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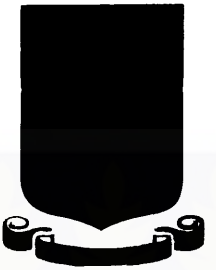

QUALITY OF COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM) SERVICES FOR MALNOURISHED CHILDREN AT PRINCESS MARIE LOUISE HOSPITAL

BY

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THIS DISSERTATION IS SUBMITTED TO THE UNVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF PUBLIC HEALTH DEGREE

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DECLARATION

I hereby declare that excluding precise references which have been duly acknowledged, this submission is my own work towards my Master of Public Health dissertation and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University or elsewhere.

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DEDICATION

To Comfort Debrah, thank you for praying for me.

To Flt Lt GKA Adjei. You are simply awesome.

ACKNOWLEDGEMENT

First and foremost, thanks go to God Almighty. I could never have achieved this without you. Secondly, to my family; for all your support and encouragement.

To all my course mates who were so helpful; God bless you.

Many thanks to my research assistant, Miss Sophia Ayiku Stevens, ever so helpful and encouraging. God bless you.

A very big thank you to Dr Augustine Adomah-Afari, for being a resourceful supervisor. I am proud of this research because of your guidance. God bless you.

Finally, and most importantly, thank you to my husband Flt Lt George Kofi Anane Adjei. I cannot appreciate you enough.

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LIST OF ABBREVIATIONS

CMAM	Community-based Management of Acute Malnutrition
MAM	Moderate Acute Malnutrition
OTP	Outpatient Therapeutic Feeding Programme
RUTF	Ready to Use Therapeutic Feed
SAM	Severe Acute Malnutrition
SC	Stabilization Centre
SFP	Supplementary Feeding Programme

ABSTRACT

Background: Given the high level of mortality associated with severe malnutrition, it is important that high quality care is provided for children suffering from it.

Objective: To assess the quality of services rendered to malnourished children under the Community-based Management of Acute Malnutrition programme at Princess Marie Louise Children's Hospital from the perspective of mothers of malnourished children, as well as healthcare professionals.

Methods: A flexible study design, anchored on qualitative methods was used. In-depth interviews were conducted with eight (8) mothers and the four (4) healthcare providers working at the centre. Purposive sampling was used to recruit the healthcare providers, and random sampling was used to select the mothers. An observation of the care processes conducted by the healthcare providers was also conducted with a checklist. Framework analysis was used to generate themes from the collected data.

Results: Mothers of children on the Community-based Management of Acute Malnutrition programme and healthcare providers alike found the quality of the programme in Princess Marie Louise hospital to be very good. Positive opinions of healthcare providers' skills, recovery rates of their children and a relationship of collaboration and peaceful coexistence between mothers and healthcare providers largely influenced perceptions of quality of care. Mothers unanimously rated the physical environment poorly. Mothers experienced long waiting times when they had to visit the outpatient department of the main hospital before going to the Community-based Management of Acute Malnutrition centre.

Conclusion: From both perspectives, overall quality of care under the Community-based Management of Acute Malnutrition programme at Princess Marie Louise was good. Improvement in provision of resources, training of staff and regular supervision would help further improve upon the quality of care under the CMAM programme at PML.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Malnutrition refers to the state of insufficiency, excess or disproportion of a broad array of food nutrients, resulting in noticeable harmful consequences on body composition, function and clinical outcome (Saunders, 2015). Wasting refers to the condition in which a child is too emaciated for his or her height. Sudden or acute malnutrition, where the child is not getting enough calories from food, leads to loss of lean body mass. Wasting describes short-term nutritional status and is an indicator of acute malnutrition – the outcome of insufficient food intake or recent episodes of infection or ill health, such as diarrhea, which cause weight loss and trigger malnutrition (Rodgers, 2011).

The weight-for-height (WFH) index serves as a measure for comparing body mass to height (Briend, Khara, & Dolan, 2015). Weight-for-height z-scores are used to assess the severity or extent of wasting. A computation that produces WFH z-scores below -2 SD from the median of the reference population is an indication that the child is thin or wasted. WFH z-scores below -3SD from the median of the reference population are an indication that a child is severely wasted. Children with muscle wasting stand a higher risk of dying in the event of infections and other disease conditions (Briend, Khara, & Dolan, 2015). Globally, children numbering an estimated 52 million (8%), 101 million (16%) and 165 million (26%) below the age of five were wasted, underweight and stunted respectively as at the year 2011 (UNICEF, WHO, & The World Bank, 2012).

Collins (2007) sums up the global impact of malnutrition, in its various forms: Firstly, malnutrition is a core cause of more than half of the 10–11 million deaths in children below age 5 who die yearly from avertable causes. Secondly, roughly nine (9)% of Sub-Saharan African (SSA) children and fifteen (15)% of South Asian children suffer from moderate acute malnutrition. About two (2)% of children living in developing countries are severely malnourished. From the aforementioned, approximately sixty (60) million and thirteen (13) million children are moderately and severely malnourished respectively, at any point in time.

Facility-based management of Severe Acute Malnutrition (SAM), which used to be the conventional method of Severe Acute Malnutrition (SAM) management as captured by protocols such as the WHO protocol, had its own shortfalls. Case Fatality Rates in the greater part of health facilities in developing countries lingered around 20–30% for marasmus and as much as 50–60% for kwashiorkor (Collins, 2007).

From an initial 35% in 2003, the relative number of stunted children in Ghana declined progressively to 19% in 2014; and wasting levels fell by 3% (from 8% in 2003 and 9% in 2008, to 5%) within the same period. The proportion of underweight children also dropped from 18% in 2003 to 11% in 2014 (Ghana Statistical service (GSS), Ghana Health Service (GHS), & ICF International, 2015).

According to Vijay, Isha, Ankit and Amiruddin (2015), there is renewed thinking, in that; opinion on the management of SAM is gradually veering from facility-based treatment towards Community-Based Management of Acute Malnutrition (CMAM) as a cost-effective, high-impact approach to the management of malnutrition.

Outpatient Therapeutic Feeding Programmes (OTPs) serve as a means of making services for the management of malnutrition more accessible to the communities. This is achieved by providing primary health care facilities within the communities to facilitate the use of Ready-to-Use Therapeutic Foods (RUTF), organising outreaches and community mobilisation (Yebyo, Kendall, Nigusse, & Lemma, 2013).

Acutely malnourished children are identified by community-or self-referral, as well as screening of the affected population. Valid International (2006) outlines three standard forms of treatment for acute malnutrition, any of which is typically provided depending on the severity of the child's condition. Firstly, moderately malnourished (MAM) children without any medical complications are enrolled unto a supplementary feeding programme (SFP), where rations of food and simple medicines are distributed to mothers or caregivers of these children to take home and prepare for them.

Children suffering from severe acute malnutrition (SAM) without any medical complications are managed in an Outpatient Therapeutic Programme (OTP), where RUTF and routine medicines are used to treat simple medical conditions. These are taken

at home, and the child visits the OTP site weekly for check-up and collection of fresh rations of RUTF.

The last category is those acutely malnourished children with medical complications. They are treated in an inpatient stabilization centre (SC) until they recover enough to be enrolled unto the OTP for outpatient care.

The Institute of Medicine (IOM) defines quality of care as the extent to which health services for persons and populations augment the possibility of desired health outcomes and are in harmony with contemporary professional knowledge (Medicare, Institute of Medicine & Lohr, 1990a). Going by the IOM's description, quality of care possesses eight distinct properties. It incorporates a measure of magnitude; covers an extensive array of elements of care; identifies both persons and groups as proper targets for quality assurance efforts; and is goal-oriented.

Further, the definition of quality of care acknowledges an arbitrary element of outcome, but values the anticipated net advantage. It emphasises the importance of outcomes and links the process of health care with its outcomes. It brings to light the significance of individual clients' and society's inclinations and values and implies that those have been recognised and considered in health care decision-making and policymaking. Finally, it stresses the limitation placed on professional accomplishment by the state of technical, medical, and scientific knowledge, implies that that state is dynamic, and implies that the

health care provider is accountable for using the best knowledge base available (Medicare, Institute of Medicine & Lohr, 1990b).

1.2. Problem Statement

The physical signs of deprivation (muscle wasting, skin lesions, edema, sparse and discolored hair) that severe acute malnutrition inflicts on children are not the only representation of the devastating effects of this canker. An average of 11% loss in GDP annually in Asia and Africa is due to sub-optimal weight, impaired growth of children, and micronutrient deficits-greater than the loss experienced during the 2008–2010 financial crisis (International Food Policy Research Institute, 2016).

The number of deaths among children suffering from common childhood illnesses such as diarrhea and pneumonia can be dramatically increased with the presence of SAM, making it an indirect cause of child mortality as well. Children with SAM are nine times more likely to die than their well-nourished peers (Vijay *et al.*, 2015).

Owing to the existing gaps in the case management of common childhood illnesses, especially diarrhea and malnutrition, across selected hospitals in Ghana, the Ghana Health Service, UNICEF Ghana, WHO and USAID first introduced CMAM in Ghana in June 2007 (Ministry of Health, Ghana, & WHO, 2011). Since its inception, CMAM has helped save the lives of several malnourished children.

Like all other aspects of healthcare, quality service is important in ensuring client compliance and improving their health-seeking behaviour (Martin, Williams, Haskard, & DiMatteo, 2005). One important component of care is patient/client or caregiver satisfaction, or their appreciation of the quality of care being offered them. The Ministry of Health in its national health policy document of 2007 identified complaints from users about the abusive and humiliating treatment by healthcare providers and shortages of equipment, consumables, supplies and some essential drugs as some of the challenges of the health services (MOH, Ghana, 2007).

Unfortunately, very few studies have been conducted on CMAM in Ghana and the Ashiedu Keteke sub-metropolitan area to be precise. Only a few of these studies so far has specifically researched into the quality of care under the CMAM programme in Princess Marie Louise (PML) hospital from the perspectives of healthcare providers and clients (mothers of malnourished children). A wide lacuna therefore, exists in the body of knowledge of the subject of healthcare providers' and clients' perspectives of the quality of care under the CMAM programme. The existence of information on the quality of care under CMAM in PML could help boost quality assurance and scaling up of CMAM across the country.

1.3 Justification

Out of the 17 Sustainable Development Goals, about 12 of them contain indicators that are highly pertinent for nutrition, an indication of nutrition's pivotal role in sustainable

development (International Food Policy Research Institute, 2016). The absence of in-depth understanding of community perceptions and social aspects of under-nutrition and its management (including CMAM) places a substantial barrier to effective and sustainable programme implementation. It is therefore, important to identify stakeholders' perceptions of quality of CMAM services at various levels, in order to improve impact and coverage.

Health care quality has been a growing concern among policy makers and health care administrators, and remains crucial in the performance of health service organisations - Unfortunately, most health care quality assurance programmes do not give due importance to consumer perceptions of quality of care (John, 2015).

Evaluation of healthcare providers' perceptions of quality of care is a means of monitoring as well as gathering information to improve care provided to clients. Mothers' perceptions of quality of care have the potential to influence their decision to select the CMAM site in PML as a point of call when their children are malnourished. This will ultimately affect the number of events of malnutrition and its associated co-morbidities that are reported to the facility for management in future.

Given the importance of information on quality of care of the CMAM programme from varying perspectives and the lack thereof, it was very important that this study was conducted to enrich existing knowledge of the subject.

1.4 Objectives of the study

The objectives of the study are presented as general and specific below.

1.4.1 General Objective

The general objective was to assess the quality of service provided for malnourished children reporting to the PML hospital under CMAM.

1.4.2 Specific Objectives

The specific objectives were:

1. To assess the quality of care provided for malnourished children under CMAM at PML from the perspective of mothers/caregivers.

