

FACILITATORS AND BARRIERS TO IMPLEMENTATION OF FACILITY-BASED KANGAROO MOTHER CARE IN EAST AFRICA: WHAT IS THE EVIDENCE?

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Abstract

Background: The largest direct cause of Neonatal Mortality (NM) globally is prematurity and Low Birth Weight. Many NM are preventable through Kangaroo Mother Care (KMC) which reduces NM by a half. Although KMC is a high impact intervention for preterm and LBW babies, uptake is very low globally, and in Africa, especially developing countries. The purpose of this study was to systematically identify and analyze existing evidence, regarding facilitators and barriers to implementation of facility-based Kangaroo Mother Care in East Africa.

Methods: This was a systematic review. A database search limited to full text articles published in English, from 1986 to June 2021 was conducted using Google Scholar, SCOPUS, CINAHL, PubMed, African Journals Online (AJOL) and Web of Science. Hand searching and search through grey literature was also done.

Results: Sixteen studies identified revealed variations and similarities regarding KMC implementation among the six East African countries; Kenya, Uganda, Tanzania, Rwanda, Ethiopia and Sudan. KMC implementation is dependent on factors within health facilities, community and the health system.

Conclusion: Successful implementation of KMC is facilitated by a well laid down framework that incorporates prior preparation of the health facilities, community sensitization and health system strengthening.

Key words: *Kangaroo mother care, barriers, facilitators, East Africa*

Introduction

Neonatal death is a global health issue, with a Neonatal Mortality Rate (NMR) of 17 deaths per 1000 live births globally (UNICEF, 2019). A geographic analysis and health survey carried out in East and West Africa revealed that Africa has the highest NMR of 27 per 1000 live births (Grady *et al.*, 2017). Out of the global neonatal deaths,

Sub-Saharan Africa accounts for 38 per cent (Committing to Child Survival, 2011). Masaba and Mmusi-Phetoe (2020) indicates Kenya's NMR at 19.6 deaths per 100 live births. Globally, the leading direct cause of neonatal deaths is attributed to complications of preterm birth (before 37 completed weeks gestation) and Low Birth



Weight (LBW) which could be due to small for gestational age (Lawn *et al.*, 2010; Marchant *et al.*, 2012; Liu *et al.*, 2016 and UNICEF, 2020).

Global agenda for Sustainable Development Goal number 3 is to reduce NMR to 12 per 1000 live births by 2030 (United Nations, 2015). Many of these neonatal deaths are preventable through healthcare interventions namely: thermal control by drying and wrapping the baby with dry warm blankets at birth, providing warm environment, prevention of infection and hypoglycaemia and Kangaroo Mother Care (Bale, Stoll and Lucas, 2003; Knippenberg *et al.*, 2005; Simmons *et al.*, 2010 and WHO, 2015). These strategies are provided through programs like, Every Newborn Action plan, Essential Newborn care and Kangaroo mother care (WHO, 2014; Akseer *et al.*, 2015 and Gülmezoglu *et al.*, 2016). According to WHO and UNICEF, (2010) ‘countdown report’, it is indicated that KMC significantly reduces death for preterm and LBW babies by 51% and therefore it becomes the strategy of focus for this review.

Evidence for effectiveness of KMC

Research show that implementation of KMC reduced neonatal mortality from 70% to 30% and improved weight gain and early discharge from the hospital for the KMC babies compared to those receiving incubator care (MCHIP, 2012 and Saptaputra *et al.*, 2021). Many studies posit KMC as an effective, high impact and evidence-based strategy to reduce morbidity and mortality among preterm and LBW babies (Ministry of Health, Rwanda, 2012; MCHIP, 2012; WHO, 2014; Seidman *et al.*, 2015; Feucht *et al.*, 2016; and Bergh *et al.*, 2016 and Conde-Agudelo; Diaz-Rossello, 2016 and Salim *et al.* 2021). According to Charpak *et al.*, (2005) KMC is considered a

scientifically sound intervention for safety from infection, warmth, sensory stimulation and bonding between mother and infant and that can be implemented at multiple levels of healthcare (Nimbalkar and Sadhwani, 2019). Study by Bisanalli *et al.* (2019) espoused that KMC is safe and can be implemented for LBW babies on respiratory support. Nyondo-Mipando *et al.* (2021) argued that KMC saves lives and can be implemented in low-resource settings.

