

Healthy Parenting Skills Program toward First-Time Father's Skills on Caring for Newborn Baby

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Purpose: This study is to examine the effects of skills training program named healthy parenting program on first time father skills. The skills are baby bath and umbilical cord care, baby blanket, burping and handling the baby, baby lullaby and replace baby clothes.

Method: This is a quasi experiment study. Sampling technique is purposive sampling with 30 first time father with 0-28 days new born baby. Sample equally assigned into experimental and control groups. Subject in experimental group received healthy parenting skills program, while control group was given routine care only. The instrument is observation guideline. Wilcoxon and Man Whitney Test are used to analyze data.

Result: Father' skills in experimental group after receiving the program are statistically increased from before the program (bathing and umbilical cord care, baby blanket, baby burping, baby handling, baby lullaby, replace baby clothes).

Conclusion: Father' skills in experimental group after receiving the program are statistically increased over control group (bathing and umbilical cord care, baby blanket skill, baby burping, baby handling, baby lullaby, replace baby clothes). Suggestions are the educational efforts by health-care professionals could beneficially be directed toward fathers throughout prenatal and postpartum periods. Health center in Indonesia should initiate class program directed to father in part of program in reducing neonates and post partum mothers health problems.

Key words: first-time father, neonate care, healthy parenting

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Introduction

The postpartum period is a time of enormous psychological impacts for first-time parents (Pollock et al., 2005). Several references found that psychological status of first-time father facing newborn baby (Clinton, 1987; Brown, 1986). The study of Clinton (1987) compared 81 expectant fathers and 66 non-expectant men over the course of a year at monthly intervals. He concluded that from a psychological perspective, the psychological transition to fatherhood is as dramatic as that to motherhood. Brown (1986) in a study involving 313 couples in the second half of pregnancy had a similar conclusion. In a more recent study conducted by the Royal Melbourne Institute of Technology (RMIT) and the University of Melbourne, it was found that first time fathers experience depression and anxiety during pregnancy.

Besides being a first-time father facing anxiety, there are many studies found that often father spend less time caring for their newborn than mother (Dachman, et al., 1986; Kimmel & Aronson, 2004; Ninio & Rinnot, 1988). However there are trends including an increasing number of mothers who are employed outside the home, a greater percentage of legal decisions awarding child custody to fathers, enhanced father participation in labor and delivery, earlier postpartum hospital discharges, an increase in the percentage of Caesarean-delivered infants, a rise in the survival rate of low-birth-weight preterm infants, and the diminished role of the extended family as a major support mechanism, the economic considerations (Brown, et al., 2004; Cooke & Barclay, 1999; Dachman, et al., 1986; Johansson et al., 2010). These trends as a major force to the father to be involve in caring their baby as early as possible. However it is common reason for the first-time parent that they feel uncertain about everything, especially about nursing and care of the baby (Johansson et al., 2010).

There are studies that found the benefits if a father could interact and care their newborn baby earlier. Father who spend time with their children and are available to meet their children's need also have better relationship with their children (Kimmel & Aronson, 2004) and child development (Fletcher et al., 2004). In order for father being able better care their newborn baby, the training program for the first-time father would be useful for improving the skills of both father and mother. The study of Fletcher et al. (2004) found that fathers that involved in antenatal class they will feel well-prepared for the birth and their role as support person. However the antenatal class does not prepared them for lifestyle and relationship changes.

In this study we focus on postnatal program due to there are lack of health institutions that provide both antenatal and postnatal education program, and at first days of birth mother still very tired, so they need more father's involvement in caring the newborn baby.

This study offers an experimental analysis of a newborn training program on skills improvement for the first-time father. Why should this study be conducted?

This research aims to identify the skills of first-time fathers on caring their newborn and the effects of healthy parenting skills program on the skills of first-time fathers on caring their newborn baby.

Method

This is a quasi-experimental study with intervention and control groups. The study was conducted in Tegalrejo Public Health Center in Yogyakarta Province Indonesia. The sampling technique was purposive sampling with 30 respondents. The criteria were first time-fathers with 0-28 days newborn from a normal pregnancy and delivery, did not have any disabilities that may interfere in caring their newborn baby, and agreed to involve in the research by signing the inform consent. The samples were equally assigned into experimental and control

groups. There were 15 respondents in each group. Subjects in the experimental group received the healthy parenting skills program, while the control group was given routine care only. The instruments in this research were the learning modules and questionnaire of the first-time fathers skills.

Intervention

The meaning of health parenting skills in this research is teaching the first-time father to do the basic skills in caring for newborn baby that be done correctly. The fathers' basic skills are: baby bathing and umbilical cord care, baby blanket skill, burping and handling the baby, sleeping the baby and changing clothes. The researchers taught first-time fathers to do the basic skills on caring the newborn baby.