2. To assess the quality of care provided for malnourished children under CMAM at PML from the perspective of healthcare professionals.

1.4.3 Research Questions

The following research questions helped to find answers to address the objectives:

1. What is the quality of care offered to malnourished children at the CMAM centre in PML from the perspective of mothers?

2. What is the quality of care offered to malnourished children at the CMAM centre in PML from the perspective of healthcare providers?

1.6. Outline of the Dissertation

This chapter has given a background to the study. The extent of the problem and the need for this study, as well as the aim and specific objectives has been presented. The conceptual framework that spells out the underlying theory of the study has also been presented. Chapter two presents a write-up on reviewed literature on the topic under study. Chapter three presents the methodology employed in conducting the study. Chapters four and five present the results and discussion of the findings of the study respectively.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.0 Introduction

This chapter is a write-up on the findings of reviews of literature on the subject matter. Information gathered from related studies, the concepts, theories and themes underlying this study are presented in the eight (8) sections that follow.

2.1 Risk factors of acute malnutrition

The complexity of factors leading to under-nutrition shows that causes of malnutrition are multi-sectoral, ranging from practices related to food, to health and caring (Ambadekar & Zodpey, 2016). Childhood under-nutrition is associated with multiple factors. Low birth weight resulting from maternal under-nutrition, poor diet, economic disparities, lack of health services and diseases such as diarrhea, are all major contributors to a vicious cycle that has not been easy to breach (Burtscher & Burza, 2015). Low birth weight is one of the important risk factors for the prevalence of underweight and severe malnutrition in urban children in Ghana, as well as lack of mothers' education (Rikimaru, Yartey, Taniguchi, Kennedy, & Nkrumah, 1998).

2.2 Approaches to treatment of SAM

The community-based method of SAM management involves timely detection of cases at the community level. It also involves treatment of children who are malnourished with no medical complications with RUTF or other nutrient-dense foods at home. Appropriately

combining the community-based approach with a facility-based approach for malnourished children with medical complications and implementing this joint approach on a large scale could prevent the deaths of hundreds of thousands of children (UNICEF, 2007).

Lenters, Wazny, Webb, Ahmed, and Bhutta (2013), appraised the effectiveness of interventions for SAM. The study evaluated the WHO protocol for inpatient management and community-based management of malnutrition with ready-to-use-therapeutic food (RUTF). It also assessed interventions for Moderate Acute Malnutrition in children under five in low-and middle-income countries. The study found that proportions of fatality rates for inpatient approaches to the treatment of SAM using the WHO protocol were between 3.4% and 35%. Children who were given RUTF under the community-based approach were 51% more likely to attain nutritional recuperation than the standard care group. Moderately malnourished children in the RUTF group had a significantly higher probability of recovery and a lower likelihood to be non-responders than those on fortified blended foods such as the corn and soy blend. However, the study identified persistent gaps in the literature required to estimate effectiveness of treatment approaches for SAM and MAM.

A study was conducted by Ramteke and Ramteke (2014) on domiciliary treatment of severe uncomplicated malnutrition. Their conclusions were that domiciliary treatment of uncomplicated SAM appeared to be satisfactory for three (3) reasons. First was the

achievement of moderate weight gain (about 40% of children achieved their ideal weight for length). Secondly, parents had the chance to manage other responsibilities they had. Lastly, they found that domiciliary treatment was as good as institutional treatment, but there was an identified need to amply supervise the treatment process.

Outpatient Therapeutic Feeding Programmes (OTPs) bring the services for management of SAM within the proximity of communities. OTP services are made available at vantage treatment spots within the primary health care setting of each community. The use of ready-to-use therapeutic foods, community outreaches and community mobilisation, are key features of OTPs (Yebyo *et al.*, 2013).

2.3 Quality of care

Based on the notion that clients, professionals, managers, policy makers and payers define healthcare quality differently. Ali (2013), defined quality of care to encompass needs and expectations of stakeholders in the healthcare sector. He subsequently summed up quality healthcare as "consistently delighting the patient by providing efficacious, effective and efficient healthcare services according to the latest clinical guidelines and standards, which meet the patient's needs and satisfies providers".

The Institute of Medicine (IOM) defines quality of care as the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge (Medicare, Institute of

Medicine & Lohr, 1990a). The IOM qualifies its definition of quality of care with eight distinct properties.

The first property is that the definition of quality incorporates a measure of magnitude. Secondly, defining quality of care covers an extensive array of elements of care. Thirdly, it identifies both persons and groups as proper targets for quality assurance efforts. It is goal-oriented. Further, the definition of quality of care acknowledges an arbitrary element of outcome but values the anticipated net advantage. Furthermore, in defining quality of care, emphasis is laid on the importance of outcomes and links are drawn between the process of health care and its outcomes. It brings to light the significance of individual clients' and society's inclinations and values and implies that those have been recognised and considered in health care decision-making and policymaking. Finally, it stresses the limitation placed on professional accomplishment by the state of technical, medical, and scientific knowledge, implies that state is dynamic, and implies that the health care provider is accountable for using the best knowledge base available (Medicare, Institute of Medicine & Lohr, 1990b).

Donabedian (1990), enumerated seven attributes of quality health care and defined them as follows: efficacy, which is the ability of care, at its best, to improve health; effectiveness: the degree to which attainable health improvements are realised; efficiency: the ability to obtain the greatest health improvement at the lowest cost; optimality: the most advantageous balancing of costs and benefits; acceptability:

conformity to patient preferences regarding accessibility, the patient-practitioner relation, the amenities, the effects of care, and the cost of care; legitimacy: conformity to social preferences concerning all of the above; and equity, which refers to fairness in the distribution of care and its effects on health.

Health care providers stand to benefit tremendously from knowing their consumers' evaluation of the quality of the health care service that their organisations provide; albeit the difficulty consumers face in trying to evaluate a discipline that is often too technical for the average health care consumer (John, 2015). Through qualitative and empirical research, Brady and Cronin (2001), found that the construct of service quality "conforms to the structure of a third-order factor model that ties service quality perceptions to distinct and actionable dimensions: outcome, interaction, and environmental quality". They further stated that each dimension in turn consists of sub-dimensions, which define the source of perceptions of service quality. For each sub-dimension to positively impact perceptions of service quality, clients must perceive the service rendered to them to be reliable, responsive, and empathetic.

2.4. Clients' Perceptions of Quality of Care

Results of a cross-sectional survey conducted in three health facilities in the Bawku West district of Ghana, indicated that perception of quality of care and client satisfaction was high across board (Doe, 2009). The health centre earned the highest mean score for quality of care, followed by the clinic and then the hospital. Average satisfaction scores

also followed the same trend with the health centre recording the highest, followed by the clinic and then the hospital. Quality of care in the hospital was positively associated with adequacy of medicines prescribed; and the most significant predictors of client satisfaction were examining the client, adequacy of medicines prescribed, cleanliness of the facility, privacy during consultation and quality of care. The most significant predictor of client satisfaction in the health centre was respect for clients. In spite of the conclusion of high perceptions of quality of care and satisfaction in all the facilities, there were noticeable gaps in communication with the client, provider/client relationship and availability of medicines.

After assessing clients' satisfaction with quality of antenatal care in the Korle-Bu Teaching Hospital, Freeman (2015), reported that there was a significant association between cleanliness of environment and cleanliness of washrooms with clients' level of satisfaction. However, there was no significant association between time spent with doctor or waiting time of clients and level of satisfaction. About 70.5% of participants were satisfied with the clarity of the treatment communicated to them by the doctor in a language they clearly understood. About 93.0% of the clients were satisfied with the competence of health workers.

A cross-sectional survey of 280 women in Nnewi, Nigeria was conducted by Nnebue, Ebenebe, Adinma, Iyoke, Obionu and Ilika (2014), to assess their knowledge, perception of and satisfaction with the quality of maternal health services (QMHS) at the primary

health care (PHC) level. No significant differences were identified in the levels of satisfaction among women from different socio-economic backgrounds. No associations were found between socio-demographic characteristics of clients and their perceptions of waiting time. Health care providers reportedly had good attitudes toward their clients. The study also showed that notwithstanding the poor quality of services provided, clients possessed a good amount of knowledge of the quality of services. The cost of care, usage of local language, staff attitudes and interaction with clients were acceptable and might have contributed to the high level of satisfaction reported.

Khamis and Njau (2014), conducted a cross-sectional study with the aim of determining the level of patients' satisfaction with the quality of healthcare provided at the outpatient department (OPD) in a hospital in Tanzania. Overall, patients expressed dissatisfaction with the quality of care. The five service dimensions, namely assurance, reliability, tangibility, empathy and responsiveness were used to assess satisfaction levels. Owing to the overall dissatisfaction with the quality of care among patients, Khamis and Njau suggested that managers of health facilities focus on: improvement in communication skills among staff in expressing compassion, politeness and active listening. They also recommended that management should ensure that essential drugs are readily available and that clinicians' prescription skills are improved.

Nwaeze, Enabor, Oluwasola and Aimakhu (2013), evaluated clients' perception of quality of antenatal care at the University College Hospital (UCH), Ibadan. In a cross-

sectional study, 239 women reporting for antenatal care were interviewed with a structured questionnaire. The majority of the respondents rated amenities and water supply unsatisfactory. Clinic services were rated as good by 81.1% of respondents. Patient satisfaction was significantly associated with a desire to patronise the same facility during participants' subsequent pregnancy. Overall, participants recorded a high level of satisfaction with antenatal services. Recommendations for policy makers and healthcare providers included the need to improve amenities, reduce waiting time and ensure that health interventions are available for all clients.

2.5 Healthcare Providers' Perceptions of Quality of Care

A qualitative descriptive study was conducted by Ossai and Uzochukwu (2015), to evaluate providers' perceptions of quality of care and limitations to delivery of quality maternal health services in primary health centres of Enugu State, Nigeria. In this study, most of the providers perceived that the quality of maternal health services was good, ascribing their perceptions to results that were achieved at the centres. Providers perceived that their services were well utilised by clients, and this was their justification for rating the quality of maternal health services as good. The conclusion reached by the providers was associated with the fact that they recorded low or no mortality and that they were also prepared to refer cases that were clear of their competence.

Pinder, Greaves, Aylin, Jarman and Bottle (2013), assessed the possibility of using satisfaction of healthcare providers as a marker of the performance of certain hospitals in

England. This was based on prior evidence that existed to suggest that higher levels of job satisfaction among health providers in particular institutions could be associated with improved outcomes in their clients. The study was conducted with over 60,000 respondents from 147 National Health Service hospitals. A weak association was found between staff satisfaction and hospital standardised mortality ratios.

2.6 Comparison of Clients' and Healthcare Providers' Perceptions of Quality of Care

A cross-sectional study was conducted by Abuosi (2015), to determine if any significant gaps existed between patients' and healthcare providers' perceptions of quality of care in Ghana's hospitals. There was a significant difference between overall perceptions of quality of care among patients and healthcare providers. Additionally, 18 items out of 22 items on quality of care scale were rated substantially differently between patients and providers. However, both staff and clients generally rated levels of healthcare quality fairly favourable.

In Bangladesh, a study was conducted to investigate healthcare providers' perceptions of quality of maternal and neonatal care, as well as to assess client perceptions of, and satisfaction with the care provided to them. Using both quantitative and qualitative methods in two (2) district and twelve sub-district hospitals, Islam *et al.* (2015), identified certain key factors that influenced the quality of care for patients. These included small staff numbers, inadequacy of logistics, lack of laboratory sustenance, underutilisation of

protocols of patient management, inadequate training, and poor supervision. Doctors were reportedly incapable of providing high standards of care for clients because of the large numbers of clients they had to see. On the part of clients, 85% of them expressed satisfaction with the standard of care. Half of them were satisfied with the cleanliness, and more than half were satisfied with the medication supplied to them. Clients were not given the chance to ask questions in half of the facilities studied.

