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"I also take part in caring for the sick child" - A qualitative study on fathers' roles and responsibilities in seeking care for children in Southwest Ethiopia

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Key words: Fathers, Child, Care-seeking, Ethiopia, Qualitative Research

ABSTRACT

Objectives: Fathers play an important role in household decision making processes and child health development. Nevertheless, fathers are underrepresented in child health research, especially in low-income settings. Not much is known about what roles fathers play in the care seeking processes or how fathers interact with the health system when their children are sick. This study therefore aimed to understand Ethiopian fathers' roles and responsibilities in caring for their children when they fall ill.

Design: Qualitative study using semi-structured interviews with fathers.

Setting: This study was conducted in three districts of the Southern Nations, Nationalities and People's Region, Ethiopia.

Participants: Twenty-four fathers of children under five years old who were enrolled in a cluster randomised controlled trial.

Results: The overarching theme was "Changing perceptions of paternal responsibilities during children's ill health". It constituted three sub-themes, namely "Fathers' burden of earning money for care", "Fatherhood entails advocating children's health care needs" and "Investing in children's health can benefit the family in the future". Fathers described that they were the ones mainly responsible for the financial arrangement of care. This financial responsibility can involve stress when resources are scarce. Fathers knew what health services were available and accessible to them and they were in different ways involved in the care-seeking of the child. Changes in the importance ascribed to child health were expressed by fathers who were more alert to children's ill-health and directly involved in seeking childcare.

Conclusion: Fathers play different roles in the care-seeking process during children's illness episodes. This demonstrates the importance of including fathers in future interventions on

maternal and child health. The inability to organise necessary resources for care can lead to involuntary delays in care-seeking for the child.

STRENGTH AND LIMITATIONS OF THE STUDY

- This study distinguishes itself from others by only focusing on fathers and their perceived roles and responsibilities in the care seeking for sick children, which is an underrepresented area in child health research.
- This study used a nested stratified sample and includes 24 fathers from highest and lowest socio-economic quintiles and with few or many children.
- Interviews were conducted by male interviewers in two local languages using a semi-structured interview format.
- We did not conduct interviews with mothers to confirm the responses of the fathers.

INTRODUCTION

Household decision making processes regarding child health care are complex. Although mothers have historically been seen as responsible for their children and their health, multiple studies from low-resource settings show that women have relatively low decision-making power when it comes to health care decisions for themselves and their children [1-4]. A study from The Gambia [5] states that mothers took decisions on when to take the child to the hospital for cerebral malaria in only around 7% of the cases. Other studies confirm that it is mainly the father who makes the final call on where and when to seek health care [5-7].

The important role of fathers in child health and development are becoming better understood and appreciated. Literature shows that involved fathers are associated with different positive

outcomes, such as knowledge of newborn danger signs among mothers, skilled birth attendance and attendance of antenatal care visits [8-10]. Some countries have started to address this issue and mentioned the involvement of men in their road maps to reduce maternal and child morbidity and mortality [11, 12]. Yet, in low-and middle-income countries only a minority of fathers has been said to be engaged with their children [13].

Nevertheless, different forms of engagement and types of fathers exist. A study conducted in Ethiopia categorised fathers into three different groups, depending on their perceptions, practices, and challenges towards routine child care and feeding [14]. 1) Traditional fathers who "*do not feel part of routine child care, and they fully believe child care is only the mothers' responsibility*"; 2) Transitional fathers who "*perceive child care as being both the mothers' and fathers' responsibility*", but under different conditions (e.g. availability of the father or occupied mother), meaning the father does not completely feel responsible for child care and 3) Modern fathers who "*perceive child care and child feeding as a shared responsibility between mother and father"* and who are totally involved in their child's life. This indicates that not all fathers are alike and that changes in the community and family roles might be happening.

Even though different studies have shown that fathers often are the main decision-maker or the breadwinner of the family and responsible to pay for healthcare costs [6, 7], not much is known otherwise about what roles they take on in the care seeking process for their children or how fathers interact with the health system when their children are sick. This study therefore aims to understand fathers roles and responsibilities in care-seeking for children in rural areas of the Southern Nations, Nationalities and People's Region in Ethiopia.

MATERIALS AND METHODS

The reporting of the methods has been guided by the criteria for reporting qualitative research (COREQ) guidelines [15].

Setting

Interviews were conducted in three *woredas* (districts) of the Southern Nations, Nationalities and People's Region (SNNPR) of Ethiopia, namely Damot Gale, Boloso Sore and Halaba Special Woreda. Together these *woredas* are estimated to have a population of around 750,000, of which the vast majority (~80%) lives in rural areas. At the time of this study, there were 150 health posts in the study area with a total of 284 health extension workers (HEWs) working in them. HEWs are women with at least a grade 10 education. Usually two HEWs work in pairs at one health post and serve an estimate of 3,000 - 5,000 people. However, travel distances to these health posts can vary from a few minutes to an hour or more walking distance [16].

According to the Demographic and Health Survey report 2016 [17] the child mortality rate in the SNNPR is 88 per 1,000 live births, which was above the national average (69/1,000). A minority of married women (40%) used modern contraceptives (incl. sterilisation, contraceptive pills, condoms and implants), and even fewer, less than 30%, give birth in a health facility.

It is estimated that 31% of the Ethiopian population live below the international poverty line of $1.90 per day [18]. To get help and (financial) support, *Idir,* a financial organisation arrangement, has been established among many rural neighbourhoods. Members of *idir* are contributing a small amount of money on a regular basis and are in return able to borrow some money in case of need [19]. This provides these rural and poor populations with a limited form of self-arranged insurance system.

Study design and data collection

This qualitative study was nested within a community-based cluster randomised controlled non-inferiority trial (cRCT). The design and results of this trial are published elsewhere, as is the qualitative evaluation of HEW's and caregivers' perception of the recommendations [20-22].

For this study, twenty-four semi-structured interviews were conducted with fathers of children recruited for the cRCT. Two of the interviews were not completed due to time constrains of the father. Half of the interviews (n=12) were conducted in Halaba *woreda*, eight in Boloso Sore and four in Damot Gale. Boloso Sore and Damot Gale are culturally and linguistically similar which is why they together represent half of the fathers interviewed.

The sampling method was based on the assumptions that health seeking practices and fathers' decision-making power could differ by socio-economic position and number of children. We therefore used stratified sampling to select half of the fathers from the lowest and the other half from the highest socio-economic quintile. Socio-economic quintiles based on caregivers' responses to questions about household assets (e.g. material of the house, toilet facility used, availability of TV/radio or electricity in general). It should be kept in mind that a high socio-economic quintile in this study is not equivalent to a high socio-economic status. Within the two strata, fathers with few children (1-2) and fathers with multiple children (3 or more) were invited for an interview to maximise the level of heterogeneity among the fathers. However, the information on number of children reported in the cRCT did not always tally with the number of children mentioned by the father during the interview, which is why most fathers (n=19/24) in this study had three or more children.

An interview guide was developed covering themes such as utilisation of health services, fever in children, decision making around health services and drivers and conditions that influence

health care seeking. The interview guide was informed by literature on health care seeking and gender roles. It was prepared in English and subsequently translated into Amharic.

Three male interviewers conducted the interviews, two in Boloso Sore and Damot Gale and one in Halaba. The interviewers were selected based on their experience in qualitative research, English proficiency, and educational background in health sciences. In Halaba, a male interpreter was additionally recruited for translations from Amharic to Halabigna (local language of Halaba). In Boloso Sore and Damot Gale interviews were conducted in Wolaitegna by two interviewers who were from the district and thus familiar with the area and language. No interviewer met the fathers before the conduction of the interviews.

All interviewers and the interpreter received a half-day training from authors TF and AA. After the training, every interviewer conducted one pilot interview. Changes to the interview guide were made accordingly and interviewers received feedback on how to improve their interviewing.

The interviews were conducted in March 2017 and took between 34 and 70 minutes, with interviews using an interpreter taking longer. All interviews were conducted in a quiet place outside; the majority taking place close to the father's home. Fathers were aged between 20 and 50 years and the number of children ranged between one and fourteen (see Table 1). In Halaba, multiple fathers had two wives. The majority of fathers were farmers.

All 24 interviews were digitally recorded, transcribed and translated into English. After their participation in the interview, fathers received 122.5 Birr in cash (~5.5 USD) to compensate for their time. This amount equals the common local Malaria Consortium lunch allowance.

Table 1 Characteristics of study participants

Patient and public involvement

There was no involvement of patients/interviewees or the public in setting the research agenda or formulating interview guides.

Data analysis

The transcripts were read multiple times and codes to the material applied using the qualitative data structuring software Nvivo version 11. Interviews were analysed using content analysis [23]. The analysis was an iterative process involving reading of literature and repeated reading of interview transcripts. The coding process was done in steps. TF conducted the initial coding and discussions took place with HMA. After each meeting, changes to the codes were made. Finally, codes were grouped, and themes identified, which were again discussed between authors TF and HMA. All father interviews were analysed together, meaning that no stratification by socio-economic quintiles and number of children of fathers (strata used for the sample selection) took place for the analysis. However, after the coding of the data was done, it was checked whether fathers from different strata were represented in each theme.

Ethical approval

This study is part of a cRCT which was approved by the SNNPR Health Bureau Research Ethical Review Committee (P02-6-19/4511). The trial is registered as NCT02926625. Written and oral consent was obtained from all study participants. Confidentiality was ensured and the

aim of the study was explained to the fathers prior to the interview and they were informed about the possibility to decline participation or drop out of the interview.

RESULTS

Three sub-themes emerged from the data: 1) Fathers' burden of earning money for care, 2) Fatherhood entails advocating children's health care needs, and 3) Investing in children's health can benefit the family in the future. The results are presented according to these themes and fed into the overarching theme of "Changing perceptions of paternal responsibilities during children's ill health".