A meta-analysis involving studies from Africa, America, Eastern Mediterranean, Southeast Asia, Europe and Western Pacific by Boundy *et al.*, (2016) on ‘Kangaroo Mother Care and Neonatal Outcomes among the LBW babies on KMC compared to those on conventional care’, revealed that: those receiving KMC had increased likelihood of exclusive breastfeeding, greater head circumference growth and improved vital signs. KMC groups were also associated with decreased risk of newborn sepsis, hypoglycaemia, hypothermia, hospital readmissions and lower mortality. Furthermore KMC enhances bonding between mother and baby, early breastfeeding, better thermoregulation and reduced infections (Nyqvist *et al.*, 2010 and Jefferies *et al.*, 2012). This is similar to the findings from a Randomized Clinical Trial (RCT) done in a tertiary hospital in Bangladesh which showed that KMC group had higher weight gain per day, less apnoea and hypothermia (Rahman *et al.*, 2017). According to RCT done in Kenya, Partial KMC practised for eight hours during the day and incubator care at night compared to those in incubators or cots, was implemented in one tertiary hospital, which revealed that among the KMC group, mortality was 4.7% while those receiving incubator care had a mortality of 6.2% (Mwendwa, Musoke and Wamalwa, 2012).



KMC produces long lasting social and behavioural protective effects (Charpak *et al.*, 2016). In this long term follow up research, 18 to 20 year-olds who were born less than 1.8 kg and were cared for under KMC in Colombia, portrayed a significantly higher cerebral development, more nurturing and protective family life and less hyperactive, stressed or aggressive behaviour; compared to the control group who were cared for in the traditional incubator care.

Uptake of KMC globally and locally

Despite strong evidence that KMC is safe, easy to use, cost-effective and high impact approach to care for preterm and LBW babies, (Vesel *et al.*, 2015; Conde-Agudelo and Diaz-Rossello, 2016d Bergh *et al.*, 2016), the uptake is still very low at less than one per cent globally (Claeson *et al.*, 2013 and Gill *et al.*, 2020). Almazan *et al.*, (2019) posited that attitudes and practices of nurses determines the success of KMC implementation

In Africa, KMC uptake is extremely low with estimated occurrence on only 5% of the global births (Bergman *et al.*, 2015). According to MCHIP (2012), most of the developing countries have very few health facilities offering KMC services. An audit for neonatal care services in clinical training sites in Kenya (Aluvaala *et al.*, 2014) indicated that KMC was missing in 14 out of 22 facilities and yet it is considered as a key resource service for increasing new-born survival.

Factors affecting implementation and adoption of KMC

Factors affecting KMC implementation include: infrastructure (Seidman *et al.* 2015), multidisciplinary working (Feucht *et al.* 2016) and the health system context (Smith *et al.*

2017). However, these factors have not been systematically reviewed in the context of healthcare in Africa. This is needed in order to inform future implementation. Therefore the objective for this systematic review was to identify and critically appraise the available evidence regarding the factors influencing implementation and adoption of facility-based Kangaroo Mother Care in East Africa.

Methods

This study adopted systematic review. Database search limited to full text articles published in English, from 1986 to June 2021 was conducted using Google Scholar, SCOPUS, CINAHL, PubMed, African Journals Online (AJOL) and Web of Science. The search terms used were: (“Kangaroo Care” OR “Kanagroo Mother Care” OR “Skin-to-Skin Care”) AND (“Implementation” OR “Initiation” OR “Adoption”) AND (“Processes” OR “Steps” OR “Approaches”) AND (“Facilitators” OR “Enhancers”) AND (“Barriers” OR “Bottlenecks) AND “East Africa” Hand searching and search through grey literature was also done. According to the predetermined inclusion and exclusion criteria for this review the setting of focus were health facilities implementing facility-based KMC.