2.7 Conceptual Framework

The conceptual framework for this study was adopted and modified from the quality of care framework of Donabedian (1988). The modified conceptual framework shown in figure 2.1 outlines the factors that were assessed in this research to determine the perceived quality of CMAM care at PML. It explains how quality of care for malnourished patients could be predicted based on information gathered about three (3) dimensions namely structure, clinical processes and outcome of CMAM services.

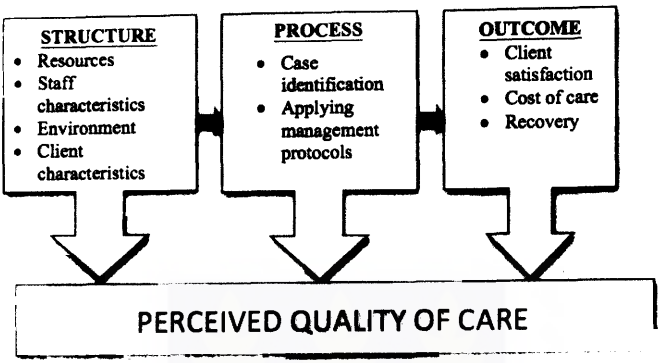

Figure 2.1 Conceptual Framework for Perceived Quality of Care

Source: Donabedian (1988).

Under structure, the indicators that could possibly affect the healthcare delivery process were considered. These included resources (staff, clinical guidelines or protocols, equipment and RUTF) and the healthcare environment. Contextual issues surrounding malnourished children and their mothers/caregivers were also considered since they could possibly affect the quality of care given.

The second dimension that was considered in the assessment of quality of care in this study was the process of managing patients with acute malnutrition. History taking, clinical examination and diagnostic procedures were considered to determine whether best practice was followed in the process of care delivery. Protocols exist to guide the

process, mainly involving stabilisation and rehabilitation of the malnourished child; and these were considered. The level of co-ordination of care processes between the different specialisations involved in the management process was a factor for consideration.

The outcome of care, in terms of recovery, restoration of function and of survival, is a regularly used indicator of quality of care (Donabedian, 2005). The indicators of the outcome of care under consideration in this study included clinical outcomes of the treatment or intervention given (recovery of the malnourished children) and the satisfaction of mothers and healthcare workers with these outcomes.

A relationship is seen to exist between structure and outcome, process and outcome, and also between structure and process. However, the exact dynamics of these relationships remain unclear (Donabedian, 2005).

2.8 Indicators of Quality of Care

Mainz (2003), described the structural dimension of quality of care as an attribute of the human and material resources of the health system; the process dimension as what is done in giving or receiving care; and the outcome dimension as a measure of the effect of care on the health status of a patient or population. The exact relationships between the three dimensions of quality of care are often difficult to determine, due to the myriad of factors related to these dimensions and the lack of understanding of the interactions between them (Donabedian, 2005).

2.8.1 Structure

Structure refers to the setting in which care is delivered. It includes adequate amenities and equipment, qualification of care providers, administration structure and operations of programmes (Donabedian, 2005). Structural measures are important in shaping the perceptions of individuals of quality of care. Measures of structure give consumers a sense of a health care provider's capacity to provide high quality care. They also portray an idea of the systems and processes put in place by a provider to render high-quality care (Agency for Healthcare Research and Quality, 2011).

2.8.1.1 Resources

Resources are a prominent feature whenever healthcare structure is considered. In fact, healthcare structure is described as resources and administration. Time and money are two of the major resources required to work towards quality improvement; and adequate resources play a pivotal role in achieving systems quality (Kunkel, Rosenqvist, & Westerling, 2007).

2.8.1.2 Staff training

Training of health workers equips them with the requisite skills to carry out their duties effectively and efficiently. Aside the evident benefit of improving the skills of staff, training has been shown to be an effective means of motivating them to do their work (Chitete & Puoane, 2015).

2.8.1.3 Environment

The organisational environment can be viewed from three (3) angles, namely the physical, social and natural environments. Physical environment refers to the material objects and stimuli and the organisation of these objects and stimuli that people usually come in contact with and interact with; social environment is the human social structures and norms that surround an individual within an organisation; whilst the natural environment refers to the elements of the environment, which exist in, and are structured by nature (Elsbach & Pratt, 2007).

The aesthetics or physical environment of facilities used by healthcare institutions play a vital role in shaping the perceptions of quality of care, especially among clients or patients. Due to the tremendous effect that physical attractiveness has on the formation of quality of care perceptions, it is imperative that health facilities recognise the need to invest in the attractiveness of their physical environment (Mohammed *et al.*, 2016). Cleanliness and adequacy of security were identified by Mohammed *et al.* (2016), as other important environmental predictors of quality of care.

2.8.1.4 Client characteristics

Payment status has been found in certain cases to affect the intensity of patients' satisfaction with overall quality of service. According to Abdosh (2006), patients who have to pay for health services are generally not as satisfied with the total quality of service as those who have to pay nothing. This is probably because their expectation of

the service may rise when they pay for the service. In addition, there was no observed connection between level of client satisfaction and client characteristics such as age and level of education.

2.8.2 Process

In a bid to maintain or improve health, providers perform certain actions. The things providers do are termed process measures (Donabedian, 2005). Typically, process measures reflect conventional recommendations for clinical practice (Agency for Healthcare Research and Quality, 2011). Examining the care process itself is another approach to assessing quality of care. The justification for examining the care process instead of its outcomes is in the assumption that researchers are not interested in the ability of medical technology to achieve results, but in whether the acceptable standard of care has been rendered (Donabedian, 2005). Process variables are actionable by healthcare providers because they offer opportunities to improve patients' health outcome (GACC, 2014).

According to Amporfu, Nonvignon and Ampadu (2013), health care workers' attitude towards patients, waiting time, and the manner of communication of treatment to patients are important examples of process quality of care. Increased involvement of clients in certain services (those known to these clients or those requiring a low level of technical proficiency) has been associated with a higher perception of service quality (Dabholkar, 2015).

2.8.2.1 Management protocols for malnutrition

Standardised protocols have been associated with low mortality and high recovery rates when applied in the treatment of SAM (complicated and uncomplicated) and MAM (Lenters *et al.*, 2013). The WHO has a ten (10) step protocol for the management of SAM (Ashworth, 2003). The protocol outlines two phases in the management process. The first is a preliminary stabilisation phase in which acute medical problems and complications are managed. The second and longer phase is the rehabilitation phase. The ten essential steps involved, as given in the protocol, are outlined below:

Step one: involves treatment or prevention of hypoglycemia in the malnourished child.

Step two: involves treatment or prevention of hypothermia in the malnourished child.

Step three: involves treatment or prevention of dehydration in the malnourished child.

Step four: is to correct any electrolyte imbalances that may have been created due to malnutrition.

Step five: involves treatment or prevention of infections in the malnourished child.

Step six: is to correct micronutrient deficiencies, which are likely to be present in malnourished children.

Step seven: is to cautiously initiate feeding of the malnourished child.

Step eight: it is important to achieve growth that will enable the previously malnourished child to catch up with his/her peers.

Step nine: is to offer sensory stimulation and emotional support to the child.

Step ten: it is important to prepare the child and his/ her family or caregivers for follow-up after recovery.

2.8.2.2 Case identification

Proper identification and management of malnutrition alone has the potential to reduce child deaths by hundreds of thousands every year (Laillou *et al.*, 2014). It is important that malnourished children are identified in the early stages of the progression of malnutrition. This will improve early presentation and early initiation of treatment. The longer it takes to initiate treatment for malnutrition, the more aggressive and costly treatment tends to be (Collins, 2007).

2.8.3 Outcome

Outcome measures are an indication of the influence of the health intervention on the health condition of the client (Agency for Healthcare Research and Quality, 2011). The outcome of a care process based on recuperation, restitution of function and survival is another possible dimension of the quality of care. Certain outcomes (patient attitudes and satisfactions, social restoration and physical disability and rehabilitation) may not be clearly defined or easy to measure; yet, they remain the most valid and stable indicators of the effectiveness and eminence of medical care (Donabedian, 2005). Outcome quality reflects not just the medical services offered to the patient but also how well such services are delivered (GACC, 2014).

2.8.3.1 Client satisfaction

Client satisfaction is based on considerations such as promptness of attention, staff attitude, providing adequate information, clean environment and safety of clients

(Freeman, 2015). Barr and Banks (2002), studied the association between patient characteristics and client satisfaction, and found that satisfaction was significantly influenced by several variables, mainly patient age and health status. The Ministry of Health defines patient satisfaction as the level of contentment that clients feel when they patronise a service (MOH, 2007).

2.8.3.2 Clinical outcomes

In a study that sought to identify the factors that independently predict recovery from SAM, no significant difference was observed in recovery rate, with respect to where children were admitted from, where they lived, their gender, or the duration of their stay on the nutrition programme (Saaka *et al.*, 2015).

2.9 Gaps in Literature

A review of literature brings to light the staggering gaps that exist in available information on quality of care under CMAM. It also reveals the paucity of information on the various indicators of quality of care for malnourished children and the interactions that exist between these indicators. It is in light of this that this study is being conducted to bridge the gap between policy and practice, with respect to CMAM in the Ashiedu Keteke Sub-Metropolitan area.

2.10 Chapter Summary

This chapter has presented findings of the review of literature on key areas related to this study. Consideration was given to each of the three dimensions of quality of care as shown in the conceptual framework for this study. Under each of the three dimensions (structure, process and outcome), information was presented on all indicators or determinants that this study was likely to encounter within the given context. The findings of various studies that have investigated some of these indicators were also provided. The next chapter provides detailed information on the research methods applied in conducting this study.

CHAPTER THREE

METHODOLOGY

3.0. Introduction

This chapter presents the methods that were applied to collect and analyse data for the study. There are nine (9) sections presented.

3.1 Study Design

A flexible study design involving the use of qualitative research methods was used for this study. Qualitative research is a means for discovering and comprehending the meaning individuals or groups ascribe to a social or human problem. It involves emerging questions and procedures, the collection of data within participants' setting, inductive data analysis, which involves building from particular to general themes, and making interpretations from the meaning of the collected data (Creswell, 2009). A cross-sectional strategy was used in collecting data for this study. In-depth interviews were conducted to obtain information from health workers at the CMAM site in PML on their perspectives of the quality of CMAM services. In-depth interviews were also held for mothers to collect data on the quality of care form their perspective. An observation was conducted to collect data on the quality of the care process.