Fathers' burden of earning money for care

Fathers described their roles and responsibilities in care-seeking for children mostly in terms of financial responsibilities. They explained that their main role as father is to work and earn money to be able to finance health care costs and, when necessary, transportation to the facility. Fathers felt strongly that "*money matters*" when it comes to seeking care for children. Nevertheless, it was explained that they often did not have the necessary resources at hand to finance health care costs. This was the case for fathers from both socio-economic strata (lowest and highest socio-economic quintile). Most fathers interviewed mentioned that health care costs are financed through work or selling goods, animals or land. In cases where insufficient money could be arranged, fathers would make other arrangements, such as borrowing money to pay for health care costs. Fathers would either borrow money through *idir* or from family and friends. Mothers were often described to not have an own income source that could contribute

to health care expenses. Furthermore, mothers generally were described to have difficulties in borrowing money and even though they would try, they would often not receive a loan [from *idir*]. Consequently, the burden on arranging resources for treatment was, according to the fathers, mainly placed on them.

The financial stress that fathers go through was described by this father:

We have idir where we save some amount of money regularly. I have to pay back the money within 10 to 15 days. In case they don't allow me [to borrow money] due to some inconveniences, I borrow from friends, relatives, particularly from my grandmother. But the reality is that I borrow again before I paid back the first loan. (ID 8; lowest socio-economic quintile; 3+ children)

A father also emphasised that it was easier to borrow money for fathers with a better financial situation compared to fathers with few resources. This further emphasised the financial worries that fathers are faced with.

The father with better financial resources can take his children to health providers easily. Even if he doesn't have the money, he can borrow it easily because people believe that he can pay it back. But if the poor wants to borrow money from friends or other people, people are not happy to give him [money] because they are wondering 'from where is he going to pay me back?' (ID 4; lowest socio-economic quintile; 3+ children)

In addition, fathers also mentioned that care-seeking of their child can be delayed if they have no money at hand and sometimes it could take several days to find the necessary resources to finance health care costs. Consequently, it was expressed that even if a father wanted to seek care immediately, this was not always possible. Fathers from both socio-economic strata mentioned such financial worries and constraints.

[…] if we go to [name of] hospital, we may pay up to 1000 birr (~36 USD). Even if we only stay one night there, they charge us 700 up to 800 birr (~25-30 USD). The more we stay there, the more money we are expected to pay. If we don't have money, we are left with staying home with the sick child and praying to God. (ID 15; lowest socio-economic quintile; 3+ children)

Fatherhood entails advocating children's health care needs

Fathers were well aware of the different health services available to their children, whether it was the health post, health centre, private or traditional providers.

Fathers stated that they discussed with their wives on what actions to take and where to take the child when it is sick. However, many of them still saw themselves as the ultimate decision maker whose suggestion will be followed.

Since I bear more responsibility as father on my family's affairs, it is my decision that needs to be adhered to. Since she [wife] doesn't have an income generating work and we solely depend on the income I get, it is me who decides over issues. (ID 15; lowest socio-economic quintile; 3+ children)

Different factors can influence the choice to which provider a child is taken. The type of illness the child has can be such a factor. When the child is suspected to have bone fractures or a dislocation, multiple fathers explained that traditional healers (also referred to as "*bone setter")* are the first choice of treatment. If the traditional treatment is not effective, other sources of treatment will be sought. For other types of illnesses, a father would directly take the child to another health provider, such as the health post.

Money was also explained to be a decisive factor in the care-seeking process. According to fathers, the availability of money and resources provides a freedom of choosing a health provider for the child's health condition. This freedom is constrained if resources are scarce.

Rich [people] take sick children directly to hospital. But since poor [people] have no money, they take [the child] to the health post. They only take [the child] to the hospital when its condition is life threatening. (ID 8)

Multiple fathers seemed to prefer the health centre over the health post, because more and better treatment is believed to be available there. It was stressed that the general perception is that treatment is better in urban areas and also faster at private providers, though private providers being expensive and described as business-oriented. Nevertheless, if the money is available, some fathers still preferred their services over public facilities. Fathers observed a formal care chain (or "*hierarchy")* in health care. They described that health centres expect them to go to have a referral slip from the health post, making it harder for them to directly access treatment at the health centre, which was seen as an obstacle.

Bringing the child to a health post for treatment was, according to the fathers interviewed, often first a responsibility of the mother. However, in different circumstances this responsibility was less clear. Mothers were described to be responsible for bringing the children who are breastfed to the health provider, whereas fathers claimed to mainly accompany older children that can walk or sit on a motorcycle to the health provider. Whether or not a father brings or accompanies a child to a health facility also depended on the health facility in question. One father explained that the mother can seek care at the health post alone, but fathers need to be consulted to seek care at the health centre or higher-level facilities which often implies more severe illnesses.

When the mother notices that the child is sick, she takes her [the child] to health post. If the health post advises her [the mother] to take the child to the health centre [i.e. refers the child

as the health problem is not identified or manageable at community level], she returns back and waits for my return. After I return back to home, we together take the child to the health centre together. (ID 15; lowest socio-economic quintile; 3+ children)

If the child needed to stay at the hospital, also a father described to stay with it. In addition, the arrangement of the transportation to the health facility was, according to some fathers, also the role of them.

Investing in children's health can benefit family in the future

Behaviours of fathers in regard to seeking care for children has been changing over time. It was explained that fathers today are more involved in child health matters compared to the past and that they do not leave this issue entirely up to the mothers anymore. Fathers stated to be more alert about changes in health status of their children and that they will not rely only on faith to cure the child.

I can say that the love I have to my children is stronger than the mother's love. Due to that reason, I also closely follow their [the children's] health situation. (ID 4; lowest socio-economic quintile; 3+ children)

A couple of fathers pointed out the value that children have and can bring in the future, for instance through working and supporting the family financially. Consequently, fathers pay more attention to their child's health status and make sure that they recover.

In past time, there were widely held assumptions among fathers that a child will grow by his fate so that no worries are needed. But this belief is changing as those sons and daughters that work at urban centres and abroad send [money] and augment their family's income. Children now are believed to be assets and obtain great care. So fathers are alert whenever they observe changes in their children's health. (ID 18; highest socio-economic quintile; 3+ children)

Fathers also observed changes in the health services over time. They noticed that health posts that are now existing in their community have not been available in the past.

DISCUSSION

This study indicated that fathers are involved in the care-seeking for their sick child in different ways. They explained that they bear the main responsibility to arrange financial resources to enable a health care visit and that this responsibility can imply stress and financial concerns when resources are scarce. Fathers were well aware of the health services available to their children and they described to be involved in the care-seeking process in different ways, e.g. (co-)deciding where to take the child or accompanying their child to the health facility. Fathers explained that changes in fathers' perception on children and their involvement have taken place. They described themselves to be more aware of the health status of their children and more involved in child health matter as compared to the past.

This transitional change in fathers' perceptions on their children has been described in another study conducted in Ethiopia [24]. Multiple fathers interviewed in this study would fit into the "transitional fathers" category. According to them, child health issues are not seen as only a task of the mother anymore. On the other hand, some fathers also mentioned more traditional features. This could suggest that change is happening in these rural areas and that with continuous efforts fathers' roles as caregiver could be strengthened. Additionally, the phrasing of the last theme "Investing in children's health can benefit family in the future" seems very

timely, considering that a recently published report by the WHO-UNICEF-Lancet Commission highlights the importance and benefits of investing in children [25]. It is interesting that the recognition of this relevance has to a certain extent, and due to different reasons, also reached the families. It is noteworthy that fathers did not only observe changes in their behaviour but they also appreciated changes in the availability of health services, through e.g. the establishment of a health post in their community.

Multiple studies have shown that fathers are often responsible for the household finances and financing of care [6, 7, 26-28]. This study coincided with these findings, but also shed light upon the burden that this responsibility brings along when a child falls ill. The reality described by fathers was that often resources where not available to finance health care costs and that in many cases fathers needed to borrow money again before having paid back their first dept. It appears to be a vicious circle in which particularly very poor fathers are placed and demonstrates the difficult situations that these families go through in times of sickness. The inability to arrange money to pay for health care costs can lead to involuntary delays in care-seeking. The link between costs and delayed health care has been previously described in the literature [29, 30]. These findings suggest that besides educating parents on danger signs and when to seek care, it is very important to get the health care infrastructure in place and to make health facilities accessible to the communities. The Sustainable Development Goal 3.8 touches upon this as it aims to "achieve universal health coverage, including financial risk protection [and] access to quality essential health-care services (…)" [31]. In order to further improve maternal and child health, health services should be made accessible to all, both physically and economically [32].

In this study, many fathers told that they discuss and decide together with their wives on what to do when their child is sick. Nevertheless, multiple of these fathers still saw themselves as final decision-makers whose opinions should be adhered to. Literature supports that fathers

often are the decision-maker of the household [5, 7], which raises questions on the true influence of mothers' opinions on the decision-making processes. It is known that fathers play an important role in a children's development. Positive involvement of fathers can impact not only children's cognitive skills, but also their social competences and behavioural or emotional outcomes [33-35]. This shows, together with fathers' important role as decision-maker and breadwinner in the care-seeking process, that there is a strong need for including fathers in future interventions aimed at improving maternal and child health. It is thereby crucial to consider that many fathers spend much time of the day away from home because of their work. Interventions need to be formulated accordingly.

Another interesting finding of this study was that fathers were not only involved in household decision-making and finances, but that they also were directly in contact with the health system for their children. Fathers in this study were not only well aware of the different health providers available or accessible to them, but also described to have direct contact with the health system, by sometimes bringing the child to the health facility or accompanying the mother. We did not come across a study that discussed similar findings.

