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NURSES' LEVEL OF KNOWLEDGE ABOUT DEVELOPMENTAL CARE

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ABSTRACT

Babies who receive care in hospital still need stimulation to maximize growth and development. One of the nursing efforts that facilitates the development of babies is the implementation of developmental care which can reduce the incidence of disease, length of stay, stress in babies, as well as increasing nerve growth and development of babies. The aim of this research is to identify the level of nurses' knowledge about developmental care in hospitals. The design of this research is descriptive with a cross sectional approach. The research sample was 37 nurses with a total sampling technique. Data collection uses a questionnaire. Data analysis uses descriptive statistics. The characteristics of the respondents were that the largest age was 30 years with the youngest being 22 years and the oldest being 40 years, the majority of respondents were female, 31 people (83.8%), the majority had a DIII Nursing education, 25 people (66, 6%) and the majority have work experience more than 4 years as many as 29 people (78.4%). The results of the study showed that all respondents had a good level of knowledge about Developmental Care in Hospitals, namely 37 respondents (100%).

Keywords: development care; level of knowledge; nurses

INTRODUCTION

Developmental care is a care approach specifically designed to support optimal growth and development in infants and children, especially those treated in the neonatal intensive care unit (NICU) or other child care units. This approach involves interventions that focus on support systems for sensory, motor and emotional development, as well as reducing stress and excessive stimulation which can affect the level of growth and development of babies and children. Developmental care is used to help babies during care to adapt the environment to reduce stress, support behavioral organization, increase physiological stability, maintain sleep quality, and promote the growth and maturation of the baby's nerves (Altimier & Phillips, 2016). Every baby and child who receives treatment in hospital still needs stimulation or encouragement to optimize their growth and development. One of the nursing care efforts that facilitates the growth and development of babies and children is the implementation of developmental care while they are being treated in hospital (Rudolph, 2015). Developmental care is independent nursing care which aims to improve the growth and development of babies in accordance with the processes that exist while babies and children are being cared for. The implementation of developmental care facilitates the baby's interaction in adapting to the environment both physiologically and neurobehaviorally, especially while the baby is being treated in hospital. Apart from that, implementing developmental care in hospitals can reduce the incidence of disease, reduce length of stay, reduce stress on babies, as well as reduce care costs, accelerate weight gain in premature babies, and speed up the baby's return home (Choughlin, 2015 Moody et al., 2017; Burke, 2018). Meanwhile, according to Missi, Dallaire and Hardy (2022), developmental care in neonatal services can contribute not only to the advancement of the nursing discipline, but also to reducing neonatal deaths in the world.

Developmental care is a care approach that aims to support the baby's overall development, with a focus on reducing stress, supporting neurological development, and ensuring the baby's physical and emotional well-being. Developmental care techniques refer to the behavior of individual babies and the physiological functions of babies and children without comparing them with other babies

or children as a basis for planning nursing care and implementing nursing interventions. The successful implementation of developmental care is supported by the availability of human resources as professional care service providers. Where nurses in providing nursing care require optimal knowledge so that they are able to provide comprehensive nursing care (Asmarawanti, 2015).

A good level of knowledge of nurses about developmental care really supports attitudes and behavior in implementing or applying developmental care appropriately (Hockenberry, & Wilson, 2015; Zubaidah, 2014). There are several factors that influence the level of nurses' knowledge about developmental care, including age, level of education, work experience and training. Increasing knowledge and skills, including in terms of developmental care, is strongly influenced by clinical experience and continuing education. This knowledge is not only based on theory but also on practical experience which allows nurses to better understand the individual needs of patients (Missi, Dallaire and Hardy, 2022).

A similar thing was stated by Asmarawanti (2015) who found that training on developmental care was effective in increasing the knowledge, attitudes and actions of nurses. Apart from that, good knowledge and understanding of the principles of developmental care for nurses in the NICU and pediatric wards is very important. Special training and continuing education can increase awareness and skills in applying techniques that support infant development. Therefore, continuous education and training will increase the knowledge and skills of nurses in providing comprehensive and quality nursing care. The results of the preliminary study showed that not all nurses knew about developmental care. Based on the results of interviews with 8 nurses, it was found that 87.5% did not know to wake the baby every 3 hours, 100% did not adjust medical equipment according to noise limits. The aim of this research is to find out "The level of knowledge of nurses about Development Care.

METHOD

This research is a descriptive study with a cross sectional approach. The population in this study was 37 Perinatology Room and Children's Room nurses using a total sample sampling technique. Data collection uses a questionnaire. Univariate analysis uses descriptive statistics which aims to explain or describe the characteristics of each research variable (Nursalam, 2016). Univariate analysis includes the variables age, gender, education level, length of work and level of knowledge about developmetal care. The analysis results are presented in the form of numbers and percentages.