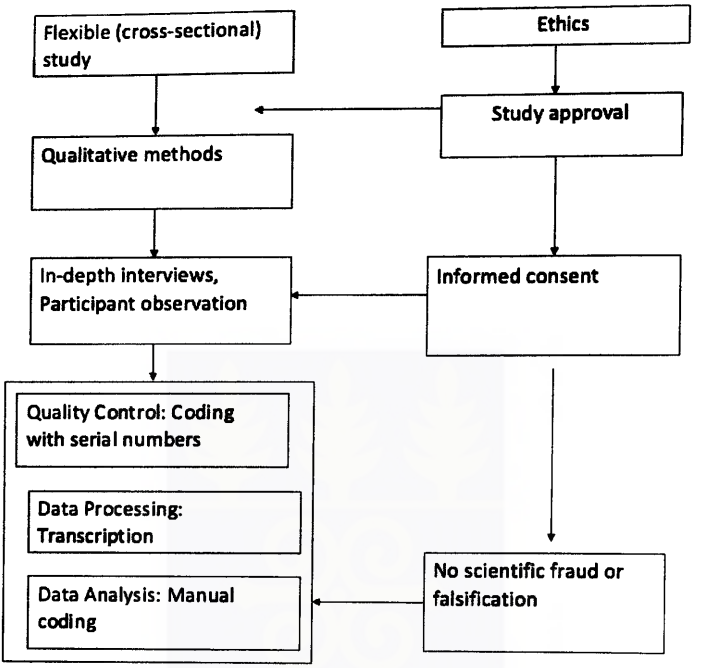

Figure 3.1: Schematic Diagram of Study Design

3.2 Study Location

The study was purposefully sited at the nutrition rehabilitation centre of the Princess Marie Louise Children's Hospital (PML). The Ashiedu Keteke Sub-Metropolitan area was one of the first two districts in Ghana that were selected for the establishment of CMAM learning sites in April, 2008. It is also part of the six (6) districts implementing

CMAM out of the total of ten (10) districts in the Greater Accra Region (Neequaye & Okwabi, 2012). PML is one of the four (4) government hospitals under the Ghana Health Service located in Accra, within the Ashiedu Keteke Sub-Metropolitan area (Ghana Health Service, 2015). Aside the medical services that PML provides, it engages in disease control and offers reproductive and child health services, as well as family planning and nutrition services. PML was selected as the study site because the nutrition rehabilitation centre there serves as a model for other CMAM centres in terms of experience, facilities and years of practice of CMAM. PML is the main referral, training and rehabilitation site for CMAM within the Sub-Metropolitan area.

3.3 Study Population

The population for this study included mothers or caregivers of malnourished children who were enrolled on the CMAM programme in the PML hospital at the time of the study. All the four (4) healthcare providers working at the CMAM site at the time of the study also formed a population included in the study.

3.4 Inclusion criteria

Mothers: Mothers of malnourished children on the CMAM programme, who were present at the nutrition rehabilitation centre during the time of the research; and consented to partake, were included in the study population.

Healthcare providers: Full-time healthcare providers, who worked specifically on the CMAM programme at the nutrition rehabilitation centre and provided consent, were included in the study. Part-time workers with more than a year's experience on the CMAM programme were also included.

3.5 Exclusion criteria

Mothers: Mothers who did not consent to be included in the study were excluded. Mothers whose children were not enrolled on the CMAM programme were not included.

Healthcare providers: Workers who had worked at the rehabilitation centre but had no direct involvement with CMAM, those with less than one year's experience and students on attachment (less than a year) at the rehabilitation centre were not included in the study. Workers who did not consent to be interviewed were excluded from the study.

3.6 Sampling procedure

Simple random sampling was used to select mothers for the study. Simple random sampling is the method that gives each study participant an equal chance of being selected to participate in the study (Dudovskiy, 2016b). This method was chosen for the mothers because it removes the element of bias and makes the study participants as representative of the population from which they were selected as possible.

Purposive sampling was used to select healthcare providers for the in-depth interviews. Purposive sampling is a non-probability method of selecting study participants, which is

based on the discretion of the researcher, and stems from the belief that the unblemished verdict of the researcher is enough to obtain a representative sample of participants (Dudovskiy, 2016a). Purposive sampling was used for the healthcare providers because of their limited number.

Selection of mothers

Fifteen (15) mothers with children enrolled on the CMAM programme were present at the time of sampling for in-depth interviews. Out of these 15 women, eight (8) were randomly selected by balloting for participation. Fifteen pieces of paper, eight of which were labelled 'yes' and seven labelled 'no', were folded, placed in one bowl and tossed several times. Mothers present picked one paper each from the bowl. Those who picked yes were included in the study, whilst those who picked no were excluded.

Selection of health workers

Purposive sampling was used to select the healthcare providers who were included in the study. At the time of conducting this study there were four healthcare providers working on the CMAM programme at PML - two (2) permanent workers (nutritionists) and two (2) temporary workers with over a year's working experience at the centre (a nutrition officer and an intern). All four (4) of them were included in the study sample.

3.7 Data collection techniques/ methods/ tools

In-depth interviews of healthcare providers were held by appointment and were conducted at the nutrition rehabilitation centre at PML. A semi-structured interview format was used in the qualitative interviews. That is, the interviewer had an interview protocol that guided each semi-structured interview (Appendix 1). Each interview started out with an open-ended a question about the personal opinion of providers on what constitutes quality healthcare. Interviews ended with questions that asked for general recommendations for improving the quality of care for malnourished children under the CMAM programme. In-depth interviews were conducted face to face in June 2017, and lasted for 30 to 40 minutes each. Notes were taken during each interview. The researcher was not granted permission to record interviews of healthcare providers. The principal investigator and a research assistant therefore took separate interview notes and reconciled the notes immediately after each interview.

Separate in-depth interviews were held with eight (8) randomly selected mothers who had children enrolled on the CMAM programme at the time of the study (June 2017). The eight women were scheduled for face-to-face interviews at the nutrition rehabilitation centre after the sampling process. A semi-structured interview protocol (Appendix 2) was prepared prior to the interviews for the purpose of data collection. The questions sought to elicit relevant information on the mothers' perceptions of the quality of care using various aspects of health care structure, process and outcome indicators. The first question sought to assess the level of knowledge or understanding of quality health care

among the mothers. The remaining questions sought to assess the mothers' perceptions of quality of care on the CMAM programme. Interviews with the mothers were recorded with a voice recorder. The principal investigator took notes during each interview.

Participant Observation

The checklist was used to record data on how well healthcare providers followed the protocols of SAM and MAM management, as well as the quality of the care process as per the ratings on the checklist. A three-level rating key was developed to rate fifteen (15) component tasks as to whether each component task was omitted (0), improperly carried out (1), or properly carried out (2). The checklist is shown in Appendix 3.

Quality Control: Adequate mechanisms were put in place to safeguard and guarantee data accuracy and quality and to rid it of any bias. Interview and observation notes and audio files will be discarded six (6) months after publication of the findings of the study.

Training of research assistant: One (1) research assistant was recruited and trained on the objectives of the study, note taking, audio recording, how to obtain consent, how to collect demographic data and how to handle the information collected. She helped with organisation of the venue and seating for the interviews, audio recording and translation of the Ga language of some interviews into English. The research assistant's work was closely supervised and reviewed daily by the principal investigator.

3.8 Data Analysis

The framework method of qualitative content analysis was used in analyzing data collected from the semi-structured interviews. Framework analysis involved the identification of differences or similarities in qualitative data, and the establishment of the relationships between various parts of collected data, to facilitate the drawing of descriptive and/ or explanatory conclusions based on the identified themes (Gale, Heath, Cameron, Rashid, & Redwood, 2013).

In-depth interviews of Healthcare providers: The notes that were taken during each interview were analysed simultaneously with the data collection process. Afterwards, the notes were organised and coded by hand. After repeatedly reviewing and coding the data, the major ideas were identified and listed as the emerging themes. A number of interrelated themes were put together and interpreted. Narratives from the in-depth interviews were reported according to the themes that were developed. Quotations of these salient narratives were made to support any inferences made in the results section. Each quotation is followed by the unique code of the healthcare provider who made the statement. The codes HcP1-5 are used to denote 'Healthcare Provider1 - Healthcare Provider 5'. For example, HcP3 means Healthcare Provider 3, which is the third healthcare provider who was interviewed.

In-depth interviews of Mothers: The interviews with the mothers were recorded, and notes were taken during each interview. After the interviews, the audio recordings were

transcribed verbatim. Transcriptions were then synchronised with interview notes. The data were then organised and coded by hand. After repeatedly reviewing and coding data, the major ideas were identified and listed as the emerging themes. A number of interrelated themes were put together and interpreted. Narratives from the in-depth interviews were reported according to the themes that were developed. Quotations of these salient narratives were made to support any inferences made in the results section. Each quotation is followed by the unique code of the participant who made the statement. The codes MSAMC1-8 are used to denote 'Mother of SAM Child 1 - Mother of SAM Child 8'. For example, MSAMC3 means Mother of SAM Child 3; who was the third mother with a malnourished child on the CMAM programme to be interviewed.

3.9 Ethical Considerations

The study was conducted with ethical clearance from the Ethics Review Committee of the Ministry of Health / Ghana Health Service (MOH/GHS) as a requirement to conduct a research in a health facility. Approval was also sought from the Regional Health Directorate (Greater Accra) and the Medical Superintendent of PML hospital.

Subjects

Subjects involved in the study included mothers of malnourished children who were enrolled on the CMAM programme at PML at the time of the study. Healthcare workers who worked at the rehabilitation centre under the CMAM programme were also included in the study.

Risk

There was no anticipated risk or harm from the study. The only inconvenience was the time spent in the interview. In view of this, the interviews were structured to facilitate discourse. The respondents were told about the general nature of the study and assured of no potential harm.

Compensation

There was no monetary compensation or payment to participants for taking part in the study. The mothers were given plastic bowls as souvenirs after the interviews. Though the participants had little or no immediate or direct benefits from the study, their responses would be helpful in policy planning and formulation of recommendations to appropriate authorities.

Withdrawal from the study

Participants were informed of their freedom to decline participation or withdraw from the study, with no consequences should they decide to do so.

Consent

All literate study participants provided written informed consent prior to data collection. Illiterate mothers signed or thumb-printed a form (Appendix 4) to indicate consent before being enrolled unto the study. All participants were allowed to ask any questions they might have had in relation to the study.

Confidentiality and anonymity

Participants were assured of confidentiality of the data collected. Regarding privacy and anonymity, the information provided was treated with strict confidentiality. Interview notes and password protected audio files will be kept under lock and key to prevent unauthorised people from gaining access to them. Files will be discarded 6 months after publication of the findings of this study. No participant's name shall appear or be mentioned in any report that will come out of this study.

Conflict of interest

There is no conflict of interest declared. This study was self-sponsored by the researcher and was conducted in partial fulfillment of the requirement for the award of Master of Public Health Degree from the University of Ghana.

3.10. Chapter summary

This chapter has presented the methodology of the study, including the study design, sampling methods, strategies and tools used for data collection, as well as the ethical considerations made for this study. The next chapter presents the findings of this study after the application of these methods to collect and analyse data.

CHAPTER FOUR

RESULTS

4.0. Introduction

This chapter presents analysis of findings of the in-depth interviews with the healthcare providers, and the mothers; as well as the observation. The findings are presented with the most representative verbalisations or quotations where necessary to help in the achievement of a better understanding. There are three (3) sections in this chapter. Section 4.1 presents findings of the interviews with the healthcare providers on their perceptions of quality of care. Section 4.2 covers the findings of interviews with the mothers of malnourished children on their perceptions of quality of care. Findings of the observation are presented in section 4.3. Summary of the chapter is presented in section 4.4.

4.1 Quality of Care from the Perspectives of Healthcare Providers

All healthcare providers working at the CMAM centre at the time of this study perceived the quality of care as good. For some providers, this perception was based on their assessment of the care processes they engaged in. The assertion that, as CMAM focal persons, they were doing their best to offer the best services they could to their clients was evident and possibly a result of self-appraisal in the light of resource constraints they were experiencing. Some based their perceptions on the fact that their ultimate aim was to please or satisfy their clients. Expressions of satisfaction with the quality of care by the clients were therefore a strong indicator of high quality of care for these healthcare

providers. Others also related their perception to the positive outcomes they recorded in terms of the improvement in nutritional status and general wellbeing of the children:

[...] Quality, if you think about it, it's the results at the end of the day; changes seen in the malnourished children and the outcome of the condition [...] (HcP1).

[...] It's about satisfying your client. It's because of them that you're working so you have to do your best for them. Over here we do our best for them [...] (HcP3)

[...] I have a good impression of the care we provide here. I have a good impression because we know what we give to the child is effective [...] (HcP4)

[...] We're doing our best [...] (HcP3)

Providers asserted that they were doing their best in the face of the challenges they were confronted with in their service delivery. The impression given by these healthcare providers was that the standard of care they were providing was the best they could do under the given circumstances.

