10TH INTERNATIONAL SEMINAR ON DISASTER:

COMMUNITY EMPOWERMENT FOR DISASTER MITIGATION AND REHABILITATION

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FACULTY OF MEDICINE
UNIVERSITAS GADJAH MADA

KOBE UNIVERSITY

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10TH INTERNATIONAL SEMINAR ON DISASTER: COMMUNITY EMPOWERMENT FOR DISASTER MITIGATION AND REHABILITATION

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Oral Presentation 15

Title : 'Mbah Maridjan' therapy reduced stress and traumatic experiences among primary school children at Ngepringan Shelter

Author : Muhammad Rofi'i Sayoga, Induniasih, Bondan Palestin

Background: Eruption of Mount Merapi in 2010 had brought an enormous impact to the lives of the people around it. The psychological conditions of the children were more difficult to adapt the new circumstances. Researchers conducted "Mbah Maridjan" Therapy to reduce the stress and traumatic experiences of children at the shelter. **Aim:** This study used pre-post one group design that aims to identify the influence of "Mbah Maridjan" therapy for releasing stress and traumatic experience among the elementary school children in Ngepringan Shelter, Cangkringan, Sleman, Yogyakarta. **Methods:** "Mbah Maridjan" (***M****enurunkan* ***B****eban* ***A****nak dengan* ***H****ipnotis* ***M****usik lim****A*** *ja****RI*** *dan aktivitas Pengh****i****Jau****AN*** = lowering psychological burden of children using the five fingers musical hypnosis and greening activities) therapy is a blend of five fingers musical hypnosis and greening activities. The study was conducted in May 2011 that 13 children had given five fingers hypnosis therapy combined with music and reforestation activities everyday during 2 weeks. Researchers measured the children's stress levels by using instrument of Post-Traumatic Stress Disorder in Children Due to Volcano Disasters (Latifa, 2010). Stress in children caused by natural disasters was measured in pre and post treatment than there tested used a statistical paired t-test. **Results:** Overall, the mean of traumatic experiences due to Merapi eruption before treatment was 5.7 (SD=5.3) and declined to 2.0 (SD=2.4) after treatment. There was effectively decrease stress and traumatic experiences ($p = 0.006$). **Conclusion:** This study concluded that "Mbah Maridjan" therapy could reduce the stress and traumatic experiences among children in areas of natural disasters. "Mbah Maridjan" Therapy also dedicated to Mbah Maridjan as the spiritual guardian of the Mount Merapi which would be taken by Merapi on October, 26th 2010.

Keywords: Mbah Maridjan therapy, children's stress and traumatic disorder

Oral Presentation 16

Title : Increasing the Knowledge, Attitude, and Practice in Caring LBW Infant through the Developmental Care Information Provision

Author : Zubaidah, Yeni Rustina, Luknis Sabri

Background: Low birth weight (LBW) is still a major problem contributing to the high infant mortality rate in Indonesia. Various efforts have been developed in order to minimize the negative impact of low birth weight due to hospitalization that one of which is developmental care. Developmental care is an essential component in the nursing care of LBW infant to reduce stress and improve growth and development. **Aim:** to identify the influence of the developmental care information provision to the knowledge, attitude, and practice in caring LBW infant. **Method:** The design of this study was "quasi experimental before and after design". This study involved 18 nurses of Neonatal Intensive Care Unit. Nurses were given information about developmental care, and then the knowledge, attitudes and practice were measured before and after the research intervention. Knowledge and attitudes were measured using a questionnaire, while the nursing practice performance using the observation sheet. **Results:** score of knowledge, attitude, and practice was higher than before research intervention. There was a significant increase of the average score of knowledge, attitude, and

practice after the research intervention (p value=0.000, α= 0.05). **Results and Recommendation:** This information provision was effective to increase the knowledge, attitude, and practice. This research recommended a socialization of developmental care to other health professionals in hospitals.