For the studies included in this review, rigorous quality appraisal was done using Critical Appraisal Tools for the appropriate type of studies. Checklist for analytical cross-sectional studies from Joanna Briggs Institute (JBI, 2017) was used to appraise the cross-sectional studies. The information from the list of criteria for appraising process evaluation (Petticrew and Roberts, 2006) was



used to appraise implementation and evaluation studies while the checklist for a qualitative research paper from Greenhalgh (2014) was used to appraise qualitative studies included in the review.

Data extraction of all relevant information from the studies included for the review was done using data extraction form in order to ensure consistency and objectivity (Petticrew and Roberts, 2006). Data extraction table was developed based on the aim of this review. The data extraction tool was piloted on two studies to allow for refining of the tool and to ensure that the process was systematic and exhaustive in capturing the relevant indicators for the review (Higgins and Green, 2011).

Study selection process

Search in six databases using the predetermined strategy yielded 1027 results and other records identified through other sources were 12, totaling to 1039 records available for screening. Selection of relevant studies for the review was undertaken using the PRISMA flow chart (Figure 1). This facilitated the de-duplication which resulted in elimination of 186 duplicates leaving 853 records. Further screening of the titles for relevance was done and abstracts were read through in order to determine the studies that met the inclusion criteria for this review; which resulted in elimination of 830 studies. These were studies that the titles were not relevant to the review question, not published in English, not involving any of the eleven East African countries and those that the full text articles could not be obtained, therefore

did not meet the criteria for inclusion in this review. The remaining 23 articles potentially relevant for inclusion were further assessed for eligibility by obtaining the full text copies, reading through and applying the inclusion criteria. Finally sixteen studies met the inclusion while seven were excluded for not meeting the inclusion criteria.

