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# Integrating Spiritual Care into Maternity Care at a University Teaching and Referral Hospital in Eldoret, Kenya: Challenges, Lessons and Way Forward

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**Abstract:** Spiritual needs of care seekers, families and caregivers are ignored in maternity care in health facilities in Kenya. The quality of care remains poor with unacceptable maternal and neonatal mortalities. The Clinical Pastoral Education (CPE) Project at the College of Health Sciences of Moi University Eldoret, Kenya, aimed to integrate spiritual care into maternity care at The Riley Mother and Baby Hospital of The Moi Teaching and Referral Hospital (MTRH), Eldoret, Kenya, in order to provide holistic healthcare. In phase I, spiritual needs of mothers of neonates admitted to the Newborn Unit at the MTRH in Eldoret, Kenya, were assessed using a research protocol with modified North America validated tools (see Appendix) and unstructured interview guides. For phase II, hospital chaplains, trained using a Moi University post-graduate diploma curriculum for clinical pastoral education and care, were engaged as spiritual caregivers at the Hospital. In phase III, the same tools were used to re-assess spiritual needs after introducing spiritual care. This article presents challenges and progress made, lessons learnt from the CPE Project and knowledge gaps identified from the study. Baseline data showed lack of trained hospital chaplains and inadequate spiritual care at the Teaching and Referral hospital despite great need by patients, caregivers and families. Lack of precise definitions, theoretical and conceptual frameworks for spirituality in literature emerged as a challenge. The Kenya Chaplaincy Training Centre was initiated at the hospital to train hospital chaplains and healthcare providers who could provide spiritual care. A psychobiosocial conceptual framework, utility tools and a new theory for self-empowerment were proposed to address knowledge gaps in current literature.

**Keywords:** Hospital chaplains; clinical pastoral education and care; quality of care; holistic healthcare; self-empowerment.

## Background

The World Health Organization (WHO) defined health as a state of complete physical, mental emotional and social well-being and not merely the absence of disease or infirmity (WHO 1948). Holistic health is physical, mental and emotional well-being as well as spiritual and social well-being. Yet, practice in health facilities in Kenya, has focused on physical and mental health alone. Insufficient attention is paid to spiritual health in health facilities. Maternity care in the African settings is characterized by poor quality care and a lack of clinical pastoral care. Spiritual needs of care seekers are ignored or unknown in maternity care in Kenya. Quality of care remains poor, creating high maternal and neonatal mortalities (Miller & Belizán 2016). Essential research is also scarce in Africa. Moreover, there is a need for trained professional hospital chaplains in African settings.

## Poor Quality Healthcare

Most maternal and neonatal deaths are caused by preventable causes such as postpartum haemorrhage, pre-eclampsia/eclampsia, puerperal sepsis; and neonatal infections, birth asphyxia, birth trauma and complications of prematurity (WHO 2012).

Currently, over 40% of mothers in Kenya deliver at home, making it difficult for them to receive timely skilled care. Furthermore, existing clinical and anthropological evidence suggests that disrespectful and abusive treatment by health care providers in maternity units are major factors inhibiting women from delivering in health facilities (Miller & Belizán 2016).

Improving access and quality of care could directly reduce both maternal and neonatal deaths but requires a holistic approach that incorporates spirituality. Spiritual care is lacking or uninformed yet integrating such care in hospital settings would promote respectful maternity care and institutional deliveries.

## Lack of Clinical Pastoral Care

While human health entails biomedical, psychological, socio-cultural and spiritual facets, spiritual aspects of health have received little attention (Callister & Khalaf 2010; Levin & Vanderpool 1989), but they suggest that religious practices positively affect health by increasing education and practices that reduce ill health. Other studies show that patients with a spiritual

connection cope well with stress and have positive health outcomes (Koenig 2007, 2012, 2015; Koenig *et al.* 2001). Moreover, Bola *et al.* (2015) argued for inclusion of religion as a social determinant of health. According to Callister and Khalaf, childbearing and motherhood provide ideal contexts for spiritual care because they are highly spiritual events (Callister & Khalaf 2010). Moloney (2007) affirms that cross-culturally and throughout history, pregnancy and childbirth have been perceived as spiritual events because of the miraculous processes involved. Spirituality would therefore be effective in helping mothers cope with stress (Koenig 2007). Alternative discourse considers birth as a physiological process through which a mother, with adequate emotional support, would secure optimal outcomes (Scrivens 2017). Mbiti observed that Africans were notoriously religious, especially in critical moments of life such as giving birth (Mbiti 1990). Consequently, many African women associate religion with positive birth experiences and outcomes (Adanikin *et al.* 2014; Kwarteng 2015). They, therefore, expect spiritual care for themselves and their neonates in maternity and other healthcare facilities.

## Need for Professional Hospital Chaplains in Africa

In Kenya, most hospitals have no chaplains; the few who do, have chaplains who are not trained in Clinical Pastoral Education. Such volunteer evangelists or ordained ministers are seconded by their churches with no training whatsoever in clinical pastoral care need training in order to work as hospital chaplains. In contrast, in Europe and the United States, professional training in Clinical Pastoral Education is relatively well established in clinical settings. Furthermore, the role of health care chaplaincy has changed from being sole providers of religious ritual, mainly as prayer, to one of being resource persons to patients undertaking a search for meaning within illness and death (Speck 2004).

But in Africa, spiritual care is insufficient in maternity in nearly all countries. The hospital environment is seen as the place to get physical and occasionally psychological care. Assessments of patients do not include questions related to spiritual need such as "Do you have any beliefs that you would like us to incorporate in your healthcare?"

## Scarcity of Essential Research in Spirituality in Africa

Research in spirituality and spiritual care is constrained by lack of pre-existing established theories (Tiew *et al.* 2013) and rarity of research by hospital chaplains (Weaver *et al.* 2008). There is no consensus on the definition

of spirituality across studies and theoretical frameworks are lacking in current literature (George *et al.* 2000; Tanyi 2002).

Research in spirituality and health is scarce and, when undertaken, has focused on patients living with terminal and chronic illnesses in hospice care (Callister & Khalaf 2010). The role of spirituality in empowering persons to accept the grimness of their situation and to walk forward with courage and strength is difficult to quantify to date, and outcomes-based research in this field is still in its infancy (Pesut *et al.* 2012). Searches using Google Scholar for literature on spirituality in public health facilities in Kenya to inform the proposed study brought no hits. Some traces of research in spirituality in Kenya could only be found amongst Durumas in remote villages where it is only domestic and provided by women themselves for the sake of their children (Amuyunzu 1994; Amuyunzu 1998). Yet, research in spirituality and religion is crucial in order to better understand this phenomenon and utilize it as a resource to provide better healthcare in public health facilities. The purpose of this article, therefore, is to present these challenges and progress made by the CPE project in Eldoret, Kenya, lessons learnt from the project and the way forward.

## The CPE project: An Overview of Progress and Challenges

The Clinical Pastoral Education (CPE) Project at the College of Health Sciences of Moi University Eldoret, Kenya, aimed to integrate spiritual care into maternity care at The Riley Mother and Baby Hospital (RMBH) of The Moi Teaching and Referral Hospital (MTRH), Eldoret, Kenya in order to provide holistic healthcare. Introduction of Clinical Pastoral Education and Care at MTRH would address the challenges of lack of spiritual care, absence of trained hospital chaplains in Kenya, poor quality of healthcare and knowledge gaps in spirituality research. In this section, we summarize critical challenges faced and progress made so far.

Moi University (MU), in partnership with Indiana University (IU), Indiana University Health, and the Christian Theological Seminary (CTS) all in Indianapolis, Indiana, USA, has implemented Clinical Pastoral Education and Care at the Moi University/Moi Teaching and Referral Hospital in Kenya since September 2015. The CPE Project was designed as an Academic Model for Integrating Spiritual care (AMIS) into hospital settings. It is a three-pronged approach, consisting of: (i) a postgraduate diploma offering education and training in clinical pastoral care; (ii) spiritual care in health care settings, and, (iii) a research component to engage policy to improve provision of spiritual care in healthcare settings.

This model will ensure that training and service is evidence-based and generates new knowledge to guide teaching, learning and service delivery. It is designed to span different academic and service delivery levels to include certificate, diploma, degree and post-graduate courses at Moi University in Eldoret, Kenya.

The CPE Implementation committee, with other stakeholders, defined spirituality, modified validated American tools to measure spirituality and applied them to assess spirituality in Western Kenya, initiated the Kenya Chaplaincy training centre, trained hospital chaplains in African settings using an innovative curriculum, and created a conceptual framework with M-ACCE-SS tools and a new theory for Self-empowerment.