4.2 Factors Associated with Quality of Care from Healthcare Providers' Perspectives

The analysis of data from the face to face interviews of healthcare providers yielded themes, which cut across the three dimensions of the quality of care model: structure,

process and outcome of the day to day running of the CMAM programme at PML. Judging from these findings, the perception of providers is shaped by different factors, some of which feed into others. These factors include client-related factors; issues of administration, the administrative design or structure of the CMAM programme itself, recovery rates and awareness of malnutrition and CMAM. The emerging themes and sub-themes that explain healthcare providers' perceptions have been grouped under the three dimensions of quality of care. They are shown in figure 4.1 below and subsequently explained.

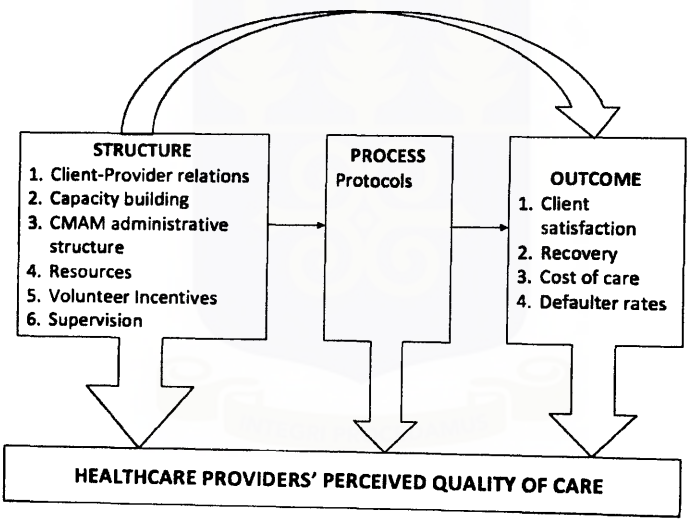

Figure 4.1 Determinants of Healthcare Providers' Perceived Quality of Care. Based on the Donabedian (1988) model.

4.2.1 Structure Dimension of Healthcare Providers' Perceived Quality of Care

The structure dimension of quality of care from the perspective of healthcare providers covers the following elements: client-provider relations, capacity building, CMAM administrative structure, resources, volunteer incentives and supervision. These have been explained below:

4.2.1.1 Client-Provider relationship

A strong provider-client relationship was indicated as one of the pillars of the drive for quality improvement at the centre. There was a relationship based on trust and mutual respect between the mothers and healthcare providers at the CMAM centre at PML. The healthcare providers believed that both the mothers and the healthcare providers had roles to play in achieving quality in the management of the children:

[...] It involves the mothers' role and the health personnel's role [...] (HcP4)

Based on the cordial relationship between the healthcare providers and mothers of the malnourished children, some of the mothers who were or had been on the programme routinely refer other mothers with malnourished children within their communities to the centre:

[...] Clients refer their colleagues to us for healthcare [...] (HcP1)

The healthcare providers attributed this to the high quality of care and the positive outcomes mothers experienced at the centre.

4.2.1.2 Capacity Building

Healthcare providers identified on-the-job training and skills development for them as inadequate. They pointed out the fact that they were not regularly updated on new trends in management of cases under CMAM. Although they had all been adequately trained in the beginning to run the CMAM programme, a significant amount of time had gone by without any further training to update them on the current trends in management of acute malnutrition. The analysis revealed that the healthcare providers appeared to have no idea of any improvements or changes to the CMAM programme since no such communication had been made to them:

[...] They have to update staff on improvements given to the programme [...] (HcP3)

Due to the seeming lack of regular on-the-job training for staff of the institution, it made it a bit difficult for other healthcare providers to understand what happens with respect to the management of the CMAM programme. That is to say that with reference to other health workers, the workers at the rehabilitation centre were of the view that their colleagues outside the CMAM programme were not well informed of malnutrition and its management, particularly under the system of CMAM. They also indicated the need for

other health workers to be taken through some form of capacity building, especially in the area of case identification of malnutrition.

[...] Health workers should be trained on CMAM so they can identify cases especially at the CWC (child welfare clinics) [...] (HcP4)

[...] Health workers should educate the general public on case identification [...] (HcP4)

[...] Lack of education to mothers... We need to start education on malnutrition and CMAM from JHS through to university, and all health workers should be educated on it [...] (HcP2)

From the analysis, it was obvious that the interviewed healthcare providers in giving their perceptions of the quality of care at the centre highlighted the fact that their clients, the general public, and even other health workers were not adequately informed of malnutrition and CMAM.

4.2.1.3 CMAM administrative structure

The scope or design of activities under CMAM was identified as very important in the achievement of quality. However, some of these structural issues were pointed out as bottlenecks to the smooth running of the programme.

The key issue was that the RUTF that is used in the management of malnutrition under CMAM is peanut-based. Thus, the healthcare providers mentioned that a number of children did not tolerate the product well:

[...] Some cases do not tolerate the plumpy nuts given... I recommend that there should provision for children who do not tolerate the plumpy nuts [...] (HcP1)

The analysis showed that unfortunately, there was no equivalent alternative for such children, and workers have a hard time coming up with innovative ways of managing these children.

4.2.1.4 Resources

The healthcare providers at the nutrition rehabilitation centre stated that they lacked logistic support. Funding and logistics such as RUTF and MUAC tapes were not always readily available for staff to use in their routine activities at the CMAM centre. During the in-depth interviews, each of the workers mentioned one resource or the other that was lacking at the centre:

[...] Sometimes we're not provided some items needed. Client cards are often not provided. MUAC tapes are not provided. The procurement procedures are too long – we do our own photocopying, sometimes there are no photocopiers [...] (HcP2).

[...] The lack of some logistics is a problem. Some facilities do not have enough RUTF [...] (HcP1).

[...] We don't have funds for follow-ups for the clients. Logistics should be made available for CMAM [...] (HcP2)

Based on the above, the analysis indicated that owing to inadequate and irregular supply of logistics and RUTF; and long procurement procedures, it was difficult to manage regular CMAM activities.

4.2.1.5 Volunteer incentives

An integral part of the CMAM programme is the work of community volunteers. Volunteers within the district are supposed to be involved in community screenings to help with early case identification, and referral of identified cases to the CMAM site at PML. Volunteers also have a role to play in following up on defaulters. However, the interviewed healthcare providers purported that community volunteers were not referring cases, as they ought to. The lack of zeal among volunteers was attributed to the lack of incentives for them:

[...] Community volunteers do not refer to the site due to lack of incentives [...] (HcP2)

Healthcare providers also suggested that the limited number of facilities running the CMAM programme placed a strain on facilities that were doing so, as well as on mothers who lived far away from PML:

[...] CMAM should be made available to all facilities in order to minimise referrals from very far facilities [...] (HcP1)

Thus, the analysis revealed that respondents were of the view that volunteers would be encouraged to support the programme if they were provided some form of financial and non-financial incentives. In addition, there was the need to accredit other health facilities within the Sub-Metro to provide the CMAM services as well. This would help reduce the overflow of clients at PML.

4.2.1.6 Supervision

Healthcare providers reported that though they were adequately trained to run the CMAM programme, there was an apparent lack of adequate supervision of activities at the site by higher authorities. They said that merely having guidelines was not enough to maintain the quality of care. They emphasised the need for regular supervision to ensure that healthcare providers follow the guidelines religiously, especially during clinics.

The following depict the situation regarding supervision:

[...] There is good training for the staff but a lack of supervision from superiors [...] (HCP2)

[...] Everyone is left to do what she wants. Staff should be supervised. If there are several mothers with their children here during clinics, we do our best always to follow the guidelines religiously, but there's no one to supervise what we're doing [...] (HCP3)

The analysis brought to light the need for effective and efficient supervision from senior managers responsible for the running of the CMAM programme within and outside PML.

4.2.2 Process Dimension of Healthcare Providers' Perceived Quality of Care

The identified element under the process dimension, which was seen to impact on healthcare providers' perception of quality of care, was the existence and use of protocols in the management of cases under CMAM. This has been explained below:

4.2.2.1 Protocols

The CMAM programme is an international programme proposed by the World Health Organisation as a way of addressing child nutrition/malnutrition challenges. Consequently, healthcare providers are supposed to follow the WHO guidelines for the management of SAM in the management of cases. It would be recalled that the CMAM programme was run in facilities of the PML hospital that existed for other purposes before its inception. As such, different steps in the WHO protocol for SAM management

were carried out in different sections of the hospital when the need arose. Cases with medical complications were usually referred for management on the ward, where all the necessary steps were taken to correct or prevent dehydration, hypoglycemia, hypothermia, and other medical complications which were present in the patiernts. Cautious feeding with F75 was usually initiated on the children's ward and maintained till the child was ready to be managed on outpatient basis, either on the CMAM programme or the Daily Feeding Programme. Outpatient care was carried out at the nutrition rehabilitation centre.

4.2.3 Outcome Dimension of Healthcare Providers' Perceived Quality of Care

The outcome dimension of quality of care from healthcare providers' perspective was influenced by four elements. These include client satisfaction, recovery rates, cost of care and defaulter rates. These have been analysed below:

4.2.3.1 Client satisfaction

Salient among the factors that healthcare providers identified to have an effect on the quality of care was their awareness of the importance of client satisfaction with the various dimensions of healthcare. They therefore, placed premium on the need to render service to the satisfaction of the client:

[...] Satisfying your client [...] (HCP3) was used in the explanation of quality healthcare by one of the providers.

[...] There has not been an incident where clients complain negatively [...] (HCP1)

It was clear that healthcare providers were confident of the service quality because the mothers expressed satisfaction with their output. The indication that mothers had little or nothing to complain about came out strongly.

4.2.3.2 Recovery from illness

Healthcare providers were confident that the outcomes of their interventions were positive in terms of recovery and improvement of nutritional and health status of the malnourished children.

[...] I have a good impression because we know what we give to the child is effective [...] (HCP4).

[...] It's the results at the end of the day, the changes seen in the malnourished and the outcome of the condition [...] (HCP1)

The analysis provided the basis to assess the perception of quality of care related to the outcome dimension of the programme. This was positive due to the recovery of the children who were managed under the CMAM programme.

4.2.3.3 Cost of care

The direct cost of treatment or management of malnutrition to parents with children enrolled on CMAM was minimal, as they did not have to pay for these services. Some healthcare providers viewed this as a mark of quality.

[...] The use of the CMAM programme for fully participating clients makes the care given quality. It's at no cost or charge to the client. It's good [...] (HCP1)

The cost of providing the services is borne by the sponsors of the CMAM programme.

4.2.3.4 Defaulter rates

The significantly high defaulter rates among mothers was identified as a factor that derailed the quality of service in terms of the impact of the CMAM programme on the nutritional and health status of the children. The healthcare providers revealed as a challenge where some mothers, especially those with children on RUTF, frequently missed appointments and failed to report for monitoring and collection of RUTF for their children:

[...] Some fail to continue coming for the ration. It is difficult convincing some clients to participate fully in the programme [...] (HCP2)

[...] Clients don't attend for full treatment. They don't see the importance or value of the plumpy nut ... There's a high default rate [...] (HCP3).

Hence, using the defaulter rate as a measure of the outcome dimension of quality of care from healthcare providers' perspective, it was negative.