Keywords: LBW infant, developmental care, knowledge, attitude, and practice

Oral Presentation 17

Title : A Literature Review: Banana Sap as Herbal Medicine in for Burn in Disaster Area
Author : Nugroho Ari Wibowo, Sari Fatimah, Anastasia Anna

Introduction: Indonesia is one country that is prone to disasters, either due to natural factors and human factors. Some disasters in Indonesia cause mass casualties. Burns are one of the frequent occurrence of disaster areas. Delay in treatment of burns can cause disability or even death due to local or systemic infection. Treatment with natural ingredients that have been available to make an alternative to overcome the logistical delays in the affected areas. The alternative ingredients that have been passed down from generation to generation is banana's sap. **Methods:** Strategy of literature searching uses database of EBSCO, PROQUEST, and Google Cendekia. The keyword are "Banana sap", "Burn", "Disaster", "Local wisdom". The article is limited from 2005 until 2013. **Result:** Specific results regarding the role of the banana's sap for healing burns are not found, but in the literature that discusses the treatment of burns using binahong leaves and guava extracts, phytochemical content there as well as the phytochemical content of the sap of banana shoots, namely saponins, tannins, and flavonoids as antiseptic, antiinflamatic and moisturizer. **Conclusion:** Banana plant is one of Indonesia's natural wealth is scattered in various areas, so it is easily found by people. With the phytochemical content, banana's sap as hereditary inheritance can be used as a medicine in disaster conditions.

Oral Presentation 18

Title : Correlation Between Role of Husband and Use of Contraception Method Post Merapi Eruption
Author : Priliani Fitria Kustanti, Elsi Dwi Hapsari, Wenny Artanty Nisman

Background: Use of contraception is much affected by role of husband as partner in reproductive health. Role of husband in the program of Family Planning will be able to improve quality of family planning service. Natural disaster can cause destructive impact in numerous aspects, one of which is health, i.e. community encountering difficulty in accessing health service. Thus, role of husband post disaster is much needed to support Family Planning program either directly or indirectly. **Aim:** to identify correlation between role of husband and use of contraception method post Merapi eruption. **Method:** The study used cross sectional design, involving 96 legible men at permanent shelter at Batur, Kepuharjo, Cangkringan in January 2013. Questionnaire on role of husband consisted of 5 statements on role of husband as motivator, 5 statements on role of husband as facilitator, and 5 statements on role of husband as educator, and questionnaire on use of contraception method before and after Merapi eruption were used in the study. **Result:** The result of the study showed that use of male contraception increased from 9.4% to 10.4%, whereas use of female contraception declined from 83.3% to 79.2% post Merapi eruption. Role of husband as motivator, facilitator, and

Increasing the Knowledge, Attitudes, and Practice in caring LBW infant through the developmental care information provision

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ABSTRACT

Background: Low birth weight (LBW) is still a major problem contributing to the high infant mortality rate in Indonesia. Varoius effort have been developed in order to minimize the negative impact of low birth weight due to hospitalization that one of which is developmental care. Developmental care is an essential component in the nursing care of LBW infant to reduce stress and improve growth and development. **Aim**: to identify the influence of the developmental care information provision to the knowledge, attitude, and practice in caring LBW infant. **Method**: The design of this study was "quasi experimental before and after design". This study involved 18 nurses of Neonatal Intensive Care Unit. Nurses were given information about developmental care, and then the knowledge, attitudes, and practice were measured before and after the research intervention. Knowledge and attitudes were measured using a questionnaire, while the nursing practice performance using the observation sheet. Result: Score of knowledge, attitiudes, and practice was higher than before research intervention. There was a significant increase of the average score of knowledge, attitude, and practice after the research intervention (p value: 0.000, α= 0.05). Result and Recommendation: This information provision was effective to increase the knowledge, attitude, and practice. This research recommended a socialization of developmental care to other health professionals in hospitals.

Keyword: LBW infant, developmental care, knowledge, attitude, and practice

Introduction

LBW is a serious problem in neonates. According to Riskesdas (2010), in Indonesia, there are about 11.1 % of infants were born weighing less than 2500 grams; whereas in Central Java Province, there is 9.9 % (Balitbangkes, 2010). LBW is a major risk factor for morbidity and mortality of infants (Valero de Barnade, et. al., 2004). The major causes of the death of LBW are prematurity, infection, aspiksia, hypothermia and inadequate breastfeeding (Kemenkes, 2010). Therefore, based on the data, the LBW infants are still being a major problem contributing to the high infant mortality rate in Indonesia.

In addition to causing high mortality rates, children born with low birth weight take risk of having cognitive impairment and low level of Intelligence Quotient (IQ) (UNICEF, 2012) and it will reduce the life quality of children in the future. A research conducted by Martinez-Cruz, Poblano, Fernandez-Carrocera, Jimenez-Quiroz and Tuyu-Torres (2006) about the relationship between IQ scores and low birth weight among school-age children, showed that children born with low birth weight had low IQ scores compared with children who were born with normal weight.