### a. Education and Training

At first we did not have the required resources. We did not have adequate training space, training materials and trainers at the teaching and referral hospital. Most applicants did not have the required qualifications. It took us nearly ten years of engagement, mainly by trial and error, with stakeholders, before a postgraduate diploma in clinical pastoral education curriculum was approved by Moi University in September 2015 and the Commission for University Education in Kenya in 2016. The Department of Philosophy, Religion, and Theology in collaboration with the Moi University College of Health Sciences then started piloting the curriculum at the Riley Mother and Baby Hospital of the Moi Teaching and Referral Hospital. Three cohorts of postgraduate students have been trained since and a fourth cohort has been enrolled.

Training in CPE is largely through didactics, small group tutorials, verbatim methodology and practicums where students learn from the "living human document" as they offer spiritual care services at the hospital under supervision by mentors. This pastoral education model is similar to that provided by the Association for Clinical Pastoral Education (see www.acpe.edu) in the US. It is in line with the SPICES Model of Medical Education implemented at the College of Health Sciences (CHS) since inception of the college in 1986 (Kangethe *et al.* 2000; Dent 2014). The SPICES Model embraces student-centred and self- directed learning. It is Problem-based because practical problems form the focal point of study throughout training. The key elements promoted in the SPICES model, student-centred learning, problem-based learning, integrated or inter-professional teaching, community- based education, elective studies, and a systematic or planned approach (Dent 2014). The model integrates basic sciences with applied sciences. Community-Based Education and Service (COBES) is considered

to be a critical component during which students offer services and learn through participant observation in communities where services are offered with their mentors. After qualification, CPE students are required to engage in a three month internship programmes at the RMBH in order to offer service at the teaching hospital and give back to the community. Elective courses are included to serve learners with different interests. Each of these components of the SPICES model is systematically designed. The Kenya Chaplaincy Training Centre (KCTC) was initiated at the Moi Teaching and Referral Hospital in this second phase of the CPE project. It will ensure that training, service and research in spiritual care remain relevant to community needs.

### b. Clinical Pastoral Services

The Riley Mother and Baby Hospital is a 500 bed state-of-the-art maternity. It is one-of-a-kind in Eastern and Central Africa, funded by generous donations from the Indianapolis community, coordinated by the globally renowned neonatologist, Jim Lemons. The hospital serves as a referral centre for prenatal and postnatal care for women and their infants from throughout the western region of Kenya with a population of about 20 million and more than 20,000 babies annually. At any given time, the Neonatal Intensive Care Unit (NICU) of the Hospital can care for 110 babies. Continuous improvement of quality of care at this facility is provided by the Reproductive Health Division in partnership with the Academic Model for Providing Access to Health (AMPATH) (See: www.ampathkenya.org).

However, the focus at *The Riley Mother and Baby Hospital* (RMBH) is largely biomedical. So as maternity services become increasingly technocratic, structured and standardized, spirituality remains ignored in the care of the mothers and their newborns at the hospital, just like elsewhere in African modern hospitals (Crowther & Hall 2015). The approach is not holistic.

The new collaborative effort by the CPE project to integrate spiritual care at the Riley Mother Baby Hospital (RMBH) is aimed at a holistic approach to health, to improve quality of care in Western Kenya. Respectful and empathic care is emphasized to improve quality of care (Bowser & Hill 2010). The department of Pastoral Care Services has now been established at the Moi Teaching and Referral Hospital. Pastoral care by trained hospital chaplains is now available in public and some private hospitals and clinics in Eldoret Town.

### c. Research in Spirituality

The research design adopted for the study at the Teaching and Referral Hospital in Eldoret, Kenya, was exploratory and descriptive using a mixed methods research approach. We conducted a thorough literature search and it emerged that the biomedical worldview of health was inadequate, so a new PsychoBioSocial (PBS) worldview of health, embracing physical, mental, emotional, spiritual and social aspects, was proposed as described in later sections of this article. We developed a research protocol for approval by the local Institutional research and ethics committee in Eldoret. Both quantitative and qualitative data were collected using different, but complementary, methods. Analyses of the physical, psychological and spiritual experiences of caregivers and caretakers before and after implementation of Clinical Pastoral Education and care at the RMBH were done. We sought to ascertain views of different research participants on the quality of care in maternity and how improvements, through incorporation of spiritual care, could be made. One anonymous survey tailored to mothers with newborns in the intensive care unit, 15 individual face to face interviews for 2 biomedical doctors, 2 midwives, 2 mothers, 2 family members, 2 psychological counsellors, 2 chaplains, 2 support staff and 1 facility administrator were carried out before introduction of clinical pastoral education as a spiritual care intervention. After the CPE intervention, we carried out an end line survey for mothers with babies in the newborn unit and 13 interviews for 2 biomedical doctors, 2 midwives, 2 mothers, 2 family members, 3 psychological counsellors, 1 chaplain and 1 facility administrator on same issues as in the baseline survey. However, participants for the end line survey were different from those for the baseline because of a high turnover in the maternity unit. A total of 249 participants completed the survey questionnaire, with a 91.5 % response rate (Table 1).

Data was managed using SPSS version 22. Analysis was thematic for qualitative data and analytical for quantitative data using univariate, bivariate and multivariable analysis.

The baseline situational analysis clearly demonstrated the need for more hospital chaplains and trained healthcare providers in spirituality. "We recommended: an increase in numbers of chaplaincy staff; establishment of chaplaincy departments and funding for further research in spirituality in African settings (in press)". Many mothers/caretakers of neonates in the newborn unit were Christians and believed in miraculous interventions for their newborns. Healthcare providers rated spirituality as an important dimension of holistic and high-quality care. This was similar to reports of other authors such as Evangelista *et al.* who found that the nature of clinical practice placed healthcare providers in key positions to foster peaceful

**Table 1:** Types of data collected and participants involved

| Type | Total no. of Events | Baseline Assessment | End line Assessment | Participants |
|---|---|---|---|---|
| In depth interviews | 28 | 2 Biomedical doctors | 2 Biomedical doctors | 28 |
| | | 2 Midwives | 2 Midwives | |
| | | 2 Mothers | 2 Mothers | |
| | | 2 Family members | 2 Family members | |
| Survey Questionnaires | 249 | 3 Psychological counsellors | 3 Psychological counsellors, | |
| | | 1 Chaplain | 1 Chaplain | |
| | | 1 Facility administrator | 1 Facility administrator | |
| | | 125 | 124 | 249 |

resolutions in patient's lives through addressing their spiritual needs (Evangelista *et al.* 2016). However, health care providers in the hospital said they had no training at all and needed training in spirituality in order to provide personalized spiritual care over and above routine clinical care.

## Implementing the CPE Project in Kenya: Lessons Learned

This section summarizes lessons learnt and could be applied to help integrate spiritual care into healthcare in the hospital and surrounding urban communities.

The CPE committee developed a three-pronged Academic Model in Spirituality (AMIS) with a systematic approach in order to implement the CPE project in an African setting in Eldoret, Kenya. This is the first of its type in East and Central Africa. The academic model deliberately began with a research component to inform the design and implementation of the of the service delivery component of clinical pastoral care. The education component, simply called CPE or clinical pastoral education, depended on the strategic location of the Moi teaching and Referral Hospital as a tertiary hospital with an expansive community catchment area of 20 million population in Western Kenya and including neighbouring East and Central African Great Lakes region of Tanzania, Uganda, Democratic Republic of Congo, South Sudan; linked with Ethiopia and Somalia in the Horn

of Africa. The tertiary hospital is the teaching hospital for the College of Health Sciences of Moi University, where the SPICES model of Medical Education has been implemented since 1986.

It was from carrying out the two situational analyses, before and after the initiation of the CPE project, that the CPE committee drew lessons and took a decision to establish the Kenya Chaplaincy training centre for sustainability of the CPE project. The approach provided essential feedback information that would enable regular reviews of all institutional CPE curricular. The continued Clinical Pastoral Education and Care at MTRH, therefore, not only addressed quality of care, lack of clinical pastoral care and need for trained professional hospital chaplains in Africa settings but perhaps, more basic, formed the basis for development of a new theory and tools for self-empowerment and self-sufficiency.

The 10-year hiatus between engagement with stakeholders and coordinated action is partly explained by a lack of resources and capacity. This illustrates the lesson that academic, service delivery and research capacity building in spirituality are needed in order to establish sustainable models for integrating spiritual care into hospital settings. This pilot study clearly demonstrated the need for more hospital chaplains and training healthcare providers in spirituality, more so, for African countries.

Moreover, in times of worldwide scarcity of resources, especially in low- and middle-income countries, the IU Health Values Grant and previous donor funding to the hospital provided the Eldoret CPE Implementing team with vital support needed to undertake the CPE project. The project is expected to have impact on local practice in other teaching and referral hospitals and on national policy in Kenya. The findings of the pioneer research clearly highlighted the important role of spirituality in healthcare for patients, service users and healthcare providers in hospitals in African settings.