4.3 Quality of Care from Mothers' Perspectives

Mothers were of the opinion that the quality of care at the centre was very good. Generally, their rating of the quality of care was recognisably higher than that of the providers:

[...] It's very good! The service is very good. On a scale of one to five I'll give them a four [...] (MSAMC7)

[...] Here is very good. As for me when I come here I don't want to leave. It's just the building that is not good enough, so I'll give them four out of five [...] (MSAMC2)

[...] As for this place, it's very good. Last week and this week, when I hold my child I can tell there's been a great improvement so I'm happy. We're not making up stories to praise them. It's the truth we're telling you. They're very good [...] (MSAMC8)

[...] Please before you say it's quality, to me it means that something was not going well, but you took it somewhere and now it's good for you and you're happy. I can see it's good for me. It is like all hope was lost before I came here and my hope was restored. That's why I say it's good for me [...] (MSAMC4)

[...] When my child started falling sick I searched all over for a cure. People said it was a spiritual illness. When I brought him here there's been an improvement so I've realised this place is good [...] (MSAMC1)

The analysis showed that mothers viewed the CMAM programme as a restorer of hope for them in terms of the survival of their children. This could be an underlying factor of the highly positive perceptions they had of the quality of care there.

4.4 Factors Associated with Quality of Care from Mothers' Perspectives

Factors that the mothers associated with the quality of care include staffs' social skills, environmental factors, use of protocols by healthcare providers, making and communicating a clear diagnosis, the rate of recovery and client satisfaction. The emerging themes and sub-themes that explain mothers' perceptions are presented below.

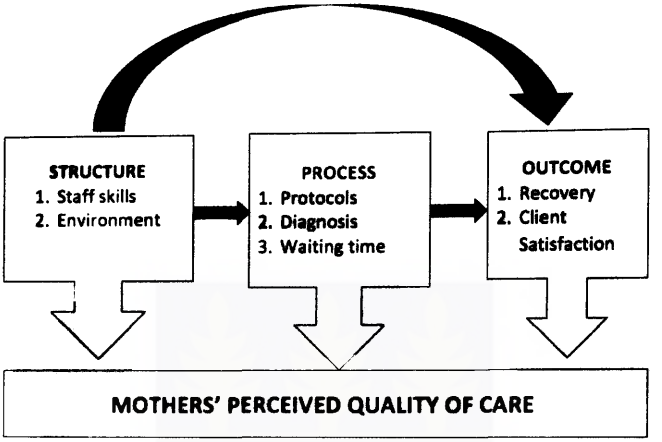

Figure 4.2 Determinants of Mothers' Perceived Quality of Care. Based on the Donabedian (1988) model.

4.4.1 Structure Dimension of Mothers' Perceived Quality of Care

Staff skills and environment were the two elements that were identified under the structure dimension of quality of care from mothers' perspective.

4.4.1.1 Staff skills

It must be noted that the mothers had limited knowledge of the technical knowhow of the healthcare providers. Therefore, their assessment was based on relationship that they enjoyed while accessing services for their SAM children at the CMAM centre at PML.

In expressing their perceptions of the quality of care at the CMAM centre, mothers acknowledged the vital role that certain technical and social skills possessed by the staff there shaped their opinions.

4.4.1.1.1 Social skills

Mothers were generally happy with the sociable and friendly nature of healthcare providers. Mothers also said that they were generally treated with fairness and respect at the rehabilitation centre.

[...] Ordinarily people would shy away from children with kwashiorkor (protein energy malnutrition) because of the way their bodies are, their skin lesions and so on. They don't discriminate. They hold the children, talk to them [...] (MSAMC8)

Staff at the centre were also said to be approachable. Mothers reiterated that they were given the opportunity to ask questions and to seek clarification from the professionals whenever they needed to.

[...] Unless you don't ask. Once you ask, they're always ready to answer your questions about your child [...](MSAMC8)

[...] If you ask they're ready to answer, the doctors and everybody [...] (MSAMC5)

The mothers positioned their assessment of the quality of care provided by the healthcare providers in the realm of social relationship since community/society would normally shun children suffering from malnutrition. Therefore, they were satisfied since the healthcare providers welcomed them in the course of seeking treatment for their children at PML.

4.4.1.1.2 Technical skills

Mothers were full of praises for the workers at the rehabilitation centre. When asked for their opinions of the technical skills of providers, mothers were upbeat that the staff at the centre possessed the requisite skills to cater for their children. Since the mothers are lay people without any health background to assess the technical competencies of the healthcare providers, their assessment was based on social interactions between them and the healthcare providers as well:

[...] As for the one here, when it comes to her job, she really knows what she's about. She's able to do it, and she teaches you for you to understand. She's good [...] (MSAMC4)

[...] As for the nurses here, excellent! They are friendly and professional [...] (MSAMC8)

[...] They are very good, and they work well. They're respectful, and they know how to talk. They teach us well, God bless them [...] (MSAMC3)

The analysis indicated that the mothers assumed that, the kind of cordial relationship provided by the healthcare providers was the result of the training that they had been given to deliver the care to their children.

4.4.1.2 Environment

The environment is one of the factors that could influence patients'/clients' satisfaction and assessment of quality of care. Thus, the mothers' assessment of quality of care for their babies was based on their assessment of the physical environment as well. Mothers expressed dissatisfaction with the physical environment and infrastructure at the centre:

[...] The little problem however is that the painting and the external environment is very bad. The nurses are very good but the environment is sub-standard [...] (MSAMC8)

For mothers who lived far from PML, the lack of hostels or lodging facilities of any kind posed a significant challenge to them:

[...] They should put up more buildings. Government should help put up more buildings so that those of us mothers from far away will get somewhere to stay and eat when we come [...] (MSAMC7)

It was shown through the analysis that the aesthetics of the building and the environment around the nutrition rehabilitation centre were described as poor and sub-standard in some cases.

4.4.2 Process Dimension of Mothers' Perceived Quality of Care

Three elements of the process dimension of quality of care from mothers' perspectives were identified. These are the use of protocols, the establishment and communication of a clear diagnosis by healthcare providers, and waiting times at the facility.

4.4.2.1 Protocols

According to the mothers, it was obvious that protocols existed to guide the activities of the CMAM programme. This was evident in the way staff at the centre went about their duties in caring for the children. They observed that a protocol exists for referring, admitting and enrolling children unto the CMAM programme:

[...] When I first came, they checked and said my child is fine but her feeding was inadequate so I was referred to this rehab centre *[...]* (MSAMC6)

Mothers also indicated that this routine was followed in the assessment of their children whenever they visited the centre:

hey don't just go ahead and treat. They pressed his legs...they have something like they put on the hand so when they checked they said I need a little more ement [...] (MSAMC3)

ıey have something they use to measure the child's arm and let you know whether been an improvement, then they check the weight, before giving you the ration ISAMC8)

alysis provided that although the mothers were not knowledgeable of the content ɔrotocols used by the healthcare providers in the treatment of their SAM children, sessment was based on the procedures that they go through at the CMAM centre.

Diagnosis

whether or not the mothers were given a clear diagnosis of their children's ɔn, mothers were of divided opinions. Some indicated that they were given a clear is, which helped them come to terms with their children's condition.

e doctor told me plainly that my child had kwashiorkor. He had a big stomach y lean body [...] (MSAMC7)

ıothers, however, indicated that they were not given a clear diagnosis, and were e not clear about what to expect of their child's condition.

[...] They did not tell me what the exact condition of my child was, they only said her weight was small [...] (MSAMC6)

It was deduced from the analysis that providing the diagnosis to mothers of SAM children depended on either the severity of the condition of the child or the experience of the healthcare provider who assesses the child. In other instances, consideration is given in order not to bring fear and panic to the mothers.

4.4.2.3 Waiting time

For mothers who had children receiving care within PML but outside the CMAM programme for other medical conditions, long waiting times marginally affected their perceptions of the overall quality of care. Long waits at the OPD affected the amount of time they had left to spend at the CMAM centre after going for medical reviews.

[...] One problem I've identified is that if you're coming to this hospital and you don't come very early... By 12 noon doctors on the morning shift start leaving... The first time I came here it was in the afternoon; I got home around 12 midnight... A doctor did not see us until 8-9pm. It is worrying [...] (MSAMC4)

It was revealed that waiting time was seen as a key indicator of measuring quality of care from the perspectives of the mothers of SAM children receiving services at the CMAM centre at PML.

4.4.3 Outcome Dimension of Mothers' Perceived Quality of Care

Recovery rates and the satisfaction of clients with care were the identified elements under the outcome dimension of quality of care from mothers' perspective. These have been explained below:

4.4.3.1 Recovery

Mothers were highly impressed with the outcome of the interventions made for their children at the CMAM centre. They were impressed with the rate of recovery and the change in appearance of their children. The mothers perceive the improvement in the condition of the marasmus child as when the child begins to regain some weight.

[...] In addition, if you compare your current state to the past one you see that there's been a very great difference [...] (MSAMC8)

This is as a result of the fact that, they lack the technical knowhow to make any medical judgment. Hence, a little gain in the weight of the child was what the mothers believed to be the outcome of the care provided to the children.

4.4.3.2 Client Satisfaction

High levels of satisfaction with the quality of care were expressed among the mothers. Mothers associated their satisfaction with the positive outcomes they experienced at the facility:

[...] So within you, because of the improvement, you're happy with the service being rendered to you... When you come here you're happy. This is because of the improvement that has come. We're not just saying something to praise them. [...] (MSAMC8)

[...] Since I brought my child here, I always can't wait for review days. Coming here has made me very happy. I'm now able to dress my child up [...] (MSAMC4)

The analysis thus revealed that mothers' satisfaction with the improvement in the condition of their SAM children was used as a basis for assessing quality of care provided at the CMAM centre at PML.

4.4 Observation Findings

The checklist used to conduct the participant observation had certain items that helped to identify how healthcare providers conducted their job roles in relation to the provision of care to the SAM children under the CMAM programme at PML. These have been captured in table 4.1.

Table 4.1 Findings of Observation of CMAM Care Process

COMPONENT TASK	RATING		
	0 (step omitted)	1 (step improperly carried out)	2 (step well carried out)
1. Welcomes caregiver			✓
2. Offers caregiver seat			✓
3. Provides privacy		✓	
4. Reassures caregiver			✓
5. Encourages caregiver to talk about illness/complaints e.g. Asks open ended questions		✓	
6. Listen attentively to care giver e.g. Maintains eye contact		✓	
7. Records child's complaints after listening to caregiver			✓
8. Examines child thoroughly (physical observation, anthropometry, diet history)			✓
9. Records observations on treatment sheet			✓
10. Establishes diagnosis			✓
11. Prescribes treatment, including treatment of shock, hypoglycaemia, hypothermia, dehydration, anaemia, etc.			✓
12. Explains diagnosis and treatment to caregiver in language she will understand			✓
13. Directs caregiver to where other services could be obtained.	✓		
14. Gives /plans with caregiver schedule for rehabilitation.			✓
15. Thanks caregiver for using facility		✓	

It was observed that healthcare providers did not direct mothers to where other services (health services for which a referral to a different health professional would be necessary, or other services such as social welfare or family planning) could be obtained. The possibility of staff not seeing the need to direct clients elsewhere because their assessment did not give indications of such requirements should however not be overlooked.

There was very little privacy during consultations, and healthcare providers were often distracted by activities within and around the centre. It was seen that the number of clients often overwhelmed healthcare providers. Thus, they did not adequately engage with clients extensively through open-ended questioning. As a session ended, there was an urgency to get the next client on board. As such, clients were not explicitly appreciated for patronising the facility.

The healthcare providers' perception of quality of care was largely influenced by the assertion that they rendered the best service in spite of various challenges and constraints including the omitted and improperly conducted tasks above. This assertion was probably made with the awareness that there was more to be done by way of improving the care process.

4.5 Chapter summary

Chapter four has presented the findings of data collection and analysis conducted. These findings will be discussed in the chapter that follows.

