ORIGINAL **PROF-1298**

CHILDREN MORTALITY AND FAMILY PATTERNS;
A STUDY IN BAHAWALPUR

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ABSTRACT… Introduction: Some of the mother's risk factors associated with the infant and childhood death were investigated in Bahawalpur. **Objective:** To have the knowledge of childhood mortality and family formation pattern in Bahawalpur. **Design:** Cross sectional descriptive epidemiological study. **Setting:** Quaid-e-Azam Medical College Bahawalpur. **Period:** From January to May 2007. **Material & Methods:** 320 urban women were interviewed for pregnancy histories and their attitude towards family formation were sought. **Results:** Early marriage, low education level, and high parity were associated with infant deaths. Thirty-seven percent of urban families and 28.5% of rural families had lost one or more children, usually all in infancy. Generally half of the deaths were caused by infectious diseases. Most women preferred a large family and majority of those who had lost children had replaced them. No difference were found between urban and rural women regarding attitudes towards child loss and family formation patterns. **Conclusions:** Preventive measures should be adopted to control infectious diseases to reduce children mortality.

Key words: Childhood mortality, family pattern.

INTRODUCTION

The effect of child hood mortality and infant death has been studied extensively[1]. Some workers believe that such an effect may be related to both the effect of premature interruption of lactation due to death of infant and also to the preference of parents to replace lost children[2].

Others agree with these ideas but they think the effect is minimal[3].

In some developing countries the rise in the standard of living and public health measures has helped to reduce the infant and childhood death rate, while the birth rate has remained unchanged[4].

In this study emphasis has been given to mainly determining risk factor associated with child loss, patterns of child death in our community as well as family formation patterns including the ideal number of children and women' s attitudes towards child loss.

MATERIALS AND METHODS

The data reported here comes from a cross sectional study conducted in Bahawalpur for the period January to May 2007.

The population of study was women attending maternal and child health centers at one urban centre (Medical Colony) Paramedical School and one rural centre (Tibba Badar Sher).

Only women with three of children were interviewed. Detailed pregnancy histories, sociodemographic data and information on infant and child mortality were obtained. In addition, mother's opinion and attitudes regarding child loss and the ideal number of children per family were sought.

Women were divided into two groups.

Group I comprised those mothers, who had lost one or more of their children.

Group II comprised those mothers who had no loss at all.

RESULTS

Three hundred and twenty women were interviewed successively, of whom 176(55%) were urban women and 144(45%) rural. This involved a total of 1545 pregnancies (a mean of 4.2 pregnancies per woman). The women had 1423 living children, 29 stillbirths 66 abortions and 144 lost children (47 early neonatal death, 11 late neonatal deaths, 71 infant deaths and 15 childhood deaths).

The percentage of illiterate women among group-I was higher than in group-II. However, the difference in years of schooling was small between the two groups of mothers. The proportion of multiparous women among group-I was higher than in group-II.

Early marriage was more common for group I mothers. Duration of marriage life was also longer for group I. A higher proportion of group-I mothers had a history of stillbirth delivery (14%) and abortions (17%), compared with group-II mothers, (5% and 15% respectively). However, no significant differences were found between the two groups of women with respect to the studied variables.

Table-I. Comparing the mean value of no. risk factors between group I and group II women.

Variables	Group I (N=106)	Group II (N=214)
Mother's age	30.9±5.8	29.0±5.4
Age at marriage	16.8±3.5	17.7±3.6
Duration of married life	13.9±5.0	12.0±4.9
Parity	5.4±1.4	4.5±1.4
Year of schooling	5.1±3.4	5.9±3.8

Infant and Childhood Mortality

Table II shows that 36.9% of urban families and 28.5% of rural families had lost one child or more. The majority of these families (64.6% urban and 82.9 rural) had lost one child only.

The total number of deaths in the early neonatal period was 47(32.6%). Between the first month of life and the end of first years, 63(43.8%) children died. Only 12(8.3%) children over the age of two years dies. Premature, low birth weight and birth trauma were reported as cause of death in 33 (22.9%) cases. Respiratory infection and diarrhoea caused 63(43.8%) deaths. Neonatal jaundice and accidents resulting in death were reported more in rural area than in urban area.

Family Formation

Women were asked what they considered to be ideal number of children for a family in similar circumstances as their's. Most of women preferred a family of large size (Table III) . However 25% of rural women gave no opinion.

Table-II. Infant and childhood mortality among urban and rural families						
	Urban (N=176)		Rural (N=144)		Total (N=320)	
	No	%age	No	%age	No	%age
No. of mothers with lost children	65	36.9	41	28.5	106	33.1
One child	42	64.6	34	82.9	76	71.7
Two children	08	27.7	7	17.1	25	23.6
Three children or more	05	7.7	0	0	05	4.7
No of dead children	N=96		N=48		N=144	
Age of dead child						
< 7 days	32	33.3	15	31.25	47	32.6
7 days - 1 month	10	10.4	01	2.1	11	7.6
1-12 months	43	44.8	20	41.7	63	43.8
12 - 24 months	04	4.2	04	8.3	08	5.6
24 + months	07	7.3	05	10.4	12	8.3
Unknown	-	-	03	6.25	03	21
Causes of death						
Prematurity: LBW and birth trauma	22	22.9	10	20.8	33	22.9
Respiratory infections and diarrhoea	49	51.0	14	29.2	63	43.8
Congenital heart disease	13	13.5	05	10.4	10	6.9
Accidents	02	2.1	07	14.6	09	6.3
Neonatal jaundice	01	1.0	04	8.3	05	3.5
Unknown	02	2.1	05	10.4	07	4.9
Others	07	7.3	02	4.2	09	6.3

The majority of women who had lost a child (63.1% urban 73.2% rural) had replaced their lost children (Table III).

DISCUSSION

This study supports the findings of previous works which associate infant death with certain mothers risk factors such as age, parity and educational status[5,6,7,8].

It appears that mother who lost children tend to be of older age, have long duration of married life. This seems to be logical. The three variables are interrelated and also relate with others. In most developing countries, studies report a U-shaped relationship between infant death and mothers age and parity[1].

Table-III. Opinions of women on family size and child loss				
Ideal family size	Urban (N=176)		Rural (N=144)	
	No. of women	%age	No. of women	%age
<3	13	7.4%	01	0.7%
3-4	62	35.2%	37	25.7%
5-6	71	40.3%	46	31.9%
7+	30	17.1%	24	16.7%
No opinion	-	-	36	25.0%
Replacement of lost child				
Had replaced	41	63.1	30	73.2
Had not replaced	24	36.9	11	26.8
Total	65	100	41	100

The risk increases in younger age groups and in mothers over 35 yrs old. This is similar to parity; the risk is highest in the first pregnancy, lowest in the second and third and then it increases in the fourth and above. The study also reflects, the fact that the younger age of a mother is not a risk factor for infant deaths in a society where only marriage and pregnancy are very common. Low educational status was found to be a risk factor Edmonston etal[9] reported that in communities with poorly educated women there is high infant mortality where as in communities of mainly educated women there is low mortality. It is worth mentioning that the high proportions of women in group-I having pregnancy wastages might reflect the similarity of risk factor between pregnancy wastage and infant and childhood death.

The finding that over a third of families had suffered a child loss is disturbing one. Examination of causes and age of deaths shows that infectious diseases (respiratory and gastro enteritis) are still the major killers of infants in our community. Similar findings have already been reported by other researchers[10,11].

CONCLUSIONS

Preventive measures should be adopted to control infectious diseases to reduce children mortality.

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