RESULTS AND DISCUSSION

The results of research on the characteristics of respondents showed that the majority of respondents were 30 years old with the youngest being 22 years old and the oldest being 40 years old, the majority of respondents were female, 31 people (83.8%), the majority had a DIII Nursing education, 25 people (66.6%) and the majority have work experience of more than 4 years as many as 29 people (78.4%). The research results showed that all respondents had a good level of knowledge about developmental care in hospitals, namely 37 respondents (100%). In detail, it can be seen in table 1.

Table 1.
Distribution of characteristics, training and knowledge of respondents in the Perinatology and Pediatric Room

No	Variables	Category	Frequency	Percentage
1	Gender	Female	31	83.8
		Male	6	16.2
2	Education	Diploma III	25	66.6 %
		Bachelor	2	5.4%
		Ners	10	27%
3	Length of work	< 1 years	3	8.1%
		1-4 years	5	13.5%
		≥ 4 years	29	78.4%
4	level of knowledge	not enough	0	0%
		Good	37	100%

Most of the respondents were 30 years old, falling into the early adulthood category (20-35 years) which is of productive age. Early adulthood is a transition period from adolescence to adulthood or a transition period from adolescence to adulthood. At this time, a person experiences a transition from dependency to independence both in terms of economics, freedom to make their own choices and a more realistic view of the future. Santrock (2011) explains that the characteristics of early adult development are, productive age, age of establishing a position (Setting down age), age of many problems (Problem age), age of tension in terms of emotions (emotional tension), age changes in values, and the creative period. According to the Ministry of Health (2019), people in the productive group are people aged 15-64 years. At this age a person builds a career, is more productive, completes education which will influence attitudes and behavior. This is in line with Pangesti (2012), who stated that productive age is the age that plays the most role and has intense activity and good cognitive abilities. So, this age has an influence on the level of knowledge. As a person ages, there will be changes in physical and psychological (mental) aspects. In the psychological (mental) aspect, changes occur in terms of a person's level of thinking, which becomes more mature and mature. Apart from that, as a person gets older, a person's memory will also increase. A person's age will influence the increase in knowledge they have (Notoatmojo, 2014).

The older you are, the better a person's level of maturity will be in thinking and working and will have an impact on a person's cognitive abilities. In terms of public trust, someone who is more mature will be more trusted than someone who is not mature enough. A person's age also influences a person's ability to comprehend and think patterns. The older you get, the more your understanding and thinking patterns will develop, so that the knowledge you gain will get better. At the age of 20-35 years, individuals will play a more active role and make more preparations to successfully adapt to old age (Ajhuri, 2019). Apart from that, the older you get, the more experience a person has. Older nurses generally have more clinical experience, which can deepen their understanding of developmental care. This experience allows them to face a variety of clinical situations, which indirectly increases their knowledge. This is supported by Saluy (2018) who states that older nurses are superior in service experience so that it has an impact on nursing services as a whole. Most of the respondents were female, namely 31 respondents (83.8%), while 6 people were male (16.2%). The proportion of professional nursing workers in hospital intensive care wards in Indonesia is more female. This is in line with Ahmed & Safadi (2013) who stated that the percentage of female

nurses is greater than male. This situation is in accordance with existing conditions where the majority of nurses who work are women. Some female traits that are commonly found in most female nurses involve emotional sensitivity, multitasking ability and empathy.

Most of the respondents had a DIII Nursing education, 25 people (66.6%), 2 people (5.4%) had a bachelor's degree, while 10 people were nurses (27.0%). The level of formal education, such as a diploma, bachelor's, or master's degree in nursing, plays an important role in building the foundation of nursing knowledge. Nurses with higher education tend to have better knowledge and understanding of theoretical principles and clinical practice, including developmental care. Someone who has taken a higher level of education has broader experience and insight, which will have an impact on a person's cognitive abilities. This is in line with the opinion of Carter (2011), that the higher a person's level of education, the easier it is to receive information so that the more experience and information they have, which has an impact on increasing knowledge. According to Notoatmodjo (2015) states that a person's level of education will influence how responsive a person is to criticism, suggestions both from within and outside him. Simanjuntak and Ria (2016) added that training and education can influence workforce productivity. Higher education will consider the extent of nursing care they may derive from these concepts and respond to information in a more rational and highly reasoning manner as well. The level of education significantly increases nurses' knowledge and skills in implementing developmental care that supports children's growth and development.