STRENGTHS AND WEAKNESSES

This study focussed on fathers only. This is adding to current literature as fathers are still underrepresented in child health research. We conducted interviews in the local language in Boloso Sore and Damot Gale. As this was not possible in Halaba, we tried to overcome language diversity through a local interpreter. Two interviews in Halaba were not finalised due to other obligations of the father. As these selected fathers have not been replaced, some information was lost. However, due to the large number of interviews conducted we still consider having obtained enough information.

A social desirability bias (e.g. father claiming to be more involved in the care-seeking process than they actually are) cannot be excluded with certainty in this study. We did not conduct interviews with mothers to check or confirm the accuracy of fathers' responses. Nevertheless, we aimed to mitigate the chances of a desirability bias by using male interviewers. We therefore believe that the information provided does reflect their roles and perceptions well. Multiple findings of this study coincided with previous literature. We thus assume that these findings are transferable to communities with similar family structures and cultural contexts and health systems.

CONCLUSIONS

Fathers' play an important role in the care-seeking process of their children. Not only do they have decision-making power and the financial responsibility, but they are also otherwise involved in the care-seeking process, such as arranging transportation or accompanying the child at times to the facility. Fathers are familiar with the health services available to their children and even noticed positive changes in the paternal involvement in childcare as well as availability of health services through the establishment of health posts in their communities. Besides the important roles that fathers play in the care-seeking process, they are still today underrepresented in child health research and interventions. Efforts need to be made to continue the observed positive trend in fathers' involvement in care seeking described in this study. Future research on maternal and child health needs to step up on highlighting the role of fathers. The inability to organise necessary resources for care can lead to involuntary delays in care-seeking for the child. It is therefore crucial to continue strengthening health care systems and making health services more accessible to communities, both physically and financially.

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COMPETING INTEREST

The authors' declare that they have no competing interest.

AUTHORS' CONTRIBUTION

All authors were involved in conceiving and designing the study. TF, KK, TA and HMA developed the study plan and formulated the interview guide. TF and AA were training the interviewers and following the interview process. TF and HMA analysed the interviews. TF wrote the paper together with all other authors. All authors read and approved the final version of this paper.

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COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research team and reflexivity			
Personal characteristics			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	
Credentials	2	What were the researcher's credentials? E.g. PhD, MD	
Occupation	3	What was their occupation at the time of the study?	
Gender	4	Was the researcher male or female?	
Experience and training	5	What experience or training did the researcher have?	
Relationship with participants			
Relationship established	6	Was a relationship established prior to study commencement?	
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	
Interviewer characteristics	8	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	
Domain 2: Study design			
Theoretical framework			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	
Participant selection			
Sampling	10	How were participants selected? e.g. purposive, convenience, consecutive, snowball	
Method of approach	11	How were participants approached? e.g. face-to-face, telephone, mail, email	
Sample size	12	How many participants were in the study?	
Non-participation	13	How many people refused to participate or dropped out? Reasons?	
Setting			
Setting of data collection	14	Where was the data collected? e.g. home, clinic, workplace	
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	
Description of sample	16	What are the important characteristics of the sample? e.g. demographic data, date	
Data collection			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
Repeat interviews	18	Were repeat inter views carried out? If yes, how many?	
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	
Field notes	20	Were field notes made during and/or after the inter view or focus group?	
Duration	21	What was the duration of the inter views or focus group?	
Data saturation	22	Was data saturation discussed?	
Transcripts returned	23	Were transcripts returned to participants for comment and/or	

Topic	Item No.	Guide Questions/Description	Reported on Page No.
		correction?	
Domain 3: analysis and findings			
Data analysis			
Number of data coders	24	How many data coders coded the data?	
Description of the coding tree	25	Did authors provide a description of the coding tree?	
Derivation of themes	26	Were themes identified in advance or derived from the data?	
Software	27	What software, if applicable, was used to manage the data?	
Participant checking	28	Did participants provide feedback on the findings?	
Reporting			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	
Data and findings consistent	30	Was there consistency between the data presented and the findings?	
Clarity of major themes	31	Were major themes clearly presented in the findings?	
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	

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"I also take part in caring for the sick child" - A qualitative study on fathers' roles and responsibilities in seeking care for children in Southwest Ethiopia

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"I also take part in caring for the sick child" - A qualitative study on fathers' roles and responsibilities in seeking care for children in Southwest Ethiopia

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Key words: Fathers, Child, Care-seeking, Ethiopia, Qualitative Research

ABSTRACT

Objectives: Fathers play an important role in household decision making processes and child health development. Nevertheless, they are underrepresented in child health research, especially in low-income settings. Little is known about what roles fathers play in the care seeking processes or how they interact with the health system when their child is sick. This study aimed to understand Ethiopian fathers' roles and responsibilities in caring for their children when they are or become ill.

Design: Qualitative study using semi-structured interviews with fathers.

Setting: This study was conducted in three rural districts of the Southern Nations, Nationalities and People's Region of Ethiopia.

Participants: Twenty-four fathers who had at least one child between 2 and 59 months who visited a health extension worker with fever.

Results: The overarching theme was "Changing perceptions of paternal responsibilities during children's ill health". It constituted three sub-themes, namely "Fathers' burden of earning money for care", "Fatherhood entails advocating children's health care needs" and "Investing in children's health can benefit the family in the future". Fathers described that they were the ones mainly responsible for the financial arrangement of care and that this financial responsibility can involve stress when resources are scarce. Fathers knew what health services were available and accessible to them and were involved in different ways in the care-seeking of the child. Changes in the importance ascribed to child health were expressed by fathers who described being more alert to children's ill-health.

Conclusion: Fathers play various roles in the care-seeking process during children's illness episodes. This included for instance arranging resources to seek care, (co-)deciding where to

seek care as well as accompanying the child to the health facility. The inability to organise necessary resources for care can lead to involuntary delays in care-seeking for the child. This demonstrates the importance of including fathers in future interventions on maternal and child health.

STRENGTH AND LIMITATIONS OF THE STUDY

- This study distinguishes itself from others by only focusing on fathers and their perceived roles and responsibilities in the care seeking for sick children, which is an underrepresented area in child health research.
- This study used a nested stratified sample and included 24 fathers from highest and lowest socio-economic quintiles and with few (1-2) or many children (3+) in order to provide rich information.
- We sought to mitigate a social desirability bias by having the interviews conducted by male interviewers in two local languages.
- We did not conduct interviews with mothers to confirm the fathers' responses.

INTRODUCTION

Annually approximately 5.3 million children die worldwide before reaching their fifth birthday. Most of these deaths occur following the neonatal period and are caused by diseases such as malaria, pneumonia and diarrhoea [1]. It is further estimated that malnutrition contributes to almost half of child deaths under the age of five and that many of the childhood deaths could have been prevented with simple, effective and available interventions [1]. Nevertheless, caregivers of sick children in poor communities often face obstacles in seeking healthcare, such

as lack of money or distance to the care facility [2, 3]. Evidence from Ethiopia shows that only 35% of children with fever and 44% of children with diarrhoea in the previous two weeks were brought for treatment [4].

Decision making processes regarding child health care are complex. Although mothers have historically been seen as responsible for their children and their health, multiple studies from low-resource settings show that women, as compared to men, have relatively low decision-making power when it comes to health care decisions for themselves and their children [5-8]. A study from The Gambia [9] states that mothers decided when to take the child to the hospital for cerebral malaria in only around 7% of the cases. Other studies confirm that it is mainly the father who makes the final call on where and when to seek health care [9-11].

The important role of fathers in child health and development is becoming better understood and appreciated. Literature shows that involved fathers are associated with different positive outcomes, such as knowledge of newborn danger signs among mothers, skilled birth and attendance of antenatal care visits [12-14]. Some countries have therefore started to address the involvement of fathers in their road maps to reduce maternal and child morbidity and mortality [15, 16]. Yet, in low-and middle-income countries only a minority of fathers has been said to be engaged with their children [17]. Yet different forms of engagement and types of fathers exist. In a study conducted in Ethiopia, fathers were categorised into three different groups, depending on their perceptions, practices, and challenges towards routine child care and feeding [18]: 1) Traditional fathers who "*do not feel part of routine child care, and they fully believe child care is only the mothers' responsibility*"; 2) Transitional fathers who "*perceive child care as being both the mothers' and fathers' responsibility*", but under different conditions (e.g. availability of the father or occupied mother), meaning the father does not completely feel responsible for child care and 3) Modern fathers who "*perceive child care and child feeding as a shared responsibility between mother and father"* and who are totally involved in their child's

life. This indicates that not all fathers are alike and that differences in their roles can exist between them.

A number of studies from Africa have shown that fathers are often the main decision-maker or breadwinner of the family and responsible to pay for healthcare costs [10, 11]. Yet little is known otherwise about what roles they take on in the care seeking process for their children or how fathers interact with the health system when their children are sick. Therefore, this study aims to understand fathers' roles and responsibilities in care-seeking for children in rural areas of the Southern Nations, Nationalities and People's Region in Ethiopia.

MATERIALS AND METHODS

The reporting of the methods has been guided by the criteria for reporting qualitative research (COREQ) guidelines [19].

Setting

The interviews were conducted in Damot Gale, Boloso Sore and Halaba Special Woreda, three *woredas* (districts) of the Southern Nations, Nationalities and People's Region (SNNPR) of Ethiopia. The population of Ethiopia, similar to these three woredas, is predominantly (~80%) living in rural areas. SNNPR is a very ethnically diverse region, inhabited by more than 80 different ethnic groups. To improve primary health care services in the country, particular in rural areas, Ethiopia has been implementing a health extension program since 2003 [20]. Central to the program are health extension workers (HEW) who are trained for 12-months and subsequently employed by the government to work in health posts directly in and with the community [20, 21]. HEWs are women with at least a grade 10 education. Typically two HEWs

are assigned to one health post, serving an estimate of 3,000 - 5,000 people [20, 21]. HEW provide key health promotion and prevention services, as well as a selection of curative services; all services are free of charge [21, 22]. Although health posts are placed directly in a community, travel distances can vary from a walking distance of a few minutes to an hour or more [23]. At the time of this study there were 150 health posts in the study area with a total of 284 HEW.

