

RESEARCH NOTE

MATERNAL AND CHILD HEALTH STATUS IN JIREL COMMUNITY

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Introduction

The health status of population is a reflection of the socio-economic and cultural development of the country and is shaped by a variety of factors such as the level of income, housing, sanitation, water supply, education, employment, health consciousness, personal hygiene and the coverage, accessibility and affordability of health care delivery services (Ali 1991: 1). Thus, health is a function, not only of medical care, but also of the overall development of society— cultural, economic, educational, social and political. Health status of a society is intimately related to its value system, its philosophical and cultural traditions and its social, economic and political organization. Each of these aspects has a deep influence on health, which in turn influences all these aspects (Voluntary Health Association, 1992: 175). Poverty is a fertile ground on which a number of diseases suffered by the poor grow and affect. In addition, poverty is directly related to poor social status, which drastically reduces the access of the poor to the available health care resources, making them further vulnerable to diseases (Resource Centre for Primary Health Care 1997:1). Thus the health status of an individual, a community or a nation is determined by the interplay and integration of two ecological universe: the internal environment of man himself and the external environment which surrounds him. A full understanding of health needs to see humanity as a part of an ecosystem. The human ecosystem includes, in addition to the natural environment, all the dimension of man-made environment— physical, chemical, biological, in short, our culture and all it's products (Park 1994: 17).

In Nepal, the state of health all over the country is not satisfactory. Nepal has been facing many health-related problems due to poor socio-

economic and cultural environment, inadequate safe drinking water supply and health care facilities, malnutrition, under nutrition, poor environmental sanitation and high population growth. Health status is uniformly poor in Nepal-with infant mortality rates (98 per thousand live births) among the highest in the world and life expectancy (55 years) the lowest. Child Mortality is 165:1000 live births and maternal mortality is 875:100000 live births (Nepal South Asia Centre, 1998: 56-59).

Although the health care delivery system in Nepal has been expanded significantly over the last 35 years, most people do not get the benefits of the existing health services. This is so for several reasons: because it is not accessible for them, because they can not afford to use them for economic reasons, because they do not have adequate information about them or because they do not believe that these services can help them. The people of the Jiri VDC are no exception from the situation of our country and in the case of Jirel, the status of health is worse than the others due to their large-scale poverty, inaccessibility, illiteracy and traditional culture domain society. However, the present study attempts to analyze the maternal and child health status in the Jirel Community depending upon certain socio-culture factors.

Village Background

Jiri V.D.C. of Dolakha district is the study area for this study which is located between 27°35'-27°40' North latitude and 86°10'-86°15' East longitude. The total area covered by this V.D.C. is about 300 sq.km. and the altitude varies from 1600 m. to 3600 m. from the sea level. The average altitude of the V.D.C. is about 2000 meter. It is about 200 km. far from the capital and about 35 km. far from the Charikot, the district headquarter. Annual rainfall of this V.D.C. is about 2250 mm. Maximum temperature of January and June is about 11.9°C and 22.3°C respectively while the minimum temperature of the same months occur - 0.4°C and 17.1°C respectively. It is bordered by Jugu V.D.C. in north, Thulopatal and Kavre in west, Mali V.D.C. in east and Rasnal (Khimtikhola) of Ramechhap district in south.

Data and Method

A descriptive research design based on random sampling method was adopted in this study. The observed facts, conditions and events regarding the health

status of Jirels have been presented by adopting an exploratory interpretative approach. The study was conducted during 2055 B.S.

