

Research Article

Knowledge Regarding Care of the First Newborn Baby among Fathers Attending a Tertiary Level Maternity Hospital of Nepal

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Abstract

Background: Nepal has one of the highest neonatal mortality rates in the world. Studies have shown father's knowledge and involvement in caring for the newborn to be mutually beneficial to both the partners and the baby.

Objectives: This study was to explore the level of knowledge on feeding, keeping warm, bathing and immunizations regarding newborn care and to find if there is a relationship between knowledge level and socio-demographic characteristics of fathers with their first new born babies.

Methodology: Sixty fathers with their first newborn baby at post natal ward of Paropakar Maternity and Women's Hospital, Kathmandu were selected randomly and interviewed to explore their knowledge on different aspects of newborn care. Relation of their knowledge regarding newborn care with different socio-demographic characteristics of the respondent was observed.

Results: Colostrums was believed not to be suitable for newborn feeding by 10% fathers. Fathers from advantaged caste group were found to have good knowledge ($p = 0.05$) while fathers with low educational attainment were found to have poor knowledge on keeping the newborn warm ($p=0.006$). Almost 10% fathers did not know the significance of immunization.

Conclusions: Fathers knowledge on caring the newborn was good, however little education on cleaning aspects of newborn care was found necessary. More studies are required in the rural settings where people's knowledge on newborn care is expected to be low.

INTRODUCTION

Newborns are the future backbone of the country; they are vulnerable and need special care by parents and health personnel. Nepal has one of the highest neonatal mortality rates in South East Asia (33 per 1000 live birth) [1]. Many interventions to reduce neonatal mortality are already well identified in Nepal, such as those included in the Safe Motherhood program, broader reproductive health programs, the Integrated Management of Childhood Illness (IMCI), Maternal and Neonatal Tetanus Elimination (MNTE) Program, Immunization and Nutrition initiatives [2]. Fathers are important components in the indicators set for monitoring of neonatal health and survival.

Despite previously held beliefs that fathers were important to children only as economic providers and disciplinarians, fathers have been increasingly shown to be important contributors to the overall development and well-being of their children [3]. Recent increase in immigration and growing cultural diversity are two more sources of change in the roles, expectations, and involvement of fathers [4]. Despite new expectations, related responsibilities, and evidence-based knowledge regarding fatherhood, many men still enter fatherhood with little idea of their new role and how it will affect their own lives [5]. They may be unprepared for the challenges of fatherhood yet excited to take up the task. Some may lack role models or previous experience

with care giving responsibilities; others may fail to realize the importance of their involvement to their children and families [6]. Various studies have shown higher father involvement to be associated with improved receptive language skills, higher cognitive skills [7], higher infant weight gain for preterm infants [8], improved social and adaptive behavior, higher academic achievement, fewer behavioral problems, and a lower likelihood of neglect [9]. The long-term effects of fathers' direct involvement in the care of their children manifest through childhood and adolescence [6].

Although researchers have included health and medical issues as part of their framework for thinking about fathers involvement, to date, little research has evaluated the extent of a father's involvement in his child's preventive health care and which factors influence that involvement [10]. Studies examining the parent, infant and environmental correlates of mothers' and fathers' perceptions of their parenting self-efficacy have found mothers scores to be higher than fathers scores in parenting self efficacy [11]. A study done in the postnatal wards of a major public hospital to explore new/subsequent fathers' perspectives on the experiences, processes, and life changes in the early weeks of fatherhood revealed that although rewarding, fathers found new or expanding fatherhood to be a significant challenge and time of change [12]. Studies also have found pregnancy, rather than the postnatal period, to be the most stressful period [13], 'living in a new and overwhelming world' [14] for men undergoing the transition to parenthood. Despite growing interest among men in pregnancy, birth, and infant care, we know little about men's experiences in the weeks and months before and after they become fathers. Published clinical and sociological literature emphasizes the difficulties some fathers have but tells us little about fathers more common experiences.