Child mortality rates in Ethiopia have been decreasing over the years and currently stand at 55.2 per 1000 live births, with mortality rates in SNNPR higher than the national average [4, 24]. Traditional gender roles persist, particularly in rural areas, with a minority of women reporting having the right to decide on their first marriage and having their husband help with household chores. Around 40% use modern contraceptives including sterilisation, contraceptive pills, condoms and implants, and even fewer, less than 30%, give birth in a health facility [4]. Twenty-eight per cent of women and 73% of men age 15-49 in the region work within the agricultural sector.

Study design and data collection

This qualitative study was nested within a community-based cluster randomised controlled non-inferiority trial (cRCT). The design and results of this trial are published elsewhere, as is the qualitative evaluation of HEW's and caregivers' perception of the recommendations [25-27].

For this study, twenty-four semi-structured interviews were conducted with fathers who had at least one child aged 2 to 59 months presenting to the HEW with fever. Half of the interviews (n=12) were conducted in Halaba *woreda*, eight in Boloso Sore and four in Damot Gale. Boloso Sore and Damot Gale are culturally and linguistically similar which is why they together represent half of the fathers interviewed.

The sampling method was based on the assumption that health seeking practices and fathers' decision-making power could differ by socio-economic position and number of children. We therefore used stratified sampling to select half of the fathers from the lowest and the other half from the highest socio-economic quintile. Socio-economic quintiles were based on caregivers' responses to questions about household assets, e.g. material of the house, toilet facility used, availability of TV/radio or electricity in general. It should be kept in mind that a high socio-economic quintile in this study is not equivalent to a high socio-economic status. Fathers in the high socio-economic quintile can still be considered poor. Within the two strata, fathers with few children (1-2) and fathers with multiple children (3 or more) were invited for an interview to maximise the level of heterogeneity among the fathers. However, the information on number of children reported in the cRCT did not always tally with the number of children mentioned by the father during the interview, which is why most fathers (n=19/24) in this study had three or more children. Once the father was randomly selected within each stratum, contact was established through the HEW and fathers were personally visited in their community. When fathers were not at home, contact was established via phone or with help of the HEW in the community. Fathers were asked whether they would be willing to participate in the study. All 24 fathers agreed to participate, but two were not able complete the interview due to time constrains.

An interview guide was developed informed by literature on health care seeking and gender roles. It started with introductory questions about the father and the household to explore fathers' educational background, profession and family composition. While this part was rather structured, the interview guide then followed with open ended questions regarding fathers' practices on the following issues: seeking advice or discussing health matters with other family or community members; fever in children and fathers' understanding of fever; fathers' knowledge on health providers in the community; their decision-making around health services

and drivers that influenced their seeking health care. The interview ended with asking fathers to compare care-seeking between different households and changes in practices and roles of fathers over time. The interview guide was prepared in English and subsequently translated into Amharic.

Three male interviewers conducted the interviews, two in Boloso Sore and Damot Gale and one in Halaba. The interviewers were selected based on their experience in qualitative research, English proficiency, and educational background in health sciences. In Halaba, a male interpreter was recruited for translations from Amharic to Halabigna (local language of Halaba) as the interviewer was not familiar with the local language. In Boloso Sore and Damot Gale interviews were conducted in Wolaitegna by two interviewers who were from the district and thus familiar with the area and language. No interviewer met the fathers before the conduction of the interviews.

All interviewers and the interpreter received a half-day training from authors TF and AA. The training provided insights into the research background, the aim of the study and the sampling of fathers. In addition, the interview procedure was thoroughly explained and the interview guide and all questions were reviewed and discussed in detail. The importance of probing and non-leading questions was emphasized. At the end of the training, any remaining language issues were addressed as the interview guide was prepared in Amharic but the interviews were conducted in the local language. After the training, every interviewer conducted one pilot interview and changes to the interview guide were made accordingly. Based on the pilot interviews, interviewers received oral feedback on how to improve their interviewing and the purpose of certain questions was repeated in order to improve the direction of their probing questions.

The interviews were conducted in March 2017 and took between 34 and 70 minutes, with interviews using an interpreter taking longer. All interviews were conducted in a quiet place outside; the majority took place close to the father's home. Fathers were aged between 20 and 50 years and the number of children ranged between one and fourteen (see Table 1). In Halaba, multiple fathers had two wives. The majority of fathers were farmers.

All 24 interviews were digitally recorded, transcribed in Amharic and translated into English. The interviewers in Boloso Sore and Damot Gale preferred to transcribe the interviews directly in Amharic instead of Wolaitegna, due to the difficulty in writing the local language. After their participation in the interview, fathers received 122.5 Birr in cash (~5.5 USD) to compensate for their time. This amount equals the common local Malaria Consortium lunch allowance.

Table 1 Characteristics of study participants

Ethical approval

This study was nested within a cRCT that was approved by the SNNPR Health Bureau Research Ethical Review Committee (P02-6-19/4511). The trial is registered as NCT02926625. Written and oral consent was obtained from all study participants. Confidentiality was ensured and the aim of the study was explained to the fathers prior to the interview. They were informed about the option to decline participation or drop out of the interview without any consequences.

Patient and public involvement

There was no involvement of patients/interviewees or the public in setting the research agenda or formulating interview guides.

Data analysis

All 24 father interviews were included in the analysis, although two fathers did not complete the interview. As these two fathers did answer a number of questions, it was seen as appropriate to include the material provided by them in the analysis, even though it was not fully completed. The transcripts were read multiple times and codes to the material were applied using the qualitative data structuring software Nvivo version 11. Interviews were analysed using content analysis [28]. The analysis was an iterative process involving reading of literature and repeated reading of interview transcripts. The coding process was done in steps. TF conducted the initial coding and discussions took place with HMA. After each meeting, changes to the codes were made. Finally, codes were grouped, and themes identified, which were again discussed between authors TF and HMA. All father interviews were analysed together, meaning that no stratification by socio-economic quintiles and number of children of fathers (strata used for the sample selection) took place for the analysis. However, after the coding of the data was done, it was checked whether fathers from different strata were represented in each theme.

RESULTS

Three sub-themes emerged from the data: 1) Fathers' burden of earning money for care, 2) Fatherhood entails advocating children's health care needs, and 3) Investing in children's health can benefit the family in the future. The results are presented according to these themes and fed

into the overarching theme of "Changing perceptions of paternal responsibilities during children's ill health".

Fathers' burden of earning money for care

Fathers described their roles and responsibilities in care-seeking for children mostly in terms of financial responsibilities. They explained that their main role as father was to work and earn money to be able to finance health care costs and, when necessary, transportation to the facility. Fathers felt strongly that "*money matters*" when it comes to seeking care for children. Nevertheless, it was explained that they often did not have the necessary resources at hand to finance health care costs. This was expressed by fathers from both socio-economic strata, lowest and highest socio-economic quintile. Most fathers interviewed mentioned that health care costs are financed through work or selling goods, animals or land. When not enough money could be arranged, fathers would make other arrangements, such as borrowing money to pay for health care costs. Fathers would either borrow money through *idir* [a financial community support system where members can regularly contribute small amounts of money and in return are able to borrow some money in case of need] or from family and friends. Mothers were often, but not always, described as not having their own income source that could contribute to health care expenses. Furthermore, mothers generally were described as having difficulties in borrowing money as even though they would try to obtain a loan, they would often not receive one [from *idir*]. Consequently, the burden on arranging resources for treatment was, according to the fathers, mainly placed on them. The financial stress that fathers experience was described by this father:

We have idir where we save some amount of money regularly. I have to pay back the money within 10 to 15 days. In case they don't allow me [to borrow money] due to some

inconveniences, I borrow from friends, relatives, particularly from my grandmother. But the reality is that I borrow again before I paid back the first loan. (ID 8; lowest socio-economic quintile; 3+ children)

One father also emphasised that it was easier for fathers with a better financial situation to borrow money compared to fathers with few resources, which further emphasised the financial worries that fathers were faced with.

The father with better financial resources can take his children to health providers easily. Even if he doesn't have the money, he can borrow it easily because people believe that he can pay it back. But if the poor wants to borrow money from friends or other people, people are not happy to give him [money] because they are wondering 'from where is he going to pay me back?' (ID 4; lowest socio-economic quintile; 3+ children)

In addition, fathers also mentioned that care-seeking for their child can be delayed if they have no money at hand, and sometimes it could take several days to find the necessary resources to finance health care costs. Consequently, it was expressed that even if a father wanted to seek care immediately, this was not always possible. Fathers from both socio-economic strata mentioned such financial worries and constraints.

[...] if we go to [name of] hospital, we may pay up to 1000 birr (~36 USD). Even if we only stay one night there, they charge us 700 up to 800 birr (~25-30 USD). The more we stay there, the more money we are expected to pay. If we don't have money, we are left with staying home with the sick child and praying to God. (ID 15; lowest socio-economic quintile; 3+ children)

Fatherhood entails advocating children's health care needs

Fathers were well aware of the different health services available to their children, whether it was the health post, health centre, private or traditional providers. They stated that they discussed with their wives on what actions to take and where to take the child when it is sick. However, many of them still saw themselves as the ultimate decision maker whose suggestion will be followed.

Since I bear more responsibility as father on my family's affairs, it is my decision that needs to be adhered to. Since she [wife] doesn't have an income generating work and we solely depend on the income I get, it is me who decides over issues. (ID 15; lowest socio-economic quintile; 3+ children)

Different factors can influence the choice as to which provider a child is taken. The type of illness the child has can be such a factor. When the child was suspected of having a bone fracture or a dislocation, multiple fathers explained that traditional healers also referred to as "*bone setter"* are the first choice of treatment. If the traditional treatment is not effective, other sources of treatment will be sought. For other types of illnesses, a father would directly take the child to a different health provider, such as the health post.