Out of the total number of households 1620, the number of Jirel's households is about 871 (Source: V.D.C. Office, 2054). On the basis of this information, the following procedure was applied to determine the sample size for the purpose of the study.

$$\begin{aligned}
 \text{Formula: } N &= 16 pq/d^2 \\
 \text{Where, } N &= \text{Sample size,} \\
 p &= \text{Proportion of Jirel households,} \\
 q &= 1-p \text{ and} \\
 d &= \text{Degree of confidence} \\
 \text{Thus, } p &= 0.53, q = 0.47 \text{ and } d = 0.05 \text{ (assumed)} \\
 /N &= 16 \times 0.53 \times 0.47/0.05^2 \\
 &= \frac{3.98}{0.025} \\
 &= 159.2 = 160
 \end{aligned}$$

Thus, 160 households were taken as sample for the present study. To get the ward-wise sample households, the percentage of the households of the given ward to the total household was calculated and then, sample size was taken in that percentage. To select the individual household, method of random sampling was applied. For this, the list of the household owner was taken from the VDC office and then lottery method was adopted to select household for interview.

Date and other information for present study were obtained particularly by primary and then secondary sources. To collect the primary data, sample size was determined. To find out the information regarding the maternal and child health status a set of questionnaire was designed. Key information survey checklist was structured mainly to gather information regarding their traditions, religion, habits and cultural beliefs. After completion of the task of data collection they were checked and verified in the field.

After collecting the data and information, they were rechecked and tabulated manually under different headings and sub-headings. The techniques employed for the interpretation of the available data and information are mostly descriptive. Statistical tools are used wherever possible.

The Jirels are a relatively small ethnic group estimated to be only 3,525 individuals in 1985 (Blangero 1987, Quoted in J. Hamill et al, 200:53). Geographically they live in approximately nine villages, all of which are located in the Jiri region. Some ethnohistorical researchers have suggested that the Jirels are the descendants of a mating between a Sunwar woman and a Sherpa man (Fournier 1974 quoted in J. Hamill et al, 2000:54). It is clear that Jirel culture is closely related to that of the Sunwars (Bista 1980 Quoted in J. Hamill et al, 200:54). Both Jirel and Sunwar may be seen as belonging to a larger ethnic grouping known as the Kiranti (Fournier 1974 Quoted in J. Hamill et al, 2000: 54).

Jirel's population is very low in comparison to other ethnic groups of Nepal. The population data about Jirels provided by CBS seems very low due to under census. At the time of field visit, the key informants reported that some Jirels, who were migrated from Jiri 'Sikri valleys to other areas of the country, felt difficult to adjust in that community. That is why, they changed their original title and began to get titled as Thapa, Rai, Khadka etc. to be adjusted in the society. So, at the time of population census they were included as other titles rather than as Jirels

The population distribution of Jirels is highly concentrated to some parts of Dolakha and Sindhupalchok districts. Jiri-Sikri valley, Jungu Darka, Chetpu, Chhetrapa of Tama Kosi belts of Dolakha district and Buwanthali, Tyanthali, and Karthali villages of Sindhupalchok district are some densely populated major areas of Jirels. Similarly, Sindhuli, Chitwan, Makwanpur, Bara and Parsa and some eastern and central Terai areas to where Jirels migrated and settled. In India, they are settled in Bhopal, Calcutta, Sikkim and Darjeeling.

Maternal and Child Health status

Maternal Health Status: Child health is closely related to maternal health. A health mother brings forth a healthy baby. The mental and social development of the child is also dependent upon the mother. For these reasons, the mother and child are treated as one unit. The work burden for female in Nepal is higher than for male. Women contribute about two-thirds of the total number of hours worked throughout the country. They work in all aspects of cultivation. Most of the post harvest work goes to women. While women produce much of the food in the country, they are the most likely to be undernourished. The daily time input for home economic activities or "expanded economic activities" (food processing, water

fetching, food and fuel collection etc.) for female is higher than for male in Nepal but their control over the household economy is too lower than that of male. Women are not free to spend their income according to their needs and most of the households headed by male do not pay attention to the female health. The socio-cultural disparity in access to economic resources and social services are major reasons for their health hazards. Jirel mothers are no exception to the national syndrome of rural women situation.

