 7 said "*I think I don't have to be bothered by going to the health facility because our Laiboni is well trained by elders to offer a safe traditional delivery*".

Another mother MNK who was 28 years of age mother of 2 children expressed the feeling to the use of traditional medicine. She said "*I have never been to the hospital since when I was born, I have been taking Ormukutan herbs for abdominal pain, diarrhea, fever and headache. I think the Maasai medical drugs are very effective".*

Another mother NTS, who was a mother of 11 children said "I feel happy to have eleven children and this is a good blessing from "Ngai" (God)". She said she wanted two more children. When she was asked if she is not worried of bleeding too much during birth she said *"Bleeding is common and we have Masaai herbs to prevent bleeding as you know even my mother has 14 children and never lost blood. We do believe that a mother can lose more blood at the hospital than with a support from Laiboni."*

Another respondent SMN said "*We have heard a lot that women die in hospital and they bleed a lot. They nurses have been telling us that hospital has blood reserve but we are shocked that even when we send mothers who have been bleeding excessively they don't have blood too give.*"

Our data have shown that only one tenth of women had at least one prenatal visit to a health facility during their recent pregnancy. The majority of deliveries took place at home, of which majority were attended by TBAs through herbal medications. The Maasai in Simanjiro were facing the problem distant health serviceswhere the main reasons for failure to attend health facilities during pregnancy. All of the FGD members from Simanjiro reported a feeling of confidence by being attended by TBA.

Four out of five said "*Yes, the presence of female relative nearby creates more trust". "We don't understand why you have male doctors during labor in the hospitals". We are happy that we are treated well. We have our free Ormumunyi and it has a blessing blessings from Ngai and our ancestors, why shall we walk for 60 Km to access hospital care?*"

One mother KMM aged 40 years mother 8 children all alive said it "*we will go to antenatal clinic to check the status but we don't think that it will be necessary to deliver in the hospital*".

When asked if husbands are not allowing them SMN mentioned that "*Yes, my husband has been supportive but never trusted the facility based health care.*" Many other women in FGD supported her.

Observation from medicinal tree.

The Langai leader could reflect the use of herbal medicine was shared by the informants in *Orkesumet* ward. He managed to ask experts to show him the most useful tree in the nearby forest and the reserve of medicinal products. One of the tree was the *Orbukoi* tree that believed to be suitable for febrile illness diseases. The patient with fever is normally asked to drink the tea made from the bark of the live *Orbukoi* tree (Figure 3). Some other products are stored as dry bark of trees as we could see the *Ormukutan* which is a famous anti pain (famous pain killer in *Orkesumet* ward). The tea made of the bark of *Ormukutan* is used to treat multiple infections like Malaria, bacterial infections, Pneumonia and worm infestations, stomachache, headache and abdominal pain of unknown origin. (Figure 4). The *Ormumunyi* tree is used to induce labor given when a woman start to sense labour pain and sometimes assist the removal of placenta after birth (Figure 5). The woman in labor pain would drink the juice out of Ormumunyi. The *Orkelelwet* tree is used to treat for abdominal pain associated with diarrhea (Figure 6). The *Oltepesi* is the herbs that is commonly used to treat sexual transmitted by boiling the small grans and apply them in the wounds (Figure 7).

DISCUSSIONS

Repeatedly, it has been reported that the lifestyle of the Maasai should be totally embraced because of their ability to survive in deserts like scrublands and their innovative cultural health practices[10].

In our study we have found that the Maasai rich in herbal traditional medicine to the extent of offering new pharmaceutical discoveries[14]. This is further proved by studies in Kilimanjaro showing wider application of the products in symptomatic, chronic and acute diseases[15].

The Maasai of *Orkesumet* have proven to be self-sufficient in cultural health, socioeconomic security and defense. They have a striking knowledge on herbal medicines that contain antimicrobial compounds[10], potentially helps to treat a number of infections[16] but their heritage has not been scientifically supported.

On the other hand their culture of traditional has posed some challenges to access of facility based health care due to massive availability of evidence for cure within the community[8]. Evidence exist that they have a list of effective herbal items[11]. Our study could prove existence of adult people who had never been treated at the hospital facility. Furthermore, they believe that their natural practice is much safer than that of the hospital since there are reports that mothers die during delivery due to heavy bleeding.

We have proven that Maasai present a rigid pastoral cultural practice that display a fear that foreign concepts of development, forced agricultural practices that will disrupt their strong cultural heritage [17]. The rigidity in pastoral lifestyle has affected the availability of agricultural food products [18], thus posing a lower security [19] and malnutrition [7] affecting maternal and newborn health tremendously [20].

There is an argument that migration in Maasai communities is becoming a cultural norm and not only a response to economic conditions[21]. Our study have shown that Maasai of Orkesumet believe that "no one should be denied access to natural resources such as water and land"[22], Unfortunately, following colonization and land privatization, the Maasai can no longer roam much of their traditional pasture land and, therefore migrate to urban areas, with more exposure to risks in socio economic attributes of unstable health access.