Money was also explained to be a decisive factor in the care-seeking process. According to fathers the availability of money and resources provides a freedom in choosing a health provider for the child's health condition. This freedom is constrained if resources are scarce.

Rich [people] take sick children directly to hospital. But since poor [people] have no money, they take [the child] to the health post. They only take [the child] to the hospital when its condition is life threatening. (ID 8)

Multiple fathers seemed to prefer the health centre over the health post, because more and better treatment was believed to be available there. It was stressed that the general perception is that treatment was better in urban areas and also faster at private providers, though private providers

were expensive and described as business-oriented. Nevertheless, if the money was available, some fathers still preferred private services over public facilities. Fathers observed a formal care chain (or "*hierarchy")* in health care. They described that health centres expected them to have a referral slip from the health post, making it harder for them to directly access treatment at the health centre. This was seen as an obstacle in seeking care.

The responsibility for bringing or accompanying a sick child for treatment was unclear. Bringing the child to a health post for treatment was first seen as being a responsibility of the mother. Mothers were described to be responsible for bringing the children who were breastfed to the health provider, whereas fathers claimed to rather accompany older children that could walk or sit on a motorcycle to the health provider. Whether or not a father brought or accompanied a child to a health facility also depended on the health facility in question. One father explained that the mother sought care at the health post alone, but fathers needed to be consulted to seek care at the health centre or higher-level facilities, often implying more severe illnesses and higher costs.

When the mother notices that the child is sick, she takes her [the child] to health post. If the health post advises her [the mother] to take the child to the health centre [i.e. refers the child as the health problem is not identified or manageable at community level], she returns back and waits for my return. After I return back to home, we together take the child to the health centre together. (ID 15; lowest socio-economic quintile; 3+ children)

If the child needed to stay at the hospital, a father described it as his role to stay with the child. In addition, the arrangement of the transportation to the health facility was, according to some fathers, also their role.

Investing in children's health can benefit the family in the future

Behaviours of fathers with regards to seeking care for children has changed over time. It was

explained that fathers today are more involved in child health matters compared to the past and that they do not leave this issue entirely up to the mothers anymore. Fathers stated being more alert about changes in health status of their children and that they will not rely only on faith to cure the child.

I can say that the love I have to my children is stronger than the mother's love. Due to that reason, I also closely follow their [the children's] health situation. (ID 4; lowest socio-economic quintile; 3+ children)

A couple of fathers pointed out the value that children have and can bring in the future, for instance through working and supporting the family financially. Consequently, fathers stated they paid more attention to their child's health status and made sure that they recovered.

In past time, there were widely held assumptions among fathers that a child will grow by his fate so that no worries are needed. But this belief is changing as those sons and daughters that work at urban centres and abroad send [money] and augment their family's income. Children now are believed to be assets and obtain great care. So fathers are alert whenever they observe changes in their children's health. (ID 18; highest socio-economic quintile; 3+ children)

Fathers also observed changes in the health services over time. They noticed that health posts that are now existing in their community were not available in the past.

DISCUSSION

This study indicates that fathers are involved in the care-seeking of their sick child in different ways. This includes bearing the main responsibility for arranging financial resources to enable a health care visit and this responsibility can imply stress and financial concerns when resources

are scarce. Fathers are well aware of the health services available to their children and they described being involved in the care-seeking process in different ways, e.g. (co-)deciding where to take the child or accompanying their child to the health facility. Fathers explained that changes in fathers' perception on children and their involvement have taken place. They described themselves being more aware of the health status of their children and more involved in child health matters compared to the past.

This transitional change in fathers' perceptions of their children has been described in another study conducted in Ethiopia [29]. Multiple fathers interviewed in this study would fit into the "transitional fathers" category. According to them, child health issues are not seen as only a task of the mother anymore. It seems as if these fathers acknowledge these responsibilities as being part of their role as father. The findings of this study show that not all fathers take on the same roles in care-seeking for children. This suggests that roles in these rural areas are changing and that with continuous country efforts, fathers' roles as caregiver could be strengthened.

Also, the phrasing of the last theme "Investing in children's health can benefit family in the future" seems very timely, considering that a recently published report by the WHO-UNICEF-Lancet Commission highlights the importance and benefits of investing in children [30]. It is noteworthy that fathers did not only observe changes in paternal behaviour, but also appreciated changes in the availability of health services, e.g. the establishment of a health post in their community.

The responsibility of fathers for household finances and financing of care have been described in multiple previous studies [10, 11, 31-33]. This study coincided with these findings, but also shed light on the burden that this responsibility brings when a child is ill. The reality described by fathers was that often resources were not available to finance health care costs, and that in many cases fathers needed to borrow money again before having paid back their first debt. It

appears to be a vicious circle in which particularly very poor fathers are placed, and demonstrates the difficult situations that these families go through in times of sickness. It is important to stress that both groups of fathers (highest and lowest socio-economic quintile) expressed concerns in arranging resources and money and would compare themselves with better-off fathers. The comparisons expressed by these fathers therefore do not refer to a comparison between the two socio-economic quintile groups in this study.

The inability to arrange money to pay for health care costs can lead to involuntary delays in care-seeking. The link between costs and delayed health care has been previously described in the literature [34, 35]. These findings suggest that besides educating parents on danger signs and when to seek care, it is very important to have health care infrastructure in place and health facilities accessible to the communities. The Sustainable Development Goal 3.8 touches upon this as it aims to "achieve universal health coverage, including financial risk protection [and] access to quality essential health-care services (…)" [36]. In order to further improve maternal and child health, health services should be made accessible to all, both physically and economically [37].

In this study multiple fathers stated that they discuss and decide together with their wives on what to do when their child is sick. Nevertheless, many of these fathers still saw themselves as final decision-makers whose opinions should be adhered to. Literature supports that fathers often are the decision-maker of the household [9, 11], which raises questions on the true influence of mothers' opinions on the decision-making processes. It is known that fathers play an important role in a children's development. Positive involvement of fathers can impact not only children's cognitive skills, but also their social competences and behavioural or emotional outcomes [38-40]. This shows, together with fathers' important role as decision-maker and breadwinner in the care-seeking process, that there is a strong need for including fathers in future interventions aimed at improving maternal and child health. It is thereby crucial to

consider that many fathers spend much of their time away from home because of their work. Interventions need to be formulated accordingly.

Another interesting finding of this study was that fathers were not only involved in household decision-making and finances, but were also directly in contact with the health system for their children. Fathers were not only well aware of the different health providers available or accessible to them, but also described bringing the child to the health facility or accompanying the mother. We did not come across a study that discussed similar findings.

STRENGTHS AND WEAKNESSES

This study focussed on fathers of both low and high socioeconomic quintiles in order to contribute to current literature as fathers remain underrepresented in child health research. We conducted interviews in the local language in Boloso Sore and Damot Gale but in Halaba we overcame language diversity through use of a local interpreter. Two interviews in Halaba were not finalised due to other obligations of the father. As these selected fathers have not been replaced, some information was lost. However, due to the large number of interviews conducted we have obtained sufficient information. Multiple findings of this study coincided with previous literature. We thus assume that these findings are transferable to communities with similar family structures and cultural contexts and health systems. Furthermore, a social desirability bias (e.g. father claiming to be more involved in the care-seeking process than they actually are) cannot be excluded with certainty in this study. Also, we did not conduct interviews with mothers to check or confirm fathers' responses. Nevertheless, we aimed to mitigate the chances of a desirability bias by using male interviewers. We therefore believe that the information provided does reflect their roles and perceptions well.

CONCLUSIONS

Fathers play an important role in the care-seeking process of their children. Not only do they have decision-making power and the financial responsibility, but they are also otherwise involved in the care-seeking process, such as arranging transportation or accompanying the child at times to the facility. Fathers are familiar with the health services available to their children and even noticed positive changes in the paternal involvement in childcare, as well as availability of health services through the establishment of health posts in their communities. Efforts need to be made to continue the observed positive trend in fathers' involvement in care seeking described in this study. Future research on maternal and child health needs continue considering and highlighting fathers' roles and responsibilities. The inability to organise necessary resources for care can lead to involuntary delays in care-seeking for the child. It is therefore crucial to continue strengthening health care systems and making health services more accessible to communities, both physically and financially.

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COMPETING INTEREST

The authors declare that they have no competing interest.

AUTHORS' CONTRIBUTION

All authors were involved in conceiving and designing the study. TF, KK, TA and HMA developed the study plan and formulated the interview guide. TF and AA were training the interviewers and following the interview process. TF and HMA analysed the interviews. TF wrote the paper together with all other authors. All authors read and approved the final version of this paper.

DATA SHARING STATEMENT

All relevant data for this study are included in this paper. To protect the anonymity of our respondents, full transcripts will not be provided.

