Knowledge of and attitudes towards kangaroo mother care in the Eastern Sub-district, Cape Town.

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Declaration:

I declare that knowledge of and attitudes towards kangaroo mother care in the Eastern Sub-district, Cape Town is my own work, that it has not been submitted before any degree or examination at any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.

Celeste Naomi Rosant May 2009

Signed: ……..

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I wish to express my sincere appreciation to my research supervisor Prof R. Swart for her help and continued support.

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ABSTRACT

Kangaroo mother care (KMC) was first initiated in Colombia due to shortages of incubators and the incidence of severe hospital infections of new-born infants during hospital stay (Feldman, 2004). Currently it is identified by UNICEF as a universally available and biologically sound method of care for all new-borns, particularly for low birth weight infants (Department of Reproductive Health and Research, 2003) in both developed and developing countries. The Western Cape Provincial Government implemented a policy on KMC as part of their strategy to decrease the morbidity and mortality of premature infants in 2003 (Kangaroo Mother Care Provincial task team, 2003).

Essential components of KMC are: skin-to-skin contact for 24 hours per day (or as great a part of the day as possible), exclusive breastfeeding and support to the mother-infant dyad. Successful implementation of KMC requires relevant education of nurses, education of mothers on KMC by nursing staff, monitoring of the implementation of KMC by nurses, planning for a staff mix with varying levels of skill and experience with KMC, the identification of institution specific barriers to the implementation of KMC, and the implementation of institution specific strategies to overcome these barriers (Wallin,et al., 2005; Bergman & Jurisco, 1994; Cattaneo, et al., 1998).

This study aims to determine the knowledge of and attitude towards kangaroo mother care, of nursing staff and kangaroo mothers in the Eastern sub-district of Cape Town.

This cross-sectional descriptive study collected data from all nursing staff and mothers involved in kangaroo care at one hospital over a period of 3 months and the relevant nursing staff from feeder pre-natal clinics in the sub-district, using a structured questionnaire in face-to-face interviews.

Data was entered and analysed in Epi-Info (2007). Response frequencies were calculated for items on the attitude scale and for knowledge and practice variables.

The mean gestational age of the infants was 32 weeks and the mean birth weight was 980g. The majority of mothers (70%) knew of the importance of KMC and had a positive attitude towards KMC although they did not receive enough information about KMC at the prenatal facilities. The majority of the nursing staff had some knowledge of the advantages of KMC, appreciated its value and had a positive attitude towards KMC. The most important gap for improving KMC implementation was identified to be a bigger and better equipped KMC ward and lack of education given to mothers at prenatal clinics.

More detailed information on KMC should be provided to mothers to improve their knowledge on KMC, while the creation of a home-like environment may enhance the well-being of mothers and infants. To improve the implementation of KMC in the Eastern Sub – district will require bigger and better equipped KMC wards, as well as regular KMC training sessions for nursing staff.

Keywords:

Low Birth Weight (LBW)

Kangaroo Mother Care (KMC)

Skin-to-Skin Contact (SSC)

United Nations Children's Fund (UNICEF)

Human Immunodeficiency Virus (HIV)

World Health Organisation (WHO)

Breastfeeding

Step-down facility

Gestational age

Breastmilk production

Premature

Definition of terms

Premature: is the term used to signify infants born before 37 weeks of gestational age.

Low birth weight (LBW): is defined as a body weight at birth of less than 2500grams.

Kangaroo mother care (KMC): is a method, which involves placing the infant with a hat and diaper on the mother's chest between her breasts. The infant is placed in an up right position under the parent's clothes on the naked skin.

Skin-to-skin contact (SSC): is the practice of placing an infant only in a diaper and hat chest-to-chest on the parent's bare skin.

Step – down unit: is a unit where the mothers are involved in the care of stable LBW infants.

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CHAPTER 1

Introduction

Globally 25 million infants (17%) are born with a low birth weight (LBW) and most of these occur in low-income countries (Cattaneo, et al., 1998). These low birth weight infants suffer from (Charpak, et al., 2005) high rates of morbidity and mortality and often remain underweight, stunted or wasted from the neonatal period through childhood (Bale, et al., 2003). Therefore low-income countries have recognised (Lima, et al., 2000 & Davanzo, 2004) kangaroo mother care (KMC) as a necessity to promote positive neonatal health under adverse conditions. The benefit of KMC includes empowering the mother to care for her LBW infant, decreasing infant mortality, encouraging breastfeeding and reducing the frequency of low birth weight babies visiting clinics after discharge from hospital (Simkiss, 1999 & Johnson, 2007). In recognition of these positive attributes, the Western Cape Provincial Government implemented a KMC policy as a safe and effective method of care for low birth weight infants (KMC Provincial task team, 2003).

Complications of LBW account for 45% of all neonatal deaths in South Africa. LBW infants need extra care and warmth. KMC is a practical and inexpensive option and therefore the best way to provide this care and warmth especially during incidence of power failing and in households who do not have access to electricity. The immediate effect of KMC is to prevent prolonged separation of the mother and her LBW infant which can contribute to an increase in morbidity, insufficient breast milk volume, poor growth and poor mother-to-infant bonding (Charpak, et al., 2005). Simultaneously KMC also reduces the workload of the health care workers (Chia,

Sellick & Gan, 2006).Considering the benefits of KMC education for nurses and mothers is seen to be critical to its successful implementation.

The purpose of this study is to provide the health facilities in the Eastern Sub-district with information on how effectively the KMC policy is being implemented and to use this information to facilitate improvements in the implementation of KMC.

Aim of the research

The aim of this study is to determine the knowledge of and attitude towards kangaroo mother care, of nursing staff and kangaroo mothers in the Eastern sub-district of Cape Town.

Objectives of the research

To assess the knowledge of kangaroo mothers on KMC

To assess the knowledge of nursing staff on KMC

To assess the attitude of kangaroo mothers towards KMC

To assess the attitude of nursing staff towards KMC

To assess the KMC practices of mothers with new-born premature and / or low birth weight infants.

CHAPTER 2

Literature review

Kangaroo mother care (KMC) is a method of care that can be used for all new-borns, but it is often used as a strategy to ensure optimal care for LBW infants. This method involves placing the infant wearing only a diaper and a cap on the mother's chest. The infant is placed in an upright position between the breasts of the mother, under her clothes. This position ensures skin-to-skin contact (SSC). For KMC to be most effective it is recommended that the infant must have skin-to-skin contact for 24 hours of the day (Charpak, Sellick & Gan, 2006). By practicing this SSC the mother produce large volumes of breastmilk and can lactate for a longer period (Furman & Kennel, 2000; Gupta, et al., 2007).