## The way Forward in Africa: Top-down and Bottom-up Strategies

The CPE project demonstrated that spirituality in African settings is just as amenable to empirical research as elsewhere. However, the CPE project required top-down and bottom-up approaches, involving different expert providers and users of spiritual care services in Indianapolis, Indiana, USA and in Eldoret, Kenya. The coordinated approach adopted by the CPE committees helped to integrate spiritual care into healthcare at the teaching and referral hospital.

However additional local funding and capacity building is still needed to complement current donor funds to get the Kenya Chaplaincy Training

Centre fully established by 2020. Commitment of resources to Clinical Pastoral Education and Care by both Moi University and the Moi Teaching and Referral Hospital would establish joint ownership of the Chaplaincy centre by the two Kenyan premier institutions. This would increase participation and confidence by all stakeholders since home-grown endeavours promote sustainability of local projects supported by donor funding.

Knowledge gaps were identified in the existing literature on spirituality on how to define spirituality in the African context and how dimensions and domains could be operationalized with existing data collection tools. This is in addition to effort by many health professionals such as epidemiologists who continue to collect information on religious preference, background, or practice as part of their inquiries, in order to refine concepts and tools to measure and address spirituality (Selman *et al.* 2011). The CPE project in Eldoret is still committed to pursuit of further research in spirituality in African settings especially in urban health as a way forward.

This article, in the next few sections, proposes the conceptual framework, the NISE Theory and M-ACCE-SS tools for self-empowerment and self-sufficiency.

## The PsychoBioSocial (PBS) Model of Health and Wellbeing

This section elaborates on how the Eldoret CPE implementing committee used the PsychoBioSocial model (PBS) of health and wellbeing to specify the relevant domains and dimensions to define spirituality in the African context as a way forward for the Eldoret CPE project.

The PsychoBioSocial (PBS) model of holistic health and wellbeing is illustrated in Figure 1.

It is argued here that health, self-empowerment and self-sufficiency start with change in the mind, as a worldview regulated by salient beliefs, rather than the physical body of the user as proposed in the bio-psychosocial (BPS) model by George Engel (Engel 1977). It is an inside-out; not outside-inside change. Internal change in beliefs, thoughts and feelings precede change in behavior and external circumstances in life of any individual. In addition, the current definitions of spirituality fail to capture all domains and dimensions of spirituality as proposed by Fisher (Fisher 2011). Furthermore, dimensions and domains of spirituality have kept changing with different definitions of spirituality, times and socio-cultural context (Puchalski *et al.* 2014; Rudolfsson *et al.* 2014). We adopted domains and dimensions proposed by Fisher in 2011(Fisher 2011) in order to define spirituality for the Eldoret CPE project.

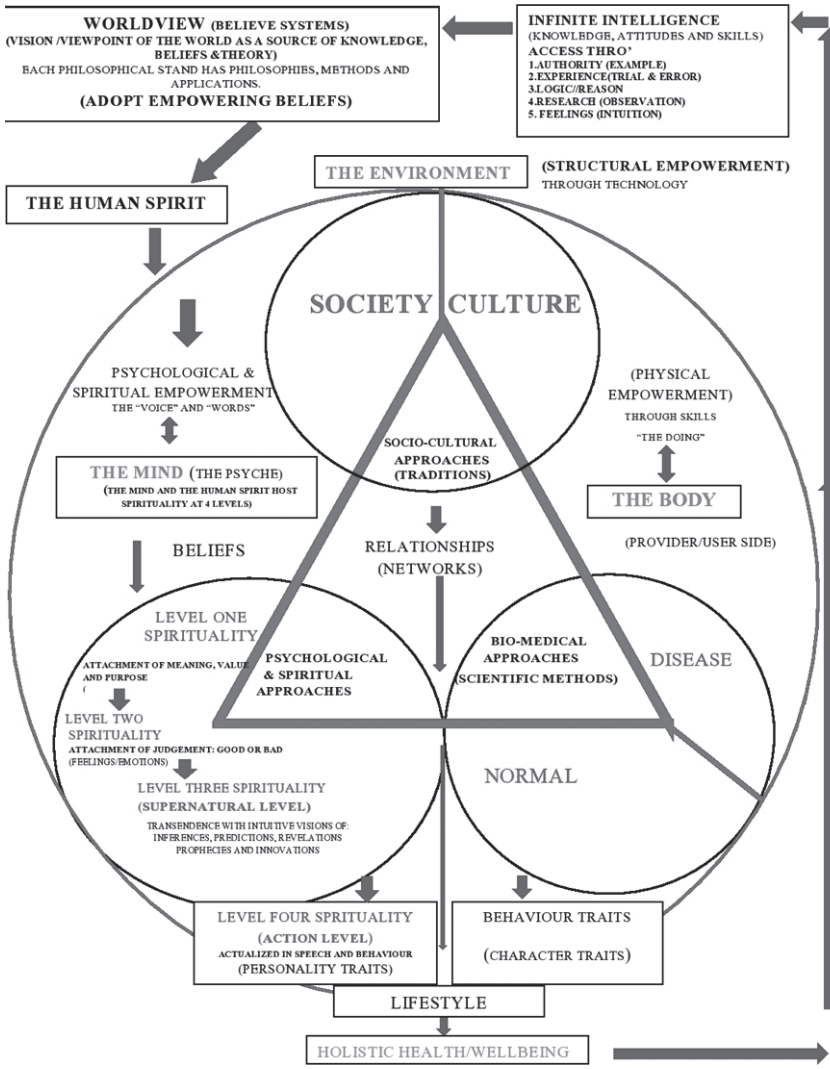


**Figure 1:** The PsychBioSocial (Nyongesa) Model for Holistic Health/Wellbeing and self-empowerment (created in 2012–2016 from WHO Definition Health (WHO 1948) and The Biopsy Chosen Approach (Engel 1977)

The four proposed dimensions of spirituality were specified as cognitive, emotional, transcendence and physical (ibid). The cognitive dimension is mental and involves attachment of meaning, value and purpose to things. It occurs in the cerebral cortex, the conscious part of the human brain that regulates logic and reason. The subconscious mind, responsible

for generation of feelings and emotions, regulates the emotive dimension of spirituality. This second dimension is responsible for attaching judgment (Cottingham 2005). The decision by a person, as to whether circumstances of life are true or false; right or wrong; good or bad; possible or impossible; occurs in the subconscious mind, situated in the reticular activating system (RAS) of the spinal cord (Garcia-Rill 2015). Attitudes are formed here. The supernatural or transcendence dimension of spirituality is responsible for making projections and extrapolations to things that remain abstract or unknown to an individual. It is the dimension responsible for creative imagination; to forecast into the future, make inferences and predictions, and create solutions to problems before action and implementation. Prophesies and revelations are a product of such creative human imagination. The fourth dimension is physical and translates thoughts and feelings into actionable behavior and practice. Formation of character and specific cultures occur in the long run. The four dimensions described by Fisher are important in conceptualization and represent increasing degrees of conviction and depth of belief. The CPE implementation committee was held together and kept going by the belief and conviction that spirituality would eventually be integrated into healthcare at The Riley Mother Hospital in Eldoret, Kenya and spread out from there.

The critical domains of spirituality were viewed as being: personal, interpersonal, environmental and supernatural (Fisher 2011). The personal domain embraces strict self-discipline for integrity or good character; which includes doing what ought to be done in given circumstances. Doing things right creates inner peace, harmony within and personal security. The interpersonal domain of spirituality gives guide on how to establish interpersonal relationships, making human bonds and working together for mutual benefit of persons. The environmental domain deals with how humans interact with other creations and nature for environmental sustainability (Fisher 2011). Cultural diversity and bio-diversity are within the environmental domain of spirituality. The supernatural domain engages the transcendence dimension of spirituality and empowers persons to relate to the spiritual world of gods, ancestors and the unknowns in human existence and the universe. The metaphysical including, theology, the study of gods; religion, the study of religious beliefs and practice; and culture, practices transmitted across generations; eradication of human poverty and integrity or good character and morals are all listed as critical elements in spirituality (Beyers 2010). These were the domains that guided the Eldoret CPE project implementation committee towards establishing spiritual care as a component of healthcare in Eldoret.

## A Theory for Self-Empowerment

In this study, during proposal writing and literature review, a conceptual framework based on the PyschoBioSocial model of health described above, tools and a theory for self-empowerment based on the General Systems Theory by Ludwig Von Bertarlanfy (Weckowicz 1998) were proposed. NISE, believed to be "the place of miracles," represents the name of the office used by the corresponding author for regular study and positive introspection. The theory underscores the importance of a worldview based on salient beliefs as the main determinant of an individual's circumstances of life (Figure 1).