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COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

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Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research team and reflexivity			
Personal characteristics			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	
Credentials	2	What were the researcher's credentials? E.g. PhD, MD	
Occupation	3	What was their occupation at the time of the study?	
Gender	4	Was the researcher male or female?	
Experience and training	5	What experience or training did the researcher have?	
Relationship with participants			
Relationship established	6	Was a relationship established prior to study commencement?	
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	
Interviewer characteristics	8	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	
Domain 2: Study design			
Theoretical framework			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	
Participant selection			
Sampling	10	How were participants selected? e.g. purposive, convenience, consecutive, snowball	
Method of approach	11	How were participants approached? e.g. face-to-face, telephone, mail, email	
Sample size	12	How many participants were in the study?	
Non-participation	13	How many people refused to participate or dropped out? Reasons?	
Setting			
Setting of data collection	14	Where was the data collected? e.g. home, clinic, workplace	
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	
Description of sample	16	What are the important characteristics of the sample? e.g. demographic data, date	
Data collection			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
Repeat interviews	18	Were repeat inter views carried out? If yes, how many?	
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	
Field notes	20	Were field notes made during and/or after the inter view or focus group?	
Duration	21	What was the duration of the inter views or focus group?	
Data saturation	22	Was data saturation discussed?	
Transcripts returned	23	Were transcripts returned to participants for comment and/or	

Topic	Item No.	Guide Questions/Description	Reported on Page No.
		correction?	
Domain 3: analysis and findings			
Data analysis			
Number of data coders	24	How many data coders coded the data?	
Description of the coding tree	25	Did authors provide a description of the coding tree?	
Derivation of themes	26	Were themes identified in advance or derived from the data?	
Software	27	What software, if applicable, was used to manage the data?	
Participant checking	28	Did participants provide feedback on the findings?	
Reporting			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	
Data and findings consistent	30	Was there consistency between the data presented and the findings?	
Clarity of major themes	31	Were major themes clearly presented in the findings?	
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	

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"I also take part in caring for the sick child" - A qualitative study on fathers' roles and responsibilities in seeking care for children in Southwest Ethiopia

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"I also take part in caring for the sick child" - A qualitative study on fathers' roles and responsibilities in seeking care for children in Southwest Ethiopia

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Key words: Fathers, Child, Care-seeking, Ethiopia, Qualitative Research

ABSTRACT

Objectives: Fathers play an important role in household decision making processes and child health development. Nevertheless, they are underrepresented in child health research, especially in low-income settings. Little is known about what roles fathers play in the care seeking processes or how they interact with the health system when their child is sick. This study aimed to understand Ethiopian fathers' roles and responsibilities in caring for their children when they are or become ill.

Design: Qualitative study using semi-structured interviews with fathers.

Setting: This study was conducted in three rural districts of the Southern Nations, Nationalities and People's Region of Ethiopia.

Participants: Twenty-four fathers who had at least one child between 2 and 59 months who visited a health extension worker with fever.

Results: The overarching theme was "Changing perceptions of paternal responsibilities during children's ill health". It constituted three sub-themes, namely "Fathers' burden of earning money for care", "Fatherhood entails advocating children's health care needs" and "Investing in children's health can benefit the family in the future". Fathers described that they were the ones mainly responsible for the financial arrangement of care and that this financial responsibility can involve stress when resources are scarce. Fathers knew what health services were available and accessible to them and were involved in different ways in the care-seeking of the child. Changes in the importance ascribed to child health were expressed by fathers who described being more alert to children's ill-health.

Conclusion: Fathers play various roles in the care-seeking process during children's illness episodes. This included for instance arranging resources to seek care, (co-)deciding where to

seek care as well as accompanying the child to the health facility. The inability to organise necessary resources for care can lead to involuntary delays in care-seeking for the child. This demonstrates the importance of including fathers in future interventions on maternal and child health.

STRENGTH AND LIMITATIONS OF THE STUDY

- This study distinguishes itself from others by only focusing on fathers and their perceived roles and responsibilities in the care seeking for sick children, which is an underrepresented area in child health research.
- This study used a nested stratified sample and included 24 fathers from highest and lowest socio-economic quintiles and with few (1-2) or many children (3+) in order to provide rich information.
- We sought to mitigate a social desirability bias by having the interviews conducted by male interviewers in two local languages.
- We did not conduct interviews with mothers to confirm the fathers' responses.

INTRODUCTION

Annually approximately 5.3 million children die worldwide before reaching their fifth birthday. Most of these deaths occur following the neonatal period and are caused by diseases such as malaria, pneumonia and diarrhoea [1]. It is further estimated that malnutrition contributes to almost half of child deaths under the age of five and that many of the childhood deaths could have been prevented with simple, effective and available interventions [1]. Nevertheless, caregivers of sick children in poor communities often face obstacles in seeking healthcare, such

as lack of money or distance to the care facility [2, 3]. Evidence from Ethiopia shows that only 35% of children with fever and 44% of children with diarrhoea in the previous two weeks were brought for treatment [4].

Decision making processes regarding child health care are complex. Although mothers have historically been seen as responsible for their children and their health, multiple studies from low-resource settings show that women, as compared to men, have relatively low decision-making power when it comes to health care decisions for themselves and their children [5-8]. A study from The Gambia [9] states that mothers decided when to take the child to the hospital for cerebral malaria in only around 7% of the cases. Other studies confirm that it is mainly the father who makes the final call on where and when to seek health care [9-11].

The important role of fathers in child health and development is becoming better understood and appreciated. Literature shows that involved fathers are associated with different positive outcomes, such as knowledge of newborn danger signs among mothers, skilled birth and attendance of antenatal care visits [12-14]. Some countries have therefore started to address the involvement of fathers in their road maps to reduce maternal and child morbidity and mortality [15, 16]. Yet, in low-and middle-income countries only a minority of fathers has been said to be engaged with their children [17]. Yet different forms of engagement and types of fathers exist. In a study conducted in Ethiopia, fathers were categorised into three different groups, depending on their perceptions, practices, and challenges towards routine child care and feeding [18]: 1) Traditional fathers who "*do not feel part of routine child care, and they fully believe child care is only the mothers' responsibility*"; 2) Transitional fathers who "*perceive child care as being both the mothers' and fathers' responsibility*", but under different conditions (e.g. availability of the father or occupied mother), meaning the father does not completely feel responsible for child care and 3) Modern fathers who "*perceive child care and child feeding as a shared responsibility between mother and father"* and who are totally involved in their child's

life. This indicates that not all fathers are alike and that differences in their roles can exist between them.

A number of studies from Africa have shown that fathers are often the main decision-maker or breadwinner of the family and responsible to pay for healthcare costs [10, 11]. Yet little is known otherwise about what roles they take on in the care seeking process for their children or how fathers interact with the health system when their children are sick. Therefore, this study aims to understand fathers' roles and responsibilities in care-seeking for children in rural areas of the Southern Nations, Nationalities and People's Region in Ethiopia.

MATERIALS AND METHODS

The reporting of the methods has been guided by the criteria for reporting qualitative research (COREQ) guidelines [19].

Setting

The interviews were conducted in Damot Gale, Boloso Sore and Halaba Special Woreda, three *woredas* (districts) of the Southern Nations, Nationalities and People's Region (SNNPR) of Ethiopia. The population of Ethiopia, similar to these three woredas, is predominantly (~80%) living in rural areas. SNNPR is a very ethnically diverse region, inhabited by more than 80 different ethnic groups. To improve primary health care services in the country, particular in rural areas, Ethiopia has been implementing a health extension program since 2003 [20]. Central to the program are health extension workers (HEW) who are trained for 12-months and subsequently employed by the government to work in health posts directly in and with the community [20, 21]. HEWs are women with at least a grade 10 education. Typically two HEWs

are assigned to one health post, serving an estimate of 3,000 - 5,000 people [20, 21]. HEW provide key health promotion and prevention services, as well as a selection of curative services; all services are free of charge [21, 22]. Although health posts are placed directly in a community, travel distances can vary from a walking distance of a few minutes to an hour or more [23]. At the time of this study there were 150 health posts in the study area with a total of 284 HEW.

Child mortality rates in Ethiopia have been decreasing over the years and currently stand at 55.2 per 1000 live births, with mortality rates in SNNPR higher than the national average [4, 24]. Traditional gender roles persist, particularly in rural areas, with a minority of women reporting having the right to decide on their first marriage and having their husband help with household chores. Around 40% use modern contraceptives including sterilisation, contraceptive pills, condoms and implants, and even fewer, less than 30%, give birth in a health facility [4]. Twenty-eight per cent of women and 73% of men age 15-49 in the region work within the agricultural sector.

Study design and data collection

This qualitative study was nested within a community-based cluster randomised controlled non-inferiority trial (cRCT). The design and results of this trial are published elsewhere, as is the qualitative evaluation of HEW's and caregivers' perception of the recommendations [25-27].

For this study, twenty-four semi-structured interviews were conducted with fathers who had at least one child aged 2 to 59 months presenting to the HEW with fever. Half of the interviews (n=12) were conducted in Halaba *woreda*, eight in Boloso Sore and four in Damot Gale. Boloso Sore and Damot Gale are culturally and linguistically similar which is why they together represent half of the fathers interviewed.

The sampling method was based on the assumption that health seeking practices and fathers' decision-making power could differ by socio-economic position and number of children. We therefore used stratified sampling to select half of the fathers from the lowest and the other half from the highest socio-economic quintile. Socio-economic quintiles were based on caregivers' responses to questions about household assets, e.g. material of the house, toilet facility used, availability of TV/radio or electricity in general. It should be kept in mind that a high socio-economic quintile in this study is not equivalent to a high socio-economic status. Fathers in the high socio-economic quintile can still be considered poor. Within the two strata, fathers with few children (1-2) and fathers with multiple children (3 or more) were invited for an interview to maximise the level of heterogeneity among the fathers. However, the information on number of children reported in the cRCT did not always tally with the number of children mentioned by the father during the interview, which is why most fathers (n=19/24) in this study had three or more children. Once the father was randomly selected within each stratum, contact was established through the HEW and fathers were personally visited in their community. When fathers were not at home, contact was established via phone or with help of the HEW in the community. Fathers were asked whether they would be willing to participate in the study. All 24 fathers agreed to participate, but two were not able complete the interview due to time constrains.

An interview guide was developed informed by literature on health care seeking and gender roles. It started with introductory questions about the father and the household to explore fathers' educational background, profession and family composition. While this part was rather structured, the interview guide then followed with open ended questions regarding fathers' practices on the following issues: seeking advice or discussing health matters with other family or community members; fever in children and fathers' understanding of fever; fathers' knowledge on health providers in the community; their decision-making around health services

and drivers that influenced their seeking health care. The interview ended with asking fathers to compare care-seeking between different households and changes in practices and roles of fathers over time. The interview guide was prepared in English and subsequently translated into Amharic.