Data collection

The data was collected as follow: the first-time fathers who met the inclusion criteria were contacted by the researchers and received both a written and a verbal inquiry and information on the purpose of the study and that participation was voluntary. The first-time father data were sought from a Public Health Center in Yogyakarta Province, Indonesia. The first-time fathers' skills were measured before and after the learning session. The pretest, that was to know the baseline first-time fathers skills were conducted in each subjects' home. For the intervention group, the healthy parenting skills were introduced and taught at each participant's home. The researchers were as trainers. First, the trainer demonstrated how to do each newborn care skills on baby dolls, then the fathers practices the newborn care skills observed and corrective feedback given by the trainer if they made mistakes. The first-time fathers were supplemented by learning modules that contained the written materials about newborn care skills. A week after the training, the posttest was done for each first-time father in the intervention group. The same data collection procedures were done for the control group. However, for the control group there was no intervention between pretest and posttest

period. But for the ethical purpose, after the posttest data are collected the control group were introduced and taught the same training program as the intervention group obtained.

Since the data were not distributed normally, thus non parametric analysis was assigned by testing the mean scores of pre and post test training program with Wilcoxon test in both groups and testing the mean difference between intervention and control group with Mann Whitney test.

Result

A total of 30 first- time fathers participate in this study. The subjects equally divided into two groups, with 15 subjects in each groups. Around 43,3% subjects are 21-25 years old and 6,67% are 36-40 years old. The majority education level of subjects is senior high school (66,77%) and majority of subjects’ job are in the private areas (93,33%). Most of participant reported having no prior experience in infant care (80%).

The characteristics of subjects are presented in table 1 as follow.

Table 1 The characteristic of subjects (n=30)

Respondent characteristics	f	Percentage
Age (years old)		
21-25	13	43.33
26-30	12	40
31-35	3	10
36-40	2	6.67
Education level		
Secondary high school	6	20
Senior high school	20	66.77
Bachelor level	4	13.33
Current Job		
Private	28	93.33
Civil servant	2	6.67
Previous infant care experience		
Yes	6	20
Never	24	80

Table 2 described that fathers' caring skills on pre and posttest in intervention group were significant difference, but insignificant in control group as well as on subscales of the Q in both groups.

Table 2 The mean, z, p scores differences between pretest and posttest of intervention and control groups

The skills	Pretest		Intervention group Post Test		Z	P	Pretest		Control Group Post Test		Z	p
	Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Fathers' skills												
Bathing and umbilical cord care	29.20	±10.78	82.85	±7.32	-3.41	0.001	28.08	±10.77	28.24	±10.79	-0.45	0.66
Baby blanket skill (swaddling)	21.42	±11.13	83.80	±4.23	-3.45	0.001	21.89	±10.95	23.80	±9.60	-1.86	0.06
Burping skill	16.66	±6.09	93.33	±6.45	-3.46	0.001	14.16	±9.29	11.66	±7.42	-1.73	0.08
Holding skill	18.33	±7.99	93.33	±9.28	-3.47	0.001	18.33	±7.99	18.33	±10.42	-0.14	0.89
Sleeping skill	23.69	±3.90	85.18	±6.18	-3.43	0.001	23.32	±5.63	24.06	±4.99	-0.41	0.68
Diaper and changing clothes	31.33	±4.41	83	±8.19	-3.43	0.001	30	±4.22	30.33	±3.51	-0.41	0.68

In Indonesian's culture there is a special skill for blanket the baby, named *membedong* or swaddling. Swaddling is an age-old practice of wrapping infants snugly in swaddling cloths, blankets or similar cloth so that movement of the limbs is restricted. However, in this research the swaddling does not practiced tightly restricted the newborn's body movement just to assist the baby sleep. In the control group the first-time father in pre and post test insignificant difference ($p>0.05$) this is different with the intervention group. In the intervention group the mean difference between pre and post training quite striking, which pre test mean is 21.42 (SD: ± 11.23) and posttest mean is 83.80 (SD: ± 4.23) and the statistical analysis also shows that there is significant different for the intervention group between pretest and posttest (z: -3.450, $p<0.01$).

Regarding the burping skills for the intervention group also shows significant different between pretest and posttest (z: -3.46, $p<0.01$). While the data show that there is insignificant different between pretest and posttest for the control group (z: -1.74, $p>0.05$). The holding skills of first-time father for the intervention group also shows an increase in mean score

(mean pretest: 18.33, SD: $\pm 7,99$, mean posttest: 93.33, SD: ± 9.28), while in the control group there is no different mean score between pretest and posttest ($z: -0.37, p > 0.05$).