With the exception of certain ethnic communities of the Tibeto-Burman group, Nepali society is predominantly patriarchal, governed by Hinduism as a strong ideological force. All aspects of growth and development caring for the child is primarily provided by the mothers. The father is typically the bread winner, moral teacher and a sex-role model. With increasing trend of women entering the work force, newborns are getting less attention. Studies have shown that fathers are competent as mothers in care giving provided they have good knowledge. Current data regarding the involvement of fathers in newborn care is not available from Nepal. The purpose of this study is to find the socio demographic factors influencing the knowledge regarding care (feeding, cleaning and immunization) of first time fathers attending a tertiary level maternity hospital in Kathmandu, Nepal.

METHODOLOGY

This is a cross sectional descriptive study done at post natal ward of Paropakar Maternity and Women's Hospital (PMWH), Kathmandu. The study duration was of 6 months starting 1st of March 2011. Consent for the study was obtained from institutional review board of PMWH.

Two fathers with their first new born baby delivered and present at the ward of PMWH were selected randomly in a day for interview. Having explained objectives of the study and its

utilization verbal consent for participation was obtained from the respondents. A pretested semi structured questionnaire was used for data collection. The questionnaire included questions on socio-demographic information of the fathers and their knowledge regarding feeding, clothing, maintenance of hygiene and ways to prevent newborn from acquiring a disease. Questions were administered by researcher in the native language Nepalese. Fathers who were not able to communicate (hearing defect, speech disorder) and those who had more than one baby were excluded from the study. Participants' confidentiality was ensured at every step. Informal education was provided to the respondent about newborn care at the end of data collection. Data was checked for completeness, accuracy and consistency on the same day of collection. Data entry was done, edited and analyzed using SPSS software version 14. Simple frequencies and relationships between variables were calculated. Descriptive method was used for interpretation of study results.

RESULTS

Socio demographic profile of the respondents

A total of 60 fathers were included in the study. Median age of the fathers was 28 years (mean age 29.5 years) and ranged from 17 to 35 years. Most of the fathers were Hindus by religion (88.3%) that came from Newar and Chhetry communities (23.3% each). Majority of the fathers (61.7%) came from urban areas of the country. Almost half (46.7%) fathers had educational attainment of higher secondary level or above and majority of them (63.3%) were either service holders or businessmen.

Involvement of fathers in newborn care

Majority (55%) of the fathers defined newborn care as the care given to newborn right after child birth. Another 40% of the fathers said that newborn care was the care given to newborn up to 6 months or one year of babies' birth. More than half (53.3%) of the fathers correctly pointed out that proper newborn care was important for the physical and mental development of the child. However, 15% of the fathers were found to be unaware on the importance of newborn care. Almost all (98.3%) fathers said that they had an important role in the care of their newborn. Among those who said that fathers' role was essential in care of the newborn, 84.7% said newborns care is improved when both the parents were involved. Around 12% fathers suggested mothers got the opportunity to do other household works or work outdoor when father gave a helping hand in taking care of the newborn .

No significant relation was observed between the involvement of fathers in newborn care with the socio-demographic and socio-economic variables on bivariate analysis (Table 1). Involvement however was found to be good in fathers of the age group 15-24 years, fathers of advantaged caste, Hindus, service holders and urban citizens. The involvement of fathers in newborn care was found to be low when fathers level of education was primary level or below (OR=1.6) and when fathers were from a nuclear family (OR= 2.2).

Paternal Knowledge about feeding newborn

On enquiring on the best feed for a newborn, the fathers

Table 1: Relation between involvement of fathers on new born care and demographic variables (n=60).

Demographic variable	Involvement of fathers		Chi square, p-value	Odds Ratio, 95% CI
	High	Low		
Age group				
15-24	10	10	1.250, p=0.26	0.538, 0.181-1.603
>24	26	14		
Caste				
Advantaged	21	15	0.00, p=1.00	1.00, 0.351-2.851
Disadvantaged	14	10		
Religion				
Hindu	32	4	0.03, p=0.87	1.143, 0.232-5.63
Others	21	3		
Education				
Primary or below	16	20	0.74, p=0.39	1.6, 0.55-4.68
Secondary or above	8	16		
Occupation				
Service	11	25	0.78, p=0.37	0.61, 0.21-1.81
Others	10	14		
Residence				
Urban	23	13	0.19, p=0.67	1.26, 0.44-3.64
Rural	14	10		
Family Type				
Single	19	17	2.22, p=0.13	2.24, 0.77-6.53
Joint	8	16		

unanimously opined that breast milk was the ideal. However, only 9% fathers stated that colostrums should be fed to the newborn. Among 6 fathers who said colostrums was not suitable for the newborn, 33% fathers said that it caused diarrhoea among newborns while another 33% fathers believed it was harmful to the newborn.