Three male interviewers conducted the interviews, two in Boloso Sore and Damot Gale and one in Halaba. The interviewers were selected based on their experience in qualitative research, English proficiency, and educational background in health sciences. In Halaba, a male interpreter was recruited for translations from Amharic to Halabigna (local language of Halaba) as the interviewer was not familiar with the local language. In Boloso Sore and Damot Gale interviews were conducted in Wolaitegna by two interviewers who were from the district and thus familiar with the area and language. No interviewer met the fathers before the conduction of the interviews.

All interviewers and the interpreter received a half-day training from authors TF and AA. The training provided insights into the research background, the aim of the study and the sampling of fathers. In addition, the interview procedure was thoroughly explained and the interview guide and all questions were reviewed and discussed in detail. The importance of probing and non-leading questions was emphasized. At the end of the training, any remaining language issues were addressed as the interview guide was prepared in Amharic but the interviews were conducted in the local language. After the training, every interviewer conducted one pilot interview and changes to the interview guide were made accordingly. Based on the pilot interviews, interviewers received oral feedback on how to improve their interviewing and the purpose of certain questions was repeated in order to improve the direction of their probing questions.

The interviews were conducted in March 2017 and took between 34 and 70 minutes, with interviews using an interpreter taking longer. All interviews were conducted in a quiet place outside; the majority took place close to the father's home. Fathers were aged between 20 and 50 years and the number of children ranged between one and fourteen (see Table 1). In Halaba, multiple fathers had two wives. The majority of fathers were farmers.

All 24 interviews were digitally recorded, transcribed in Amharic and translated into English. The interviewers in Boloso Sore and Damot Gale preferred to transcribe the interviews directly in Amharic instead of Wolaitegna, due to the difficulty in writing the local language. After their participation in the interview, fathers received 122.5 Birr in cash (~5.5 USD) to compensate for their time. This amount equals the common local Malaria Consortium lunch allowance.

Table 1 Characteristics of study participants

ID	Age	Woreda	Socio-economic quintile	Reported number of children	Language interview was conducted in*	Length of interview (in min)
1	45-54	Halaba	Highest	11	Halabigna	50
2±	35-44	Halaba	Lowest	8	Halabigna	40
3	45-54	Boloso Sore	Highest	12	Wolaitegna	59
4	45-54	Boloso Sore	Lowest	7	Wolaitegna	60
5	25-34	Boloso Sore	Lowest	6	Wolaitegna	39
6	35-44	Damot Gale	Highest	8	Wolaitegna	52
7	25-34	Halaba	Lowest	2	Halabigna	61
8	35-44	Damot Gale	Lowest	9	Wolaitegna	51
9	35-44	Halaba	Lowest	12	Halabigna	55
10	25-34	Boloso Sore	Highest	4	Wolaitegna	49

11	45-54	Boloso Sore	Lowest	7	Wolaitegna	49
12±	35-44	Halaba	Lowest	14	Halabigna	40
13	25-34	Halaba	Highest	3	Halabigna	64
14	< 25	Boloso Sore	Lowest	1	Wolaitegna	46
15	< 25	Boloso Sore	Lowest	1	Wolaitegna	51
16	35-44	Halaba	Highest	8	Halabigna	70
17	35-44	Damot Gale	Highest	3	Wolaitegna	51
18	35-44	Damot Gale	Highest	7	Wolaitegna	46
19	35-44	Halaba	Highest	6	Halabigna	40
20	45-54	Halaba	Highest	3	Halabigna	50
21	25-34	Halaba	Highest	9	Halabigna	45
22	N/A	Boloso Sore	Highest	2	Wolaitegna	34
23	35-44	Halaba	Lowest	5	Halabigna	45
24	25-34	Halaba	Lowest	2	Halabigna	50

**Interviews in Halaba were conducted using an interpreter (from Halabigna to Amharic)*
±Interview was not completed

Ethical approval

This study was nested within a cRCT that was approved by the SNNPR Health Bureau Research Ethical Review Committee (P02-6-19/4511). The trial is registered as NCT02926625. Written and oral consent was obtained from all study participants. Confidentiality was ensured and the aim of the study was explained to the fathers prior to the interview. They were informed about the option to decline participation or drop out of the interview without any consequences.

Patient and public involvement

There was no involvement of patients/interviewees or the public in setting the research agenda or formulating interview guides.

Data analysis

All 24 father interviews were included in the analysis, although two fathers did not complete the interview. As these two fathers did answer a number of questions, it was seen as appropriate to include the material provided by them in the analysis, even though it was not fully completed. The transcripts were read multiple times and codes to the material were applied using the qualitative data structuring software Nvivo version 11. Interviews were analysed using content analysis [28]. The analysis was an iterative process involving reading of literature and repeated reading of interview transcripts. The coding process was done in steps. TF conducted the initial coding and discussions took place with HMA. After each meeting, changes to the codes were made. Finally, codes were grouped, and themes identified, which were again discussed between authors TF and HMA. All father interviews were analysed together, meaning that no stratification by socio-economic quintiles and number of children of fathers (strata used for the sample selection) took place for the analysis. However, after the coding of the data was done, it was checked whether fathers from different strata were represented in each theme.

RESULTS

Three sub-themes emerged from the data: 1) Fathers' burden of earning money for care, 2) Fatherhood entails advocating children's health care needs, and 3) Investing in children's health can benefit the family in the future. The results are presented according to these themes and fed into the overarching theme of "Changing perceptions of paternal responsibilities during children's ill health".

Fathers' burden of earning money for care

Fathers described their roles and responsibilities in care-seeking for children mostly in terms of financial responsibilities. They explained that their main role as father was to work and earn money to be able to finance health care costs and, when necessary, transportation to the facility. Fathers felt strongly that "*money matters*" when it comes to seeking care for children. Nevertheless, it was explained that they often did not have the necessary resources at hand to finance health care costs. This was expressed by fathers from both socio-economic strata, lowest and highest socio-economic quintile. Most fathers interviewed mentioned that health care costs are financed through work or selling goods, animals or land. When not enough money could be arranged, fathers would make other arrangements, such as borrowing money to pay for health care costs. Fathers would either borrow money through *idir* [a financial community support system where members can regularly contribute small amounts of money and in return are able to borrow some money in case of need] or from family and friends. Mothers were often, but not always, described as not having their own income source that could contribute to health care expenses. Furthermore, mothers generally were described as having difficulties in borrowing money as even though they would try to obtain a loan, they would often not receive one [from *idir*]. Consequently, the burden on arranging resources for treatment was, according to the fathers, mainly placed on them. The financial stress that fathers experience was described by this father:

We have idir where we save some amount of money regularly. I have to pay back the money within 10 to 15 days. In case they don't allow me [to borrow money] due to some inconveniences, I borrow from friends, relatives, particularly from my grandmother. But the reality is that I borrow again before I paid back the first loan. (ID 8; lowest socio-economic quintile; 3+ children)

One father also emphasised that it was easier for fathers with a better financial situation to borrow money compared to fathers with few resources, which further emphasised the financial worries that fathers were faced with.

The father with better financial resources can take his children to health providers easily. Even if he doesn't have the money, he can borrow it easily because people believe that he can pay it back. But if the poor wants to borrow money from friends or other people, people are not happy to give him [money] because they are wondering 'from where is he going to pay me back?' (ID 4; lowest socio-economic quintile; 3+ children)

In addition, fathers also mentioned that care-seeking for their child can be delayed if they have no money at hand, and sometimes it could take several days to find the necessary resources to finance health care costs. Consequently, it was expressed that even if a father wanted to seek care immediately, this was not always possible. Fathers from both socio-economic strata mentioned such financial worries and constraints.

[…] if we go to [name of] hospital, we may pay up to 1000 birr (~36 USD). Even if we only stay one night there, they charge us 700 up to 800 birr (~25-30 USD). The more we stay there, the more money we are expected to pay. If we don't have money, we are left with staying home with the sick child and praying to God. (ID 15; lowest socio-economic quintile; 3+ children)

Fatherhood entails advocating children's health care needs

Fathers were well aware of the different health services available to their children, whether it was the health post, health centre, private or traditional providers. They stated that they discussed with their wives on what actions to take and where to take the child when it is sick.

However, many of them still saw themselves as the ultimate decision maker whose suggestion will be followed.

Since I bear more responsibility as father on my family's affairs, it is my decision that needs to be adhered to. Since she [wife] doesn't have an income generating work and we solely depend on the income I get, it is me who decides over issues. (ID 15; lowest socio-economic quintile; 3+ children)

Different factors can influence the choice as to which provider a child is taken. The type of illness the child has can be such a factor. When the child was suspected of having a bone fracture or a dislocation, multiple fathers explained that traditional healers also referred to as "*bone setter"* are the first choice of treatment. If the traditional treatment is not effective, other sources of treatment will be sought. For other types of illnesses, a father would directly take the child to a different health provider, such as the health post.

Money was also explained to be a decisive factor in the care-seeking process. According to fathers the availability of money and resources provides a freedom in choosing a health provider for the child's health condition. This freedom is constrained if resources are scarce.

Rich [people] take sick children directly to hospital. But since poor [people] have no money, they take [the child] to the health post. They only take [the child] to the hospital when its condition is life threatening. (ID 8)

Multiple fathers seemed to prefer the health centre over the health post, because more and better treatment was believed to be available there. It was stressed that the general perception is that treatment was better in urban areas and also faster at private providers, though private providers were expensive and described as business-oriented. Nevertheless, if the money was available, some fathers still preferred private services over public facilities. Fathers observed a formal care chain (or "*hierarchy")* in health care. They described that health centres expected them to

have a referral slip from the health post, making it harder for them to directly access treatment at the health centre. This was seen as an obstacle in seeking care.