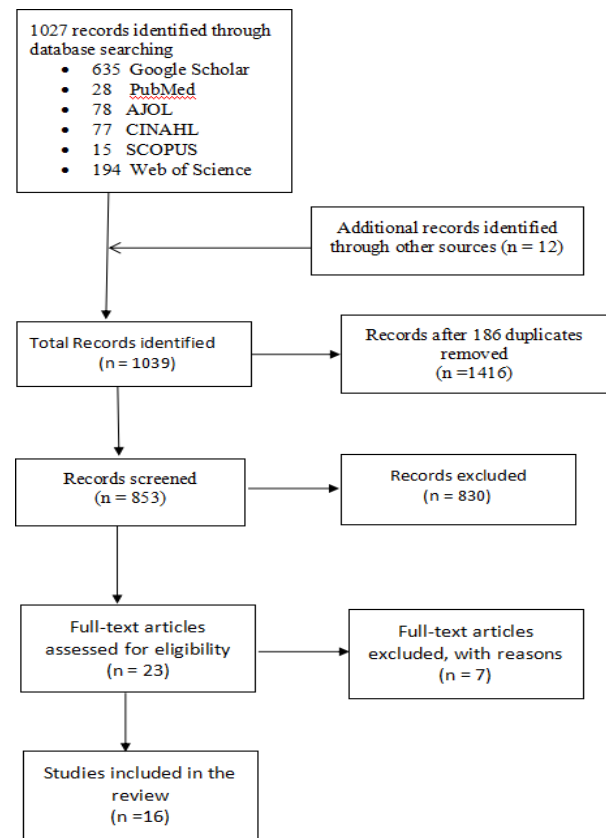


Figure 1: PRISMA Flow Chart showing selection process of studies



Setting and Participants

Sixteen studies that met the inclusion criteria were identified comprising: Six evaluation studies, two qualitative studies, four mixed methods studies, one unblinded randomized clinical trial, one cross-sectional survey, one descriptive cross-sectional survey and one observational study; only six East African countries were involved namely: Uganda, Kenya, Tanzania, Rwanda, Ethiopia and Sudan. There were no studies relevant to this review identified from the remaining five countries. Six of these studies were done in Uganda (Aliganyira *et al.*, 2014; Bergh *et al.*, 2012a; Bergh *et al.*, 2014; Namazzi *et al.*, 2015; Vesel *et al.*, 2015 and Waiswa *et al.*, 2010), four in Kenya (Mwenwa, Musoke and Wamalwa 2012; Vesel *et al.*, 2015, Murila *et al.*, 2016 and Save the Children, no date a), three from Tanzania (Pallangyo, 2013; Barnabas, 2016 and Kiwanuka *et al.*, 2017), two from Rwanda, (Bergh *et al.*, 2012b and Bergh *et al.*, 2014), two from Ethiopia (Musema, 2015 and Save the Children, N.D b) and one from Sudan (Abdalla and Ali, 2015). Two of these studies were done in multi-country settings; Bergh *et al.* (2014) involved four African countries namely: Malawi, Mali, Rwanda and Uganda, while Vesel *et al.* (2015) involved 12 countries in Africa and Asia; Uganda and Kenya being the two East African countries included. The health facilities' levels include were National referral hospitals, Regional referral hospital, Municipal or District hospitals Private or Mission hospitals and community health centres.

The participants in all the sixteen studies included in this review were staff involved directly with KMC implementation (Paediatricians and Nurses). However, the study by Waiswa *et al.*, (2010), included community health workers. According to the study by Barnabas, (2016) three members of Hospital Management team and three

members of Municipal Health Management team were included in addition to six HCW involved directly with KMC policy. One other study by Kiwanuka *et al.*, (2017) included 15 mothers who practised KMC method in the hospital during the study period.

Findings

The aim of this review was to systematically identify and analyze existing evidence regarding facilitators and barriers to implementation of KMC. Findings reveal that implementation and scale-up of KMC is dependent upon multiple factors within the context/health facilities, community and health system.

KMC Implementation by Country

In Kenya, barriers to implementation of full (24 hours) KMC is the lack of space and lack of planned post-KMC discharge policy. According to Vesel *et al.* (2015), significant bottlenecks were identified in three health systems building block namely: Leadership and Governance, Health Financing and Health Workforce. It also identified three pathways for scale-up of KMC: Champion-led, Project-initiated and Health systems designed. Murila *et al.* (2016) identified barriers including: inadequate skills, reluctance and fear for safety of the baby among HCW and lack of cooperation among KMC mothers.

In Uganda, significant bottlenecks were identified in three health systems building blocks: Leadership and Governance, Health Financing and Health Workforce (Vesel *et al.*, 2015). Other challenges included space limitation, lack of training for staff, lack of coordinated supervision and lack of protocols and guidelines for KMC (Waiswa *et al.*, 2010).



In Tanzania, two main challenges were and lack of conducive environment and cooperation from HCW (Kiwauka *et al* 2017). Barnabas (2016) identified lack of education for mothers practicing KMC and delay is disbursement of funds. Pallangyo (2013) reported common barriers and facilitators of KMC across all the facilities in the 19 regions to include: Space limitation, lack of adequate training for staff, lack of adequate support and supervision from internal and external partners as well as staff shortage. Barriers to KMC provision identified in Ethiopia include: Lack of equipment, funds, having untrained staff and small volume of LBW babies (Musema, 2015).

In Rwanda, Ministry of Health took ownership by taking the responsibility for KMC activities in terms of supervision which was noted as a facilitator (Bergh *et al.*, 2012 b). According to Abdalla and Ali (2015) on barriers to implementation of facility-based KMC, which was conducted in two hospitals, two main obstacles identified were: lack of awareness among community and health care staff, and the Community health culture.

Facilitators and barriers to KMC Implementation According to Themes

In this section, facilitators and barriers identified are presented following the order of the three themes namely: context-specific, those that are related to the community and those that are within the health system. Due to the many factors identified within the health system, this theme was further subdivided into six categories by adopting the WHO's health system building blocks for the purpose of analysing the findings of this review.