Work period is the length of time a person has worked, or a person's work experience in an agency. Length of work or work experience is one of the factors that significantly influences the level of nurses' knowledge about developmental care. Several studies show that nurses who have longer experience tend to have deeper knowledge about the concept and application of developmental care. Knowledge and skills, including those regarding developmental care, are strongly influenced by clinical experience and continuing education. As work hours increase, nurses have more opportunities to learn from diverse clinical situations, which deepens and sharpens their understanding of the developmental needs of infants and children. This knowledge is also based not only on theory but also on practical experience which allows nurses to better understand the individual needs of patients. Nurses who have longer work experience are certainly more experienced in implementing developmental care. This is supported by research by Sulistyowati (2018) who states that with increasing work experience, it involves many of the five senses, making it easier to understand. The longer someone works, the higher the opportunity to take part in training.

In addition, nurses who have longer work experience in a neonatal intensive care unit (NICU) or pediatric unit tend to have a better understanding of developmental care. This practical experience allows them to apply theory in real clinical situations, strengthening their knowledge and skills. Experience in handling various cases of babies and children with special needs can increase nurses' understanding of the importance of developmental care and how to implement it effectively. So it can be concluded that the length of work will influence the level of knowledge and capacity as well as the level of performance of nurses in implementing developmental care. Basically, the longer a nurse has worked, the more skilled they will be and have more capacity and ability compared to nurses who have worked less. The experience gained during their work period makes senior nurses more confident and agile in carrying out actions on patients because they have been trained.

The research results showed that all respondents had a level of knowledge about Developmental Care in the good category, namely 37 respondents (100%). The results of this research support the research of Hotmayda, Utami and Wirdani (2019) which found that almost all nurses had a level of knowledge in the good category of 94.7%. A similar point was expressed by nurses' level of knowledge about developmental care being influenced by various factors, including age, level of education, length/work experience, and training received. In this study, the good level of knowledge of nurses is supported by the age of the respondents, where the majority of respondents are in the creative and productive young adult age range. Nurses also have higher education in accordance with the standards set by the Ministry of Health, where a nurse has a minimum of three diplomas in nursing. Nurses who are more educated, have extensive work experience, and who engage in ongoing training tend to have more in-depth and up-to-date knowledge of this approach. Therefore, investment in ongoing education and training is essential to ensure nurses can provide optimal care and in accordance with current best practices in developmental care.

Even though the overall level of knowledge of nurses is in the good category, there are still some respondents who have not answered several questions correctly. Therefore, it can be concluded that not all nurses know and understand developmental care well, so in the future it is very important to carry out training or workshops related to this matter. Nurses should understand the basic concepts of developmental care, including why this approach is important and how it can affect the baby's long-term outcomes. Apart from that, knowledge about the main components of developmental care, such as an environment that supports sensory development, baby position, pain management, and family involvement in care. Hertati et al (2019) stated that nurses should know and understand that LBW has unique characteristics and different responses so that increasing knowledge about the implementation of developmental care needs to be carried out continuously and periodically.

Nurses' knowledge of developmental care is very supportive in order to be able to implement or apply developmental care appropriately in providing nursing care to babies and children (Hockenberry, & Wilson, 2015). This is in accordance with the opinion of Asmarawanti (2015) who states that knowledge related to Developmental care is knowledge in the form of nursing care which focuses on facilitating the achievement of infant and child development through environmental management and observation of individual behavior, so that infant and child patients will receive appropriate environmental stimulus. adequate and there is an increase in the body's physiological stability and a reduction in stress. Nurses who have the knowledge and ability to recognize the basics of providing developmental care will be skilled in implementing various developmental care interventions, such as positions that support development, appropriate feeding techniques, and ways to reduce stimuli that can cause stress in babies, so that in ultimately being able to provide care that suits each individual's needs.

CONCLUSION

The characteristics of the majority of respondents were 30 years old with the youngest 22 years old and the oldest 40 years old, the majority of respondents were female, 31 people (83.8%), the majority had a DIII Nursing education, 25 people (66.6%) and the majority had work experience. more than 4 years as many as 29 people (78.4%). The research results showed that all respondents had a good level of knowledge about developmental care in hospitals, namely 37 respondents

(100%).

REFERENCES

Ajhuri Kayyis F. (2019). Psikologi Perkembangan: Pendekatan sepanjang rentang kehidupan. Penebar Media Pustaka. Yogyakarta.

Almasihenti A. 2017. Pengaruh Pemberian Informasi Neonatal Developmental Care thd pengetahuan perawat. Naskah publikasi. http://elibrary.almaata.ac.id/1481/2/NASKAH%20PUBLIKASI.pdf

American Academy of Pediatrics (2012). *Developmental care in the NICU: A concept of care.* Pediatrics. 130(6). e1500-e1502.

Armina Happy, *dkk* (2018*). Efikasi diri perawat terhadap penerapan asuhan perkembangan (developmenttal care).* Jakarta.