Premature infants (when an infant is born before 37 weeks gestational age) (Mahan & Arlin, 1992), and low birth weight infants (infants with a birth weight below 2500g) (Mahan & Arlin, 1992), are usually managed by placing the infant in an incubator immediately after birth. This implies that the infant is separated from the mother. The early separation from the mother results in damage to the infants' system of arousal, stress reactivity, attention and learning (Bergh, et al., 2005). When infants are placed in incubators, the exposure to continuous light and non-stop noise results in damage to their biological clock (Bergh, et al., 2005). The traditional alternative to incubators requires that infants are well-covered in blankets and warm clothing, but this method

is less effective to maintain the body temperature of the infants than incubators (Chia, et al., 2006).

Benefits of kangaroo mother care

One of the benefits of implementing KMC at facilities is that it prevents prolonged separation of mother and her LBW infant (Lima, Quintero- Romero & Cattaneo, 2000). This separation was found to contribute to morbidity, insufficient breast milk volume, poor growth and poor mother-to-infant bonding (Bergh, et al., 2005). Low birth weight infants were found to stabilise faster when the skin-to-skin contact with the mother was practised (Wallin, Rudberg & Gunningberg, 2005). Bergh, et al. (2005), Feldman & Eidelman (2002), Roberts, Paynter & McEwan (2000) , Worku & Kassie (2005) as well as Ludington-Hoe, et al. (1994) reported that when implementing skin-to-skin contact the LBW infants were found to spend more time in quiet sleep, their heart rate was lower and more stable, apnoea decreased, the body temperature was maintained better and the infants' oxygenation and gas exchange improved. Another benefit of KMC is the increased stimulation of breast milk production that facilitates more frequent breastfeeding (Anderson, 1991; Charpak & Ruiz-Pelaez, 2006; Furman & Kennel, 2000; Wahlberg, et al., 1992). This is a very important benefit in developing countries where malnutrition and gastro-intestinal infections cause the death of a large percentage of infants. The infants receiving kangaroo care also tend to cry less and therefore the stress hormones in their blood are reduced. As a result of all these factors KMC was found to improve weight gain of infants, decrease the duration of stay in hospital, decrease the severity of infections, provide infants with physiologic stability, and more organised sleep/ wakefulness behaviours (Cattaneao, et al., 1998).

KMC also offers benefits to the health care system. It eliminates the need for expensive equipment in resource poor areas and during crisis situations (e.g. power failure) and reduces the need for highly skilled staff usually required in a neonatal unit. The health facility also benefit in terms of shorter hospital stay and reduced bed occupancy. The reduction of the use of skilled staff has financial benefits for the institution and additionally contributes to a decrease in infection rate because the number of care providers handling the infant is reduced (Anderson, 1991 & Johnson, et al., 2007).

KMC is a benefit to the mother by allowing her to be more actively involved and competent in caring for her LBW infant which contributes to bonding. (Cattaneo, et al., 1998; Davanzo, 2004; Anderson, 1991). Both the parents can do kangaroo care. This empowers them through gaining confidence in handling their infant resulting in better bonding and a decrease in the chances of child neglect (Dimenna , 2006).

Disadvantages of kangaroo mother care

One disadvantage of KMC is that the mothers with other siblings have to leave them at home to care for her new-born infant in hospital (Lima, et al., 2000). In this case the support of the family is very important, because the mother must have the confidence that her children are well cared for at home. In the case of multiple births the twenty four hour skin-to-skin contact also becomes difficult to apply (Roller, 2005). Here it might be beneficial to the infant if the father can be involved as well, but due to the long hospital stay this can be a problem. Another disadvantage of KMC is as the baby grow bigger the extra weight might be a problem for some mothers who

wish to continue KMC at home (Quasem et al., 2003).Since the KMC policy specify the provision of appropriate facilities , implementation of KMC might not be possible at facilities that lack adequate space and resources.

Criteria for successful implementation of Kangaroo Mother Care

a) Knowledge of nursing staff and mothers

For successful implementation of KMC the nursing staff need to be knowledgeable about the strategy in order to convince the mother of the importance of KMC for her infant's well being. KMC has the potential to improve the survival of infants but there must be a mutual agreement between the mother and the nursing (and other health care) staff about this caring method (Wallin, et al., 2005; Nirmala & Rekha, 2006). KMC will not be effective when the mothers are not committed, or do not agree with it. Therefore face-to-face facilitation between the mother and the nursing staff is needed for the effective implementation of KMC at a health facility. Chia, Sellick &Gan (2006) recommends that education of both mothers and nursing staff is important to ensure a decrease in infant mortality through KMC.

b) Attitudes of nursing staff and mothers

Attitudes of the nursing staff and of the mother are also important for successful implementation of KMC as it contributes to the mother's commitment. A study conducted in Harare Central Hospital (Kambarami, Mutambirwa & Maramba, 2002) demonstrated mothers positive attitude towards KMC in their recommendation that KMC should be promoted country wide through the media (television and radio). Although KMC can be practised at home (Quasem et al., 2003), and mothers was willing to do so (Quasem et al., 2003), it has been reported that mothers experience

discomfort when the infant grows bigger (Quasem et al., 2003). These factors may negatively influence the mother's attitude towards the continuation of KMC at home.

c) Experience of nursing staff

In a kangaroo ward enough staff who were trained in KMC should be available do give support to the mothers. The availability of a protocol on KMC and continuous education for all nursing staff can facilitate the successful implementation of KMC. Nursing staff who are less experienced are less likely to implement KMC. According to Wallin, Rudberg & Gunninberg (2005) and Johnson (2007) nursing staff who worked longer than five (5) years with kangaroo mothers or mothers with LBW infants were more likely to institute KMC, whilst those with less than five (5) years experience needed continuous monitoring. A staff mix of experienced and less experienced nursing staff is therefore essential to complement the less experienced ones on the same shift at health facilities. Entry level nurses would need constant information sessions about KMC and monitoring to ensure effective implementation of KMC. If a good monitoring tool is put in place, the effect of poor nursing experience on the implementation of KMC could be limited (Bergh, et al., 2005).

Constraints and strategies for successful implementation of KMC

Chia, Sellick & Gan (2006) established that even if nursing staff do understand and support of KMC, certain practical constraints beyond their control have a negative impact on KMC. These constraints include: a busy environment, lack of leadership, resources, colleague attitude, shortage of continuous education of nursing staff and patient feedback, the number of staff, staff skill mix and support of managers. In

health facilities where constraints are identified strategies need to be developed to overcome these constraints. A step-down unit may be useful as it can provide a better home-like environment for mothers to practice KMC and may help mothers to become more familiar with child care and breastfeeding skills (Bhutta, et al., 2004). Studies done (Bhutta, et al., 2004) on step-down units revealed a reduction in infections among infants, which may attributed to reduced congestion and reduced handling of infants by multiple care providers. It is, however, important that nursing staff and mothers are involved in providing input in these developments. Pattinson, et al., (2006) suggested that all level two and three hospitals in South Africa which implement KMC must be able to refer stable infants to a step down facility for continuous KMC.