The NISE theory for self-empowerment posits that:

> 1. All Human beings have innate abilities to empower themselves by what they believe to be true. 2. Such salient beliefs determine circumstances of life. 3. Beliefs cause change in external circumstances by changing internal mental programs and dialogue in order to generate appropriate thoughts, feelings and behavior.4. Self-sufficiency is a by- product of action or service rendered above what is expected by others.

Self-empowerment, for eradication of human poverty, involves adoption of new beliefs, attitudes and practice to create new circumstances of life (Fetterman *et al.* 1996). It is innate human nature to empower self in order to overcome hardships in life, determine own destiny and even create new civilizations. Limitations in life seem to be imposed by personal beliefs, attitudes and behavior. The need for self-sufficiency always underlies human progress and development in most circumstances (Leibson Hawkins 2005).

## M-ACCE-SS Tools for Self-empowerment

In this section the M-ACCE-SS tools have been defined as tools for self-empowerment and self-sufficiency.

Self-empowerment is a product of the 5 unique human endowments that include: i) capacity for independent thought; ii) capacity for self-awareness; iii) capacity for conscience to decide between right and wrong; iv) capacity for creative imagination and; v) capacity for belief, faith and conviction (Covey 2008).

By these abilities, human beings lift themselves from marginalization (M) in life to self-sufficiency (SS) through increased Awareness (A), Conviction(C), Capacity building(C) and Effective Action (E). In a way, M-ACCE-SS tools, as envisaged here, could be applied in pursuit of effectiveness and cause "a shift from welfare and dependency to self-sufficiency" (Benning 1996). This was the aim of the Eldoret CPE implementation committee.

The awareness (A) tool involves positive introspection, a process of re-examination of own thoughts, feelings and behavior to produce desired results and circumstances of life. It is deliberate, self-directed learning and education. Conviction(C) is a tool for self-inspiration. It gives energy, courage and inspiration to undertake action towards goal fulfillment. It is a by-product of repeated re-affirmation of thoughts; be they beliefs, goals and strategies. It is basically self-talk to create positive internal mental dialogue and strengthen commitment. Regular prayer enhances conviction. However, it is important to note that "education is not the only tool" (Starkshald 1994). Education is necessary but not sufficient for survival and overcoming adversity in life. There are 3 other tools for self-empowerment. The Capacity building (C) tool entails deliberate strategy setting, mobilizing resources and role modeling, including finding opportunities, for effective action. Capacity building, therefore, involves planning, mobilization of resources and preparation of activities to produce required results. The effective action (E) tool is the ultimate tool for actualization of plans and activities. Without action there will be no results. It is, sometimes, a trial and error process in order to create competency and proficiency from lessons learnt. The effective (E) action tool, also called, the proficiency tool, is responsible for desired results and circumstances of life. The four M-ACCE-SS tools are innate and available to all human beings without exception.

Apparently, the Eldoret CPE Implementing Committee adopted M-ACCE-SS tools in their effort to integrate spirituality into healthcare at the Riley Mother Baby Hospital in Eldoret. The CPE Advisory Committees in Kenya and Indianapolis, USA and the Eldoret CPE implementing committee in Kenya held regular workshops in 2015–17. Stakeholders were asked to reflect on all key steps used to implement the CPE Project in Kenya such as establishing various CPE committees, designing the CPE research protocol, writing and seeking institutional approvals for the CPE Curriculum, implementing the CPE Curriculum and initiation of Clinical Pastoral Care at The Moi Teaching and Referral Hospital in Kenya. For each step, stakeholders were asked to discuss in small groups challenges faced, lessons learned, and suggestions for improvement towards sustainability. We have drawn on these insights to highlight the challenges, lessons learned, and the way forward, which would be useful to other institutions considering or setting up such a project using M-ACCE-SS tools. M-ACCE-SS tools are derived directly from the NISE theory for self-empowerment.

Self-empowerment and self-sufficiency in circumstances of life are based on a PsychoBioSocial framework of health. On further reflection,

self-empowerment requires vision, inspiration and craft, commonly known as knowledge, attitude and skills or simply as thoughts, feelings and behavior. The Awareness tool provides vision and direction; the conviction tool provides energy for self-inspiration; while the capacity building gives preparedness for effective action. Effective action is a product of preparedness and proficiency. Self-empowerment entails also adoption of supply and user side initiatives, inside-out and a combination of both bottom-up and top-down initiatives.

Understanding domains and dimensions of spirituality combined with M-ACCE-SS tools could be applied to create desired circumstances of life in any situation. Health care providers have many opportunities to explore spiritual issues, but they do not often recognize them. If they do, they tend not to explore them (Timmins & Caldeira 2017; van Meurs *et al.* 2018). Application of M-ACCE-SS tools for self-empowerment entails adoption of supply-side and demand/user side initiatives, inside-out and a combination of both bottom-up and top-down initiatives as discussed above in the section on the way forward for the CPE project in Eldoret, Kenya.

## Conclusion

The CPE project demonstrated how spirituality in African settings is amenable to empirical research. The conceptual framework and tools for self-empowerment were developed and refined in this project. This article has presented lack of required resources as an ever-present challenge and how progress was made in mobilizing resources for the CPE project, lessons were learnt and knowledge gaps in spirituality research identified and addressed the project. A PsychoBioSocial conceptual framework, incorporating domains and dimensions of spirituality, was applied to define spirituality in an African context. M-ACCE-SS tools and the NISE theory for self-empowerment were derived from the PsychoBioSocial Model of life and proposed as a way forward to address the challenge of knowledge gaps in spirituality research in any context. A Kenya Chaplaincy Training Centre was initiated to train hospital chaplains and healthcare providers to offer holistic healthcare with a spiritual care component using an innovative medical education curriculum. Such capacity building is required for self-empowerment and integration of spirituality into healthcare in African settings. The conceptual model for personal and group empowerment, M-ACCE-SS tools and the NISE theory for self-empowerment need further validation in different settings.

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James Lemons, MD, is Professor of Clinical Paediatrics. He is the Emeritus Hugh McK. Landon Professor of Paediatrics and former Director of the Section of Neonatal-Perinatal Medicine at Indiana University School of Medicine in Indianapolis, USA. The Section is a nationally and internationally recognized newborn intensive care programme and is one of the largest in the country, providing state-of-the-art care for approximately 10,000 newborn infants and their families each year. He also spearheaded the establishment of The Riley Mother Baby Hospital in Eldoret, Kenya with a Maternity Unit, Newborn Intensive Care Unit (NICU), a Mothers' Hostel and a National Chaplaincy Training Centre, the first of its kind in Eastern Africa.

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## Appendix

*Date:* _____ *Start time:* _____ *Stop time:* _____

*Administered by:* _____

*Study ID Number:* _____ *Hospital:* _____

**Enrollment Interview (Do NOT read Bold Print)**
**(Patient) should be read aloud by using either the name or the relationship such as "Your mother".**

I will be asking you some basic questions about yourself and (patient), the relationship between you two, and also some more difficult questions regarding the health situation, care and other services that you and/or your patient get here . If at any point in time you do not wish to answer a question, please just let me know.

**I. Demographic Information**:

**INSTRUCTIONS:** First, I would like to ask some general questions about you

1. What is your age? _____

2. What is your sex?

- ☐ Male
- ☐ Female

3. What is your tribe?

_____

4. What is your education Level?

_____

5. What is your relationship to the patient?

- ☐ Son/daughter
- ☐ Grandchild
- ☐ Neighbor/Friend
- ☐ Other (Specify) _____

6. What is your current marital status?

- ☐ Married
- ☐ Single
- ☐ Divorced
- ☐ Widowed
- ☐ Other (Specify e.g. polygamous)

7. What is your religion, if any? (specify the denomination, i.e. Catholic)

- ☐ Christianity
- ☐ African religion
- ☐ Islam
- ☐ Hinduism
- ☐ Other (specify)

Specify Denomination, if Christian

- ☐ Protestant
- ☐ Catholic
- ☐ Do not know
- ☐ Pentecostal
- ☐ Others(specify) _____

8. When you consider your total household income, would you say that you are comfortable, have just enough to make ends meet, or do NOT have enough to make ends meet?

- ☐ Comfortable
- ☐ Just enough to make ends meet
- ☐ NOT enough to make ends meet
- ☐ Refused to Answer
- ☐ Don't Know

9. What is your annual household income before taxes?

- ☐ Under Kshs 5000
- ☐ Kshs > 5000-10000
- ☐ Kshs> 10000-20000
- ☐ Over Kshs 20000

10. In general, would you say your health is…?

- ☐ Excellent
- ☐ Very Good
- ☐ Good
- ☐ Fair
- ☐ Poor

Now, I have some questions about your living arrangements and location.