Regarding the commencement of feeding, 93.3% fathers suggested that first feed should be given as soon as possible. However, 1.7% of the fathers were unaware on when to start. Upon asking whether the newborn needed any other food besides the breast milk, 81% of the fathers correctly pointed out they needed none, 15% fathers told they needed something else as well while 3.3% fathers didn't know if anything other than breast milk was required. Among fathers (9, 15%) who believed that other things besides breast milk should be given to a newborn, option of breast milk feeding was inquired. One third (33.3%) gave an opinion of honey followed by water and lito/ jaulo (22.2% each) as the first option of breast milk. When fathers were requested to answer what other thing would be good for a newborn in a medical condition when breast milk was not available, majority (53.3%) replied things recommended by a doctor to be fed. Another 33.3% fathers suggested commercial products; lactogen/ cerelac etc. while 13.3% fathers gave opinion for domestic products to be fed.

Among fathers (51, 85%) who disagreed with an option for breast milk feeding, reason why other feed should not be given to newborn was explored. In response 60.8% fathers said other

feeds were not digestible and 33.3% fathers believed that other things were not good for newborn's health. However, 3.9% fathers didn't know why other foods should not be given to the newborn.

Upon asking the fathers how frequent the newborn needed to be fed, 66.7% fathers stated that they had to be fed at an interval of 2-3 hours. Need of feeding whenever baby cries was replied by 18.3% fathers while 3.3% fathers didn't have any idea on the feeding frequency. Paternal knowledge on feeding newborn was not found to be significantly associated with the demographic variables.

Paternal knowledge about keeping the newborn warm

When respondents were inquired on the frequency at which a newborns diaper needed to be changed, 70% of the fathers recommended a change when the diaper got dirty. Change at an interval of 1-2 hours was mentioned necessary by 23.3% fathers while 3.3% fathers told the change to be made when baby cried. When fathers were asked what they would do when they change the newborns wet diaper, almost all (91.7%) fathers told that they dried diaper outdoors in the sun after washing it. However, another 6.7% fathers told that they would hand over the diaper to the baby's mother for its cleaning and drying. When fathers were asked on the ways to clean meconium of the newborn, 43.3% replied washing with warm water, 38.3% told wiping with wet and soft cloth while 16.7% suggested washing

with soap and water. Upon asking the proper way to clean the excretory organs of the newborn, 30% fathers told it was good to clean whichever way it was comfortable. Only 28.3% fathers gave correct answer of cleaning front to back. Incorrect answer of cleaning back to front was given by 16.7% fathers while 25% fathers lacked knowledge about the cleaning procedure. When fathers were requested to reply on the suitable time for first bath for the newborn, 48.3% fathers told it was good when the baby was bathed on the second day after birth. Bathing right after birth was mentioned by 23.3% fathers. Upon asking the fathers about the proper way to clean the eyes of newborn, 41.7% fathers mentioned boiled water made cool. Oil was found good by 33.3% fathers while 16.7% gave opinion on breast milk as the best to clean the eyes of newborn. However, 5% of the fathers didn't know on ways to clean the babies' eyes. Upon asking the fathers about the proper way to clean the umbilical area of newborn, 40% fathers mentioned boiled water made cool. Oil was found good by 36.7% fathers while 13.3% gave opinion that nothing should be used to clean the umbilical area of newborn. However, 8.3% of the fathers didn't know on ways to clean the babies' umbilical area. When fathers were asked if sun bathing was essential for their newborn, 96.7% fathers told it was indicated. Only 3.3% fathers gave the opinion that sun bath was not good for the newborn. Paternal knowledge on cleaning newborn was not found to have significant association with any of the demographic variables identified for the study.