CHAPTER FIVE

DISCUSSION

5.0. Introduction

This chapter presents a discussion of the findings of the study. The findings presented in the previous chapter will be compared to, and contrasted with existing literature. There are two (2) sections in this chapter. Section 5.1 discusses healthcare providers' perceptions of quality of care and the factors contributing to these perceptions. Section 5.2 discusses mothers' perceptions of quality of care and the factors contributing to these perceptions.

5.1 Healthcare Providers' Perception of Quality of Care

The study found that healthcare providers perceived the CMAM programme as one of good quality. They associated this with the expression of high levels of satisfaction with the quality of care by mothers.

Healthcare providers also attributed their perception to the collaborative relationship they shared with the mothers. They were of the view that, it was the high quality of the care they provided to children that made mothers eager to refer other families with malnourished children to the centre.

Providers also cited the effectiveness of interventions in boosting recovery rates among malnourished children as a reason for their perception. This is similar to the reasons healthcare providers gave in an earlier study (Ossai & Uzochukwu, 2015). Ossai and

Uzochukwu (2015) reported that providers rated the quality of care in their facility as good because of the results they achieved.

Other factors have been identified by different authors to have an influence on provider perceptions of quality of care. These include workgroup cohesion, relations among staff, procedural justice, organisational constraints, physical work environment, being employed in an accredited hospital, and job satisfaction (Djukic et al., 2013).

In spite of the many challenges they outlined, healthcare providers reported that the quality of care was good. Alhassan et al. (2015), argued that the relatively higher satisfaction ratings by health staff on many of the quality healthcare indicators could be attributed to the tendency of health staff to give more favorable answers to portray "a good name" for their facilities.

It would be recalled that client satisfaction, as modelled in the conceptual framework of this study, is an outcome measure of quality of care. The relationship between the mothers and healthcare providers is a structural indicator, whilst recovery rate is an outcome indicator of quality of care.

5.2 Mothers' Perception of Quality of Care

According to the mothers, the quality of care was very good because they saw tremendous improvement in the health status of their children by being managed on the CMAM programme. Their higher rating of the quality of care compared to the providers

could be attributed to the fact that most of them had little or no hope of the survival of their malnourished children prior to being enrolled on the CMAM programme.

The higher ratings among mothers could also be due to the fact that they had little or no knowledge of the technical aspects of quality assessment. Mothers who were interviewed demonstrated a low depth of knowledge of quality of care. Their responses were therefore, based on what they had experienced upon interaction with staff of the facility, rather than an assessment based on intellectual evaluation of the different aspects of care. In a different study under similar conditions, however, clients were reported to have a good knowledge of quality of services (Nnebue et al., 2014).

Mothers probably relied on their feelings regarding the quality of care to formulate their perceptions. Nwaeze et al. (2013) evaluated clients' perception of antenatal care quality at the University College Hospital (UCH), Ibadan and determined levels of client satisfaction. They recorded a high overall level of satisfaction with antenatal services among pregnant women in UCH. The study emphasised the need for policy makers and health providers to address improvement of amenities, reduction of waiting time, and to ensure that, health interventions were made available for all clients.

5.3 Structure dimension of perceptions of quality of care

The pertinent elements that were seen to have a significant impact on clients' and healthcare providers' perceived quality of care are discussed below, in relation to literature:

5.3.1 Client-provider relationship

A strong provider-client relationship was indicated as one of the pillars of the drive for quality improvement at the centre. One healthcare provider was of the view that, in managing the malnourished children both mothers and provider had roles to play. The relationship of collaboration and peaceful coexistence that existed between mothers and the staff was one of the determinants of the good perception of the quality of care among healthcare providers.

The relationship of staff with their clients and relatives of these clients has been identified by other authors as one of the key staff factors that influence quality of care. The necessity of creating effective relationships between healthcare providers and their clients and clients' relatives was strongly highlighted in a study (Law, Patterson, & Muers, 2016).

5.3.2 Environment

Mothers were unanimous in their assessment of the physical environment of the nutrition rehabilitation centre where the CMAM programme was run. The mothers rated the physical environment poorly, and they called for renovation of the facilities. In rating the

quality of care, most mothers cited the poor physical environment as their reason for not rating the care as one of excellent quality.

A good, clean, physical environment is usually associated with high perceptions of quality of care among clients. For instance, Freeman (2015) reported a significant association between cleanliness of environment and cleanliness of washroom with level of satisfaction of clients.

5.3.3 Capacity building

Regular on-the-job training sessions are a necessity, if staff is expected to be abreast of the current trends and dynamics of management of malnutrition. The findings of this study indicated that, healthcare providers at the CMAM centre in PML were not regularly trained. Although they were all given the necessary training before being employed, virtually no refresher or update courses have been organised for them. These findings are consistent with the findings of a study conducted by Chitete and Puoane (2015), which found that 94 healthcare providers involved in CMAM had not been trained for as long as four years since their initial training on how to manage malnutrition.

Due to the fact that malnutrition is usually accompanied by several co-morbidities, it is important that staff is given adequate training on them. Conditions such as HIV/AIDS, malaria and diarrhea may coexist with malnutrition, and healthcare providers should be adequately trained on the right steps to take when faced with these cases. For instance,

training CMAM focal persons on HIV counseling and testing will help improve screening and identification of children with HIV/AIDS.

5.3.4 Supervision

Supervision of health facilities provides an avenue whereby leadership monitors and evaluates performance of the facilities. Supervision mainly seeks to sustain health by providing technical support. It also aims at identifying the requirements of health facilities, in terms of equipment and materials (Tessema et al., 2017). In this study, healthcare professionals bemoaned the lack of supervision at the CMAM site at PML. Similarly, only 66% of healthcare facilities that were included in a study conducted by Tessema et al. (2017) reported that, higher health offices had supervised them six months before the study.

5.3.5 CMAM Administrative Structure

According to Collins (2007), designing programmes so that patients present in the early stages of the evolution of their condition is the prime factor of achieving success in management of the condition. This has essential practical implications for resource requirements and effectiveness, and is more crucial than the mere existence of clinical protocols in determining the success of a program. Due to the way in which the CMAM programme operates in Ghana, one CMAM site serves a very wide coverage area. CMAM is still in the process of scaling up. As of 2011, only six out of the ten districts in Accra had CMAM programmes running (Neequaye & Okwabi, 2012). This could be a

causative factor of the high defaulter rates among mothers of malnourished children. It could also place significant strain on the human and other resources available for the programme.

The design of the CMAM programme is also such that it seeks to take advantage of the existing health workforce of the Ghana Health Service. For instance, community health nurses are used to conduct community outreaches; on hand volunteers used for other public health outreach activities, such as national immunisation, vitamin A supplementation, community surveillance and guinea worm eradication, are also used for CMAM community assessment and mobilisation (Neequaye & Okwabi, 2012). One aim of doing this was to take advantage of the remuneration and incentives that were already in place for these personnel. However, over time, these packages may no longer be enough to motivate volunteers. This could have led to loss of motivation and failure to work on the part of these volunteers.

5.3.6 Resources

The CMAM programme in Ghana is heavily dependent on donor funds. This phenomenon is a possible cause of the inadequacy of logistics and resources available for running the programme. The prolonged shortages of logistics and supplies reported in this study were also recorded in a different study. Staff of an OTP centre and a district health office in Zambia reported that they often experienced prolonged shortages of MUAC tapes, RUTF and drugs (Mwanza, Okop, & Puoane, 2016).

5.4 Outcome Dimension of Perceptions of Quality of Care

Elements of the outcome dimension of quality of care, including cost of care, client satisfaction and defaulter rates are discussed in the next section. The impact of these elements on perceived quality of care in this and other studies are discussed below:

5.4.1 Cost of care

It is expected that the cost of care would influence perceptions of quality from the angle of the clients. However, in this study, it was rather seen to influence the providers' perception of quality. Perhaps, mothers were yet to come to terms with the value the CMAM programme had in terms of alleviating the potential financial burden they would have faced in treating their children without it.

Financial burden or cost of healthcare has often been associated with client satisfaction. In a study that aimed at assessing the link between client satisfaction with care and financial burden, participants reported the lowest satisfaction with financial aspects of care (Chino et al., 2014). Financial burden was identified as "a potentially modifiable correlate of poor satisfaction with care, including general satisfaction and satisfaction with the technical quality of care". They therefore, concluded that, reducing financial burden might lead to improved satisfaction, and consequently influence adherence, outcomes, and quality of life.

Due to the fact that, the CMAM programme is a fully sponsored one, mothers do not pay for any service at the centre. As a result, the element of reduced satisfaction owing to financial burden was virtually non-existent in this study. This is similar to the findings of a study, which identified overly excessive medical charges as the foremost cause of dissatisfaction among patients in China (Pan, Liu, & Ali, 2015). These findings are however, inconsistent with those of a study in Nigeria (Nwaeze et al., 2013). In that study, several fee-paying patients expressed high levels of satisfaction in spite of the costly fees they had to pay for antenatal services.

5.4.2 Client satisfaction

Clients, the contextual factors surrounding them and their satisfaction with care are important subjects in quality of care studies (Mesfin et al., 2009; Mohammed et al., 2016; Mosadeghrad, 2014). The findings of this study showed that, the mothers had a significant role to play in assessing quality of care for their children. Healthcare providers' perceptions of good quality were partly informed by high levels of satisfaction expressed by mothers. Mothers also formed their perceptions of the quality of care from their satisfaction with the care outcomes and processes.

After a review of 54 abstracts, Srivastava, Avan, Rajbangshi, and Bhattacharyya (2015), reported that, the determinants of client satisfaction covered all three dimensions of care (structure, process and outcome). Under structure, good physical environment, cleanliness, availability of adequate human resource, medicines and supplies were the

identified determinants. Interpersonal behavior, privacy, promptness, cognitive care, perceived provider competency and emotional support made up the process determinants. Process determinants were seen to dominate among the factors determining maternal satisfaction in developing countries; with interpersonal conduct being the most extensively reported determinant. The findings of this study however, revealed that, outcome of care was a much stronger determinant of mothers' satisfaction, although process and structure determinants contributed to an extent.

5.4.3 Defaulter rates

Mothers of children enrolled on the CMAM programme are typically expected to visit the nutrition rehabilitation centre weekly. On each visit, the child is reassessed and supplied with RUTF and any medication required according to the CMAM protocol. These weekly reviews are supposed to be attended till the child recovers and is discharged from the CMAM programme. The fact that a significant number of mothers defaulted from attending the weekly appointments could mainly be attributed to distance. The CMAM centre at PML receives referrals from far and wide. Mothers who live far from the hospital may face difficulties travelling every week to collect RUTF. Defaulting could also be associated with the fact that mothers are not properly counseled on the role RUTF plays in the recovery of their children. A child who misses three (3) consecutive reviews is considered to have defaulted from the CMAM programme (Mwanza et al., 2016).

5.5 Process Dimension of Perceptions of Quality of Care

Waiting time was identified as an important element under the process dimension of quality of care during data analysis. It is discussed vis-à-vis literature in the next section.

5.5.1 Waiting time

Waiting time is a very important component of quality of care studies because of its potential to sway perceptions of quality. In a study that assessed clients' satisfaction with health service quality in Uganda, waiting time was identified as a key source of displeasure to clients (Babirye, 2015).

In this study, however, mothers experienced the long waiting times when they had to visit the OPD before going to the CMAM centre. Since the long waits were not experienced at the CMAM centre specifically, it had little influence on the general perception of mothers of the quality of care.