11. What County/Town do you live in?

_____

12. Before this hospitalization did you live:

- ☐ Alone at home
- ☐ At home with someone else
- ☐ Nursing home

13. When you (your patient) were admitted, to the hospital was this illness unexpected?

- ☐ Yes
- ☐ No
- ☐ Don't Know

14. Is this the first time the patient has been admitted with this health issue?

☐ Yes (Specify) _____

☐ No

**III. Family Inpatient Communication Survey –** Now I would like to read some statements to you regarding your experiences communicating with the hospital staff for this hospital visit. Please keep in mind that we will not be reporting any answers you give us to the hospital, nor will this affect the care you or your family member receives. For each of the following, please let me know if you strongly Agree, Agree, Neither Agree or Disagree, Disagree, or Strongly Disagree.

| Communication Timing | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree | N/A | Refused to Answer |
|---|---|---|---|---|---|---|---|
| 1. The hospital staff communicates with me as often as I like. | 5 | 4 | 3 | 2 | 1 | | |
| 2. When (patient) is admitted to the hospital, it takes a long time for me to find out what is going on.* | 1 | 2 | 3 | 4 | 5 | | |
| 3. There are times when I need to talk to a member of the health care team and I am not able to do so. * | 1 | 2 | 3 | 4 | 5 | | |
| 4. I am confident that I can reach at least one member of the hospital staff when I need them. | 5 | 4 | 3 | 2 | 1 | | |
| 5. When speaking with me, the hospital staff takes enough time to answer my questions. | 5 | 4 | 3 | 2 | 1 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6. The hospital staff communicates with me on a regular basis throughout (patient's) time in the hospital. | 5 | 4 | 3 | 2 | 1 | | |
| **Information N/A** | | | | | | | |
| 1. In general, the hospital staff gives me enough information about (patient's) medical condition. | 5 | 4 | 3 | 2 | 1 | | |
| 2. The information I receive help me understand (patient's) medical condition. | 5 | 4 | 3 | 2 | 1 | | |
| 3. The information I receive makes me feel comfortable about the care (patient) I am receiving. | 5 | 4 | 3 | 2 | 1 | | |
| 4. The hospital staffs carefully explain the treatments (patient) is receiving. | 5 | 4 | 3 | 2 | 1 | | |
| 5. I am well informed about (patient's) daily routine in the hospital. | 5 | 4 | 3 | 2 | 1 | | |
| 6. The hospital staff use words I can understand when they talk to me. | 5 | 4 | 3 | 2 | 1 | | |
| 7. Overall, the hospital staff give me too much information about the medical condition.* | 1 | 2 | 3 | 4 | 5 | | |
| 8. I have to struggle to get the information I need.* | 1 | 2 | 3 | 4 | 5 | | |
| 9. The hospital staff talks to me about what to expect in the future. | 5 | 4 | 3 | 2 | 1 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 10. I trust the information that I receive from the hospital staff. | 5 | 4 | 3 | 2 | 1 | | |
| 11. I always know which doctor is in charge of (patient's) care. | 5 | 4 | 3 | 2 | 1 | | |
| 12. I receive conflicting information from different members of the hospital staff. * | 1 | 2 | 3 | 4 | 5 | | |
| 13. The hospital staff help my other family members understand the situation. | 5 | 4 | 3 | 2 | 1 | | |
| 14. The hospital staff explain what they were going to do for (patient) before they do it. | 5 | 4 | 3 | 2 | 1 | | |
| **Emotional/Spiritual Support N/A** | | | | | | | |
| 15. I wish I get more emotional support from the hospital staff.* | 1 | 2 | 3 | 4 | 5 | | |
| 16. I wish I get more religious/spiritual support from the hospital staff. * | 1 | 2 | 3 | 4 | 5 | | |
| 17. It is easy to talk to the hospital staff about my personal concerns. | 5 | 4 | 3 | 2 | 1 | | |
| 18. I feel comfortable expressing my anxieties and fears with hospital staff. | 5 | 4 | 3 | 2 | 1 | | |
| 19. Some members of the hospital staff really show me that they care. | 5 | 4 | 3 | 2 | 1 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Treated with Respect N/A** | | | | | | | |
| 26. The hospital staff treats me with respect. | 5 | 4 | 3 | 2 | 1 | | |
| 27. The hospital staff tends to talk down to me.* | 1 | 2 | 3 | 4 | 5 | | |
| 28. The hospital staff treats me as an equal when they talk to me. | 5 | 4 | 3 | 2 | 1 | | |
| 29. The hospital staff is always courteous to me. | 5 | 4 | 3 | 2 | 1 | | |
| 30. The hospital staff often seems like they were in a hurry when they are talking to me.* | 1 | 2 | 3 | 4 | 5 | | |
| 31. My opinions are valued by the hospital staff. | 5 | 4 | 3 | 2 | 1 | | |
| 32. The hospital staff really listens to me when we talk. | 5 | 4 | 3 | 2 | 1 | | |
| 33. The hospital staff asks my opinions on important matters about (patient). | 5 | 4 | 3 | 2 | 1 | | |
| **Surrogate Engagement/Advocacy N/A** | | | | | | | |
| 34. I feel comfortable asking the hospital staff questions when I don't understand something. | 5 | 4 | 3 | 2 | 1 | | |
| 35. I feel comfortable telling the hospital staff when there was something (patient) need. | 5 | 4 | 3 | 2 | 1 | | |
| 36. The hospital staff encourages me to ask questions about (patient's) medical condition. | 5 | 4 | 3 | 2 | 1 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 37. There are times when I avoid talking to hospital staff because it is too stressful.* | 1 | 2 | 3 | 4 | 5 | | |
| 38. There are times when I avoid talking to hospital staff so that I do not feel pressured into making decisions. * | 1 | 2 | 3 | 4 | 5 | | |
| **Strength of Relationships with Clinicians N/A** | | | | | | | |
| 39. During the time I have (patient has) in the hospital, there is at least one hospital staff person I can rely on. | 5 | 4 | 3 | 2 | 1 | | |
| 40. During the hospital stay, I have developed a strong relationship with one or more members of the health care team. | 5 | 4 | 3 | 2 | 1 | | |
| 41. If I have a concern about (patient), I sometimes feel there is no staff member who can help me.* | 1 | 2 | 3 | 4 | 5 | | |
| 42. I know the names of the most important staff members caring for (patient). | 5 | 4 | 3 | 2 | 1 | | |
| 43. The staff change so often it is hard to get to know anyone. * | 1 | 2 | 3 | 4 | 5 | | |
| 44. There are too many different people taking care of (patient).* | 1 | 2 | 3 | 4 | 5 | | |
| 45. There is at least one member of the hospital staff who look out for (patient). | 5 | 4 | 3 | 2 | 1 | | |

**Overall assessment of communication**

Overall, how would you rate the quality of communication with the hospital staff? The answer choices are: Excellent, very good, good, fair or poor.

- ☐ Excellent
- ☐ Very Good
- ☐ Good
- ☐ Fair
- ☐ Poor
- ☐ Refused to Answer

2. Now I am going to ask about the kind of care you think your patient is currently receiving. Would you describe the current plan of care as

- ☐ Focused on extending life as much as possible, even if it means having more pain and discomfort from treatments.
- ☐ Focused on relieving pain and discomfort as much as possible and forgoing measures to prolong life.
- ☐ In between, where there may be some care in the hospital but you might refuse care that would be too burdensome.
- ☐ Don't Know

3. When making decisions about health care with patient's doctor, which ONE of the following best describes how you would like to make these decisions?

- ☐ I prefer to make the final selection about which treatment the patient will receive
- ☐ I prefer to make the final selection after seriously considering doctor's opinion
- ☐ I prefer that doctor and I share responsibility for deciding what treatment is best (for patient)
- ☐ I prefer to leave all decisions regarding treatment to (patient's) doctor
- ☐ Refused to Answer
- ☐ Don't Know

4. Which ONE of the following best describes how these decisions are being made.

- ☐ I made the final selection about which treatment (patient) will receive.
- ☐ I made the final selection after seriously considering (patient's) doctor's opinion.
- ☐ The doctor and I shared responsibility for deciding what treatment was best (for patient).
- ☐ The (patient's) doctor made the final decision about which treatment will be used, but considered my opinion
- ☐ I left all decisions regarding treatment to (patient's) doctor.
- ☐ Refused to Answer
- ☐ Don't Know

**V. Communication Frequency**
Now I'd like to ask about your communication with the hospital staff.

1. Since your family member was admitted to the hospital, how frequently has any member of the hospital staff spoken to you about his/her medical condition?

☐ Never **(Go to 3)**

- ☐ Less than once a week
- ☐ Once a week
- ☐ A few times a week
- ☐ Once a day
- ☐ More than once a day
- ☐ Refused to Answer
- ☐ Don't Know

2. Who was that person? (Check all that apply)

- ☐ Physician
- ☐ Chaplain
- ☐ Social Worker

- ☐ Nurse
- ☐ Other _____
- ☐ Refused to Answer
- ☐ Don't Know

3. How long after your family member was admitted did a member of the hospital staff first speak to you about his/her medical condition?