The responsibility for bringing or accompanying a sick child for treatment was unclear. Bringing the child to a health post for treatment was first seen as being a responsibility of the mother. Mothers were described to be responsible for bringing the children who were breastfed to the health provider, whereas fathers claimed to rather accompany older children that could walk or sit on a motorcycle to the health provider. Whether or not a father brought or accompanied a child to a health facility also depended on the health facility in question. One father explained that the mother sought care at the health post alone, but fathers needed to be consulted to seek care at the health centre or higher-level facilities, often implying more severe illnesses and higher costs.

When the mother notices that the child is sick, she takes her [the child] to health post. If the health post advises her [the mother] to take the child to the health centre [i.e. refers the child as the health problem is not identified or manageable at community level], she returns back and waits for my return. After I return back to home, we together take the child to the health centre together. (ID 15; lowest socio-economic quintile; 3+ children)

If the child needed to stay at the hospital, a father described it as his role to stay with the child. In addition, the arrangement of the transportation to the health facility was, according to some fathers, also their role.

Investing in children's health can benefit the family in the future

Behaviours of fathers with regards to seeking care for children has changed over time. It was explained that fathers today are more involved in child health matters compared to the past and that they do not leave this issue entirely up to the mothers anymore. Fathers stated being more alert about changes in health status of their children and that they will not rely only on faith to

cure the child.

I can say that the love I have to my children is stronger than the mother's love. Due to that reason, I also closely follow their [the children's] health situation. (ID 4; lowest socio-economic quintile; 3+ children)

A couple of fathers pointed out the value that children have and can bring in the future, for instance through working and supporting the family financially. Consequently, fathers stated they paid more attention to their child's health status and made sure that they recovered.

In past time, there were widely held assumptions among fathers that a child will grow by his fate so that no worries are needed. But this belief is changing as those sons and daughters that work at urban centres and abroad send [money] and augment their family's income. Children now are believed to be assets and obtain great care. So fathers are alert whenever they observe changes in their children's health. (ID 18; highest socio-economic quintile; 3+ children)

Fathers also observed changes in the health services over time. They noticed that health posts that are now existing in their community were not available in the past.

DISCUSSION

This study indicates that fathers are involved in the care-seeking of their sick child in different ways. This includes bearing the main responsibility for arranging financial resources to enable a health care visit and this responsibility can imply stress and financial concerns when resources are scarce. Fathers are well aware of the health services available to their children and they described being involved in the care-seeking process in different ways, e.g. (co-)deciding where to take the child or accompanying their child to the health facility. Fathers explained that

changes in fathers' perception on children and their involvement have taken place. They described themselves being more aware of the health status of their children and more involved in child health matters compared to the past.

This transitional change in fathers' perceptions of their children has been described in another study conducted in Ethiopia [29]. Multiple fathers interviewed in this study would fit into the "transitional fathers" category. According to them, child health issues are not seen as only a task of the mother anymore. It seems as if these fathers acknowledge these responsibilities as being part of their role as father. The findings of this study show that not all fathers take on the same roles in care-seeking for children. This suggests that roles in these rural areas are changing and that with continuous country efforts, fathers' roles as caregiver could be strengthened.

Also, the phrasing of the last theme "Investing in children's health can benefit family in the future" seems very timely, considering that a recently published report by the WHO-UNICEF-Lancet Commission highlights the importance and benefits of investing in children [30]. It is noteworthy that fathers did not only observe changes in paternal behaviour, but also appreciated changes in the availability of health services, e.g. the establishment of a health post in their community.

The responsibility of fathers for household finances and financing of care have been described in multiple previous studies [10, 11, 31-33]. This study coincided with these findings, but also shed light on the burden that this responsibility brings when a child is ill. The reality described by fathers was that often resources were not available to finance health care costs, and that in many cases fathers needed to borrow money again before having paid back their first debt. It appears to be a vicious circle in which particularly very poor fathers are placed, and demonstrates the difficult situations that these families go through in times of sickness. It is important to stress that both groups of fathers (highest and lowest socio-economic quintile)

expressed concerns in arranging resources and money and would compare themselves with better-off fathers. The comparisons expressed by these fathers therefore do not refer to a comparison between the two socio-economic quintile groups in this study.

The inability to arrange money to pay for health care costs can lead to involuntary delays in care-seeking. The link between costs and delayed health care has been previously described in the literature [34, 35]. These findings suggest that besides educating parents on danger signs and when to seek care, it is very important to have health care infrastructure in place and health facilities accessible to the communities. The Sustainable Development Goal 3.8 touches upon this as it aims to "achieve universal health coverage, including financial risk protection [and] access to quality essential health-care services (…)" [36]. In order to further improve maternal and child health, health services should be made accessible to all, both physically and economically [37].

In this study multiple fathers stated that they discuss and decide together with their wives on what to do when their child is sick. Nevertheless, many of these fathers still saw themselves as final decision-makers whose opinions should be adhered to. Literature supports that fathers often are the decision-maker of the household [9, 11], which raises questions on the true influence of mothers' opinions on the decision-making processes. It is known that fathers play an important role in a children's development. Positive involvement of fathers can impact not only children's cognitive skills, but also their social competences and behavioural or emotional outcomes [38-40]. This shows, together with fathers' important role as decision-maker and breadwinner in the care-seeking process, that there is a strong need for including fathers in future interventions aimed at improving maternal and child health. It is thereby crucial to consider that many fathers spend much of their time away from home because of their work. Interventions need to be formulated accordingly.

Another interesting finding of this study was that fathers were not only involved in household decision-making and finances, but were also directly in contact with the health system for their children. Fathers were not only well aware of the different health providers available or accessible to them, but also described bringing the child to the health facility or accompanying the mother. We did not come across a study that discussed similar findings.

STRENGTHS AND WEAKNESSES

This study focussed on fathers of both low and high socioeconomic quintiles in order to contribute to current literature as fathers remain underrepresented in child health research. We conducted interviews in the local language in Boloso Sore and Damot Gale but in Halaba we overcame language diversity through use of a local interpreter. Two interviews in Halaba were not finalised due to other obligations of the father. As these selected fathers have not been replaced, some information was lost. However, due to the large number of interviews conducted we have obtained sufficient information. Multiple findings of this study coincided with previous literature. We thus assume that these findings are transferable to communities with similar family structures and cultural contexts and health systems. Furthermore, a social desirability bias (e.g. father claiming to be more involved in the care-seeking process than they actually are) cannot be excluded with certainty in this study. Also, we did not conduct interviews with mothers to check or confirm fathers' responses. Nevertheless, we aimed to mitigate the chances of a desirability bias by using male interviewers. We therefore believe that the information provided does reflect their roles and perceptions well.

CONCLUSIONS

Fathers play an important role in the care-seeking process of their children. Not only do they have decision-making power and the financial responsibility, but they are also otherwise

involved in the care-seeking process, such as arranging transportation or accompanying the child at times to the facility. Fathers are familiar with the health services available to their children and even noticed positive changes in the paternal involvement in childcare, as well as availability of health services through the establishment of health posts in their communities. Efforts need to be made to continue the observed positive trend in fathers' involvement in care seeking described in this study. Future research on maternal and child health needs continue considering and highlighting fathers' roles and responsibilities. The inability to organise necessary resources for care can lead to involuntary delays in care-seeking for the child. It is therefore crucial to continue strengthening health care systems and making health services more accessible to communities, both physically and financially.

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COMPETING INTEREST

The authors declare that they have no competing interest.

AUTHORS' CONTRIBUTION

All authors were involved in conceiving and designing the study. TF, KK, TA and HMA developed the study plan and formulated the interview guide. TF and AA were training the interviewers and following the interview process. TF and HMA analysed the interviews. TF wrote the paper together with all other authors. All authors read and approved the final version of this paper.

DATA SHARING STATEMENT

All relevant data for this study are included in this paper. To protect the anonymity of our respondents, full transcripts will not be provided.

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COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research team and reflexivity			
Personal characteristics			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	
Credentials	2	What were the researcher's credentials? E.g. PhD, MD	
Occupation	3	What was their occupation at the time of the study?	
Gender	4	Was the researcher male or female?	
Experience and training	5	What experience or training did the researcher have?	
Relationship with participants			
Relationship established	6	Was a relationship established prior to study commencement?	
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	
Interviewer characteristics	8	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	
Domain 2: Study design			
Theoretical framework			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	
Participant selection			
Sampling	10	How were participants selected? e.g. purposive, convenience, consecutive, snowball	
Method of approach	11	How were participants approached? e.g. face-to-face, telephone, mail, email	
Sample size	12	How many participants were in the study?	
Non-participation	13	How many people refused to participate or dropped out? Reasons?	
Setting			
Setting of data collection	14	Where was the data collected? e.g. home, clinic, workplace	
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	
Description of sample	16	What are the important characteristics of the sample? e.g. demographic data, date	
Data collection			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
Repeat interviews	18	Were repeat inter views carried out? If yes, how many?	
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	
Field notes	20	Were field notes made during and/or after the inter view or focus group?	
Duration	21	What was the duration of the inter views or focus group?	
Data saturation	22	Was data saturation discussed?	
Transcripts returned	23	Were transcripts returned to participants for comment and/or	

Topic	Item No.	Guide Questions/Description	Reported on Page No.
		correction?	
Domain 3: analysis and findings			
Data analysis			
Number of data coders	24	How many data coders coded the data?	
Description of the coding tree	25	Did authors provide a description of the coding tree?	
Derivation of themes	26	Were themes identified in advance or derived from the data?	
Software	27	What software, if applicable, was used to manage the data?	
Participant checking	28	Did participants provide feedback on the findings?	
Reporting			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	
Data and findings consistent	30	Was there consistency between the data presented and the findings?	
Clarity of major themes	31	Were major themes clearly presented in the findings?	
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.