

Original articles

Barriers and facilitators in treatment seeking for children under-five years suffering from diarrhoea diseases: a qualitative research in an urban high-density township in Blantyre, Malawi

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Background

Early detection and treatment of childhood infections are crucial for preventing disease progression and reducing mortality among children under five years of age. However, evidence shows that only about 46% of Malawian caregivers seek prompt medical care for childhood illnesses such as diarrhoea. This study explored the factors influencing caregivers' care-seeking behaviour for children under five with diarrhoea at Bangwe Health Centre in Blantyre, Malawi.

Methods

A qualitative study was conducted using 15 in-depth interviews with caregivers of children affected by diarrhoea. The interviews were conducted in Chichewa, audio-recorded with participants' consent, transcribed verbatim, translated into English, and analysed thematically. Sampling continued until thematic saturation was reached.

Results

Four main themes were identified. Individual factors, particularly the child's health status, encouraged early care-seeking, whereas limited awareness of the importance of early treatment contributed to delays. Health system barriers, including staff shortages, negative attitudes of healthcare providers, limited availability of medicines, and long waiting times, further delayed access to care. Economic and geographical barriers, including travel costs and reliance on home remedies, also negatively affected care-seeking for childhood diarrhoea.

Conclusions

Improving the early diagnosis and treatment of childhood diarrhoea requires a holistic approach. Interventions should strengthen caregiver health literacy, improve health service delivery by addressing workforce and medicine shortages, and reduce geographical barriers through improved infrastructure and community-based services. These efforts are essential to improving child health outcomes in Malawi.

The mortality rate among children under the age of five remains a major global health problem, with an estimated 5 million deaths in 2021, mostly due to preventable diseases such as pneumonia, malaria, and diarrhoea.¹ Sub-Saharan Africa bears the burden, accounting for over half of the world's under-five mortality.² Diarrhoea is the main contributor to this problem, affecting over 1.7 billion children under five years of age every year and killing 525,000 of them.¹ In addition to mortality, recurrent diarrhoea contributes to malnutrition, stunting of growth, and cognitive

impairment, and thus compromises the long-term development of children in low-income settings.^{1,2} Poor access to clean water, inadequate sanitation, and limited access to healthcare exacerbate the disease burden, especially in rural and peril-urban settings.^{3,4}

In Malawi, the prevalence of diarrhoea among children under five years of age remains high at 24.9 percent, with the southern region having the highest prevalence (27 percent) compared to the northern region (19.3 percent).⁵ Children from low-income households are disproportion-

ately affected, reflecting the persistence of socioeconomic and geographical inequalities in the risk of illness and access to health care.⁵

To address these challenges, the National Research Agenda of Malawi highlights strengthening initiatives in the area of water, sanitation and hygiene (WASH), mobilising communities and expanding preventive and curative interventions.⁶ Preventive measures such as exclusive breastfeeding, rotavirus vaccination and improved use of WASH have been shown to reduce the incidence of diarrhoea.⁷ However, secondary prevention - through early detection and early treatment with oral re-hydration tablets (ORS) and zinc supplementation - remains important for the prevention of serious complications and mortality.⁷

Despite these efforts, many Malawian children still die at home without access to healthcare due to barriers such as financial constraints, long travel distances, and reliance on traditional remedies.⁸ Studies show that more than half of deaths among children under the age of five occur outside health facilities, underlining the continuing gaps in early care-seeking behavior.^{2,9} Understanding the barriers and facilitators that influence caregivers' treatment choices is therefore essential for designing interventions tailored to the context, thereby improving the use of healthcare and the survival of children.

The study looked at the treatment-seeking behaviour of caregivers of diarrhoea-infant children under five years of age in Bangwe Township, Blantyre. In particular, it examined individual, social, and health system factors that influence caregivers' decisions to seek or delay care. The findings of this study are intended to inform strategies for strengthening community-based interventions and reducing diarrhoea morbidity and mortality in Malawi.

METHODS

STUDY DESIGN

A qualitative design was used to explore barriers and facilitators influencing treatment-seeking behaviours in caregivers of diarrhea-infected children below the age of five years. This approach was appropriate to provide a thorough understanding of the perceptions, experiences, and decision-making processes of caregivers in their socio-ecological context. The study was conducted using the social ecological model (SEM), which conceptualises health behaviours as shaped by interrelated factors in the individual, interpersonal, community, and health system.

STUDY PARTICIPANTS

The study focused on the caregivers of children under five years of age who presented with diarrhoea at the Bangwe Health Centre during the period of data collection. For this study, the term caregiver was defined as any adult biological mother, father, grandparents, or guardians who had primary responsibility for the care of a child under five years of age. However, all 15 participants recruited were women

because during the time of recruitment, only women were present and willing to take part in the study.