Paternal knowledge about immunizing newborn

Fathers when asked about the necessity of immunizing their newborn unanimously agreed that they should be. Upon further exploring the reason why immunization was essential, majority (91.7%) fathers told that it prevented newborn from diseases. A small number (5%) fathers however told that newborns were immunized simply because everyone is immunized. When fathers were asked when it was the best time to have their newborn immunized for the first time, 88.3% fathers replied day within 45 days after birth to be the best. Another 3.3% fathers told it was best to immunize after 45 days while another 3.3% didn't have any idea on first time immunization of newborn. When fathers were asked how they would take their newborn to the immunization center for immunization majority (78.3%) fathers they would take both mother and newborn to the center. They would carry the baby alone according to 13.3% fathers while 6.7% fathers told they would request baby's mother to do so. Upon asking the fathers to identify the primary signs of illness among newborn, 90% of the fathers said that they cried and resisted sucking breast milk. Diarrhoea with vomiting and coughing plus difficulty in breathing was identified by 3.3% fathers respectively as primary signs of illness among newborn. Upon exploring the place where fathers would visit for health care when their newborn needed any, almost all (98.3%) fathers told they would seek health services from health facility while 1.7% fathers did hold superstitious belief of traditional healing. The knowledge of fathers on immunization of newborn was not found to have significant association with other socio-demographic characteristics of the respondent.

DISCUSSION

Despite previously held beliefs that fathers were important to children only as economic providers and disciplinarians, fathers

have been increasingly shown to be important contributors to the overall development and well-being of their children. Appropriate knowledge on feeding, maintenance of temperature, cleaning and immunizing can be life saving to the newborn at no expense of extra cost and resources. Fathers' knowledge on these and many other aspects of newborn care provides an important support to the mothers who are expected to bear the sole responsibility of child raising in a traditional Nepali society. Realizing this fact the current study tried to explore the level of knowledge on different aspects of newborn care among fathers whose wife had recently given birth to their first baby at a tertiary level hospital in Nepal.

A study done by Winsome John et al have found that fathers needed to balance the demands of work and home so that they could give time to their family and newborn [15]. This study did not show any deviation in the level of knowledge among fathers with their existing occupation. Another study done by Condon John et al had found the postnatal period to be less stressful than the pregnancy period [13]. This study goes in agreement with that study as fathers seem to be well prepared to take care of their newborn. Good knowledge on different aspects of newborn care indicates that babies born to these fathers are going to be well taken care of. The mothers of these babies seem to be benefitted with the expected support to be provided by the fathers.

Fathers in this study have been found to have sufficient knowledge on new born care, and they involve themselves in the newborn care. But, there are situations wherein a Nepali society would not allow them to participate in newborn care. Our society still does not see a man capable of and competent at being responsible for new born care. Though gender roles in our society are not clear, the definition of parental role has emphasized fathers' involvement in newborn care. Mothers can also actively encourage her mate to share the experience of becoming and being a father. This helps to gain self confidence in fathers and promote their involvement in newborn care and the babies benefit in many ways from fathers involvement. Newborn care practices are beyond the exploration of this study so this study cannot predict that all the fathers with their first newborn baby despite good knowledge in newborn care will certainly apply their knowledge and willingness in their practical life.

CONCLUSIONS

Almost 60% of the fathers were found knowledgeable on newborn care matters. The involvement of fathers in newborn care was found poor (OR=1.6) when fathers level of education was low and when their family was of an extended type (OR=2.2). Knowledge of fathers on feeding the newborn, different aspects of keeping the newborn warm, cleaning and immunization was found to be good. Fathers from advantaged caste group were found to have good knowledge ($p=0.05$) while fathers with low educational attainment were found to have poor knowledge ($p=0.006$) on newborn care. Awareness at this level even in an urban setting puts a demand for awareness raising activities in the rural settings of Nepal where the awareness among fathers on newborn care can be expected to be less.

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