Context-specific facilitators and barriers

Context-specific facilitators in this review refer to the factors existing within the setting (healthcare facility implementing KMC). Studies show that facilitators of KMC implementation include: availability of educational materials, evidence-based policies and guidelines displayed in the facility and in the KMC units enhanced the uptake by providing information and guidance to both the KMC mothers and the HCW allocated to the units (Abdalla and Ali, 2015; Namazzi *et al.*, 2015 and Barnabas, 2016). Pallangyo (2013) postulated that provision of adequate space for KMC services promotes its utilization. Geographical locations of the facilities also influence the implementation of KMC (Barnabas, 2016).

Context-specific barriers in this review refer to those identified within the facilities. Lack of adequate space and equipment for KMC services was implied as the major challenges by five of the sixteen studies included in the review (Waiswa *et al.*, 2010; Bergh *et al.*, 2012a; Mwendwa, Musoke and Wamalwa, 2012; Pallangyo, 2013 and Musema, 2015). Bergh *et al.*, (2012b) and Pallangyo, (2013) argued that in the facilities that did not provide food for KMC mothers; this was considered as a barrier because it contributed to mothers asking for early discharge or absconding from the hospital.

Facilitators and barriers related to the community

Factors related to the community in this review refer to the circumstances that influence: the behaviours of mothers practising KMC, the family members and the members of the community. Findings from this review show that follow up of KMC babies was poor due to challenges from poverty, travel distances and cultural beliefs in the community that conflicts with KMC



practices (Berghet *et al.*, 2014). Kiwanuka, *et al* (2017) reported fatigue from mothers due to lack of family support, while Murila *et al.*, (2016) indicated lack of cooperation from mothers due to low level of education and lack of pre counselling as a barrier. Lack of community sensitization, absconding by KMC mothers and failure to return for follow up, were also identified to be factors hindering the progress of KMC services (Pallangyo, 2013).

Facilitators and barriers within the health system

Among the articles included in this review, factors identified cut across the six interdependent WHO's health systems building blocks' namely: Leadership and Governance, Health Financing, Service Delivery, Medical Products and Technology, Health Workforce and Health Information System (WHO 2010). Although these factors were distributed across the six components, there were variations. Leadership and Governance, Health service delivery and health workforce carried the majority of factors while health financing, medical products and technology and health information systems had fewer factors

Discussion

Findings also showed that implementation and scale-up of KMC is dependent on factors within the health facilities, the community and within the health system. Findings from the review show that there were similarities in Kenya and Uganda in the health system building blocks namely: Leadership and Governance, Health Financing and Health Workforce with regard to facilitators and barriers. Space limitation was identified as significant factor in all the six countries.

Context-specific facilitators and barriers

Context-specific facilitators in this review refer to the factors existing within the setting (healthcare facility implementing KMC). Context-specific facilitators identified include: availability of adequate space for KMC services, equipping KMC rooms with appropriate equipment, educational materials, policies and guidelines and making the KMC environment conducive and friendly. Lack of above facilitators in facilities was considered to be significant barriers to KMC. This is consistent with evidence from other studies not included in this review (Seidman *et al.*, 2015) which show that among the middle and low income countries barriers to KMC were resource related and specifically facility environment. This is further supported by study done in South Africa which indicated the barriers to KMC implementation as infrastructural constraints for example providing a thermo-neutral environment and adequate bed space for KMC (Feucht *et al.*, 2016).

Geographical location and distance of the facilities offering KMC services influence the implementation and uptake of KMC (Barnabas, 2016). This is similar to findings by Smith *et al* (2017). This suggest that to support successful implementation of KMC services there is need for adequate preparation in terms of physical infrastructure that will promote access to quality KMC service and hence improve utilization and uptake.

Facilitators and barriers related to the community

The role of the community in KMC implementation and scale up is significant, therefore it is important to identify factors within the community that affect KMC services. Although the review was focused



on factors relating to facility-based KMC implementation, evidence show that factors within the community also influence the uptake and utilization of KMC at the facility level (Smith *et al.*, 2017).