5.6 Chapter Summary

The findings of this study as discussed above are consistent with those of Silva et al. (2013), who explored what was meant by "quality of care" by both health professionals and patients, and also compared the perspectives of nurses, doctors and patients in order to understand whether these different actors shared similar views on what represents quality of care. They found that, all participants emphasised technical and interpersonal dimensions of quality of care. Professionals stressed the availability of equipment and supplies and the conditions of health care indoor facilities, whilst patients focused more

on their access to health services, namely the availability of health professionals, and on the health status outcome after care. The findings of this study regarding the perceived quality of care under the dimensions of structure, process and outcome (figures 4.1 and 4.2) were explained in this chapter. The next and final chapter of this study summarises, concludes on the findings related to the objectives of this study, and makes recommendations for further research and practice.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.0. Introduction

This final chapter contains three main sections: One on a summary of the study and another concluding on the findings thereof. The third section covers recommendations for future research, practice, management and agenda setting for policy change. Limitations to the study are also mentioned in this section.

6.1. Summary of the study

This study determined the quality of care from the perspectives of mothers on one side, and healthcare providers on the other. In-depth interviews and an observation were carried out to collect data. Findings are that, clients (mothers of malnourished children) and healthcare providers alike, perceived the CMAM programme at PML as one of good quality. Mothers expressed a high level of satisfaction with the quality of care, but expressed the need for improvement of the environment of the nutrition rehabilitation centre where the programme is run. Healthcare providers mentioned high defaulter rates among clients, the lack of supervision and regular training of staff, lack of awareness of the CMAM programme and malnutrition among other healthcare providers and the general public, as well as the inadequacy of funds and resources for the running of the programme as areas requiring improvement in order to boost service quality.

6.2 Conclusion

The quality of care for malnourished children enrolled on the CMAM programme in PML is very good, from the perspectives of mothers of children on the programme. Determinants of mothers' perception of quality of care included healthcare providers' skills, the mothers' satisfaction with care, recovery rates of their children and their relationship with the healthcare providers. Problems with the physical environment, ranging from aesthetics to the absence of lodging facilities for mothers who had to travel were the major issues that were seen to negatively impact mothers' perceptions of quality of care.

Dhital, Dhita and Aro (2015) identified timing of services, availability of cost-effective medicines, privacy, staff skills, accountability of health staff, provision of transportation, staff behavior, and governmental support as the key determinants of client perceptions of quality.

The healthcare providers working on the CMAM programme in PML perceived good quality of care. Determinants of healthcare providers' perception included the outcomes of care, the cost of care and their relationship with the mothers. Bottlenecks identified by healthcare providers included high defaulter rates among clients, the lack of supervision and on-the-job training for staff, the lack of awareness of the CMAM programme and malnutrition among other healthcare providers and the general public, as well as the inadequacy of funds and resources for the running of the programme.

Similarly, Islam et al. (2015) identified unavailability of staff and logistics; poor laboratory support; under use of management protocols; insufficient training; and unsatisfactory supervision as major determinants of quality of patient care from health workers' point of view.

Evaluating quality of care from a holistic point of view, which considers perspectives of multiple stakeholders, gives an objective representation. It also helps policy makers and managers of health programmes understand the needs and challenges of client and healthcare provider (Dhital, Dhita, & Aro, 2015). It takes co-operation between the patient and healthcare provider, in an enabling environment, to achieve high standards of quality in healthcare (Ali, 2013).

This was demonstrated in a study involving sixty-four (64) primary health centres, over a thousand households and more than three hundred health workers in Ghana; which examined differences in perceptions of quality of healthcare between healthcare providers and clients (Alhassan et al., 2015). It suggested that ensuring technical quality care alone is not enough to improve clients' perception of quality care and their health-seeking behavior. Provider and client contextual (and personal) factors, as well as factors pertaining to the organisation or structure of the health system or facility and the environment all go a long way to influence perceived healthcare quality.

6.3 Recommendations of the study

Through this study, certain areas that require intervention to improve upon the quality of care for malnourished children under the CMAM programme in PML were identified. Key among them are the following recommendations:

1. The Ghana Health Service and management of PML should prioritise and take steps to improve upon the environment of the nutrition rehabilitation centre and the hospital in general to improve client satisfaction

2. UNICEF Ghana and Ghana Health Service should step up supervision and regular training of CMAM focal persons in order to improve efficiency.

3. UNICEF Ghana and Ghana Health Service should ensure that logistics needed to run the CMAM programme are readily available.

4. The Ministry of Health, Ministry of Education, National Commission for Civic Education, UNICEF Ghana and Ghana Health Service should be involved in education of healthcare professionals and the general public on CMAM and malnutrition to help in early case identification, prevention and management.

6.3.1. Limitations to the study

Because of a resource limitation, this research purposively selected one hospital from only one district running the CMAM programme out of the ten districts in the Greater Accra Region. Secondly, the interviews were all conducted within the CMAM centre. Respondents might have given responses that they felt would please the healthcare

providers rather than a true reflection of their feelings. In addition, the small number of study participants limits the generalisability of the results.

6.3.2. Future research

Research on the following topics will go a long way to enrich the body of knowledge on the quality of care for malnourished children under the CMAM programme.

1. Factors leading to defaulting from CMAM treatment.
2. Direct and indirect costs to parents or sponsors of children on CMAM.

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APPENDICES

APPENDIX 1: IN-DEPTH INTERVIEW PROTOCOL FOR HEALTH CARE PROVIDERS

Code: _____ Date: _____

Duration of experience:_____ Position:_____

My purpose of talking with you today is to learn more about your experience and perception of the quality of care under the CMAM programme.

Nothing you tell me will be personally attributed to you in any reports that result from this evaluation. All of the reports will be written in a manner that no individual comment can be attributed to a particular person.

Your participation in this interview is voluntary. Are you willing to be interviewed?

Do you have any questions before we begin?

1. What constitutes quality healthcare in your opinion?
2. What are the program, policies or protocols used in malnutrition management in this hospital that you know of?
3. How do children get enrolled unto the CMAM programme?
4. What is your impression about the quality of healthcare for malnutrition in this facility?
5. How have clients responded to the quality of healthcare services provided under Community-based Management of Acute Malnutrition (CMAM) in your opinion?
6. What do you think are the challenges with CMAM here in PML?
7. What are your recommendations for making the management of malnourished children under CMAM better?

Thank you for your time!

APPENDIX 2: PROTOCOL FOR IN-DEPTH INTERVIEWS OF MOTHERS

Date: _____Participant Code:____

Good afternoon and welcome to our session. Thanks for taking the time to talk with me. My name is Naana Akua Debrah, a post-graduate student from the School of Public Health, University of Ghana. I am working to understand your perception of the quality of services rendered to your children under the CMAM programme here at PML. Assisting me is Sophia Stevens. You were invited to this session because you have had firsthand experience of the services rendered under the CMAM programme.

There are no wrong answers but rather differing points of view. Please feel free to share your point of view. Keep in mind that I am just as interested in negative comments as positive comments and at times, the negative comments are the most helpful.

You have probably noticed that we are tape-recording the session. This is because we do not want to miss any of your comments. People often say very helpful things during interviews, and we cannot write fast enough to get them all down. We will be on a first name basis today and we will not use your name in our reports. You are assured of complete confidentiality. Nothing you say will be personally attributed to you in any reports that result from this interview.

Are you willing to answer my questions? Do you have any questions before we begin?

Well, let us begin. Let us find out some more about each other. Tell me your name and how long you have been on this programme.

1. What constitutes quality healthcare in your opinion?
2. How did your child get enrolled unto the CMAM programme?
3. What do you think about the structure of this facility (buildings, number of staff, equipment, environment, rations)?
4. In your opinion, are the health care providers' skills adequate for your child's treatment?
5. Did the healthcare provider give a clear diagnosis of your child's condition? Follow-up: Did it appear as if a systematic protocol was being followed in treating your child?
6. Did you get the opportunity to ask questions about your child's health problem or treatment?
7. What do you think is the outcome of care in this facility (the impact of care on your child's nutritional status)?

8. How would you rate the quality of care you have received so far? (Follow-up: Would you recommend this hospital to your friends and relatives?)
9. Do you have any additional comments about the CMAM programme that we have not already discussed?

Thank you for your time!

Appendix 3: Observation guide

Main procedure: Management of malnourished child at OTC.

Rating key: 0. The step was omitted
1. The step was improperly carried out
2. The step was well carried out

COMPONENT TASK	RATINGS
1. Welcomes caregiver	0 1 2
2. Offers caregiver seat	0 1 2
3. Provides privacy	0 1 2
4. Reassures caregiver	0 1 2
5. Encourages caregiver to talk about illness/complaints eg. Asks open ended questions	0 1 2
6. Listen attentively to care giver eg. Maintains eye contact	0 1 2
7. Records child's complaints after listening to caregiver	0 1 2
8. Examines child thoroughly (physical observation, anthropometry, diet history)	0 1 2
9. Records observations on treatment sheet	0 1 2
10. Establishes diagnosis	0 1 2
11. Prescribes treatment, including treatment of shock, hypoglycaemia, hypothermia, dehydration, anaemia, etc	0 1 2
12. Explains diagnosis and treatment to caregiver in language she will understand	0 1 2
13. Directs caregiver to where other services could be obtained.	0 1 2
14. Gives /plans with caregiver schedule for rehabilitation.	0 1 2
15. Thanks caregiver for using facility	0 1 2

APPENDIX 4: CONSENT FORM

My name is Naana Akua Debrah, a post-graduate student from the School of Public Health, University of Ghana. I am carrying out a study in this hospital to find out the perceptions of quality of care for malnourished children. I would be very glad if you could participate in it. Your participation would involve a 30 minutes' interview with you to answer some questions about yourself and your perception of the quality of care here.

You may not have any immediate or direct benefits from my interview but your responses would help in policy planning and formulation of recommendations to appropriate authorities to help improve quality of care provided under the CMAM programme. The only inconvenience that you may face by accepting to take part in this study perhaps is spending your time. If you decide to take part, you are allowed to withdraw whenever you wish to, and are also allowed to skip answering any of the questions that you are not very comfortable with.

The information you provide is going to be treated with strict confidentiality. Apart from my research team, nobody shall have access to the information since it shall be under lock and key. We also assure you that your name shall not appear or be mentioned in any report that will come out from this study.

Before taking Consent

Do you have any questions you wish to ask about the study? Yes/No

If yes, please, indicate the question(s) below

.....

.....

If you have any further information or questions about the study, you may contact the principal investigator, Naana Akua Debrah, Department of Health Policy, Planning and Management - School of Public Health, University of Ghana (Tel: 0542354078, email: nakuadeb@yahoo.com). You may also contact the administrator of the Ghana Health

Service Ethical Review Committee, Ms. Hannah Frimpong, on 0243235225/0507041223 for further clarifications.

Participant's Consent

I have read the information given above, or the information above has been read to me and I understand. I have been given a chance to ask questions concerning this study; questions have been answered to my satisfaction. I now voluntarily agree to participate in this study knowing that I have the right to withdraw from this study at any time without affecting future health care services.

Signature or Thumbprint of Participant.....

Date.....

Interviewer's Statement

I, the undersigned, have explained this consent to the subject in English language/ Twi/ Ga, and she understands the purpose of the study, procedures to be followed, as well as the risks and benefits of the study. The participant has fully agreed to participate in the study.

Signature of Interviewer .....

Date .....

Address.....

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

In case of reply the number and date of this Letter should be quoted.

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MyRef. GHS/RDD/ERC/Admin/App 1567
Your Ref. No.

Naana Akua Debrah
University of Ghana
School of Public Health
Legon, Accra

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	**GHS-ERC: 126/02/17**
Project Title	Quality of Community-Based Management of Acute Malnutrition (CMAM) Services for Malnourished Children at Princess Marie Louise Hospital
Approval Date	8th June, 2017
Expiry Date	7th June, 2018
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....
DR. CYNTHIA BANNERMAN
(GHS-ERC CHAIRPERSON)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra