ORIGINAL ARTICLE

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KANGAROO METHOD: KNOWLEDGE AND PRACTICES OF THE MULTIPROFESSIONAL TEAM

MÉTODO CANGURU: CONHECIMENTOS E PRÁTICAS DA EQUIPE MULTIPROFISSIONAL

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ABSTRACT

Objective: To analyze the knowledge and practices of health professionals working in the pediatric line of a teaching hospital in Campo Grande/Mato Grosso do Sul about the Kangaroo Method. **Methods:** A descriptive and cross-sectional study carried out with primary data, through a questionnaire applied from August to September 2020 and in the first half of January 2021, with 98 pediatric health care professionals. The data collected was stored and calculated using the Microsoft Office Excel program. **Results:** The majority was female, declared to be white-skinned and had completed Higher Education with a graduate degree. As for the professional aspects, there was predominance of nursing technicians and length of service at the institution of approximately 12 years. The survey showed a higher percentage of correct answers about the method, about the Kangaroo Position and about its benefits in the explanations of health professionals who had attended the Kangaroo Method course, with more time in the pediatric line and who worked in the neonatal unit. In addition, most of them know about the method and how many stages it is divided into. However, some participants are of the mistaken opinion that the Kangaroo Method is restricted to the Kangaroo Position. **Conclusion:** The study allowed reflecting on the understanding of the method by health professionals who provide care to newborns and their family members. This fact can contribute to the improvement of care, in addition to encouraging health managers in the introduction of permanent and continuing education for health professionals about the Kangaroo Method.

Keywords:
Kangaroo-Mother Care Method; Patient Care Team; Infant, Newborn; Neonatal nursing; Children's Health Services.

RESUMO

Objetivo: Analisar o conhecimento e práticas dos profissionais de saúde que atuam na linha pediátrica de um hospital de ensino de Campo Grande/Mato Grosso do Sul sobre o Método Canguru. **Métodos:** Estudo descritivo e transversal realizado com dados primários, por meio de questionário aplicado de agosto a setembro de 2020 e na primeira quinzena de janeiro de 2021, com 98 profissionais de saúde da linha pediátrica. Os dados coletados foram armazenados e calculados por meio do programa Microsoft Office Excel. **Resultados:** A maioria foi do sexo feminino, declarada de cor branca e escolaridade de ensino superior com pós-graduação. Quanto aos aspectos profissionais, obteve a predominância de técnicos de enfermagem e tempo de serviço na instituição de aproximadamente 12 anos. A pesquisa demonstrou um maior percentual de respostas adequadas sobre o método, a Posição Canguru e sobre os seus benefícios nas explicações dos profissionais da saúde que tinham o curso do Método Canguru, mais tempo de serviço na linha pediátrica e que atuavam na unidade neonatal. Além disso, a maioria tem conhecimento sobre o método e em quantas etapas se divide. Entretanto, alguns participantes têm a opinião equivocada de que o Método Canguru se restringe à Posição Canguru. **Conclusões:** O estudo possibilitou a reflexão sobre o entendimento do método pelos profissionais da saúde que realizam assistência aos recém-nascidos e seus familiares. Tal fato pode contribuir para o aperfeiçoamento assistencial, além de incentivar os gestores de saúde na inserção da educação permanente e continuada dos profissionais da saúde sobre o Método Canguru.

Palavras-chave: Método Canguru; Equipe de Assistência ao Paciente; Recém-nascido; Enfermagem Neonatal; Serviços de Saúde da Criança.

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INTRODUCTION

The birth of a low birth weight preterm newborn (LBWPTNB) causes an emotional impact on the families, due to the need for hospitalization and permanence in incubators[1]. In addition, a research study carried out at a regional hospital in Piauí, Brazil, with 125 records of newborns (NBs) hospitalized in a Neonatal Intensive Care Unit (NICU) showed that births of preterm infants occurred even if the pregnant women had complied with the number of prenatal consultations recommended by the Ministry of Health[2].

Given the above, it becomes relevant to create effective and regionalized health care networks (*Redes de Atenção à Saúde*, RAS) for neonatal care. In 1979, "Kangaroo Mother" appeared in Colombia with the aim of placing the LBWPTNB in continuous skin-to-skin contact against the mother's chest and thus improving the care provided. In Brazil, the Kangaroo Method (KM) gained national visibility with the Pernambuco Maternal-Child Institute, currently Professor Fernando Figueira Institute of Integral Medicine (IMIP), which was one of the finalists in the social projects contest sponsored by the National Bank for Economic and Social Development (*Banco Nacional de Desenvolvimento Econômico e Social*, BNDES), with the name of "Kangaroo Mother Ward". Since then, several Brazilian hospitals have adopted the new care model for preterm newborns (PTNBs)[3].

In order to improve the quality of health care for pregnant women, LBWPTNBs and their families, the KM in Brazil is divided into three stages. The first is developed in the prenatal period and during birth, accompanied by the NB's hospitalization in the NICU and/or in the Conventional Neonatal Intermediate Care Unit (*Unidade de Cuidado Intermediário Neonatal Convencional*, UCINCo). The second is the parents' participation in neonatal care at the Kangaroo Neonatal Intermediate Care Unit (*Unidade de Cuidado Intermediário Neonatal Canguru*, UCINCa); and the last stage takes place at the family's home, with follow-ups shared between the outpatient consultations at the hospital of origin and Primary Health Care (PHC)[4,5].

This method contributes benefits for the LBWPTNBs, parents/relatives and professionals, as well as it improves thermal control, provides more effective breastfeeding (BF), weight gain and reduced stress, among other factors. For the parents/relatives, it is the time to establish a mother-child-father bond and to reduce insecurity. Health professionals, in turn, play the important role of guiding and encouraging the families to care for their infants, establishing bonds and providing individualized and humanized care for all NBs[4,5].

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Thus, the health team that works in accordance with the KM paradigms is more involved with the family, helps in coping with less traumatic hospitalization and provides better guidelines in the care of PTNBs, in addition to identifying the improvement in the NB's clinical evolution. The multiprofessional team has a facilitating and motivating role for conduction of the KM, promoting its implementation in the health units[6].

A research study carried out with 22 health professionals from a Neonatal and Pediatric Intensive Care Center, whose objective was to know the benefits and challenges experienced by them regarding the KM, showed that each professional and institution with their unique particularities exert an influence on the implementation of the method. In addition to that, the authors reinforce that the KM requires commitment from the management and the acumen of the service to analyze its environment, improve human resources and adapt it, in favor of the LBWPTNB and its family[7].

Given the above, this research is justified by the scarcity of studies involving the perceptions and knowledge of the multidisciplinary team about the KM[8]. Thus, based on the literature, the following research question was elaborated: What is the knowledge and practices of the pediatric health care team about the KM?

Therefore, the objective of this study was to analyze the knowledge and practices of health professionals working in the pediatric line of a teaching hospital in Campo Grande/Mato Grosso do Sul about the KM.

METHODS

This is an exploratory, descriptive and cross-sectional study, with a quantitative methodological approach. It was carried out with professionals working in the pediatric line of a teaching hospital located in Campo Grande – MS, which serves patients from the Unified Health System (*Sistema Único de Saúde*, SUS). In addition, since 2012, the hospital has been accredited as a state reference for the KM and also as a Baby-Friendly Hospital Initiative (BFHI).

The population consisted in the multiprofessional team of the pediatric line of that hospital. This team is made up of nurses, nursing technicians, lactation technicians, nursing assistants, physicians (pediatrician, neonatologist and pediatric intensive care specialist), physiotherapists, occupational therapists, social workers, speech therapists and nutritionists, totaling 179 employees. Pediatric professionals who worked in the three shifts with at least six months of active performance were included in the research, and 13 professionals who were on sick leave and six who were on vacation were excluded, thus leaving 160 eligible professionals.

The sample of the current study consisted of 98 professionals, based on the simple probabilistic sampling technique with a 95% confidence level and a 5% sampling

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error. The sample was selected for convenience. The researchers made previous personal contacts with the participants. Of these, six professionals refused to answer the questionnaire; thus, another six who had not yet been approached and who worked in the pediatric line were invited to complete the sample.

This research used primary data through a questionnaire developed by the authors after conducting the literature review. In addition to that, to test the instrument's adequacy to the objectives of this research, the researchers applied a pre-test with one participant in August 2020, and this questionnaire is part of the research.

Data collection was carried out from August to September 2020 and, to achieve sample size calculation, data were also collected in the first half of January 2021. Due to the Coronavirus pandemic, professionals from the pediatric line were relocated to the adult critical patient line, which required this extension at the time of collection. The questionnaires were applied at times previously scheduled with the participants in order not to hinder development of their professional activities. The quantitative variables were presented descriptively through means, percentages, standard deviation and significance probability. All calculations were made using the Microsoft Office Excel software.

This study was submitted to the Teaching, Research and Institutional Quality Directorate of the teaching hospital and to the Committee of Ethics in Research with Human Beings of the University for the Development of the State and Pantanal Region (*Comitê de Ética em Pesquisa com Seres Humanos/Universidade para o Desenvolvimento do Estado e da Região do Pantanal*, CEP/UNIDERP). The project was approved by CEP/UNIDERP with CAAE protocol No. 34288620.8.0000.5161, opinion No. 4,179,030 and amendment 12/18/2020, opinion No. 4,476,263. Data collection was preceded by the participants' authorization through the signed Informed Consent Form. To ensure the participants' rights, all items present in Resolution 466/12 of the National Health Council were observed.

RESULTS

The study was carried out with 98 health professionals with a mean age of 42.8±7.8 years old (mean ± standard deviation) and mean minimum wage income of 10.0 ±12.0 (mean ± standard deviation). Most of them were female (n=90; 92%), declared to be white-skinned and had completed Higher Education with a graduate degree. As for the professional aspects, there was predominance of nursing technicians and length of service at the institution of approximately 12 years. Regarding the type of contract with the institution, 82 professionals (84%) are statutory, with a mean length of service in the sector of 11.4 years; and 52

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(53%) work at the Neonatal Unit (UCINCa/UCINCo/NICU). Table 1 presents the participants' profile, in relation to the sociodemographic and professional characteristics.

Table 1 – Distribution of the sociodemographic information of the pediatric line professionals. Campo Grande - MS, 2020/2021.

Variables		**Mean ± SD**
Age (years old)		42.8 ± 7.8
Length of service (years)		12.1 ± 5.7
Income (minimum wages)		10.0±12.0
Variables		**n(%)**
Race/Skin color	Asian	4(4)
	White	55(56)
	Brown	33(34)
	Black	4(4)
	Not reported	2(2)
Gender	Female	90(92)
	Male	8(8)
Professions	Social Worker	2(2)
	Nursing Assistant	6(6)
	Nurse	12(12)
	Physiotherapist	10(10)
	Speech Therapist	3(3)
	Physician	17(17)
	Nutritionist	3(3,1)
	Nursing Technician	40(40,8)
	Lactation Technician	3(3)
	Occupational Therapist	2(2)
Schooling	Complete High School	26(26)
	Incomplete Higher Education	5(6)
	Complete Higher Education	10(10)
	Specialization	35(36)
	Residency	16(16)
	Master's Degree	6(6)
Total		98(100)

Key: n, number of employees; SD, Standard Deviation.
Source: Prepared by the authors.

Regarding completion of the KM course, 69 (70%) professionals reported having attended it and 29 (30%) did not. In relation to the number of times the professionals performed it, 33 (34%) did not know or did not answer; 18 (18%) implemented it more than three times; five

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(5%), three times; 22 (22%) twice; and 20 (20%), only once.

As for the date of the last course taken by the professionals, 56 (57%) did not know or did not answer; 15 (15%) attended the last course in 2017; eight (8%), before 2017; and six (6%), in 2018. In addition to these data, 58 (59%) professionals answered that they were not asked by the study hospital if they already attended a KM course when they started working in the pediatric line; only nine (9%) stated having been asked. Twenty (20%) entered the institution before 2012, period in which the method had not been implemented, and 11 (11%) do not remember.

Regarding the institution where the professionals received the KM training, 53 attended it at the study hospital, 19 indicated other intuitions and six did not report the location. As for the type of course, 64 participants took the Hospital KM course; 49, the PHC KM course; seven, PHC KM tutor; and only two, for Hospital KM tutor.

When the professionals were asked about their knowledge about the KM, 48 (50%) of the answers were related to humanized care for the LBWPTNB and their family in the hospital environment, aiming at the biopsychosocial aspects, and 39 (39%) described it as being skin-to-skin contact of the NB with the mother and/or father. According to the respondents' opinion about what the Kangaroo Position (KP) is, 54 (55%) described it as "Skin-to-skin contact of the LBWPTNBs with their parents, next to the chest in an upright position"; 35 (36%) as "skin-to-skin contact between the LBWPTBs and their mother"; and nine (9%) did not answer or did not know.

In the answers about the care provided to the LBWPTNB and their family according to the KM, 34 answered "Guidelines and welcoming for parents on the care of the NB"; 22, "Decrease in environmental stimuli (noise, light, temperature); ten, "Stimulating the parents in carrying out the KP"; nine, "Carrying out measures to control stress and pain (pharmacological and non-pharmacological)"; eight, "Guidelines on the prevention of hospital infection and hand hygiene"; and 25 did not answer or did not know.

As for the benefits of the KM, the three most described, in order, by the health professionals were as follows: "It enhances the family-infant bond" (n=70), "It stimulates/facilitates breastfeeding" (n=40) and "It favors the neuropsychomotor development of the NB" (n=30), and it was observed that some participants answered more than one item. In addition, the study revealed a statistical difference (p=0.001) between the professionals who took the KM course and those who did not, when asked about who benefited from the KM.

Table 2 presents the results related to the questions about the KM, such as knowledge of the method and of the KP, criteria for the LBWPTNB to go to the UCINCa and care based on the Kangaroo

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methodology, evidencing that the professionals with the longest mean length of service in the sector and that declared having attended the KM course answered correctly on how many stages the KM is divided (56 `[81%]), on the correct time to start the KM (48 [70%]), and on the recommended time for completion of the KM (30 [43%]). Of the 69 professionals who took the KM course, 56 knew that the method is divided into three stages, but only 11 (20%) knew how to explain each of them.

Regarding the singular care centered on the NB and their family, 64 (65%) of the professionals have already offered KM-based assistance, noting that, among these, 53 (77%) have taken the KM course. With regard to the criteria for the LBWPTNB to participate in the second stage of the KM, among the participants who have taken the course, 59 (86%) answered that they know the conditions for the LBWPTNB to go to the UCINCa; however, only 12.9 (22%) of them listed the criteria in their entirety. On the other hand, of the 13 (45%) participants who declared being aware of the criteria but not having taken the KM course, only 5.8 (15%) answered correctly the questions about the necessary criteria for transferring the infant and its family to the second stage.

Weaving a parallel between the answers to the questionnaire and the sectors evaluated, it is noted that the professionals from the neonatal unit have the highest level of knowledge related to the KM, which can be related to the professional practice, as they are the professionals who most welcome, assist and take care of the LBWPTNBs. This data shows the need for training for the Pediatric Intensive Care Unit (PICU), for the pediatric ward that serves LBWPTNBs, and for the milk bank, which serves the mothers of the preterm infants. Table 3 presents the results related to the questions about the KM according to the performance sector.

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Table 2 – Knowledge of the pediatric line professionals about the Kangaroo Method according to having attended the course and to mean length of service. Campo Grande - MS, 2020/2021.

Knowledge of the pediatric line health professionals about the Kangaroo Method		Received training			Mean length of service	Total (n = 98) n(%)
		Yes (n = 69) n(%)	No (n = 29) n(%)	p		
Type of contract	CLT	4(6)	5(17)	0.573	2.5	9(9)
	Statutory	64(93)	18(62)		9.8	82(84)
	Others	1(1)	5(17)		1.8	6(6)
	Did not answer	0(0)	1(3)		3.0	1(1)
Length of service in the pediatric line	< 1 year	4(6)	6(21)	0.198	0.3	10(10)
	1 year < time < 3 years	8(12)	10(34)		1.4	18(18)
	3 years< time < 5 years	8(12)	1(3)		2.0	9(9)
	5 years < time < 10 years	16(23)	6(14)		10.3	22(22)
	> 10 years	31(45)	6(21)		22.1	37(38)
	Did not answer	2(3)	0(0)		0.0	2(2)
Performance sector	Pediatric ICU	13(19)	6(21)	0.301	9.9	19(19)
	Neonatal Unit (UCINCa/UCINCo/Neonatal ICU)	40(58)	12(41)		10.0	52(53)
	Pediatrics	13(19)	9(31)		13.2	22(22)
	Milk Back	3(4)	2(7)		18.3	5(5)
Knowledge about the number of stages in the Kangaroo Method	Aware	56(81)	14(48)	0.506	11.3	70(71)
	Unaware	7(10)	3(10)		5.7	10(10)
	Does not Know/Did not answer	6(9)	12(41)		10.1	18(18)
Knowledge about the proper moment to initiate the Kangaroo Method	Aware	48(70)	10(34)	0.362	11.6	58(59)
	Unaware	21(30)	19(66)		8.0	40(41)
Knowledge about the recommended time to perform the Kangaroo Position	Correct	30(43)	10(34)	0.124	11.2	40(41)
	Incorrect	27(39)	5(17)		8.7	32(33)
	Does not Know/Did not answer	12(17)	14(48)		11.0	26(27)
Conduction of care for newborns and their families based on the Kangaroo Method	Already performed KM care	53(77)	11(38)	0.483	10.5	64(65)
	Never performed KM care	15(22)	14(48)		12.4	29(30)
	Does not Know/Did not answer	1(1)	4(14)		11.8	5(5)
Knowledge of the criteria for low birth weight newborns to go to the Kangaroo Intermediate Neonatal Care Unit	Knows thee criteria	59(86)	13(45)	0.564	11.0	72(73)
	Does not Know/Did not answer	10(14)	16(55)		11.4	26(27)

Source: Prepared by the authors.

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Table 3 – Knowledge of the pediatric line health professionals about the Kangaroo Method according to the performance sector. Campo Grande - MS, 2020/2021.

Knowledge of the pediatric line health professionals about the Kangaroo Method		Sectors							
		HMB		NEONATAL ICU		PEDIATRICS		PEDIATRIC ICU	
		n	(%)	n	(%)	n	(%)	n	(%)
Knowledge about the number of stages in the Kangaroo Method	Aware	4	(80)	47	(90)	9	(41)	10	(53)
	Unaware	1	(20)	5	(10)	3	(14)	1	(5)
	Does not know/Did not answer	0	(0)	0	(0)	10	(45)	8	(42)
Knowledge about the proper moment to initiate the Kangaroo Method	Aware	3	(60)	36	(69)	11	(50)	8	(42)
	Unaware	2	(40)	16	(31)	11	(50)	11	(58)
Knowledge about the recommended time to perform the Kangaroo Position	Correct	0	(0)	29	(56)	3	(14)	8	(42)
	Incorrect	5	(100)	23	(44)	19	(86)	11	(58)
	Does not know/Did not answer	0	(0)	0	(0)	0	(0)	0	(0)
Conduction of care for newborns and their families based on the Kangaroo Method	Already performed KM care	0	(0)	46	(88)	7	(32)	11	(58)
	Never performed KM care	5	(100)	6	(12)	11	(50)	7	(37)
	Does not know/Did not answer	0	(0)	0	(0)	4	(18)	1	(5)
Knowledge of the criteria for low birth weight newborns to go to the Kangaroo Intermediate Neonatal Care Unit	Knows the criteria	3	(60)	49	(94)	9	(41)	11	(58)
	Does not know the criteria	2	(40)	3	(6)	13	(59)	8	(42)

Source: Prepared by the authors.

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DISCUSSION

The participants were mostly women, nursing technicians, over 40 years old, graduates and with approximately 12 years of service at the institution. The research showed a higher percentage of correct answers about the method, about the Kangaroo Position (KP) and about its benefits in the answers given by the health professionals who had taken the Kangaroo Method course, with more time in the pediatric line and who worked in the neonatal unit. In addition to that, most of the participants know about the method and how many stages it is divided into. However, some are of the mistaken opinion that the KM is restricted to the skin-to-skin contact of the mother/father with the infant.

The KM is a paradigm shift in perinatal care, where humanization and quality of attention and care provided are fundamental objectives, in addition to a commitment of every health professional to the LBWPTNB and their family[3]. In other words, the method involves the reduction of environmental stimuli and pain control, in addition to facilitating the NB's interaction with the family, guidance and support for breastfeeding and the KP. In this way, skin-to-skin contact, which consists of keeping the NB, only in diapers, in an upright position next to the parents' chest with the support, guidance and monitoring of the health professional, is one of the KM's care measures.[5,9]. However, in this study, many health professionals related the KM only to skin-to-skin contact and are unaware of the method's scope.

A study carried out with 37 Nursing professionals from the NICU of a hospital in Paraná revealed that the participants did not relate the health care provided to NBs with the KM practice, as they understood it as a work routine, which shows the need for appropriation of the KM with its daily applicability[10]. On the other hand, a research study with a qualitative approach involving eight nurses from the maternal-infant line of a hospital in Minas Gerais (MG), Brazil, showed that three of them knew the KM in theory, although they did not have the opportunity to work with it in the practice[11]. Another study, also qualitative, with 15 Nursing professionals who worked in a NICU in Porto Alegre (RS), pointed out that the professionals describe the KM as a practice to ensure humanization of the NBs and strengthen the bond with their families[12]. As well as, in this research, which showed the lack of knowledge of some participants in relation to the KM, its stages, which cover prenatal care, birth, hospitalization of the LBWPTNB in the NICU and UCINCo and not only in the UCINCa, as well as return appointments up to a weight of 2,500 grams.

The KP contributes countless benefits both for the LBWPTNB and for the parents. A study carried out with 86 newborns from a hospital in Rondônia (RO) showed that those

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subjected to skin-to-skin contact with their parents had greater weight gain and shorter hospital stays when compared to NBs to whom the KP was not applied[13]. The benefits of skin-to-skin contact with LBWPTNBs are the same, whether performed by the mother or the father[14]. This fact corroborates the findings of this research, which showed that most of the participants answered that the KP is "skin-to-skin contact of the LBWPTNBs with their parents, next to the chest in a vertical position".

Several benefits of the KM are pointed out by the health professionals in the current research, and all approve the method. The three most mentioned benefits were as follows: "It enhances the family-baby bond", "It stimulates/facilitates breastfeeding" and "It favors the NB's neuropsychomotor development". An observational study developed through filming showed that the longer time spent with the KP benefits the initial contact exchanges between the preterm child and the mother, which suggests greater alertness and better availability of the NB for interactions with the mother during breastfeeding[15]. A research study carried out with 37 Nursing professionals showed that 33.8% of them associate the KM with an improvement in growth and development of the NB[16].

A quasi-experimental research study carried out in two hospitals from Turkey, aimed at investigating the effect of the KM on the breastfeeding rate and on the development of LBWPTNBs in the first six months of life, evidenced that the group that underwent the KP had a significantly higher mean body weight than the control group in the third and sixth postnatal month ($p<0.05$). In addition to that, the experimental group had higher breast milk intake and breastfeeding rates than the control group during transition to exclusive breastfeeding and at discharge, as well as in the first, third and sixth postnatal months ($p<0.05$)[17].

Furthermore, 66 professionals argued that the KM benefits the NB and 52 stated that the method benefits the mother. However, the KM does not only benefit the NB, but also their parents, family members, siblings and health professionals, as it reduces the separation time between mother/father and child and facilitates the bond. The NB benefits from the reduction of hospital infection, stress and pain, improvement of thermal and neuropsychomotor control, and a better relationship and communication between the family and the health professionals. Another advantage is that siblings can come to the health units to see the infant[5]. In addition, when the multidisciplinary team perceives the clinical improvement and evolution of the LBWPTNB after KP performance, they start to believe in the method, they notice that it is not dogma but science and, thus, this practice continues to be adopted in neonatal units[18].

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An international survey carried out with 27 professionals from a tertiary-level hospital and three district hospitals in Malawi evidenced that, in the participants' perception, as they are more stable, infants in Kangaroo rooming have low care prioritization and inadequate monitoring practices[19]. Another survey also carried out in Malawi with 123 health professionals revealed their positive reactions in relation to the care provided by family members to preterm infants during hospitalization, as well as to skin-to-skin contact[20]. This fact corroborates the findings of this study in which the professionals stated that they provide care centered on the NB and their family. However, it should be emphasized that the parents' participation should not interfere with the quality of care provided by health professionals to the NB; on the contrary, inclusion of the parents only offers contributions.

Regarding the care related to the KM applied by professionals in the hospital environment, the most frequently mentioned by the participants was: “Guidelines and welcoming to the parents about the care of the NB”. In agreement with the results of this research, a qualitative study conducted with Nursing professionals from an UCINCa in northeastern Brazil highlighted the importance of the guidelines on the KM for parents/relatives, which favors their adherence to the method[21]. In addition to that, by welcoming LBWPTNB families, mediating the first contact of parents with their children, the health professionals are providing for the bonding between them, interrupted due to premature birth and the need for hospitalization of the child in the neonatal unit[5].

Furthermore, skin-to-skin contact should be initiated as soon as possible and during hospitalization of the LBWPTNB in the NICU and UCINCo. Thus, a research study carried out in a university hospital from Gambia, whose objective was to understand the effects of initial care with the KM on the survival of unstable NBs weighing less than 2,000 g, evidenced a reduction in mortality by half during the study implementation period and the importance of the KM-related interventions in unstable neonates in neonatal units[22].

In this study, only two health professionals reported having taken the Hospital KM tutor course, that is, with a license to be a replicator and carry out training sessions. This fact shows the need to train new tutors, as the hospital is the State's reference and responsible for internal and external training, in addition to promoting awareness raising in the health team about the KM.

Thus, knowledge acquisition is fundamental for the development and implementation of the method's good practices in the health units. Theoretical knowledge needs to be articulated with the

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team's behavioral change, working on the development of managerial strategies that facilitate adherence to the KM in the care practice[23]. Thus, the KM courses enable the professionals to acquire a scientific basis for their behavior and improve the assistance provided to the LBWPTNBs and their families.

A qualitative study carried out in Kenya, which aimed at understanding, from the point of view of family members and health professionals, the barriers and facilitators for essential newborn care, showed that the KM is widely accepted as a gold standard intervention to increase LBWPTNB survival. In addition to that, this research included the views and opinions of parents, family members, health professionals, policymakers and non-governmental representatives in the context of NB care provision and the development of a broader work program to develop an early warning score, showing the importance of everyone's involvement for the effective implementation of the KM[24].

Some factors can be mentioned as limitations to carry out other analyses, reflections and notes. One of them refers to the questionnaire, considered long and complex by some professionals, which did not allow them to participate in the research; the other is that the hospital in question is the only one in the state with KM and BFHI titles, which does not reflect the reality of all hospitals. Even more important, this is an atypical moment experienced all over the world, which are the limitations brought about by the pandemic, causing several professionals to be relocated from the pediatric line to other sectors in order to provide care for patients of different age groups.

CONCLUSIONS

This study showed that some participants have theoretical knowledge about the KM, knowing how many stages it is divided into and its main benefits. In addition, most of the professionals had taken the KM course at the study hospital. However, the open-ended questions revealed that some participants are of the mistaken opinion that the KM is restricted to skin-to-skin contact of the mother/father with the infant, whereas the Kangaroo methodology is broad and involves a paradigm shift such as the importance of exclusive breastfeeding (EBF), humanized assistance and inclusion of the family in care. On the other hand, the professionals were able to describe several benefits of the method consistent with the guidelines and scientific studies on it, especially the participants who had training, that is, the research showed that there is a statistical difference between the professionals who attended the course and those who did not, when asked about who benefited from the KM.

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The research made it possible to reflect on the understanding of the KM by the health professionals who provide assistance to LBWPTNBs and their families. Such fact can contribute to the improvement of care, in addition to encouraging health managers to include permanent and continuing education for health professionals about the KM. This study is also important for Nursing, as nurses favor infant-parent-professional bonding and must have qualified listening, including the parents in the care provided to the newborns and propitiating interdisciplinary and humanized care. Based on the data from this research, it is clear that there is a need for further studies on the perception and application of the KM to PTNBs and their families by the multiprofessional health team, both in public and private hospitals.

REFERENCES

1. Barraza PCG, Jofré AVE, Ramírez OJA. Percepciones Asociadas al Método Madre Canguro de Madres con Recién Nacidos Prematuros. Cienc enferm [Internet]. 2020; 26:32-2.

2. Lopes BA, Oliveira ALCB, Costa GR, Costa AA, Moraes LMV, Maia JM, Bezerra MAR. Características maternas e dos recém-nascidos admitidos em uma unidade de terapia intensiva neonatal. Rev Enferm Atual in Derme. 2020; 93(31):e-020022.

3. Oliveira ND, et al. Atenção Humanizada ao Recém-nascido de Baixo Peso – Método Canguru: 15 anos de uma política pública de saúde que mudou o cuidado perinatal brasileiro. In: Cera SMT, Azevedo CR, Oliveira VMG, Streit MD, Carvalho LZ. Método Canguru no Brasil: 15 anos de política pública. São Paulo (SP): Instituto de Saúde. 2015 [citado 2020 Abril 13]. Disponível em: https://portaldeboaspraticas.iff.fiocruz.br/wp-content/uploads/2017/10/canguru_capa_miolo.pdf.

4. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Método canguru: diretrizes do cuidado. Brasília (DF): Ministério da Saúde; 2018. Disponível em: http://portaldeboaspraticas.iff.fiocruz.br/wp-content/uploads/2018/09/metodo_canguru_diretrizes_cuidado2018.pdf.

5. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Atenção humanizada ao recém-nascido: Método Canguru: manual técnico. 3 ed. Brasília (DF): Ministério da Saúde; 2017. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/atencao_humanizada_metodo_canguru_manual_3ed.pdf.

6. Souza JR, Ribeiro LM, Vieira GB, et al. Método Canguru na Perspectiva dos Profissionais de Saúde de uma Unidade de Neonatologia. Enferm em Foco, 2019; 10(2):1604.

7. Gesteira E, Braga P, Nagata M, Santos L, Hobl C, Ribeiro B. Método canguru: benefícios e desafios experienciados por profissionais de saúde. Rev Enferm UFSM. 2017;6(4):518-28.

8. Aires LCP, Kock C, Santos EKA, *et al.* Kangaroo-mother care method: a documentary study of theses and dissertations of the brazilian nurse (2000-2017). Rev Bras Enferm. 2020;73(2):e20180598.

9. Alves FN, Azevedo VMGO, Moura MRS, Ferreira DMLM, Araújo CGA, Mendes-Rodrigues C, Wolkers PCB. Impacto do método canguru sobre o aleitamento materno de recém-nascidos pré-termo no Brasil: uma revisão integrativa. Cien Saúde Col. 2018; 25(11): 4509-20.

10. Stelmak AP, Freire MHS. Aplicabilidade das ações preconizadas pelo método canguru. Rev Cuid Fund On-line. 2017;9(3):795-802.

11. Ferreira DO, Silva MPC, Galon T, Goulart BF, Amaral JB, Contim D. Método canguru: percepções sobre o conhecimento, potencialidades e barreiras entre enfermeiras. Esc Anna Nery. 2019;23(4):e20190100.

12. Mantelli GV, Strapasson MR, Pierotto AA, Renosto JM, Silva JF. Método canguru: percepções da equipe de enfermagem em terapia intensiva neonatal. Rev Enferm UFSM. 2017;7(1):51-60.

13. Souza AKCM, Tavares ACM, Carvalho DGL, Araújo VC. Ganho de peso em recém-nascidos submetidos ao contato pele a pele. Rev CEFAC. 2018;20(1):53-60.

14. Martins ASD, Nascimento JDB, Santos ÍR, Silva JSL, Rêgo RMV, Andrade ASA, Galloti FCM. Participação do pai no método canguru: conhecimentos, dificuldades, motivações e sentimentos. Cien Biol Saúde Unit. 2019;5(2):95-105.

15. Nascimento NCR, Campos LG, Lucena AM, Pereira JM, Costa PR, Lima FAF, Azevedo VMGO. Relação da duração da posição canguru e interação mãe-filho pré-termo na alta hospitalar. Rev Paul Ped. 2017;35(2):136–43.

16. Stelmak AP, Mazza VA, Freire MHS. O valor atribuído pelos profissionais de enfermagem aos cuidados preconizados pelo método canguru. Rev Enferm UFPE on-line. 2017;11(9):3376-85.

17. Kucukoglu S, Yılmaz KF, Aytekin OA, Ozcan Z. The effect of kangaroo care on breastfeeding and development in preterm neonates. J Pediatr Nurs. 2021;21: S0882-5963.

18. Gianini, NOM. Trajetória do Método Canguru nas Unidades da Secretaria Municipal de Saúde do Rio de Janeiro. In: Cera SMT, Azevedo CR, Oliveira VMG, Streit MD, Carvalho LZ. Método Canguru no Brasil: 15 anos de política pública. São Paulo (SP): Instituto de Saúde. 2015 Disponível em: https://portaldeboaspraticas.iff.fiocruz.br/wp-content/uploads/2017/10/canguru_capa_miolo.pdf.

19. Kinshella MW, Salimu S, Chiwaya B, et al. “So sometimes, it looks like it’s a neglected ward”: Health worker perspectives on implementing kangaroo mother care in southern Malawi. PLoS ONE, 2020; 15(12):e0243770.

20. Mhango P, Chipeta E, Muula AS, et al. Implementing the Family-Led Care model for preterm and low birth weight newborns in Malawi: Experience of healthcare workers. Afr J Prim Health Care Fam Med. 2020; 12(1): e1-11.

21. Sales IMM, Santos JDM, Rocha SS, Gouveia MTO, Carvalho NAR. Contribuições da equipe enfermagem na segunda etapa do Método Canguru: Implicações para a alta hospitalar do recém-nascido. Esc Anna Nery. 2018;22(4):e20180149.

22. Brotherton H, Gai, A, Kebbeh B, et al. Impact of early kangaroo mother care versus standard care on survival of mild-moderately unstable neonates <2000 grams: A randomised controlled trial. EClinicalMedicine, 2021; 39:101050.

23. Silva LJ, Leite JL, Silva TP, Silva ÍR, Mourão PP, Gomes TM. Desafios gerenciais para boas práticas do Método Canguru na UTI Neonatal. Rev Bras Enferm. 2018;71(6):2783-91.

24. Mitchell EJ, Pallotti P, Qureshi ZP, Daniels JP, Oliver M, Were F, Osoti A, Gwako G, Kimani V, Opira J, Ojha S. Parents, healthcare professionals and other stakeholders' experiences of caring for babies born too soon in a low-resource setting: a qualitative study of essential newborn care for preterm infants in Kenya. BMJ Open. 2021;11(6):e043802.

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