SAMPLING AND RECRUITMENT STRATEGY

Participants were selected by purposive sampling to ensure that those with direct and recent experience of caring for a diarrhoea child were included. Recruitment took place in batches among caregivers who presented themselves in the outpatient ward of Bangwe Health Centre between 9 a.m. and 3 a.m. on weekdays. The inclusion criteria were: being the primary caregiver of a diarrhoea-diagnosed child under five years of age and willingness to give informed consent. The exclusion criteria included caregivers of children older than five years or those who were not willing to participate. Recruitment continued until the thematic saturation point, when no new insights could be drawn from further interviews. Saturation was observed after 15 interviews, in line with qualitative studies of a similar scale and context.

DATA COLLECTION PROCEDURES

Data collection was carried out in October 2023 using a semi-structured Interview Guide (IDI), which was developed in English and translated into Chichewa. All interviews were conducted in Chichewa by the first author (SS) and a trained research assistant (MP), both of whom are native speakers and familiar with the local culture and health system. The interviews were conducted in quiet, private areas inside or outside the healthcare facility, in accordance with the preference of the participants for comfort and confidentiality. Each interview took place over a period of approximately 30 to 45 minutes. With the consent of the participants, all interviews were audio-monitored and supplemented by field notes, which recorded non-verbal signals and context details.

RESEARCHER REFLEXIVITY AND POSITIONALITY

Both research assistants had previous experience in qualitative research and in community engagement in the area of health in Blantyre. Their professional knowledge of the health care context facilitated rapporteurs, but also required conscious consideration to minimise bias. To increase reflection, researchers kept reflective journals documenting assumptions, interactions, and analytic decisions throughout the entire data collection and analysis process. These reflexive comments helped ensure that the interpretations remained grounded in the participants' views, rather than in the researchers' expectations.

DATA MANAGEMENT AND ANALYSIS

All interviews were recorded in English verbatim in Chichewa and then translated into English by research assistants in order to preserve linguistic and cultural nuance. The transcripts were checked for accuracy and completeness before analysis. The analysis of the data followed the thematic analysis described by Braun and Clarke (2006), using NVivo 14 software for systematic data management

and coding. The process involved six iterative steps: data validation, code generation, search for themes, review of themes, definition and naming of themes, and report. The two authors coded the first three transcripts independently to increase reliability, then discussed the new codes to reach a consensus. The coding was both inductive (based on the participants' stories) and deductive (based on the SEM framework).

The themes were refined iteratively to ensure internal consistency and consistency with the objectives of the study. The final thematic structure reflected the impact at several levels: individual, interpersonal, community, and health systems, in line with the social ecological model. Representative verbatim quotes have been included to illustrate the main findings and to preserve the authenticity of the voices of the participants.

RESULTS

The analysis showed that caregivers' treatment-seeking behavior is influenced by interrelated factors at the individual, interpersonal/community, and health system levels, in line with the social ecological model.

INDIVIDUAL FACTORS

PARENTAL CONCERN FOR CHILD'S HEALTH

Caregivers' concern for their child's health has emerged as a key facilitator of early treatment. The decision was often influenced by the perceived severity of symptoms such as fever, dehydration, or vomiting, which instilled a sense of urgency and responsibility. Increased parental vigilance and emotional distress have motivated caregivers to seek early professional attention when symptoms have become severe.

One participant said, "She was also very weak, so my husband, fearing that her illness was worsening, rushed her to the hospital to get medical help". [IDI015]

LACK OF AWARENESS OF EARLY TREATMENT IMPORTANCE

On the other hand, limited knowledge of the importance of early intervention delayed treatment by some caregivers. Lack of regular health education by community health workers has led to an underestimation of the disease's severity. Low health education and awareness lead to the late recognition of signs and symptoms of diarrhoea, contributing to delayed care-seeking.

One participant said, "Since I came here, the community health workers have never come to give us any health education messages concerning diarrhoea or any other disease; we just see them passing." [IDI011]

INTERPERSONAL AND COMMUNITY-LEVEL FACTORS

FAMILY INFLUENCE

Family members, particularly spouses, have played a key role in improving care-seeking behaviour. Some participants said their husbands encourage them to seek urgent medical attention for their children whenever they see that they are showing signs and symptoms of diarrhea disease. Spousal influence could either facilitate or delay treatment, reflecting the importance of the dynamics of household decision-making.