Several studies showed a significant relationship in infants who had low birth weight and premature toward cognitive development at age 8 years (Mu et. al., 2008), reduced language skills (Barre, Morgan, Doyle, & Anderson, 2011), cognitive deficits, especially executive function and attention (Olivieri et. al., 2011), and deficits in visual-spatial abilities (Geldof, van Wassenaer, de Kievet, Kok, & Oosterlaan, 2012). Another study conducted by Ni, Huang and Guo (2010) on executive function in preschool-aged children who experienced low birth weight showed that a child at the age of six with low birth weight was still taking risks to the deficits of planning function, cognitive, and nonverbal memory. Besides, infants which were born with low birth weight and got treatment in hospital often having some problems, especially problem of infection, hospitalization stress, and growth and development disturbances. A good care environment of LBW infants was in Neonatal Intensive Care Unit (NICU) and medical procedures during critical phases gave contribution to the developmental disorders (Standley, 2001).

The treatment of low birth weight infants required quite a long time from weeks to months. Infants were exposed to varied environments and excessive stimulus in the hospital such as procedures, light, sound and infection (Standley, 2001). Premature and low birth weight infants who experienced one or more of these conditions also showed the inability of the

areas of cognitive, academic, sensory motor, social, emotional and behavioral development (Kessenich, 2003). Research conducted by Morelius, Hellstrom-Westas, Carlen, Norman, and Nelson (2005) about differences in the level of stress in NICU infants admitted to the regular activity of changing diaper compared with normal infants, showed significant difference, in which infants were cared for in NICU had higher salivary cortisol level and higher stress scores than the healthy infants at the time of diaper change. Based on this study, it can be concluded that infants who were treated in NICU would experience greater stress though the procedures were not painful, especially many routine procedures which were often performed in NICU such as suction mucus, injections, invasive procedures, and other treatments.

There are many efforts that have been developed in order to minimize the negative impact of hospital care which one of them is developmental care. Developmental care is a treatment for the infants in attempt to improve the growth and development of infants who were hospitalized (Aita & Snider, 2003). The principles of developmental care according to Altimier (2011) including: family involvement, positioning and nesting, skin care, minimizing stress and pain, optimizing nutrition, and improving sleep quality.

The practice of developmental care in the hospital gives some benefits for both short-term and long-term benefits. One of them is to descend ilness, and length of stay and cost of care. Research conducted by Hendricks-Munoz, Prendergast, Caprio, and Wasserman (2002) on the influence of developmental care training of premature infants and the hospital care costs showed that there was a significant decline in the incidence of chronic lung disease, infection, retinopaty prematurity, and intraventiculer haemorrhagic in premature infants before and after developmental care training program. Moreover, there were significant decrements of the length of stay and cost of hospitalization in premature infants. It showed that developmental care had a positive short-term impact.

Based on the previously data, it is necessary for the nurses to have adequate knowledge and skills about developmental care in order to improve their ability in caring for LBW. Therefore, it is needed to conduct a research in attempting to find out whether there is an influence of providing information about developmental care of knowledge, attitudes, and practice of nurses in caring for low birth weight infants.

Method

The design of the study was quasi-experimental before and after design. The samples were all nurses who served in NICU in which only 18 nurses met the inclusion criteria. The inclusion criteria for the samples were: nurses were willing to become respondents and signing a letter of agreement to be the respondents, dealing with low birth weight infants, and undergoing leave.

The instruments used for data collection were questionnaire and observation sheet. The questionnaire was structured questionnaire consisting of three parts. The first part was about the identity of the respondents; the second part was about the nurses' knowledge related to developmental care; and the third part was the attitude of nurses toward developmental care. While the observation sheet consisted of several statements about the nurses' practice in applying developmental care. Questionnaires and observation sheet were independently developed by the researchers based on the literature that had been described previously.

Procedures of Data Collecting

This research had passed the test of ethics of the Ethics Committee of the Nursing Faculty of Indonesia University. After getting the permission of the study, the researchers identified the nurses who met the inclusion criteria as respondents. The researchers explained the respondents about the purpose, benefits, and procedures of the study, and asked for their approval. The researchers assisted by three nurses to observe the nurses' practice that were not included as samples. The observations were conducted two times before the treatment; the first was in the first time interpractice between the respondents and LBW, and the second time was before the respondents left their service.

The procedure began with pre-test by ditributing questionnaire about knowledge and attitudes of nurses towards developmental care before the intervention and observation toward the practice of nurses in caring for LBW based on the approach to developmental care. Respondents were asked to write only their initial name instead of mentioning the names. The researchers divided the respondents into four groups and determined the appropriate time to give information related to developmental care consisting of definitions, underlying things, the importance of developmental care in providing nursing care to low birth weight, and the procedures performed to support developmental care. The learning methods used were

lecturing, discussion, demonstration and practice. The nurses were also given a booklet about developmental care developed by the researchers. After providing information to all nurses, the researchers distributed the second questionnaires about knowledge and attitudes to the nurses on the fourth day, and after two-week, the asisitants observed the nurses' practice conducted for four times in two-days in sequence.