Asmarawanti. (2015). Pengaruh pelatihan tentang *developmental care* terhadap kemampuan perawat dalam merawat bayi berat lahir rendah di RSUD Sekarwangi Kabupaten Sukabumi. *Jurnal Stikesmi*.

Burke, S. (2018). Systematic review of developmental care interventions in the neonatal intensive care unit since 2006. Journal of Child Health Care, 22(2), 269– 286. https://doi.org/10.1177/13674935177 53085

Choughlin, (2015). Higher-*Order Thinking Skills to Develop 21st Century Learners.* Huntington : Shell Education Publishing.

Dahlan, S. (2019). *Statistik Untuk Kedokteran dan Kesehatan Edisi 5*. Jakarta, Salemba Medika.

Hendrawati Sri, dkk (2018). *Effectiveness Of Developmental Care On Physiologic Al Functions Low Birth Weight Babies: A Literature Review*. Bandung.

Hotmayda Hertaty, dkk (2019). *Pengetahuan perawat tentang Development Care Pada Bayi Berat Lahir Rendah* Semarang: jurnal Kesehatan Saelmakers Perdana. https://journal.ukmc.ac.id/index.php/joh/article/download/208/201/1032

Hidayat, *A. A. (2017). Metodologi* Penelitian *Keperawatan dan Kesehatan . Penerbit Salemba* Medik

Hertaty dkk. (2019). Pengetahuan perawat tentang Penerapan Development Care pada BBLR. Jurnal Kesehatan Saelmakers Perdana ISSN 2615-6571 (Print), ISSN 2615-6563 (Online) Tersedia online di http://ojs.ukmc.ac.id/index.php/JOH

Hockenberry, M. J., & Wilson, D. (2015). *Wong's Nursing Care of Infants and Children 10th Edition.* Missouri: Elsevier.

Moody, C., Callahan, T.J., Aldrich, H., Gance- Cleveland, B., & Sables-Baus, S. (2017). Early initiation of Newborn. Individualized Developmental Care and Assessment Program

(NIDCAP) reduces length of stay: a quality improvement project. Journal of Pediatric Nursing, 32, 59–63. https://doi.org/10.1016/j.pedn.2016.11 .001

Nadila Nova, dkk (2022*). Penerapan Developmental Care Dan Stimulasi Oromotorik Di Nicu: Suatu Studi Kasus.* Aceh. JIM Fkep

Oktiawati, A., Rustina, Y., & Chodidjah, S. (2017). Edukasi Berbasis Video Meningkatkan Pengetahuan dan Motivasi Perawat dalam Melakukan Asuhan Perkembangan Pada BBLR Vol 6, No 2. Jurnal Keperawatan

Papalia*, D.E., Old, S.W. & Feldman, R.D.(2011),"Human development (Psikologi perkembangan), Edisi 9". (Alih bahasa: Anwar, A.K)Jakarta: Kencana Perdana Group. (Asli dipublikasi 2008)*

Rustina, (2015). Bayi *Prematur: Perspektif. Keperawatan*. Jakarta: Sagung Seto

Riyanto, S., & Hatmawan, A. A. (2020). *Metode Riset Penelitian Kuantitatif*. Sleman: Deepublish

Smeltzer, Susanne C., (2002). *Buku Ajar Keperawatan Medikal Bedah Brunner/* Suddarth*. Edisi 8*, Jakarta: EGC.

Sherly Agatha, S.kep, & Siregar t, Tatiana (2023). *Atasi Kecemasan Perawat dengan Terapi Mindfulness Therapy Meditation*. Sukoharjo. Pradina Pustaka.

Sukerti *Putu*, Sulisnadewi , & Puspita Yanti. (2015.) .*Developmental Care Menrunkan Respon Nyeri Akut Akibat Pemasangan Iv Line Perifer Pada Bayi.* Denpasar.

Terry Kyle & Susan Carman, 2014. Buku Ajar Keperawatan Pedriatri, Edisi 2. Jakarta : EGC

Yugistyowati Anafrin , & Endriyani Lia. (2014*). Pemberian Informasi Neonatal Developmental Care Meningkatkan Sikap Perawat Dalam Merawat BBLR.* Magelang. JHNS

Zubaidah. 2014. Hubungan pengetahuan tentang asuhan perkembangan dengan sikap perawat dalam merawat bayi berat lahir rendah. *Jurnal Keperawatan Soedirman*. Volume 9, No.3. https://media.neliti.com/media/publications/106480-ID-hubungan-pengetahuan-tentang-asuhan-perk.pdf

Zwartkruis-pelgrim, & Aarts, (2016). The effect of positioning on preterm infants' sleep–wake states and stress behaviours during exposure to environmental stressors. *Journal of Child Health Care*. https://sciencepublishinggroup.com/article/10.11648/j.ajns.20221101.14