One participant said, "I talked to my husband before coming here. He wanted to go to a pharmacy and buy drugs. But I refused, insisting that I should take the child to a clinic first, so we know whether it is diarrhoea or cholera. Then he agreed to come here first." [IDI009]

COMMUNITY INFLUENCE

Neighborhoods and friends' advice also influenced caretaking behavior. Some advocated immediate medical intervention based on previous experience, while others advocated waiting until symptoms abated, often based on cultural norms or distrust of medical institutions. Social networks provide influence, either reinforcing timely treatment or promoting risky delays due to misinformation and cultural beliefs.

One participant said, "When I noticed that she was having diarrhoea, based on what I heard from my friends that it is not good to rush to the hospital during the early stages of diarrhoea, I went to the clinic after three days." [IDI014]

HEALTH SYSTEM FACTORS

POSITIVE PROVIDER–PATIENT RELATIONSHIPS

It has been found that Caregivers felt more confident and more willing to return to the healthcare facility because the staff at the facility were respectful, listened to their concerns, and provided care promptly. Positive and sympathetic interaction has built up their confidence in the system and encouraged them to seek care again in the future.

One participant said, "The health workers welcomed me very well, and there was no problem. The moment I got there, the child was taken to the laboratory; from there, she was given an injection and some drugs." [IDI003]

However, if health professionals are dismissive, neglectful, or do not respond to concerns of caregivers, parents often feel discouraged and may avoid returning to the institution. These negative experiences reduce their motivation to seek early treatment for their diarrhoea children. Some caregivers express displeasure with how some health workers treat them when seeking medical care, especially for diarrhea.

One participant said, "Sometimes when we come here, some nurses are busy on their mobile phones instead of

attending to patients... it discourages us from coming back when the child gets sick." [ID1009]

Confidence in the health care system has been strengthened by positive interactions with providers, but eroded by unprofessional behavior.

LONG WAITING TIMES

Participants reported that staff shortages and overcrowding of the clinics often led to long waiting times, which affected their ability and willingness to seek emergency care. They explained that the limited number of doctors, combined with the high number of patients, often caused bottlenecks at the point of service and delays in the treatment. Long waiting lists and insufficient staff reduced trust in caregivers in the effectiveness of the public health system.

One participant said, "When there are many people at the clinic on that day, and the clinician is alone, he/she cannot manage to help everyone... so we usually find the clinician very busy, which makes people wait a long time before being assisted." [ID1010]

LACK OF PROFESSIONALISM

Some participants described situations where some health-care workers seemed distracted, engaged in telephone conversations while the caregivers tried to explain the symptoms of the child. This behaviour not only made caregivers feel unappreciated but also raised concerns about the accuracy of the assessments and the overall quality of care. This perceived lack of attention undermined the trust of caregivers in healthcare professionals and sometimes discouraged the timely seeking of help, as some felt their concerns would not be taken seriously. The perception of negligence and unprofessional behaviour by healthcare providers undermines the trust of caregivers in the healthcare system, discourages future visits, and reduces their confidence in healthcare professionals.

One participant said, "Sometimes we come here and go back home without receiving the required treatment. Some health workers may watch you without paying attention; they are always busy with their phones." [ID1014]

RECURRENT MEDICINE SHORTAGES

The frequent lack of availability of basic medicines forced the caregivers to purchase medicines from private pharmacies, often at higher prices. This not only imposes additional financial burdens, especially for low-income households, but also delays seeking treatment, as some caregivers have to spend time looking for funds or finding affordable pharmacies. These repeated shortages have contributed to frustration and reduced trust in the health care system.

One participant said, "In most cases, when we come here, we are told to go and buy drugs from private pharmacies. Sometimes this makes us go to these pharmacies when our children are unwell without visiting the hospital." [ID1001]

LONG DISTANCES AND POOR TRANSPORT NETWORK

Geographical barriers, including long distances and poor road infrastructure, have severely restricted the ability of caregivers to seek timely care. Participants explained that long distances to the health center negatively affect them to seek prompt medical care, particularly in case of emergency or bad weather.

One participant said, "We are poor. Our children can get sick without us taking them to the hospital due to a lack of transportation money. Some of us stay far from this clinic, and sometimes we fail to come to access treatment." [ID1015]

All three levels of the social ecological model, findings suggest that the search for treatment of childhood diarrhoea is influenced by the interaction of personal motivation, social context, and systemic determinants of health. While caregivers' concern for their child's well-being has often facilitated early intervention, barriers such as lack of information, social misinformation, inefficiencies in health care, and logistical constraints have collectively undermined early access to care.

DISCUSSION

The study examined the complex interactions between individual, community, and healthcare system factors that influence the treatment behavior of children under five years of age with diarrhoea. The findings highlight how socioeconomic factors converge to facilitate or prevent the rapid uptake of health care. Addressing these determinants through better health education, community involvement, and strengthening the health system is essential to reducing diarrhoea morbidity and mortality in Malawi.