The first-time father skill on sleeping the newborn baby in the intervention group shows an improvement skill after given the healthy parenting skills training (pretest mean: 23.69, SD: ± 3.90 , posttest mean: 85.18, SD: 6.18, $z: -3.43, p < 0.01$) while control group show insignificant different sleeping skills between pretest and posttest ($z: -0.41, p > 0.05$). For the last skill that is diaper and changing clothes, there is significant improvement skill after the father given the program ($z: -3.43, p < 0.01$), however for the control group there is insignificant skill improvement between pretest and posttest ($z: 0.41, p > 0.05$).

Table 3 The mean, z, p scores differences between intervention and control groups

The skills	Δ Mean			SD	Z	P value
	Exp Group	Control group	Exp-control Group			
Fathers' skills						
Bathing and caring the umbilical cord	53.65	0.16	55.55	± 29.20	-4.68	0.000
Baby blanket skills	62.38	1.91	53.80	± 31.38	-4.78	0.000
Burping the baby	76.67	-2.5	52.50	± 42.09	-4.81	0.000
Holding the baby	75	0	55.83	± 39.35	-4.83	0.000
Sleeping the baby	61.49	0.74	54.62	± 31.56	-4.72	0.000
Diapering and Changing clothes	51.67	0.33	56.66	± 27.49	-4.81	0.000

From Table 3 can be concluded that after the teaching and learning activities the basic skills of first-time father in caring the newborn babies are increasing. All subscales of the fathers' skills were also significantly differences ($p < 0.001$). The highest score of difference mean between intervention and control group is diapering and changing clothes skills, while the lowest score of difference mean is burping the baby. While the highest different mean for the intervention group is first-father skill to burping the baby (76,67) and lowest score is diapering and changing clothes.

Discussion

The results of this study suggest that the training is effective in increasing the performance of newborn-care skills mastered by first-time fathers. The skills are probed in the fathers' home at the early postpartum period to evaluate whether experience in the training program is sufficient to produce competent caretaking. The baseline data across all first-time father both intervention and control groups are revealed low levels of performance. The introduction of training produced an immediate increase in newborn-care skills mastered for the intervention group, while the skills mastered by first-time father in control group remain the same between pretest and posttest.

The results of this study support the findings of Premberg et al. (2008), they suggested fathers are invited to participate in postnatal childbirth education in order for father being competent in infant care. Fletcher et al. (2004) also identify the views of new fathers on antenatal classes had prepared them well childbirth. The postnatal visits by midwives also identified as being useful service as first-time parents in Sweden (Johansson et al., 2010). In this study the midwives strengthened parents' self confident and confirmed that the parents themselves were experts on their child's care and in their own lives.

In the intervention group, the first-time fathers are trained related newborn care skills by demonstrating the skills by the trainer, and then fathers should try to do the newborn care skills. During the first-time fathers are doing the newborn skills, they are observed by the trainer and being corrected if any errors. The first-time father also supplemented with a written newborn care modules. Thus, those training steps might be very useful to increase the fathers' performance after the training program. This relevant with the study of Dachman et al. (1988) that found that modeling and written materials, role play and feedback are important in creating behavior or skill change. There are also studies that suggesting written materials can effect significant behavior change (Miltenberger & Fuqua, 1986).

However, many studies also suggest that beside antenatal or postnatal training program benefits for father to improve their skills in caring the newborn baby, there are also suggestions that the program should also teach and prepare the father in lifestyle and relationship changes after their wife give birth. Barclay and Lupton (1999) reported that, for most men, first-time fatherhood involves significant changes both in self-identity and their relationship with their partner, and the amount of tension the birth caused in their relationship greatly surprised men. Premberg et al. (2008) also suggest fathers are invited to participate in postnatal childbirth education, however they also suggest though fathers entered the delivery room some decades ago, as a support to the woman, health personnel of today must be aware of fathers' own needs and the impact gender aspects have on their professional support. Furthermore, various studies advocate for employing male-specific educational strategies throughout the childbirth period in order to move fathers from their position as a secondary focus in postnatal education to being a primary focus (Friedewald & Newing, 2006; Premberg & Lundgren, 2006).

As mentioned by Premberg et al. (2008) that relationship between father and child was facilitated by engagement and time spent alone with the child. Thus, it is need a more strategy how to postnatal education in orders the parents being able in caring their newborn baby (McKellar et al., 2008).

Conclusion

This study shows the result of newborn-care skills by first-time fathers, but did not address whether those fathers actually took part in more skills at home with their newborn babies than do untrained fathers. In this study there are limitations, in this training we use the doll to train the first-time father. It may be useful when posttest to be done using their own baby. Also we acknowledge that there are limitations to the current study, in particular, due to

small sample size, it is difficult to draw conclusions and generalize from the findings

Finally, the results are statistical and clinical significance. It is recommended that newborn-care training could be implemented in more formalized methods of training for both father and mother and consider specifics topics for each mothers and fathers.

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