- ☐ Never
- ☐ Within a few minutes
- ☐ Within a few hours
- ☐ During the first day
- ☐ Day 2
- ☐ Day 3
- ☐ Later than day 3
- ☐ Refused to Answer
- ☐ Don't Know

4. How long was your longest conversation about your family member's health?

- ☐ None
- ☐ Under 10 minutes
- ☐ 11-20 minutes
- ☐ 21-40 minutes
- ☐ 41-60 minutes
- ☐ More than 60 minutes
- ☐ Refused to Answer
- ☐ Don't Know

**VII. MODIFIED SURROGATE Decisional Conflict Scale (DCS)**

- ☐ N/A – Surrogate does not recall making any decisions

I am going to read you some statements about each decision you had to make for (patient). For each statement please let me know if you Strongly Agree, Agree, Neither agree or disagree, Disagree, or Strongly Disagree.

**Name of condition, Decision and options_____**
**(Use past tense when appropriate)**

| Traditional Format | Strongly Agree | Agree | Neither Agree or Disagree | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| 1. I know which options are available to (patient). | 1 | 2 | 3 | 4 | 5 |
| 2. I know the benefits of each option. | 1 | 2 | 3 | 4 | 5 |
| 3. I know the risks and side effects of each option. | 1 | 2 | 3 | 4 | 5 |
| 4. I am clear about which benefits matter most. | 1 | 2 | 3 | 4 | 5 |
| 5. I am clear about which risks and side effects matter most. | 1 | 2 | 3 | 4 | 5 |
| 6. I am clear about which is more important (the benefits or the risks and side effects). | 1 | 2 | 3 | 4 | 5 |
| 7. I have enough support from others to make a choice. | 1 | 2 | 3 | 4 | 5 |
| 8. I am choosing without pressure from others. | 1 | 2 | 3 | 4 | 5 |
| 9. I have enough advice to make a choice. | 1 | 2 | 3 | 4 | 5 |
| 10. I am clear about the best choice for (patient). | 1 | 2 | 3 | 4 | 5 |
| 11. I feel sure about what to choose. | 1 | 2 | 3 | 4 | 5 |
| 12. This decision is easy for me to make. | 1 | 2 | 3 | 4 | 5 |
| 13. I feel I have made an informed choice. | 1 | 2 | 3 | 4 | 5 |
| 14. My decision shows what is important. | 1 | 2 | 3 | 4 | 5 |
| 15. I expect to stick with this decision. | 1 | 2 | 3 | 4 | 5 |
| 16. I am satisfied with this decision. | 1 | 2 | 3 | 4 | 5 |

18. Including you, how many family members were involved in making this decision?

- ☐ None
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4 or more
- ☐ Don't Know
- ☐ Please explain ----------

## VIII. Decision Making Principles

| There are many issues that might have been of concern to you as you were making decisions for patient. For each item, please state whether the issue was extremely important, very important, somewhat important or unimportant. | Extremely important | Very important | Somewhat important | Unimportant (or not relevant for this decision) |
|---|---|---|---|---|
| 1. Improving (patient's) health | 1 | 2 | 3 | 4 |
| 4. Your own wishes for (patient) | 1 | 2 | 3 | 4 |
| 5. Concerns about insurance, finances, or paying for medical care | 1 | 2 | 3 | 4 |
| 7. Reaching an agreement about the decision with other family members | 1 | 2 | 3 | 4 |
| 10. What was in the best interest of (patient ) | 1 | 2 | 3 | 4 |
| 11. Your own religious or spiritual beliefs | 1 | 2 | 3 | 4 |
| 12. The medical facts, such as (patient's) condition the risks and benefits of the procedures, and (patient's) possible outcomes. | 1 | 2 | 3 | 4 |
| 13. The burden on yourself or the family | 1 | 2 | 3 | 4 |
| 15. What you would have wanted if you was in a similar situation. | 1 | 2 | 3 | 4 |
| 16. Trying everything possible to save (patient) | 1 | 2 | 3 | 4 |

17. Of these issues which would you rate as the most important issue in making your decision? .....

Number of most important issue _____

☐ Refused to answer
☐ Don't Know

**IX. Distrust Scale** – We have reviewed a number of statements about Riley Mother Baby Hospital specifically. Now, I would like to read you some more general statements about opinions on the health care system. When considering your responses, please think of the health care system in broad terms, as these statements are not specific to any one hospital. Please tell me if you Strongly Agree, Agree, Neither Agree or Disagree, Disagree or Strongly Disagree

| | Strongly Agree | Agree | Neither Agree/ Disagree | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| 1. The health care system does its best to make patients health better* | 1 | 2 | 3 | 4 | 5 |
| 2. The health care system covers up its mistakes | 5 | 4 | 3 | 2 | 1 |
| 3. Patients receive high quality medical care from the health care system* | 1 | 2 | 3 | 4 | 5 |
| 4. The health care system makes too many mistakes | 5 | 4 | 3 | 2 | 1 |
| 5. The health care systems puts making money above patients" needs | 5 | 4 | 3 | 2 | 1 |
| 6. The health care system gives excellent medical care* | 1 | 2 | 3 | 4 | 5 |
| 7. Patients get the same medical treatment from the health care system no matter what the patient's race or ethnicity.* | 1 | 2 | 3 | 4 | 5 |
| 8. The health care system likes to make money | 5 | 4 | 3 | 2 | 1 |
| 9. The health care system experiments on patients without them knowing. | 5 | 4 | 3 | 2 | 1 |

***Reverse coded**

| X. Agreement/Disagreement/ Conflict Scale. – Please rate how much you agree with the following questions: | Strongly Agree | Agree | Neither Agree/ Disagree | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| 1. The doctors and I agreed about the facts of the patient's illness. | 5 | 4 | 3 | 2 | 1 |
| 2. The doctors and I agreed about the patient's prognosis, or what was going to happen to them. | 5 | 4 | 3 | 2 | 1 |
| 3. The doctors and I agreed about the right thing to do. | 5 | 4 | 3 | 2 | 1 |
| 4. There was conflict between the doctors and me.* | 1 | 2 | 3 | 4 | 5 |

*Reverse Coded

## XI. PHQ9 – Depression

| Over the last two weeks, how often have you been bothered by any of the following problems? | Not at all | Several Days | More than half the days | Nearly every day |
|---|---|---|---|---|
| 1. Little interest or pleasure in doing things | 0 | 1 | 2 | 3 |
| 2. Feeling down, depressed or hopeless | 0 | 1 | 2 | 3 |
| 3. Trouble falling or staying asleep, or sleeping too much | 0 | 1 | 2 | 3 |
| 4. Feeling tired or having little energy | 0 | 1 | 2 | 3 |
| 5. Poor appetite or overeating | 0 | 1 | 2 | 3 |
| 6. Feeling bad about yourself – or that you are a failure or have let yourself or your family down | 0 | 1 | 2 | 3 |
| 7. Trouble concentrating on things, such as reading the newspaper or watching television | 0 | 1 | 2 | 3 |
| 8. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual | 0 | 1 | 2 | 3 |

| | | | | |
|---|---|---|---|---|
| 9. Thoughts that you would be better off dead or of hurting yourself in some way | 0 | 1 | 2 | 3 |
| If yes to any: How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people? | Not difficult at all | Somewhat difficult | Very difficult | Extremely difficult |

*If score is 15 or higher please use Depression Protocol, If #9 is 1, 2, or 3 please use Suicide Protocol*

## XII. GAD-7

| Over the last two weeks, how often have you been bothered by any of the following problems? | Not at all | Several Days | More than half the days | Nearly every day |
|---|---|---|---|---|
| 1. Feeling nervous anxiety or on edge | 0 | 1 | 2 | 3 |
| 2. Not being able to stop or control worrying | 0 | 1 | 2 | 3 |
| 3. Worrying too much about different things | 0 | 1 | 2 | 3 |
| 4. Trouble relaxing | 0 | 1 | 2 | 3 |
| 5. Being so restless that is hard to sit still | 0 | 1 | 2 | 3 |
| 6. Becoming easily annoyed or irritable | 0 | 1 | 2 | 3 |
| 7. Feeling afraid as if something awful might happen | 0 | 1 | 2 | 3 |

## XIII. K6 Distress Scale

For this next set of statements please answer "all of the time" "most of the time" "some of the time" "a little of the time" or "none of the time"

| During admission, how much of the time did you feel… | **All of the time** | **Most of the time** | **Some of the time** | **A little of the time** | **None of the time** |
|---|---|---|---|---|---|
| 1. So sad nothing could cheer you up | 4 | 3 | 2 | 1 | 0 |
| 2. Nervous | 4 | 3 | 2 | 1 | 0 |
| 3. Restless or fidgety | 4 | 3 | 2 | 1 | 0 |
| 4. Hopeless | 4 | 3 | 2 | 1 | 0 |
| 5. That everything was an effort | 4 | 3 | 2 | 1 | 0 |
| 6. Worthless | 4 | 3 | 2 | 1 | 0 |