This review identified that the level of awareness, existing cultural beliefs and lack of sensitization among community members influence mothers' behaviour and response to KMC services (Bergh *et al.*, 2012a and b; Pallangyo, 2013; Berghet *et al.*, 2014; Abdalla and Ali, 2015; Barnabas, 2016 and Murila, 2016). This also affects family response and support for KMC mothers as denoted by other studies not included in this review. This is consistent with findings from a study in central India which identified lack of knowledge and family support for KMC mothers as barriers to KMC practice (Mekle, Patil and Jha, 2018). Smith *et al* (2017) in a review from studies in Ghana, Malawi and Bangladesh identified socio-cultural factors that hindered KMC practice. These factors include: beliefs that babies should be bathed immediately after birth, sleeping by a lamp and smearing oil on the baby, carrying the baby in front is strange, carrying the baby in the chest without a diaper was unclean, stigma associated with having preterm baby and gender roles where fathers were uncomfortable practising KMC in presence of other people.

Findings from this review also suggest that appointing KMC point person for community sensitization and utilization of training knowledge among community members leads to improved level of awareness hence foster the buy-in and acceptance among the families and communities, and therefore improve family support and reduce familial resistance to KMC (Pallngyo, 2013 and Save the Children, N.D a). This is supported by findings by Chan *et al* (2017).

Facilitators and barriers within the health system

Health system encompasses the institutions or organizations, people and resources that work together to improve health (WHO 2010). This review shows that there are multiple facilitators and barriers to KMC implementation within the health system that cut across the six interdependent "building blocks". Findings from this review show that there are significant facilitators and barriers in three health system components namely: Health workforce, Leadership and Governance and Health Service Delivery Vesel *et al.*, (2015). This is partly supported by findings in a systematic review not included in this review by Smith *et al* (2017) which identified Health Service Delivery and Health Financing as the facilitators and barriers within health system context.

Health workforce

There is a positive link between the population health outcomes and the numbers of HCW allocated to a given area (WHO 2010), Findings from this review stipulate that availability of trained staff in facilities offering KMC services, promote KMC implementation processes (Bergh *et al.*, 2012a; Pallangyo, 2013; Aliganyira *et al.*, 2014; Bergh *et al.*, 2014; Abdalla and Ali, 2015; Namazzi *et al.*, 2015; Barnabas, 2016; and Save the Children, N.D a). However, lack of trained staff due to staff attrition or rotation leads to staff shortage and increased workload, while having inadequate training for staff leads to knowledge gaps and inadequate skills which deter KMC practice. This is consistent with the findings from other studies not included in the review which identified lack of training on KMC among HCW as a significant barrier (Engler



et al., 2002; Namnabati *et al.*, 2016; Chan *et al.*, 2017 and Foote and Tamburlini, 2017). This review show that attitudes and behaviours of the staff impacts on KMC practices either positively or negatively, for example: positive attitude towards KMC, teamwork between doctors and nurses and visionary and motivated staff enhance KMC progress (Bergh *et al.*, 2012b; Pallangyo, 2013 and Barnabas (2016). This is comparable to findings by Pratomo *et al* (2012) which implied that staff commitment, collaboration and teamwork enhanced KMC. Attitude affects KMC negatively for example: fear for the baby's safety or blame for failure, negative attitude among KMC trained staff lead to reluctance and lack of cooperation, belief that no cost is involved in KMC implementation and perceiving KMC as inferior to incubator care lead to underestimation of budgetary allocations for KMC services. This is comparable to findings from the study by Chan *et al* (2017) which states that buy-in to KMC by HCW was affected by their perception that it was not a priority and that it was meant for the 'poor'. It also revealed that reasons for HCW resistance to implement KMC were due to concern for the welfare of the babies which is similar to factors by Murila *et al.*, (2016) in this review.

Leadership and Governance

Leadership and governance is critical in enhancing the adoption, implementation and scale-up of KMC and many facilitators and barriers were identified within this health system component. (Bergh *et al.*, 2012a and b); Pallangyo, 2013; Aliganyira *et al.*, 2014; Bergh *et al.*, 2014; Abdalla and Ali, 2015; Namazzi *et al.*, 2015; and Barnabas, 2016). This is evidenced in the study, not included in this review, by Chan *et al* (2017) which revealed that HCW could not implement

KMC where there was no support from facility leadership. Pratomo *et al* (2012) revealed that support, commitment and attention from central government and hospital management promoted KMC activities and this is consistent with the findings of this review. Findings also reveal that identifying KMC champion within the facility promotes its implementation and scale-up (Namazzi *et al.*, 2015 and Save the Children, N.D a). This is affirmed by study by Soni *et al* (2017) which demonstrated that presence of champions improved KMC services while withdrawal, dwindled it.