We have learned that *Laiboni* are the main actors of medicinal plants *olchani*, plural *ilkeek*, while the *Olaiguenani*, are the agents with cultural tasks and guided by *Elders* to make the culture permanent among the Maasai[11]. Studies on Maasai of Kenya have also shown that they offer health advise and the choice of herbal drugs the families which decide for the patient[23], they are the key actors for disease epidemics and social accountability[11] in which medical practitioners may faces challenges to breakthrough. The Elders and Laiboni are trusted in offering a guidance for pregnancy and for reproductive health practices[24]. The concept was also shown in the study of Ngorongoro in Northern Tanzania[25]. For these reasons, categorical reasoning within a community belief system might offers a moral righteous methods to impose a change towards a quality reproductive health practices[26].

We are failing to reject the socio-cultural benefits of Traditional medicine among the Maasai of Tanzania based on the evidence from the community. Although rigorous research on traditional herbs is needed, the quality of reproductive maternal and new-born care in rural facilities needs to be stable with regular reports shared to the community. This can be done by a careful design of Socio-Behaviour Change Communications (SBCC) using the prospective, empirical evaluation while facility based and community based actors with *Elders* and *Laibon* taken inclusively[27]. The strategy towards facility based health care shall insists on the use of mix facility based health care and traditional one as suggested by a study in Malawi[28]. The decision-making tool like RESET that uses data from Relevance, Evidence base, Stages of intervention, Ethnicity, and Trends can be applied in this dilemma[29].

CONCLUSION

The remote Maasai community offers a clear description social cultural potential on traditional medicine that can offer distinctive pharmaceutical discoveries. The phenomenon pose an effect on acceptability of facility based reproductive health services when quality of facility based health care in not settled and traditional boundaries are not intervened.

Recommendations

It is important to review the community specific and cultural appropriate determinants of health. The pragmatic policy routes that go beyond the traditional boundaries of the public health sector are required for implementing a change with an inclusive of marginalized in ethnic groups.

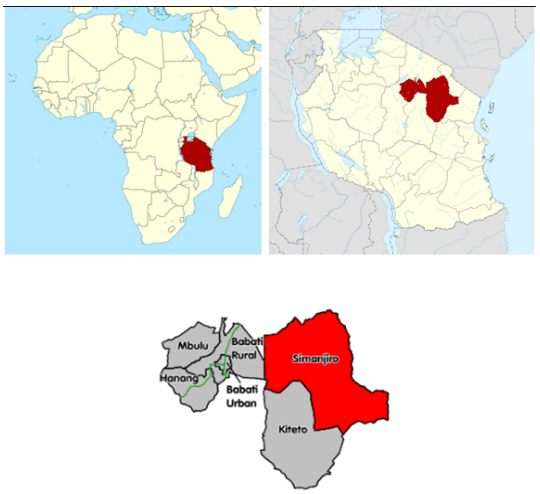

Figure 1: Location of Simanjiro district (Copyrights for using map of Africa obtained from https://www.mapsland.com/africa/tanzania/detailed-location-map-of-tanzania-in-africa ; creative commons attribution share-alike license [CC-BY-SA 3.0]; The map of Tanzania was obtained from Wikimedia through the terms of the creative commons attribution share-alike license [CC-BY-SA 3.0]; https://upload.wikimedia.org/wikipedia/commons/thumb/1/11/Tanzania_Simanjiro_location_map.svg/540px-Tanzania_Simanjiro_location_ map.svg.png; The map of Simanjiro was obtained from Wikimedia through the terms of the creative commons attribution share-alike license [CC-BY-SA 3.0] https://en.wikipedia.org/wiki/Simanjiro_District

Figure 2. The Langai division leader in Orkesumet, Simanjiro District, Manyara, Tanzania. Consent Obtained. (©Vijiji-International, Langai ward in Simanjiro District. January 2011)

Figure 3. The used medicinal tree of Orbukoi for febrile illness. (©Vijiji-International, Langai ward in Simanjiro District. January 2011)

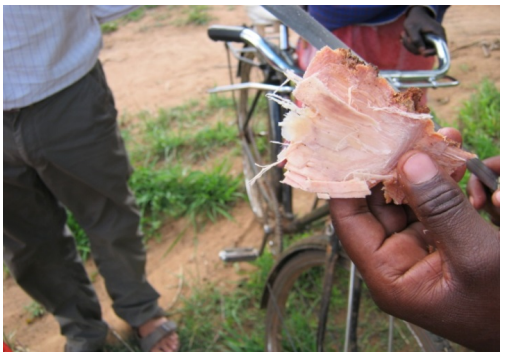

Figure 4. The Ormukutan herbal medicine for relieving pain and treating infections. (©Vijiji-International, Langai ward in Simanjiro District. January 2011)

Figure 5. The Ormumunyi herbal medicine which used to induce labor. (©Vijiji-International, Langai ward in Simanjiro District. January 2011)

Figure 6. The bark of Orkelelwet medicinal tree is used to treat abdominal pain. (©Vijiji-International, Langai ward in Simanjiro District. January 2011)

Figure 7. Oltepesi the herbs that is commonly used to treat infected wounds and sexual transmitted diseases at Olekosumet ward (©Vijiji-International, Langai ward in Simanjiro District. January 2011)

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