Caregivers' perception of the severity of the illness strongly influenced their decision to seek treatment. If children showed symptoms such as high fever, vomiting, or dehydration, caregivers were more likely to take immediate measures to treat them. This is consistent with the health belief model, which suggests that perceived seriousness and vulnerability are powerful motivators for health-seeking behavior.¹⁰ Similar findings were reported in Tanzania, where the severity of the disease led to the need for urgent care by caregivers.¹¹ However, the study found that caregivers often fail to act in the early stages of the disease, which suggests a lack of awareness of early warning signs. As the World Health Organisation (WHO) points out, early intervention can prevent most diarrhoea complications, but this requires improved health literacy and trust in the ability of caregivers to recognise the warning signs.¹²

A recurring problem identified was the lack of community-based health education. Participants noted that the involvement of community health workers was limited, which resulted in poor dissemination of information on the prevention of diarrhoea and early treatment of it. According to the Nutbeam model of health literacy, effective health education should not only provide information but also develop the critical and operational skills to make informed

Figure 1. Conceptual framework of barriers and facilitators to treatment-seeking for childhood diarrhoea (adapted from the social ecological model)

INDIVIDUAL	INTERPERSONAL/COMMUNITY LEVEL	HEALTH SYSTEM LEVEL
☐ Parental concern ☐ Symptom severity ☐ Low awareness	☐ Spousal influence ☐ Family advice ☐ Social norms	☐ Provider attitude ☐ Waiting time ☐ Drug stock-outs ☐ Distance/transport ☐ Conflicting advice

health choices.¹³ The lack of such engagement reflects a missed opportunity to change attitudes. Strengthening education and outreach in the community could close this gap in knowledge and empower caregivers to act quickly when symptoms occur.¹⁴

Social networks have played a dual role in influencing the decision-making process on care. Supportive advice from family and friends encouraged prompt use of health care, but misinformation sometimes delayed treatment. Similar patterns were observed in Uganda, where family influence can facilitate or impede treatment choices depending on prevailing norms and beliefs.¹⁵ These findings highlight the need for community-based interventions that use trusted social networks to promote positive health behaviours while countering misinformation.

Barriers to health systems, such as long waiting times, shortages of medicines, and insufficient staff, have further limited timely treatment access. These problems mirror findings in Ethiopia, where similar systemic inefficiencies have led to delays in or abandonment of treatment by caregivers.¹⁶ In Malawi, recurrent shortages of basic medicines and a lack of human resources continue to hamper the provision of services.¹⁷ Strengthening the capacity of health systems through better supply chain management, incentives for staff, and a fair allocation of resources is crucial to restoring public confidence in the health system.

Geographic barriers have also played a significant role in shaping care behaviour. Long distances to health facilities, combined with poor road infrastructure and high transport costs, limit early access to healthcare, especially for low-income households.¹⁸ Evidence shows that caregivers in remote Malawian settings often resort to home remedies due to these constraints, which increases the risk of serious health complications.¹⁸ The expansion of mobile health clinics and community information services could alleviate these problems by bringing basic care closer to underprivileged communities.

CONCLUSIONS

This study shows that the caregiver's behaviour in seeking treatment for diarrhoea is influenced by a complex interaction of individual, interpersonal, community, and health system factors. Caregivers' concern for their child's health and the perceived seriousness of the disease often led to early intervention. Still, limited information, misinformation, and inconsistent instructions from healthcare providers resulted in delays in seeking care. Systemic prob-

lems such as a lack of drugs, staffing constraints, long waiting lists, and geographical barriers further restrict access to timely treatment.

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ETHICS STATEMENT

The proposal was approved by the Kamuzu University of Health Sciences Ethics Committee (KUREC-P.01/24-0511). The permission to conduct the study was previously obtained from the Bangwe Health Centre management and the Blantyre District Health and the informed consent was obtained from all the participants involved in the study.

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AUTHORSHIP CONTRIBUTIONS

SS, contributed to the study conceptualisation, methodology, data collection, data analysis, interpretation of findings, manuscript drafting, and revision. MP, contributed to the study conceptualisation, methodology, supervision, critical review, and revision of the manuscript. DN, contributed to the study conceptualisation, methodology, supervision, critical review, and revision of the manuscript. All other authors read, review and approved the final version of the manuscript.

DISCLOSURE OF INTEREST

The authors completed the ICMJE Disclosure of Interest Form and declare that they have no competing interests relevant to this study. The disclosure forms are available from the corresponding author upon reasonable request.

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