The strategies mentioned above together with a monitoring tool which can identify and overcome barriers (Bergh, et al., 2005), may also help addressing the constraints related to KMC at health facilities. Roller (2005) developed a face-to-face educational package, which was evaluated in hospitals in Kwa-Zulu Natal and found it to be very successful. The cost of such an intensive education will be outweighed by the benefits of improved care for low birth weight infants.

Recommendations for successful KMC implementation

For the successful implementation of KMC, it is important that the family is involved and support the mothers, especially those with multiple births (Roller, 2005). The nursing staff should educate the mothers adequately to enhance their caring capacity. Continuous education and monitoring is required to ensure that nursing staff are

knowledgeable about KMC. It is also important that the nursing staff on duty during each shift have varying levels of skills and experience to ensure the success of KMC. For the implementation of KMC, institution specific strategies need to be developed to overcome institution specific barriers (Bergh, et al., 2005).

Regular visits of pregnant females to the antenatal clinic are also important, because the patient at risk for preterm delivery can be identified earlier and the necessary preparation procedures can be followed (Velaphi, et al., 2005). Regular attendance at antenatal facilities is important. This may allow early identification of mothers at risk of preterm delivery and facilitate effective preparation procedures and intervention (Velaphi, et al., 2005) and better LBW infant outcomes.

Kangaroo Mother Care in the Western Cape

The idea of KMC started in the early 1980's in Bogota, Colombia, due to a shortage of incubators and the incidence of severe infections during hospitalization (Feldman, 2004). In the early 1990's kangaroo care was also implemented in industrialised countries. The benefits of KMC were also recognised by other countries. This culminated in UNICEF recommendation of KMC as a universally available, biologically sound and the preferred intervention method for decreasing new-born morbidity and mortality in developing and developed countries (Charpak, et al., 1997).

In South Africa , complications of LBW accounts for 45% of all neonatal deaths(Bergman, 1992).The introduction of KMC is therefore not surprising in South Africa in the late 1990's(Bergman, 1992), in view of the potential benefits of KMC in

reducing complications associated with LBW. These developments also lead to the introduction and implementation of the KMC policy by the Western Cape Provincial Government in 2003, as a strategy to decrease morbidity and mortality of premature infants (KMC Provincial task team, 2003). Their vision is to establish a safe and effective method of care for low birth weight infants and their mission is to facilitate the implementation of KMC at all levels of health care in this province. The policy set out guidelines for KMC training, measures to implement KMC and creating awareness for KMC. A survey of 70 South African hospitals revealed that 90% of the hospitals implemented KMC by January 2005 (Bradshaw et al., 2008). These hospitals have seen a 30% decrease in neonatal mortality from the period six months before the introduction of KMC to the period 6 months after its introduction.

CHAPTER 3

Research design and Methodology

Study design

This study is a cross-sectional descriptive study of mothers with LBW infants and nursing staff working at health services within the Eastern sub-district of Cape Town.

Study population

The target population comprised of all the women admitted to Helderberg District Hospital that gave birth to LBW infants in the Eastern sub-district and all nursing staff employed at the hospital and other health services (i.e. clinics) in the district providing ante-natal services to pregnant females in the district.

Sampling

This study was conducted at the kangaroo ward at one of the hospitals in the Eastern Sub-district, i.e. Helderberg District hospital. Helderberg District hospital has been selected purposefully as it is the place of work of the researcher. Multi stage sampling was used as follows:

1. At this facility, a) all the nursing staff working directly with the mothers in the Kangaroo ward was included, and b) all the kangaroo mothers admitted in one calendar month to this ward was intended for the data collection, but due to the longer stay of subjects (±3 weeks per subject) the data collection period was extended to cover a period of three calendar months i.e. from January – March 2008.

2. All pre-natal clinics, which the mothers mentioned during the interviews in 1(b), were included in this study. The mothers identified 7 clinics (i.e. Blue Downs, Fagan Street., Gordonsbay, Ikwezi, Macassar, Somerset West and Grabouw). At these clinics all the nursing staff attending to the pregnant women was interviewed. The facility manager of these facilities identified which nursing staff to interview. At three clinics (i.e Ikwezi , Fagan street and Grabouw) two nursing staff were interviewed. At the rest of the clinics only one nurse was identified as being responsible for attending to pregnant women (due to staff shortages) and therefore only one nurse was interviewed at Blue Downs, Gordonsbay and Somerset West. One identified clinic (Macassar) was excluded from data collection as the facility manager refused permission to enter the premises despite approval from the Department of Health research committee, The Health Manager of the Eastern Sub District and the training division of the clinics.

Setting

There are two (2) hospitals in the Eastern Sub-district, i.e. Helderberg District hospital and Eersterivier Hospital. Each hospital receives patients from specific pre-natal clinics in the area. At Helderberg District hospital all LBW infants born are moved to the kangaroo ward which forms part of the maternity ward. The kangaroo ward has ten (10) beds, but if admissions exceed the ten (10) the mothers are transferred to the KMC ward at Eersterivier Hospital.

The ten beds in the kangaroo ward are sleeping couches, which serve as couches during daytime and beds at night. Proper tables and chairs for meal times are not

available for the mothers. The mothers eat, sleep and spend their leisure time in the one room allocated to them. Helderberg District Hospital receives patients primarily from nine pre-natal clinics in the area, i.e. Lwandle, Ikwezi, Somerset West, Strand – Fagan Street, Strand – Gustrouw, Sir Lowrey's Pass, Macassar, Gordonsbay and Grabouw. According to the statistics for 2007, 2600 babies were born at Helderberg District hospital of which approximately 80 babies were LBW.

Data collection

The data were collected using a structured questionnaires in face-to-face interviews with the mothers of LBW infants and nursing staff. Face-to-face interviews allow for clarification of information as part of the interview and were conducted by the researcher in the language of the interviewee. In cases where the researcher could not speak the language of the interviewee, an interpreter was used.

The questionnaire for the mothers obtained self-reported socio-demographic information (eg. age and race), information about their pregnancy and information received during pre-natal care, infant feeding practices, practices of kangaroo care and kangaroo care knowledge and attitude.

The questionnaire for the nursing staff obtained information about their experience with prenatal care, training on KMC, as well as knowledge and attitudes towards KMC. To assess the attitudes of the nursing staff towards KMC, a 5 point Likert scale was used, ranging from; strongly disagree to strongly agree. Close-ended questions were used to assess KMC practices in the mothers. The knowledge of the mothers was assessed through open-ended questions in the questionnaire about the

advantages and disadvantages of KMC. The questionnaire was piloted in another hospital in the sub-district.