Finding

Characteristics of the Respondents

The average age of the respondents was 37.22 years (95 % CI: 31.75 to 42.69) with standard deviation 10.99 years. The youngest respondent was 22 years old and the oldest was 56 years old. The working experience of the respondents was about 6.36 years (95 % CI: 2.2 to 10.5) with standard deviation 8.36 years. The minimum working experience of the respondent was 1 year and 29 years maximumly. Most of the respondents were DIII of Nursing, as many as 13 people (72.2 %), the remaining were 3 bachelors of Nursing (16.7 %) and 2 people were SPK (11.1 %). The proportion of respondents who had known about developmental care previously was almost equal to those before providing them with developmental care, 10 people (55.6 %) who had never received previous information and 8 people (44.4 %) who had information before.

Differences of Knowledge, Attitudes, and Practice Before and After Providing the Information

The statistical test used in analyzing the data was paired t-test. The result of this study showed that the mean score of knowledge before the provision of information was 12.11 with standard deviation 3.16 (95 % CI: 10.54 to 13.68) and after the provision of information was was 20.56 (SD = 1.19; CI 95 % : 19.96 to 21.15) meaning that there was an improvement as much as 8.44 (SD = 3.20; 95 % CI : 6.85 to 10.04). Further analysis of the results showed that there was significant differences of knowledge mean score before and after the provision of information (p value = 0.000, $\alpha = 0.05$).

The mean score of attitudes before and after the provision of information was 43.44 (SD = 3.16 ; 95 % CI : 41.6 to 45.29) and 50.78 (SD = 4.02 ; 95 % CI : 48 , 78 to 52.78), threfore; there was an improvement 7.33 (SD = 4.6 ; 95 % CI : 5.04 to 9.6). The result of statistical test showed that there was no significant difference of attitudes' mean score before and after the

provision of information (p value = 0.000, α = 0.05). The mean score of the practice before and after the provision of information was 1.75 (SD = 0.52 ; 95 % CI : 1.49 to 2.00) and 3.59 (SD = 0.27 CI 95 % : 3 0.46 to 3.73), therefore; there was an improvement as much as 1.84 (SD = 0.48 ; 95 % CI : 1.6 to 2.08). The statistical test result showed that there was no significant difference of mean score of the practice before and after the provision of information (p value = 0.000, α = 0.05). The detailed infomation could be seen in Table 1.

Table 1. Mean Differences
Knowledge, Attitudes, and Practice Before and After
the Provision of Information about Developmental Care

Variable	Measurement	N	Mean	SD	Increased	SD	P value
Knowledge	Before	18	12.11	3.16	8.44	3.20	0.000
	After	18	20.56	1.19			
Attitudes	Before	18	43.44	3.71	7.33	4.6	0.000
	After	18	50.78	4.02			
Practice	Before	18	1.75	0.52	1.84	0.48	0.000
	After	18	3.59	0.27			

Relationship of the Respondents' Characteristics to the Knowledge, Attitudes and Practice

The relationship between age and improved knowledge had a correlation value (r = -0.17). The result of statistical test showed that there was no relationship between age and improved knowledge (p value = 0.5, α = 0.05). The relationship between age and attitudes hae an increased correlation value (r = 0.43), however; there was no correlation between age and attitudes improvement in further analysis (p value = 0.867, α = 0.05); whereas the relationship between age and improved practice had a correlation value (r = 0.42). The detailed analysis obtained p value = 0.867 showing that there was no relationship between age and improved practice.

The relationship between working experience and knowledge had a correlation value (r = 0.264). The statistical test result obtained p value = 0.289 showing that there was no relationship between working experience and improved knowledge. The relationship between working experience and growing attitudes had a correlation value (r = -0.237). working experience The statistical test results obtained p value = 0.343 showing that there was no relationship between working experience and growing attitudes. Whereas, the relationship between working experience and an improvement of practice score had a correlation value (r

= 0.089). Further analysis showed p value = 0.727 meaning that there was no significant relationship between working experience and the improvement score of the practice.

Moreover, to find out the relationship betwen education levels and improved knowledge, attitudes and practice, ANOVA was conducted with p value = 0.12 for knowledge; p value = 0.433 for attitudes; p value = 0.23 for practice. It showed that there was no significant difference between the education of the respondents (Diploma/Bachelor/SPK of Nursing) with the improvement of knowledge, attitudes and practice with p value > 0.05.