This next part of the interview includes statements about religion and spirituality. Some of these may or may not apply to you.

| **XIV. Brief RCOPE** -There are different ways to cope with negative events in your life. The following statements are examples of how some people cope with these negative events. Please answer each statement with not at all, a little bit, somewhat, or a great deal. | Not at all | A little bit | Somewhat | A great deal |
|---|---|---|---|---|
| **Positive Religious Coping Subscale Items** | | | | |
| 1. Tried to see how God might be trying to strengthen me in this situation. | 0 | 1 | 2 | 3 |
| 2. Tried to put my plans into action together with God. | 0 | 1 | 2 | 3 |
| 3. Sought God's love and care. | 0 | 1 | 2 | 3 |
| 4. Focused on religion to stop worrying about my problems. | 0 | 1 | 2 | 3 |
| 5. Looked for a stronger connection with God. | 0 | 1 | 2 | 3 |
| 6. Asked forgiveness for my sins. | 0 | 1 | 2 | 3 |
| 7. Sought help from God in letting go of my anger | 0 | 1 | 2 | 3 |
| **Negative Religious Coping Subscale Items** | | | | |
| 8. Wondered what I did for God to punish me | 0 | 1 | 2 | 3 |
| 9. Felt punished by God for my lack of devotion. | 0 | 1 | 2 | 3 |
| 10. Decided the devil made this happen. | 0 | 1 | 2 | 3 |
| 11. Wondered whether God had abandoned me. | 0 | 1 | 2 | 3 |
| 12. Questioned God's love for me. | 0 | 1 | 2 | 3 |
| 13. Wondered whether my faith community had abandoned me. | 0 | 1 | 2 | 3 |
| 14. Questioned the power of God. | 0 | 1 | 2 | 3 |

| **XV. RCOPE Control Items -** The following statements are examples of how some people try and control situations. Please answer each statement with not at all, a little bit, somewhat, or a great deal. | Not at all | A little bit | Somewhat | A great deal |
|---|---|---|---|---|
| **Collaborative Religious Coping** | | | | |
| 1. Tried to put my plans into action together with God | 0 | 1 | 2 | 3 |
| 2. Worked together with God as partners | 0 | 1 | 2 | 3 |
| 3. Tried to make sense of the situation with God | 0 | 1 | 2 | 3 |
| **Active Religious Surrender** | | | | |
| 1. Did my best and then turned the situation over to God | 0 | 1 | 2 | 3 |
| 2. Did what I could and put the rest in God's hands | 0 | 1 | 2 | 3 |
| 3. Took control over what I could, and gave the rest up to God | 0 | 1 | 2 | 3 |
| **Passive Religious Deferral** | | | | |
| 1. Didn't do much, just expected God to solve my problems for me | 0 | 1 | 2 | 3 |
| 2. Didn't try much of anything; simply expected God to take control | 0 | 1 | 2 | 3 |
| 3. Didn't try to cope: only expected God to take my worries away | 0 | 1 | 2 | 3 |
| **Pleading for Direct Intercession** | | | | |
| 1. Pleaded with God to make things turn out okay | 0 | 1 | 2 | 3 |
| 2. Prayed for a miracle | 0 | 1 | 2 | 3 |
| 3. Bargained with God to make things better | 0 | 1 | 2 | 3 |

## XVI.
## Religion Index[1]

1. How often do you go to Church/Mosque for worship?

- ☐ Never
- ☐ Once a year or less

1. This is an adaptation of the Duke University Religious index

- ☐ A few times a year
- ☐ A few times a month
- ☐ Once a week
- ☐ More than once/week
- ☐ Daily
- ☐ Don't Know

2. How often do you spend time in private religious activities, such as prayer, meditation or Bible study? (NORA)

- ☐ Rarely or never
- ☐ A few times a month
- ☐ Once a week
- ☐ Two or more times/week
- ☐ Daily
- ☐ More than once a day
- ☐ Refused to Answer
- ☐ Don't Know

The following section contains 3 statements about religious belief or experience. Please mark the extent to which each statement is true or not true for you.

3. In my life, I experience the presence of the Divine (*i.e.*, God) - (IR)

- ☐ Definitely *not* true
- ☐ Tends *not* to be true
- ☐ Unsure
- ☐ Tends to be true
- ☐ Definitely true of me
- ☐ Refused to Answer

4. My religious beliefs are what really lie behind my whole approach to life - (IR)

- ☐ Definitely *not* true
- ☐ Tends *not* to be true
- ☐ Unsure
- ☐ Tends to be true
- ☐ Definitely true of me
- ☐ Refused to Answer

5. I try hard to carry my religion over into all other dealings in life - (IR)

- ☐ Definitely *not* true
- ☐ Tends *not* to be true
- ☐ Unsure
- ☐ Tends to be true
- ☐ Definitely true of me
- ☐ Refused to Answer

**XVII. MIRACLES**

The next statement is in regard to miracles. Please answer the following statement with strongly agrees, agree, neither agree or disagree, disagree, or strongly disagree.

1. I believe that divine intervention or a miracle might change the course of (patient's) illness.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neither Agree nor Disagree
- ☐ Disagree
- ☐ Strongly Disagree
- ☐ Don't Know

**XVIII. SPIRITUAL SUPPORT**

1. To what extent are your religious/spiritual needs being supported by your religious community (e.g. clergy, members of your congregation)?

- ☐ To a small extent
- ☐ To a moderate extent
- ☐ To a large extent
- ☐ Completely supported
- ☐ Not at all
- ☐ Don't Know/N/A

2. To what extent are your religious/spiritual needs being supported by the medical system (e.g. doctors, nurses, chaplain)?

- ☐ To a small extent
- ☐ To a moderate extent
- ☐ To a large extent
- ☐ Completely supported

- ☐ Not at all
- ☐ Don't Know/N/A

3. Have you received spiritual/pastoral care services within the clinic or hospital?

- ☐ Yes **(Answer yes if they were offered, but refused services)**
- ☐ No
- ☐ Don't know / N/A

| **XIX. FACIT-Sp NI Revised**– Below is a list of statements that other people have said are important. Please indicate how true each statement has been for you during the past 7 days. Your answer choices are "not at all", "a little bit", "somewhat", or "a great deal." | Not at all | A little bit | Somewhat | A great deal |
|---|---|---|---|---|
| 1. I feel peaceful | 0 | 1 | 2 | 3 |
| 2. I have a reason for living | 0 | 1 | 2 | 3 |
| 3. My life has been productive | 0 | 1 | 2 | 3 |
| 4. I have trouble feeling peace of mind | 3 | 2 | 1 | 0 |
| 5. I feel a sense of purpose in my life | 0 | 1 | 2 | 3 |
| 6. I am able to reach down deep into myself for comfort | 0 | 1 | 2 | 3 |
| 7. I feel a sense of harmony within myself | 0 | 1 | 2 | 3 |
| 8. My life lacks meaning and purpose | 3 | 2 | 1 | 0 |
| 9. I find comfort in my faith or spiritual beliefs | 0 | 1 | 2 | 3 |
| 10. I find strength in my faith or spiritual beliefs | 0 | 1 | 2 | 3 |
| 11. Difficult times have strengthened my faith or spiritual beliefs | 0 | 1 | 2 | 3 |
| 12. Even during difficult times, I know that things will be okay | 0 | 1 | 2 | 3 |

Is there anything else that you would like to say with regard to what we have talked about?

Thank you for taking time today to help us with our research. I will be contacting you 6-8 weeks after (patient) is discharged to complete the follow-up interview. May I please have your address or contact.

**B: Economic Health Assessment**

It has been argued that there a direct correlation between the economic wellbeing of a mother and access to and provision of quality maternal health care services. This questionnaire serves as an instrument to assess the aforesaid assumption with regards to pregnant mothers who sought maternal care services at the Riley Mother & Baby Hospital of the MTRH:

1. What was the main consideration in your choice of this facility?

   A. Accessibility. B. Affordability. C. Quality services D. Other reasons (specify) ……

2. What means of transportation brought you to the hospital?

   A. Hospital Ambulance B. Taxi C. Matatu D. Private Car E. Other means (specify)…….

3. How many days have you spent in this facility?

   a. 1-2 days
   b. 3-5 days
   c. Over 5 days

4. Did you have to buy any medicines or equipment to facilitate treatment? Yes/No

5. If yes, specify the cost

   a. Below KSHS. 500
   b. Below KSHS 1,000
   c. Between KSHS. 1,000 and KSHS. 5,000
   d. Over KSH 5,000

6. Who will finance your hospital costs?

   A. It is free B. Self C. Husband D. Relatives/ well-wishers E. NHIF

7. Should maternal care/delivery services be free? A. YES B. NO

8. Give reasons for your answer in 6 above

   ……
   ……

9. Who should bear the cost for such services if made free?

   ……
   ……

10. How would you rate the charges at Mother & Baby Facility?

    A. Reasonable B. Expensive

11. Based on the economic considerations, would you choose Mother & Baby Facility for your next birthing? A. YES B. NO.

12. Suggest ways in which maternal care could be affordable to all:

    a ……
    ……..

    b ……
    ……..

    c ……
    ……..