Present study has gathered information regarding maternal and child health status by asking structured questionnaire for senior Jirel mothers who had given a birth during the last five years. In the sample households, the number of Jirel mothers, having at least one under five child birth, were 113.

Pregnancy and Antenatal Care: Traditionally, antenatal care has not been practiced by Jirel women. Pregnancy is usually diagnosed symptomatically by the woman herself. Jirel women (especially illiterate) are shy about discussing pregnancy and it becomes known to outsiders only when there are visible signs. Women are still not encouraged to seek antenatal care due to cultural modesty.

Out of the 113 mothers, 70 mothers (61.9 percent) reported that they did not take any clinical examination during their pregnancy and only 13 mothers (38.1 percent) had taken tetanus toxic (TT) immunizations. Most of the Women were not taken extra-antenatal foods. It was observed that mothers themselves have no proper knowledge about the need of extra foods during pregnancy.

Table 1
Consumption Pattern of Antenatal Food in Sample women

Categories	Number	Percent
More than usual	19	16.8
Same as usual	65	57.5
Less than usual	16	14.2
Do not know	13	11.5
Total	113	100.0

Source: Field Survey, 2055

Table 1 is an indicator that only 19 mothers (about 16.8 percent) took additional food during pregnancy whereas 65 mothers (about 57.5 percent) reported that they took food same as usual. Similarly, the mothers reporting 'less than usual' and 'do not know' were 10 (about 14.2 percent) and 13 (about 11.5 percent) respectively. Vomiting and feeling uneasy after food were identified as main reasons by sample mothers for eating less than usual.

At the time of survey, it was found that the pregnant Jirel mothers were also smoking and drinking alcohol without caring about health hazards. About 43 percent of the sample mothers reported that they were smoking cigarettes at the time of pregnancy from five to 20 a day. In general, from the inception of pregnancy to its termination, no special nutritious diet is consumed by women, and their intake of iron, calcium and vitamins during pregnancy is poor.

Delivery Services: In Jirel community as other community of Nepal birth is seen as ritually polluting. This means that the place of birth is also regarded as polluting. Therefore, most of the birth take place in non ventilated ground floor. Some births take place in animal shed also. Prior to actual delivery, the women in labor is not considered polluting and can be touched and assisted by family members. Traditional practices including massaging the laboring women, chanting mantras, performing rituals and giving special food and drinks are common before delivery. However, information regarding place of delivery and type of assistance received by sample mothers during delivery for last birth occurred in the last five years in the sample households were gathered for this study. Majority (about 84 percent) of the sample mother respondents reported that the last births were delivered at homes whereas only about 16 percent births were delivered at hospital. Similarly, the respondents reported that only about 19.5 percent of the births were delivered by trained health workers, 28.9 percent by neighbors and about 27.4 percent by relatives. Remaining about 14.2 percent of the births were delivered by *Sudeni*/Traditional Birth Attendants (TBA) including trained and untrained (Table 2)

Table 2
Assistance During Delivery

Assistance	Respondents	Percent
<i>Sudeni/TBA</i>	16	14.2
Relatives	31	27.4
Neighbors Hospitals/ Health workers	44	38.9
	22	19.5
Total	113	100.0

Source: Field, Survey, 2055

Post-natal Care: The new mother had baby and family members who come into contact with the birth pollution is considered ritually impure until a purification ceremony is performed. In the third day of new born child, the head of the family sprays the 'Ghahat' all over the house and to all family members including newly born child. But the mother is not permitted to touch drinking water and other things of that house up to the seventh days. It is believed that if any farm works are conducted within seven days the productivity of the soil will decrease and planted corps will dry-up. In the seventh day, mother of the newly born child washes herself and 'Gahat' is sprayed inside and outside the house with ritual ceremony. Now, the mother, baby and the total family members are considered pure. This kind of ritual beliefs has been helping to regain health and strength of mothers. Certain heavy works are restricted at least for one month.

There are no strict restrictions on eating green and leaf vegetables as postnatal feeds in Jirel community. Meat, oil and ghee are mostly included as postnatal foods to build strength and increase milk supply and the new mothers are fed three times a day rather than just two. The varieties and duration of additional food supplement was found dependent upon the income, social status and behaviour of the family.

Child Health Status

Child health status is one of the basic indicators in examining the people's health status. After birth, the child is dependent upon the mother. That is why, child health is closely related to maternal health. The mental and social development of the child is also dependent upon the mother. It is said that the basic determinants of a child's health are in the hands of parents, not doctors. The socio-economic and cultural factors mostly affect the child health. For instance, the availability and quality of health care, breast

feeding practices, literacy level of the parents (especially of mothers), age old habits, customs, traditions, affecting cleanness, eating, clothing, child care etc. impinge influence upon child health status.

In the sample households, there were 47 infants of under one years age group and 1258 children of under five age groups.

Breast feeding and Weaning Practices: Exclusive breast feeding is necessary and sufficient to meet the nutritional needs of infants up to the age of 4-6 months (UNICEF, 1992:60). It protects the child from diarrhea and acute respiratory infections (ARI) and other diseases. It is quite encouraging that hundred percent of the sample mothers breastfeed their children in Jirel community and however, it seems insufficient and inadequate for the child beyond 6 months of age. The sample mothers having under five children informed that more than three-fourths (about 75.1 percent) of them breastfeed their children for one or more years. The prolonged breastfeeding (for more than two years) was practiced by 57 mothers (about 59.4 percent). Mothers who worked as porters suffered from diseases, and they breastfed their children for only six months (Table 3).

Table 3
Breastfeeding by Sample Jirel Mothers

Duration	Respondent	Percent
6 Months	10	8.8
1 years	17	15.1
1-2 years	29	24.7
More than 2 years	57	50.4
Total	113	100.0

Source: Field Survey, 2055

It was identified that some Jirel mothers provide cow or buffalo milk to the newborn until the mother milk comes in. When sample mothers were asked how often they breastfed their newborns, about two-thirds (71.7 percent) of the sample respondents replied whenever the baby cries. However, in reality, most women were engaged in various domestic works including farming, cattle rearing and fuel and fodder collection away from the house and therefore can not breastfeed so often.

Traditionally, girls at five months and boys at seven months of age are introduced to solid food at the rice feeding ceremony (*pasni*) in Jirel

community. This is a culturally acceptable and scientifically approved time for introducing semi-solids. However, the ritual does not confirm that the child will continue to receive semi-solid as required.

Table 4
Variety of Foods Offered to the Child
by Sample Jirel Mothers

Food Items	Respondents	Percent
Milk-Dal-Bhat/Dhindo	78	69.0
Lito	40	35.4
Meat and fish	13	11.5

* The figures are based on multiple responses

Source: Field Survey, 2055

Table 4 indicates the fact that a majority of the infants were fed milk-dal-bhat/dhindo and lito by Jirel mothers. Very few mothers fed meat and fish to their children occasionally.

Infant Mortality: It is an indicator of socio-economic environment and general health-status of a particular area. Infant mortality is higher when mother has no education. Lack of proper spacing between births, unhygienic conditions at the time of birth, inadequate immunization coverage, low status of knowledge regarding preventive care, lack of proper and timely health services are some important reasons which affect the infant mortality.

The total number of deaths under one year of age in the sample households was 5, out of 47 live births during a period of one year. Thus, the calculation of the infant mortality rate of the sample households comes about 106.38/1000, which is slightly higher than the national average (i.e. 102/1000)

Infant Mortality Rate (IMR) was calculated using the following formula:

$$IMR = \frac{D_o}{B} \times 1000$$

where, IMR = Infant Mortality Rate

D_o = Number of deaths of under one year of age during a period of one year

B = Number of live births at that period.