Health Service delivery

Evidence from this review show that incorporating KMC into other Newborn Care services enhance the implementation and scale-up of KMC services (Bergh *et al.* (2012a and Bergh *et al.*, 2014), while lack of institutionalization and integration of KMC into other hospital services was considered as a barrier (Pallangyo, 2013. According to Namnabati *et al* (2016) a Physician's written order was needed prior to enrolling a baby for KMC, which was considered as a barrier within the practices in the facility.

Health financing

Findings from this review show that, financing plays and important role in the implementation and scale-up of KMC and this is supported by the evaluation report (Aliganyira *et al.*, 2014 and Save Children, N.D a) which showed that availability of funds from private partner facilitated the establishment of KMC services. According to Smith *et al* (2017) it is implied that there are financial needs beyond the facility level for example; transportation for mothers who need follow up after discharge.



Health Information System

Evidence from this review exhibit poor record keeping regarding data for KMC among four studies (Bergh *et al.*, 2012b; Pallangyo, 2013; Bergh *et al.*, 2014 and Save the Children, N.D b). Although findings from the review do not show how this affects KMC implementation directly as a barrier, it makes it difficult to draw conclusions without records. This is consistent with findings by Cattaneo (2017) which stated that data on KMC was not available because there was no country that had integrated KMC with their health information system making it difficult to measure and report KMC uptake.

Medical products and Technology

According to the findings from this review, provision of resources and technology for KMC services by private partners enhances KMC implementation (Bergh *et al.* 2012a and Pallangyo, 2013). This is comparable with the findings by Chan *et al* (2017).

Implications of the findings to the practice

Evidence from the six countries included in this review reported space limitation as the main challenge which further stresses the fact that space is an important factor to consider upfront in the implementation of KMC.

These findings answer the review question and are useful in informing the Ministries of Health for the individual countries, Private partners and individual health organizations with regard to developing a framework of approach towards successful implementation of KMC that incorporate these three aspects: context, community and health system.

Majority of the facilitators and barriers identified were within the health system - majorly Health Workforce, Leadership and Governance, and Health Service Delivery.

This helps in guiding the planners and implementers of KMC intervention on the specific health system building blocks to focus on.

Findings also identified that the level of awareness in the community influence the buy-in, family support and behaviour in relation to cultural beliefs. This is helpful in designing a community strategy to enhance acceptance of KMC. Level of awareness and skills among the HCW also influence KMC implementation therefore findings from this review will inform the decisions on the steps to undertake to enhance capacity building for the staff.

Implications for future research.

Findings from this review identified gaps regarding the methods of approaches adopted by different countries in the implementation and scale-up of KMC services. It would therefore be imperative to consider carrying out research that explores different approaches to implementation of KMC and the successes or failures associated with each approach.

Conclusion

Interdependent facilitators and barriers that collectively influence KMC implementation exist within the context/health facility, community and within the health system. The factors related to the context were mainly space limitation and lack of adequate equipment or environment that supports implementation of KMC.

Factors related to the health system dominated three health system building blocks namely: Health Workforce, Leadership and Governance and Health Service Delivery. Health Financing, Medical Products and Technology and Health Information System had fewer factors.



Evidence also posits that the progress of KMC services is dependent upon the contributions by different partners; therefore, the collaborative relationship between the different partners is paramount in promoting growth in the provision of KMC services (Save the Children, no date a).

Recommendation

Successful implementation of KMC needs a detailed, well laid down framework that incorporates the three aspects namely: the context, the community and the health system. There is need for prior preparation of the context/facilities in terms of physical infrastructure and community sensitization and education to facilitate buy-in and support.

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