**C: Spiritual/Religion Health Assessment Checklist (Draft by Emily)**

1. My church/spiritual family know where I stay YES/NO
2. My pastor/elders/one church family member has visited me YE/NO
3. I read the scriptures regularly YES/NO Have you been visited by a chaplain since you came to hospital? Yes/NO
4. Has anyone prayed for you since you came to hospital?
5. ?
6. Does your denomination provide spiritual support during pregnancy/child birth Yes/NO
7. If yes, which spiritual support?

    a. Prayers
    b. Midwifery services
    c. Both

8. Do you believe there is need for spiritual help during pregnancy/childbirth?

    a. Yes
    b. No

9. Are currently seeking spiritual help?

    a. Yes
    b. No
    c. No, but intends to.

10. Do you think doctors/nurses should consider patient's spiritual needs/concerns during medical care?

    a. Yes
    b. No

11. How often have clinicians discussed spiritual help with you?

    a. Frequently
    b. Occasionally
    c. Never

12. Do you desire that healthcare providers allow your clergy to pray with you while in labour?

    a. Yes
    b. No
    c. Indifferent

13. Do you think collaboration of healthcare providers with your spiritual leader/clergy will improve your chance of hospital delivery?

    a. Yes
    b. No
    c. Not sure

14. Are there spiritual practices you desire that hospitals allow during labour?

    a. Prayer
    b. Listening/reading scriptures

**D: Psychosocial Assessment**

| S/NO | STATEMENT | YES | N0 |
|---|---|---|---|
| 1 | Were you asked any question related to your spirituality during the history taking? | | |
| 2 | | | |
| 3 | Were you allowed to have a companion during labour? | | |
| 4 | Were you allowed to choose the position to adopt during the time of birth? | | |
| 5 | Were any of your cultural or religious beliefs violated during the process of birth? | | |
| 6 | Were you given health education that prepared you for your social responsibilities after birth? | | |

| | | | |
|---|---|---|---|
| 7 | Were you given any information about emotional well-being during pregnancy and early parenthood (e.g., about depression, anxiety, parenting stress) | | |
| 8 | Do you have any concerns regarding your mental wellbeing? | | |
| 9 | Do you consider yourself to have received the needed emotional support during the process of birth? | | |
| 10 | Have you experienced any form of domestic violence or abuse | | |
| 11 | Is there any form of drug or alcohol abuse in your family | | |

## APPENDIX I: CHECKLIST/QUESTIONNAIRE
## Physical Health Assessment /Health Facility Review Form

| | **Personnel:** | Men | Women |
|---|---|---|---|
| 1. | General practitioners | | |
| 2. | Obstetrician-gynecologists | | |
| 3. | Pediatricians/ Neonatologist | | |
| 4. | Family Physicians | | |
| 5. | Nurses | | |
| | Spiritual Care givers/Chaplains | | |
| 6. | Midwives | | |
| 7. | Other physicians | | |
| 8. | Other personnel | | |
| | | | |

| | | | | |
|---|---|---|---|---|
| | **Equipment** | Availability | Condition | Comments |
| 1. | Sphygmomanometer | | | |
| 2. | Measure tape | | | |
| 3. | Pelvic meter | | | |
| 4. | Stethoscope | | | |
| 5. | Body Thermometer | | | |
| 6. | Adult Scale | | | |

| | | | | |
|---|---|---|---|---|
| 7. | Fetal stethoscope | | | |
| 8. | Obstetric Doppler | | | |
| 9. | Light source | | | |
| 10. | Heat source | | | |
| 12. | Forceps | | | |
| 13. | Scissors | | | |
| 14. | Needle holder | | | |
| 15. | Artery forceps or clamp | | | |
| 16. | Vaginal speculum | | | |
| 17. | Sponge forceps | | | |
| 18. | Dissecting forceps | | | |
| 19. | Dipsticks | | | |
| 20. | Tongue blades | | | |
| 21. | Swabs | | | |
| 22. | Gauze | | | |
| 23. | Pregnancy test | | | |
| 24. | Rectal Thermometer | | | |
| 25. | Child Sphygmomanometer | | | |
| 26. | Infant scale | | | |
| 27. | Self-inflating resuscitation bag, newborn size | | | |
| 28. | Face mask for resuscitation (sizes 0,1) | | | |
| 29. | Incubator | | | |
| 30. | Mucus extractor with suction tube | | | |
| 31. | Infant examination table | | | |
| 32. | Tourniquet | | | |
| 33. | Injectibles | | | |
| 34. | Glucometer strips) | | | |
| 35. | IV poles | | | |
| 36. | Suction apparatus | | | |
| 37. | Gastric tubes (3.5-F, 5-F, and 8-F) with caps | | | |

| | | | | |
|---|---|---|---|---|
| 38. | Suction catheters | | | |
| 39. | Umbilical vein catheter | | | |
| 40. | Nasal catheters (6-F and 8-F) | | | |
| 41. | Nasal prongs (1mm and 2 mm) | | | |
| 42. | Butterfly sets (22- to 25-gauge) | | | |
| 43. | Cannulas (22- to 25-gauge) | | | |
| 44. | IV tubing | | | |
| 45. | Microdropper | | | |
| 46. | Blades and handles | | | |
| 47. | Leak-proof container for contaminated waste | | | |
| 48. | Receptacle for soiled linens | | | |
| 49. | Puncture-proof container for sharps disposal | | | |
| 50. | Instrument sterilizer | | | |
| 51. | Clean examination gloves | | | |
| 52. | Utility gloves | | | |
| 53. | Sterile gloves | | | |
| 54. | Chloramine (packs) | | | |
| 55. | Chlorhexidine (liquid solution) | | | |
| 56. | Soap | | | |

| **B** | **Condition of Facility** | **Ideal condition** | **Medium conditions** |
|---|---|---|---|
| 1. | Electrical power | 1 | 2 |
| 2. | Running water | 1 | 2 |
| 3. | Functioning toilet | 1 | 2 |
| 4. | Heating system | 1 | 2 |
| 5. | Windows | 1 | 2 |
| 6. | Floor | 1 | 2 |
| 7. | Shelves | 1 | 2 |
| 8. | Examination table | 1 | 2 |
| 9. | 1 table and 2 chairs | 1 | 2 |
| 10 | Refrigerator/freezing bag | 1 | 2 |

| Respondent Code | Name |
|---|---|
| Location of facility | Qualifications |

## APPENDIX II: ORAL INTERVIEW GUIDE

### A: Physical health birthing experiences

1. Sharing about themselves
2. Sharing on physical birthing experience
3. Views on any physical birthing fulfilments
4. Views on any physical birthing challenges
5. Views on physical healthcare facilities and services that were provided/could be provided.

### B: Economic health birthing experiences

1. Sharing about their demographic characteristics (highlight economic)
2. Sharing on birthing experience
3. Views on any Economic birthing fulfilments
4. Views on any Economic birthing challenges
5. Views on economic health care that were provided/could be provided.

### C: Spiritual health

1. Sharing on their spirituality/religion
    a) What are your spiritual or religious beliefs?
    b) What things do you believe in that give meaning to your life?
    c) Is it important in your life?
    d) How does it affect how you view your problems?
    e) How have your religion/spirituality influenced your behavior and mood during this illness?
    f) What role might your religion/spirituality play in resolving your problems?

2. Sharing on birthing experience in relation to their spirituality/religion
3. Views on any spiritual birthing fulfilments
4. Views on any spiritual birthing challenges
5. Views on spiritual health facilities and services that were provided/could be provided.

**D. Mental and Emotional health**

1. Sharing on their psychological and emotional health
2. Sharing on birthing experience in relation to their psychological and emotional health
3. Views on any psychological and emotional birthing fulfilments during birth
4. Views on any emotional birthing challenges
5. Views on psychological/counseling services that were provided/ could be provided.

## APPENDIX III: FOCUSED PARTICIPANT OBSERVATION GUIDE

Observe whole environment of birth (physical, social. Cultural environment)
Observe mother predisposition
Observe health care provider/mother relations
Observe mother/significant other relations
Observe privacy, confidentiality, orderliness
Observe Chaplain/mother relations
Chapel or religious sign and activities.