Table 5
Causes of Infant Mortality in Sample Households

Causes	Number	Percent
Incapable to breastfedding	1	20.0
Diarrhea/Vomiting	1	20.0
Fever/Typhoid	2	40.0
Not identified	1	20.0
Total	5	100.0

Source: Field Survey, 2055

Table 5 shows the fact that the large proportion of the infant (about 40 percent) died due to fever/typhoid and remaining other causes comprise equal proportion during a period of one year. From the survey, it was identified that an overwhelming majority (about 80.5 percent) of the sample mothers preferred first to go to the *dhami/jhankri* ('phombo' in Jirel language) for the treatment of their children even in diarrhea cases. Inaccessibility and lack of well-equipped modern health facilities were other reasons for their deaths.

Immunization: Immunization is one of the most important indicators of child health status which helps to reduce child morbidity and mortality. Information regarding immunizations of infants (under one year of age) was obtained by asking the mother respondents to show the vaccination card or to recall (who had lost their cards) which vaccines were given to their infants. In sample households, out of 47 infants, 12 (about 25.5 percent) had not received any immunization. The percentage of children receiving DPT, BCG, Polio (OPV), Measles and TT were 74.3, 62.8, 94.3, 45.7 and 34.3 respectively (Table 6).

Table 6
Immunization Status of Infants in Sample Household

Types	Number immunized	Percent (coverage)
DPT	26	74.3
BCG	22	62.8
Polio (OPV)	33	94.3
Measles	16	45.7
TT	12	34.3

** The figures are based on multiple response*

Source: Field Survey, 2055

The reason for not providing immunization to their infants, about three fourths (about 75 percent) respondents informed that they did so because they believed their God will care them. Similarly, lack of knowledge regarding positive impact of immunization on their infants was identified another important reason for not providing immunization.

Conclusions

Majority of the sample Jirel mothers were not taken any clinical examination during their pregnancy including tetanus toxic (TT) immunization. Most of the women did not take extra-antenatal foods. It was found that the pregnant Jirel mothers were also smoking and drinking alcohol.

Usually, the delivery services are not scientific in Jirel community. Traditional practices including massaging the laboring women, chanting mantras, performing rituals and providing special food and drinks are common before delivery. Majority of the last birth by sample women, were delivered at home. The assistance during delivery was provided mostly by neighbors.

The ritual adopted by Jirel community was found positive for postnatal care to some extent. It is believed that if any farm works are conducted by new mothers within seven days before spraying the 'Gahat' inside and outside the house with ritual ceremony, the productivity of the soil will be decreased and the planted crops will dry-up. It has been helping to regain health and strength of mothers to some extent. The varieties and duration of additional food supplement was found dependent upon the income, social status and behavior of the family.

About half of the sample mothers were found breast feeding their children for two or more years. Majority of the mothers who are engaged in farming, cattle rearing and fuel and fodder collection found unable to breastfeed their children frequently at short time interval. Supplement of semi-solid and solid foods are provided to the children only after rice feeding ceremony (Pasni).

The Infant Mortality Rate (IMR) was found 106.38/1000 live births, which is slightly higher than the national average i.e. 102/1000 live births. Fever/typhoid, diarrhea/vomiting and incapability to breast-feeding were the main causes for infant mortality. Majority of the sample mothers reported that they prefer to go to the *Dhāmi/Jhankri* ('Phombos' in Jirel language) for the treatment of their children even in diarrhea cases.

With regard to the immunization status of infants of under one years of age, about one-fourths of the surveyed infants had not received any immunization. Most of the sample mothers who had not immunized their infants reported that the God will care of them. Thus, to enhance the existing maternal and child health status in Jirel Community there should be adequate understanding of the socio-cultural background of Jirels, perception of diseases, their beliefs, taboos and a study of the health culture at the micro-level. Positive values and traditional skills should be encouraged.

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