Data management

Data was entered and analysed in Epi-Info 2002

Validity and reliability

A standardised questionnaire was used to avoid instrument bias. The researcher conducted all the interviews reduced interviewer bias. Piloting was done to ensure validity of the data collection instrument. The results of this study could be generalised to other hospitals with the same patient profile and nursing profile as Helderberg Hospital.

Limitations / assumptions

A limitation was rotation as nursing staff rotate every 3 – 6 months. This study would only be able to assess one set of staff, three nursing staff on night and three on day shift, because the data was collected only over three calendar months i.e. no shift rotation took place during the period of data collection.

Another limitation is the sample size of the mothers and the small area covered. More information about the knowledge and attitude of the mothers could be investigated by increasing the sample size and sample area.

Ethics

Written informed consent was obtained from all facilities and participants. Confidentiality, anonymity and the right of the participants to withdraw at any stage during the investigation were assured. All possible measures were taken to prevent

any harm to participants during this investigation. Ethical approval for this study was obtained from the Senate Health Research committee of the University of the Western Cape (reference number 07/8/7).

CHAPTER 4

Results

This chapter will be subdivided into five sections, namely the knowledge of kangaroo mothers on KMC, the knowledge of nursing staff on KMC, the attitude of kangaroo mothers towards KMC, the attitude of nursing staff towards KMC and KMC practices of the mothers. This section will reflect the demographic information of the mothers (Table 1). An overview of the experience and training of the nursing staff will precede the data collected on the nursing staff knowledge.

During the data collection period (24 January 2008- 17 March 2008) 713 mothers delivered at Helderberg Hospital maternity ward and 32 LBW babies and their mothers were admitted to the kangaroo ward of the hospital. A total number of 30 mothers were interviewed over this period. Due to the limited space available to kangaroo mothers some mothers are transferred to Eersterivier hospital; which is the reason why only 30 mothers were interviewed.

Demographic characteristics of study population

The mean age of mothers was 27 years (Table 1) although the majority of mothers (57%) were younger than 26 years (Table 2). The mean gestational age of the infants born to KMC mothers was 28.9 weeks ± 3.095 (Table 1). All of the infants were born prematurely i.e. before 37 weeks gestational age with the majority (56%) being born at 28 weeks (Table 3). One mother (6.7%) gave birth to twins at 36 weeks. The mean birth weight was 1277g (± 285), although the majority of the infants (76.6%) were

born with a weight of 900g – 1000g (Table 4). Fifty percent (50%) of the KMC mothers thus have had 2 live births including the LBW infant (Table 5).

Table 1: Demographic characteristics of kangaroo mothers and infants at Helderberg District Hospital

Variable	Mean	Standard Deviation	Median	Minimum	Maximum
Age of mother (years)	27	6.5	24.5	16	38
Birth weight (g)	1277.3	285.15	1200	900	1800
Gestational age (weeks)	28.9	3.095	28	20	37

Table 2: Proportionate distribution of KMC mothers according to age category

Age category	Distribution
15-20	16.70%
21-25	40.00%
26-30	6.70%
31-35	23.30%
36-40	13.30%

Table 3: Proportionate distribution of LBW infants by gestational age category

Gestational age	Total
24 weeks	6 (20%)
28 weeks	16 (50%)
32 weeks	6 (20%)
36 weeks	2 (10%)

Table 4: Proportionate distribution of LBW infants by birth weight category and gestational age

	Birth weight category (n=30)		Percentage
Gestational age	900 - 1000g	1001 - 1800g	
24 weeks	6	0	20%
28 weeks	12	4	53%
32 weeks	4	2	20%
36 weeks	1	1	7%
Total	23	7	

Table 5: Number of live births of KMC mothers at Helderberg District Hospital

Age category (years)	Number of mothers in category	Number of live births including LBW infant					
		1	2	3	4	5	6
15 - 20	5	4	1				
21 - 25	12	4	7		1		
26 - 30	2		1			1	
31 - 35	7		2	3		1	1
36 - 40	4		4				

The majority of mothers (83.3%) did not complete their secondary educational level (Table 6). Fifty percent (50%) of the mothers who had some primary school were unemployed and 50% were employed. Of those who had some secondary school level 17 (80%) were unemployed and 4 (20%) were employed. Only 16.7% of the mothers did complete their secondary school level and 27 % of the kangaroo mothers were employed. For unemployed mothers (n = 22), the child support grant 18 (18%) was the main source of income, while partner's income / financial support 4 (18%) was also indicated by a few (Table 7). The majority of the employed mothers (75%) did not have another source of income.

Table 6: Level of education completed of kangaroo mothers at Helderberg District Hospital by employment status

Category	Total (%)	Employment status	
		Employed	Unemployed
Some primary	4 (13.3%)	2	2
Some secondary	21(70%)	4	17
Secondary completed	5(16.7%)	2	3
Total		8 (26.7%)	22 (73.3%)

Table 7: Income sources of kangaroo mothers at Helderberg District Hospital 2008

	Total number of mothers	Child support grant	Partner's income	No alternate income
Employed	8	1	1	6
Unemployed	22	18	4	

The majority of the mother's interviewed came from clinic 5 in the Eastern Sub-district and the second largest proportion of the subjects came from clinic 1 and 3 (Table 8). The clinic's names are not mentioned to ensure confidentiality.

Table 8: Eastern Sub-district clinics visited by the mothers

Facility	Proportion of mothers attending
Clinic 1	28%
Clinic 2	4%
Clinic 3	21%
Clinic 4	4%
Clinic 5	32%
Clinic 6	11%

Knowledge of kangaroo mothers on KMC

The majority of the mothers interviewed (83.3%) did not receive any information about KMC at the prenatal clinics (Table 9). Types of information that the kangaroo mothers received from nursing staff at the clinics include: that LBW infants need to stay in hospital for a longer period and that KMC would improve the weight gain of the infant. Of those who did receive information on KMC prior to birth 13.3% got it

from nursing staff at prenatal clinics, whilst one were informed by the sister at the mobile clinic on the farm (Table 9).

Regardless of whether they received information at prenatal clinics, 70% of the mothers knew that KMC is important for the growth of the infant, 10% indicated that the warmth of the mother is important for the development of the infant and 20% were uncertain of the importance of KMC

(Table 10). Forty-five percent (45%) indicate that breast milk is important for the baby and that it is the best milk for the infant. Twenty percent (20%) that did not breastfeed due to their HIV status gave infant formula (Perlagon). This information was explained by the mother as the reason for not breastfeeding. Only one mother did not know the importance of breastfeeding. Five percent (5%) also used infant formula because of insufficient breast milk production for twins.

Table 9: Information kangaroo mothers received from nursing staff at clinics in the Eastern Sub-district

Information received	n (%)
No information	25 (83.3%)
If baby is LBW will have to do KMC	4 (13.3%)
SSC will increase the growth of the baby	1 (3.3%)

Table 10: KMC knowledge of the kangaroo mothers at Helderberg District Hospital 2008

Mothers knowledge	%
Grow better and bonding between mother and child	70%
Need the warmth of the mother and help with development of the baby	10%
Uncertain about any benefits of KMC	20%

KMC and experience of nursing staff in Eastern Sub-district

A total of fifteen nursing staff was interviewed in the Eastern Sub-district of Cape Town. Six nursing staff of the Helderberg District Hospital and nine nursing staff of

the surrounding clinics were part of this study. Sixty percent (60%) of all the nursing staff had a diploma in nursing, 46.7% had more than 5 years experience and 53.3% of nursing staff at the clinics visited had less than 5 years experience in dealing with KMC mothers (Table 11 ; Table 12). Sixty percent (60%) of the nursing staff did not have any training on KMC, 20% did receive formal training on KMC (nursing staff at the hospital) and 20% received on the job training (clinic nursing staff) (Table 13). According to the Western Cape Provincial KMC policy formal training on KMC should be part of in service training curriculum. Initial training according to the policy should be primarily for the training of trainers who will then train staff in their districts.

Table 11: Qualification of the nursing staff in the Eastern Sub-district

Type of qualification	Nursing staff at Hospital	Nursing staff at clinics	Percentage (total)
Professional nurse	1	6	46.60%
Senior professional nurse	2	0	13.30%
Enrolled nurse	3	1	26.70%
Midwife	0	1	6.66%
Advisor	0	1	6.66%
Nursing assistant	0	1	6.66%

Table 12: KMC experience of nursing staff in the Eastern Sub-district

Years experience of nursing staff	Helderberg Hospital	Clinics
1-5 years	1	6
6-10 years	3	0
11-15 years	2	0
16 - 20 years	0	2

Table 13: KMC training status of nursing staff (n=15)

Facility	Staff trained (n=6)	Staff not trained (n=9)
Helderberg Hospital	3(20%)	3 (20%)
Clinic 1	0	1 (6.6%)
Clinic 2	1 (6.6%)	1 (6.6%)
Clinic 3	1 (6.6%)	0
Clinic 4	0	2 (13.3%)
Clinic 5	0	0
Clinic 6	1 (6.6%)	2 (13.3%)

Of the total of 15 nursing staff only 6 (40%) received training on KMC of whom 3 nurses from Helderberg District Hospital and 3 from the 6 respective facilities. At clinic 5 the nursing staff are dedicated towards KMC, but did not receive training on it. Some of the nursing staff received formal training at another hospital which was part of the health sectors implementation process, whilst some - mostly clinic nursing staff - did not receive KMC training at all.

Knowledge of nursing staff on KMC

Table 14 indicates the knowledge of the nursing staff, showing the advantages and disadvantages of KMC as reported by the nursing staff during the interviews.

Nursing staff working at the KMC ward were all able to mention six advantages of KMC while nursing staff at the clinics could mention only four advantages. According to 66% of the nursing staff KMC has no disadvantages. Thus 13% indicated the long stay in the hospital to be a disadvantage for the children / family members at home. Almost seven percent (6.6%) indicated that KMC might also be hazardous for the infants, as the mother might forget about the infant and could accidentally hurt the infant when turning around while sleeping. Twenty percent (20%) reported that the space available in the KMC ward was not appropriate for the

mothers, because there were not sufficient space/ facilities to store her personal items, some mothers did not like the sleeping arrangements in the ward and there was not an appropriate dining area available.

Table 14: The advantages and disadvantages of KMC as reported by the nursing staff

Advantages of KMC	Proportion of nursing staff reported (n = 15)	Disadvantages of KMC	Proportion of nursing staff reported (n = 15)
Promotes bonding	10	None	10
Increase growing and weight gain of baby	8	Overcrowded ward not hygienically safe for mother and baby	3
Help with temperature regulation	4	Too long stay away from other children	2
Decrease infection rate	4	Accidents (eg. Lying on the baby)	1
Improve breastfeeding	3		
Easy to carry / handle	3		
Decrease the use of incubators	2		
Prevent accidental falling	1		
Decrease the work load of the nurses	1		
Power saving method	1		
Increase the alertness of the mother to her baby	1		

The majority of the nursing staff (73.3%) knew about the KMC policy; although nine out of the 15 nursing staff were uncertain if the facility procedures comply with the policy (Table 15). According to all of the nursing staff interviewed at Helderberg District Hospital, KMC are promoted successfully (Table 15). Their assessment of success was based on the perception that the mother / infant stayed for a shorter period and the observation that the mothers practised the procedures as demonstrated by nursing staff during consultation sessions. Although almost thirty six percent (35.7%) of the nursing staff indicated that the facility procedures comply with the policy. Their main concern was that the facilities available did not totally comply with

the policy because the room provided was not sufficient for the number of people admitted. The room had space only for nine kangaroo mothers but due to the long stay and increased demand due to additional admissions, the room became overcrowded which was not beneficial for the mother's well being. More facilities such as lockers/ cupboards, laundry, dining area and proper beds were required to make the mother's stay more comfortable. Almost forty seven percent (46.7%) of the nursing staff indicated that the mothers did KMC as demonstrated during information sessions.

Table 15: Opinion of nursing staff about the Western Cape KMC policy implementation in the Eastern Sub-district

	Knowledge of the policy		**Copy of policy in unit**		**Unit complying with policy**	**Successful promotion of KMC**	
	Hospital	Clinic	Hospital	Clinic		Hospital (n=6)	Clinic (n=9)
YES	4	7	1	6	5 (35.7%)	6 (100%)	
NO	2	2	5	3	10 (64.3%)		9(100%)

Attitudes of kangaroo mothers towards KMC

The majority of the mothers felt positive towards the implementation of KMC for the well being of their infant (Table 16). Those mothers with younger children at home who did not get regular visits often felt very sad about this separation. They have to think of the health of the infant but also worried about whether or not their other children were well taken care of. They indicated during the interview that they would continue KMC when they are at home.

Table 16: Continuation of KMC of mothers after discharge

Proportion of mothers who will continue KMC	
YES	96.60%
NO	3.40%

Attitude of nursing staff towards KMC

The attitude of the nursing staff about KMC was assessed using a set of questions and a five point Likert scale, which they had to respond to (Appendix B). Thus 3 aspects i.e KMC promoting bonding, KMC enhancing mother's confidence and KMC resulting in effective breastfeeding, all nursing staff agreed to the value of KMC, with around 50% holding a strong conviction on these three aspects (Table 17). The response by nursing staff on when to start KMC, involvement of both parents in KMC and practising KMC for all infants 1 – 1.8kg, was mixed covering all 5 parts of the Likert scale. It would appear that the majority of nursing staff (53%) disagreed on KMC being practised for infants 1 – 1.8 kg only, agreed with starting within a few hours and was not sure if both parents could be involved. The most significant indicator of attitude is reflected by the opinion that nurses should not necessarily facilitate KMC for mothers.

Table 17 – The attitude of the nursing staff towards KMC

	Strongly disagree	**Disagree**	**Not Sure**	**Agree**	**Strongly Agree**
Kangaroo care promotes bonding with the infant	0	0	0	8(53.3%)	7(46.6%)
Kangaroo care enhance the mother's confidence in handling her infant	0	0	0	6(40%)	9 (60%)
Kangaroo care results in effective breastfeeding	0	0	0	7(46.6%)	8(53.3%)
Kangaroo care should be practised for infants between 1kg – 1.8kg	1(6.7%)	8(53.3%)	3(20%)	2(13.3%)	1(6.7%)
Kangaroo care should begin within a few hours after birth	0	3(20%)	3(20%)	5(33.3%)	4(26.7%)
All parents should be involved in kangaroo care	1(6.7%)	1(6.7%)	8(53.3%)	5(33.3%)	0
Nursing staff should always facilitate kangaroo care for mothers	4(41.7%)	4(33.3%)	3(25%)	0	0

All nursing staff supports the implementation and facilitation of KMC, because of the advantages it has on LBW infants. The suggested support from the facility/ DoH according to the nursing personnel was better facilities for the mothers, more formal KMC training and a possibility of mentor moms. The nursing staff at the hospital indicate that mothers need to be more dedicated to the health of their baby and should not leave the infant unattended. The nursing staff at the clinics indicated that they should not need any support to make KMC more effective, because they felt that KMC is not practiced at the clinics, but only at the hospital.

All nursing staff supports the implementation of KMC and indicates that it is not a burden to nurses; it decreases workload rather than increases it. Sixty percent (60%) of the nursing staff assists the kangaroo mothers at the hospital. During consultation with the kangaroo mothers the nursing staff at the hospital are usually supervised or assisted by a colleague (Table 18).

Table 18: KMC information session procedures at health facilities in the Eastern Sub-district, Cape Town

	KMC information session with the mother		
	Hospital	Clinic	Total (n = 15)
Colleague present	4	0	26.60%
Colleague not present	2	9	73.30%

KMC practices of mothers with LBW infants

Sixty percent (60%) of the mothers started within 24 hours after delivery to practice KMC (Table 19). Almost twenty seven percent (26.7%) started after 24hrs but before 48 hours and some (13.3%) only started within 72 hours, because the baby was still in the incubator. No practical problems were identified by 86.7 % of the mothers. The remainder (13.3%) indicated that it was difficult to sleep with the infant on the chest

that it is difficult to do KMC with twins. All the mothers who decided on breastfeeding did so because they indicated it is the best for the infant. Those individuals who did not breastfeed were in the age group 21 - 25 years and were HIV positive.

Table 19: Hours when KMC started after birth at Helderberg Hospital

Time period for KMC onset	Number / proportion
1-6hrs	11 (36.7%)
7-12hrs	4 (13.3%)
13-24hrs	3 (10%)
25-48hrs	8 (26.7%)
49-72hrs	4 (13.3%)

Skin-to-skin contact (SSC) was being practised by 80.8% of the mothers for almost 24 hours per day, 15.4% have only 12 hrs SSC because the infants were in the incubator at night, whilst the mother with twins alternate them therefore each received KMC for only 12 hours per day.

The majority of the mothers (96.6%) indicated that they would continue KMC at home after discharge, because they were aware of the importance of SSC for the growth of the infant. One mother (3.4%) indicated that she would not continue SSC at home that she would do it in the hospital (Table 16). The mothers in the kangaroo ward felt very positive about the support among them during their stay in the ward. The way in which they supported each other ranged from reminding each other about the importance of KMC for the baby, how to comfort the baby, or to kangaroo her baby properly as demonstrated, and exchanged ideas on how to minimise discomfort (Table 20). The majority of mothers (83.3%) at the hospital felt that they received adequate support from the nursing staff, 10% felt that they needed to be more

involved during ward rounds and would like to sit with their baby at the incubator, wanted help with expressing breast milk and wanted to be included with the occupational therapist giving training to the KMC mothers.

Table 20: Support received and needed by kangaroo mothers while in ward

Support received from mothers in KMC ward	Percentage	Support needed by KMC mothers from nursing staff	Percentage
Encourage to KMC for 24 hours to decrease stay in hospital	72.40%	None	83.30%
		Help with breast milk expressing	10%
How to burp the baby	13.80%	To be present during ward rounds and to get more information about the baby	6.60%
How to express breast milk	10.30%		
How to properly kangaroo the baby, how to comfort the baby	3.40%		

CHAPTER 5

Discussion

This chapter will be subdivided into five sections, namely the knowledge of kangaroo mothers on KMC, the knowledge of nursing staff on KMC, the attitude of kangaroo mothers , the attitude of nursing staff towards KMC and KMC practices of mothers with low birth weight infants. The findings will be discussed in detailed under the different sections.

Knowledge of kangaroo mothers on KMC

Although the majority of mothers did not receive any KMC education at the prenatal clinics, they did know the importance of KMC for the well being of their baby. The information they received when they were admitted to the KMC ward include the importance of KMC for the increase of the weight of the infant and the importance of breastfeeding for the infant's development.

The support the mothers received while in the KMC ward was regarded to be adequate to care for their infant and to practice KMC effectively. Some mothers felt that they needed more support from the nursing staff, such as assistance with expressing breast milk, continuous assistance and availability of nursing staff exclusively for kangaroo mothers and regular information sessions. The mothers who needed this kind of support were transferred from another KMC ward in the metropole such as Tygerberg Hospital and Eerste Rivier Hospital.

These hospitals have different KMC implementation procedures than Helderberg District Hospital. At these hospitals there is a specific kangaroo care ward with separate nursing staff allocated to the mothers, which functions separately from the maternity ward. These wards were equipped with beds for each mother, cupboards to lock their personal belongings. A dining area was also available where they can spend their leisure time. This type of facility is more suitable for the well being of both mother and infant, because a more home-like environment is created for the mother.

Knowledge of nursing staff on KMC

Research done about KMC over the years (Johnson, 2007; White –Traut, 2004) indicated that KMC enhance bonding between mother and child, regulate temperature of the baby, prolong breastfeeding and decrease hospital stay. Table 14 suggests it was evident that the nursing staff did have knowledge about KMC and the positive effect it had on the development of the LBW infant. Nursing staff who received training on KMC was very positive about the implementation of KMC for LBW infants. The nursing staff at the clinics did know about KMC, but they did not include KMC information / education to mothers during routine antenatal visits. If this information was given to the mothers during routine visits they would be better prepared for the longer hospitalization than in the case of a normal / full term delivery and would be able to organize care for the children staying at home as was concluded by a study done (Velaphi et al., 2005).

Table 14 indicates the advantages and disadvantages of KMC as reported by the nursing staff and most nursing staff could mention the two most commonly cited advantages of KMC. This information about the advantages corresponds with

previous studies (White-Traut, 2004 & Furman & Kennel, 2000). There were more advantages of KMC as indicated by various researchers (Roberts, et al., 2000; Penalva & Schwartzman, 2006; Wallin, et al., 2005; Worku & Kassie, 2005; Cattaneo, et al.,1998; Davanzo, 2004) were reported by the nursing staff. These include: empowering the mother to care for her infant, decrease the risk of LBW mortality, increase breast milk stimulation, improve weight gain, reduce nurses work load, lower and stabilize heart rate, decrease apnoea, better maintained body temperature, decrease in stress hormones, decrease in severity of infections, decrease in hospital stay, eliminates the need for expensive equipment and the need for highly skilled staff in neonatal units. Some of these physiological advantages of KMC were reported by only one of the nursing staff interviewed. The highest number of advantages mentioned by any staff member was 54.5% (6/11).

Nursing staff knowledge could be improved through regular information / training sessions focusing on all the advantages of KMC for the infant besides bonding and improvement in weight gain. During these sessions the consultation procedures and type of information given to the mothers could be addressed. Information received from the mothers also indicates that they did not know about the physiological impact KMC had on the LBW infant. The majority of the nursing staff felt that there were no disadvantages to KMC, but some felt that accidents might occur while asleep and that the mother were not being devoted to KMC. Accidents such as lying on the baby might happen resulting in hurting the baby. The main concern for the nursing staff at the hospital was that the ward allocated to the kangaroo mothers needed to be better equipped to meet the needs of the mothers in order to make KMC more effective. Then the problem of overcrowding will then also be addressed. If better sleeping,

leisure, bathroom and laundry facilities are provided a more home-like environment will be created allowing the mother to feel more comfortable and at ease in caring for her baby. In such an environment the infant will have a higher emotional responsiveness (Feldman & Eidelman, 2002) and the stress of the mother being away from home will be decreased (Davanzo, 2004).

Attitudes of kangaroo mothers KMC

Information received from the mothers indicates that they have a positive attitude towards KMC and that they were fully aware of the importance of KMC to the development of their infant. More felt confident in handling their infant (Messmer, et al., 1997) and support other mothers who struggle caring for the infant. This support is important to the mother's especially for first time mothers. Therefore a step down unit with better facilities / a better equipped room and more staff could be advantageous for the mother's and infant's well-being (Bhutta, et al., 2004; Pattinson, et al., 2006).

After discharge the mothers will be more knowledgeable about KMC and will continue the procedure at home, therefore the mortality rate of KMC infants due to low temperature at home will be decreased (Linetto, et al., 1998).

Attitude of nursing staff towards KMC

All the nursing staff interviewed had a positive attitude towards the implementation of KMC for low birth weight infants. At the clinics the nursing staff had to focus on KMC during routine visits in order to prepare suspected mothers for a longer hospital stay (Chia, et al., 2006). The nursing staff required support from the mothers by being more dedicated to their infants. They reported that some of the young mothers were

not dedicated enough in caring for their infants and that they do not want to stay in hospital for long. Although the mothers indicated that they do KMC for 24 hours, the nursing staff reported that this was not the case as they (the mothers) left their infants when the want to smoke. Smoking was found to be one of the lifestyle practices that contribute to LBW occurrence (Jackson, et al., 2007).

The nursing staff required better-equipped rooms, bathrooms, laundry and leisure facilities for the mothers. The current ward does comply with the Western Cape KMC policy, but due to a large number of mothers admitted from a wide area it does happen that the ward becomes overcrowded. Some mothers do find this unacceptable. Research done by Davanzo (2004); Bhutta, et al., (2004); Pattinson, et al., (2006) & Cattaneo, et al., (1998) concluded that a step down unit for KMC mothers can be a option to better accommodate these mothers. At these units mentor moms (moms who had done KMC previously) and nursing staff can be available to the mothers for support. Here the mothers can be motivated and trained to look after LBW infants in a specialised unit before discharge.

The nursing staff indicated that another colleague always assists them during first time information sessions with kangaroo mothers. According to their statistics they know that KMC are being practised successfully at this hospital as indicated by a shorter hospital stay. KMC can be more effective in the hospital if attention is given to improve the facilities available to the mothers.

KMC practices of mothers with low birth weight infants

LBW is a world wide problem and KMC is an appropriate way in decreasing infant mortality (Quasem, et al., 2003). KMC should start as soon as possible after birth when the baby is stabilised. From the data collected the majority of mothers started KMC within 24 hours after delivery. They experience KMC as practically possible, but they do found that it is difficult to sleep with a baby on your chest and some find it difficult to sleep in an upright position. This problem can be addressed by involving other family members (grandmother/ grandfather/ husband/ partner) to assist with KMC.

The nursing staff also felt that this involvement of the family will help the mother emotionally and serve as an encouragement to continue KMC. A step-down facility or upgrading of the existing hospital ward to create a facility which is more homelike but still provide adequate medical and nursing care for the infants, might facilitate the practice of KMC when mothers feel more at home and comfortable.

The mothers indicated that they do encourage each other to keep the infant on the chest for 24 hours per day in order to shorten the hospital stay. Some of the mothers do get discouraged when they have to stay in the ward for long.

CHAPTER 6

Conclusion & Recommendation

From the data collected it was evident that the mothers do have basic knowledge about KMC, that the attitude and practices could be improved. Knowledge could also be extended / deepened through adequate information sessions during prenatal visits at the clinics and when admitted to the ward.

According to the Western Cape KMC policy the trained nursing staff should frequently provide training for those not trained. During these training sessions the nursing staff must be trained to include all the advantages of KMC during information sessions with the mother. More promotion methods such as pamphlets and posters especially in the clinics must be available and visible for the mothers.

The data suggest that the nursing staff was equipped with some knowledge and had a positive attitude towards facilitating and implementing KMC in the hospital. Certain areas were identified that need to be addressed to improve KMC implementation. The identified areas which need improvement were: provisions of better facilities (creating a home-like environment), more and frequent training for nursing staff at all facilities and more advertising / promotion of KMC at the health facilities.

CHAPTER 7

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APPENDIX A:

Knowledge of and attitudes towards kangaroo mother care in the Eastern Sub-district, Cape Town.

Questionnaire for the mother

Code: | M | | | |

Facility number - second block

Subject number - last two blocks

Date of interview | DD | MM | YY |

1. What is your age? Years

2. What level of formal education did you complete?

1. No formal education	2. Some primary	3. Primary completed	4. Some secondary	5. Secondary completed	6. Tertiary

3. What are the sources of your household income? (mention all sources of income)

1. Employed	2. Unemployed	3. Child support grant	4. Old age grant	5. Other: specify

4. What was the gestational age of this baby? weeks

5. What was the birth weight of this baby? g

6. How old is this baby now? days

6. How many live births did you have? (including this one) number [ ][ ]

7. What type of feed are you going to give this baby?

1.Breast feed	2. Formula: specify	3. Other: specify

8. Why did you decide on this type of feed?

_____

_____

_____

You are currently placing your baby on your skin under your clothes. We call it kangaroo mother care.

9. How soon after delivery did you start with KMC? (specify in hours)

_____

10. For how many hours per day do you have skin-to-skin contact with the baby? hours [ ][ ]

11. Do you have skin-to-skin contact with this baby during the night? Yes/ No

12. Please explain in your own words why you think KMC is important?

_____

_____

13. Do you experience any practical problems with KMC? Yes/ No

If you experience any practical problems, could you name them?

_____

_____

_____

14. Will you continue with KMC after you have been discharged? | Yes/ | No |

15 Do you feel that you received adequate support with KMC from the nursing staff while in this ward? | Yes/ | No |

If not, could you name the support that you needed / would have liked to receive?

_____

_____

_____

16. Do you get support on KMC from the other mothers in the ward? | Yes/ | No |

If yes, can you name some of the support/advice that you received from the other mothers in this ward?

_____

_____

17. Which clinic did you attend during your pregnancy for pre-natal care?

_____

18. Did anybody at the pre-natal clinic inform you about KMC? | Yes/ | No |

If yes, who gave you information on KMC?

_____

If yes, can you mention some of the things on KMC that you were informed about?

_____

_____

_____

Thank you for your time

APPENDIX B:

Knowledge of and attitudes towards kangaroo mother care in the Eastern Sub-district, Cape Town.

Questionnaire for the nursing staff (hospital & clinic)

Code: N | | | |
Facility number - second block
Subject number - last two blocks

Date of interview DD MM YY

1. Could you please mention all your qualifications?

_____

2. How many years of experience do you have dealing with mothers and KMC? In ward Years ___ ___
In clinic ___ ___

Kangaroo mother care (including skin-to-skin contact) is a method of caring for preterm babies. Please answer the following questions about KMC.

3. Did you receive any training on KMC? Yes No

If yes, where did you receive training on kmc?

_____

_____

_____

4. Do you support the implementation of KMC for preterm or low birth weight babies?

Yes	No

5. What is your experience about facilitating KMC?

6. In your opinion, what assistance or support is needed to facilitate KMC?
For nursing staff

By mothers

From the facility

7. Can you please mention possible advantages of KMC?

8. Can you please mention possible disadvantages of KMC?

Could you please express your personal opinion on KMC, by indicating whether you agree or disagree with the following statements. You could choose from the options strongly disagree, disagree, not sure, agree or strongly agree.

	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
9. Kangaroo care promotes bonding with the infant.					
10. Kangaroo care enhances the mother's confidence in handling her					

baby?					
11. Kangaroo care results in effective breastfeeding					
12. Kangaroo care should be practiced for infants between 1kg-1.8kg					
13. Kangaroo care should begin within a few hours after birth.					
14. All parents should be involved in kangaroo care.					
15. Nursing staff should always facilitate kangaroo care for mothers.					
16. Facilitation of kangaroo care is a burden to nursing staff.					

Please give your opinion on the following questions by answering yes or no.

17. Do you encourage mothers in practicing KMC?	Yes	No
18. Do you always assist the mothers in KMC?	Yes	No
19. Do you encourage the fathers / grandparents to practice KMC?	Yes	No
20. Do you provide information about KMC to the fathers / grandparents?	Yes	No
21. Are you regularly supervised in the information sessions with the mothers?	Yes	No
22. Do you know about the western cape KMC policy?	Yes	No
If yes, do you have a copy of the KMC policy in your unit?	Yes	No
If yes to question 22, do the procedures in this facility comply with the policy?	Yes	No

If not, why not? _____

23. Is KMC being practiced in you hospital /promoted successfully in your clinic?

Yes	No

If not, why?

If yes, why?

24. Do you have any practical suggestions to make KMC more successful in your facility?

APPENDIX C

Knowledge of and attitudes towards kangaroo mother care in the Eastern Sub-district, Cape Town.

Consent form

❖ Information about the interviewer

I am a student at the SOPH, University of the Western Cape. As part of my Masters in Nutrition Management, I will be focusing on kangaroo mother care. I am accountable to prof. R. Swart who is contactable at 021-9592237or by email at rswart@pgwc.gov.za.

❖ Purpose and content of the interview

I would like to ask you some questions on the knowledge, attitudes and practices of mothers and nursing staff with regards to kangaroo care.

❖ The interview process

The interview will be conducted in the ward / clinic during official working hours. I will be conducting the interview myself and complete a questionnaire based on your responses.

❖ Anonymity of participants

At all times, I will keep the source of the information confidential and refer to you or your words by a pseudonym or invented name, which you can choose yourself (see below). I shall keep any other records of your participation locked away at all times, and destroy them after the data has been collated.

❖ Things that may affect your willingness to participate

If there is anything that you would prefer not to discuss, please feel free to say so. I will not feel offended and there will be no negative consequences if you would prefer not to answer a question. I would appreciate your guidance should I ask anything which you see as intrusive.

❖ Agreement

I (the researcher) shall keep the contents of the mentioned research interview confidential in the sense that the pseudonym noted will be used in all documents which refer to the interview. The contents will be used for the purposes referred to above. The findings of this research project, may be used for published or unpublished research at a later stage without further consent. Any change from this agreement will be renegotiated with you.

I hereby agree to participate in this interview.

Signed:

Rosant

Date:

Place:

Interviewee's pseudonym :

Interviewer: Celeste
UWC student number: 9240680
Tel: 021-8504726 /
fax: 021-8525392
cnrosant@pgwc.gov.za