The relationship between the previous information with the improvement of knowledge, attitudes, and practice resulted: p value = 0.17 for knowledge, p value = 0.509 for attitudes and p value = 0.244 for the practice. It showed that there was no significant difference between the improvement of knowledge, attitudes, and practice of nurses who had and had not previously informed about developmental care with p value > 0.05.

Discussion

Developmental care was essential for the low birth weight infants aiming to minimize the effects of short-long term as a result of experiences in the hospital. Regarding the practice of developmental care in this study, the nurses agreed that it was a critical component in providing nursing care in the NICU (Hendricks-Munoc & Prendergast, 2007). It was in line with the research about staff perceptions related to developmental care showed that the staff had positive perception of developmental care where respondents felt that providing developmental care could improve the health and development of the infants (Van der Pal et. al., 2007). However, there was still a misunderstanding caused by lack of knowledge about developmental care (Ho-Mei & Chen, 2006), thus there were many nurses who did not apply the acquired knowledge related to developmental care in providing nursing care to neonates (Brown & Mainous, 2009). Based on this, it is needed to provide information in order to improve knowledge of nurses about developmental care.

This study found a significant improvement of knowledge before and after the provision of information about developmental care with p value = 0.000. It showed that the provision of information could improve knowledge, attitudes, and practice of nurses related to developmental care. It was supported by a research conducted by Milette, Richard and Martel

(2005) on the evaluation of training programs in nursing neonatal developmental care which showed a significant improvement of knowledge after the training.

This study also found a significant difference in the attitudes of nurses towards the developmental care before and after the provision of information. This was in line with research conducted by van der Pal et. al., (2007) about staff's opinion related to NIDCAP where nursing staff had more positive attitudes than the medical staff. Other supported research was a research on the effects of lactation education program for nurses on NICU who showed that the education program was effective to improve knowledge and attitudes of nurses (Bernaix et. al., 2008).

The practice of nurses in caring for LBW including: reducing lighting by covering the top of the incubator, giving the exact position to LBW, giving divider (nesting) to minimize stress and facilitate the flexion position, and reducing the excessive stimulus with minimal handling showed significant improvement after the provision of information about developmental care. It showed that the provision of information in this study was effective to improve the attitudes of the nurses for supporting developmental care. The result of this study was supported by the research about the improvement of nursing care to neonates through developmentally supportive care training program which showed that there were many nurses gave more attention to the infants bathing after the training program (Liaw et. al., 2009). It showed that there was a change of the attitudes of the nurses in caring for the infants after being given the training program.

Some factors affecting the educational process such as input, methods, materials, educators, and the use of assistive devices (Notoatmojo, 2010). The method of providing information in this study was group discussions, demonstrations, and clinical practice. This method was chosen because the number of group members in each session was about 3-6 people. It was in line with a theory that small groups consisting of less than 15 people were suggested to use group discussion, brainstorming, role playing, and simulation (Notoatmojo, 2010). It was also supported by research about knowledge and attitudes of nurses in fever management after an educational program using a method of facilitating and supporting the change of the group that showed significant improvement of knowledge and attitudes in the intervention group (Edwards et. al., 2007).

The provision of information was also carried out by the method of clinical practice. The researchers gave opportunity to the participants to practice directly on patients about learning material, which had been given the previous example. Based on social learning theory, human behavior is not simply an automatic reflex or stimulus, but also consequences which arising as a result of a reaction between the environment and human cognitive schema (Bandura, 1977 in Shah, 2005). Bandura also explains that the process of learning initiated from the stimulus of model behavior and ended with the appearance. In this study, the researchers gave the example of the practice of developmental care directly to patients, therefore; nurses could do what researchers were doing to the patients.

To enhance the understanding of the material in this study, besides using printed media such as booklet, the researchers also used electronic media like LCD and laptops to display the content and video of developmental care. This was consistent with a research conducted by Liaw et. al., (2009) in improving the ability of nurses which attempting to support the development of care, using method of presentation and video observation. It was proven to be effective for the improvement of the nurses' ability to provide support development.

Conclusion

The scores of knowledge, attitudes, and nurses' practice before being given the information about developmental care was lower than the scores of knowledge, attitudes, and nurses' practice after providing the information. There was a significant improvement in the mean scores of knowledge, attitudes, and practice before and after the provision of information about developmental care. The characteristics of respondents did not affect the improvement of knowledge, attitudes, and practice of nurses after being given information about developmental care.

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