
**MEN'S PARTICIPATION IN UTILIZATION OF REPRODUCTIVE
AND CHILD HEALTH SERVICES BY WOMEN –
A COMMUNITY BASED CROSS SECTIONAL STUDY**

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LIST OF ABBREVIATIONS USED

ANC- Ante Natal Care

ANM- Auxillary Nurse Midwife

CF- Correction Factor

EDD- Expected Date of Delivery

HIV- Human Immunodeficiency Syndrome

IEC- Information Education Communication

INC- Intra Natal Care

MCH- Maternal and Child Health

NFHS- National Family Health Survey

NPP- National Population Policy

OBC- Other Backward Caste

PNC- Post Natal Care

PUC- Pre University College

RCH- Reproductive and Child Health

SBA- Skilled Birth Attendent

SC- Schedule Caste

SES- Socio Economic Status

SPSS- Statistical Package for the Social Science

ST- Schedule Type

STD- Sexually Transmitted Disease

TT- Tetanus Toxoid

UHC- Urban Health Centre

UNFPA-United Nations Population Fund

WHO- World Health Organization

ABSTRACT

BACKGROUND AND OBJECTIVES

Men's active involvement and support is an essential component for making women's life better, be it pregnancy or child rearing. This is especially important in communities like India where men play many roles as sexual partners, husbands, fathers and gatekeepers for their families. Men's supportive stance in reproductive and child health services utilization plays a crucial role towards the better future of mother, baby and family as a whole. Hence, the present research was undertaken to study the men's participation in utilization of reproductive and child health services by women and to know the current knowledge and behavior of men in promoting reproductive and child health services.

METHODOLOGY

A community based cross-sectional study was conducted from January to December 2013. It was conducted in the area of Ramnagar UHC, which is an urban field practice area of Department of Community Medicine, Jawaharlal Nehru Medical College, Belgaum. Total 400 participants were included in study. The participants were husbands of women in the age group of 18-45 years having at least one living child in the age group of 12-24 months and residing in the urban field practice area of Ramnagar Urban Health Centre, Belgaum at least one year preceding the survey.

After obtaining the institutional ethical clearance, pilot study was conducted and questionnaire was modified accordingly. Written informed consent was obtained from every participant. Data was collected by using pre-designed pre-structured questionnaire on the following aspects:

1. Socio Demographic Factors.

2. Assessment of current knowledge and behaviour of men in promoting reproductive and child

Statistical analysis was done using Pearson's Chi- Square test to find out the association between men's participation and various socio-demographic variables. A probability value (P value) of less than 0.05 was considered as significant.

RESULTS

In the current study, 61.2% participants were in the age group of 30 or less than 30 years, 51% of spouses of the participants were in the age group of 20-24 years. 35.5% of participants were office employees and 62.8% of their wives were home makers. A large number of participants and their wives had studied up to high school (42% and 37.5% respectively). About 84% of the participants' wives had registered their pregnancy within 12 weeks of pregnancy. Most, (86.2%) husbands accompanied their wives to ANC checkup. Majority, 84.8% of husbands helped their wives in domestic work during pregnancy. Around 68% of husbands knew that TT immunization should be taken by the woman during pregnancy. In 60.5% cases, husband accompanied their wives to the hospital for delivery. In 51.2% of cases, husband and wife together took the decision about the place of delivery. In majority 83.25% mothers took care of women after the delivery. Most (87.75%) participants accompanied their baby to the immunization. 62% participants took their child to the hospital when they were sick. Regarding family planning methods, most of husbands were aware. In three fifth of the case, husband and wife together made the decision of using family planning methods.

CONCLUSION AND INTERPRETATION

The current study revealed that men had participated actively in promoting antenatal, intra natal care and child care, but were less involved in post natal care. Though they had a good knowledge about family planning methods, only women were practicing the family planning methods in most of the cases. Various factors like age, education, occupation, religion, number of children the couple had and socio-economic status influenced the men's participation in promotion of reproductive and child health. The importance of educating males is further emphasized by the finding that men who participate in antenatal education are more knowledgeable about family planning methods and are more concerned about their partner's nutritional needs during pregnancy.

Implications: Increased men's participation in reproductive and child health increases the utilization of reproductive and child health service by women and children.

KEY WORDS

Men's participation, Reproductive and Child Health, Family planning, Utilization of Health care

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INTRODUCTION

Reproductive and child health approach has been defined by the World Health Organization as “people have the ability to reproduce and regulate their fertility, women are able to go through pregnancy and child birth safely, the outcome of pregnancies is successful in terms of maternal and infant survival and well being, and couples are able to have sexual relations, free of fear of pregnancy and of contracting disease”.¹

Reproductive health research, programmes and policies in the past have focused almost exclusively on women. In recent years, however the reproductive health field has shifted its attention to include men’s participation in reproductive and child health, recognising that men’s attitude, knowledge and behaviour can strongly influence women and child health. Men possess little knowledge regarding reproductive health particularly pregnancy health, but have much decision making power.

In 1997, the United Nations Population Fund (UNFPA) described an agenda for the International Conference on Population and Development, Cairo and Fourth World Conference on Women, Beijing in which men would play a proactive role in the empowerment of women.¹

Men’s involvement in reproductive and child health services utilization plays a crucial role towards the better future of mother, baby and family as a whole. In a traditional country like India where man is the chief decision maker of the family issues and being the sole person in the family who decides and fulfills most requirements of the family, undoubtedly responsible for the maternal and child health. Male dominance – physically, mentally and socially can put the women and

child health at risk. Men possess little knowledge regarding reproductive health particularly pregnancy health but have much decision making power. So obviously the lack of men's knowledge and participation in reproductive health not only damages their own health, but also contributes to the ill health of their female partners and children.

Maternal and child health in India also attained importance because 69% of its population falls in the age group of 0 to 49 years covering children, and both men and women in their reproductive ages.²

Reproductive health implies involvement of both men and women. Maternal and child health are intimately connected to both men and women. Though the woman is the active participant in the maternal and child health issues, man plays the pivot role being the husband and father. Men's reproductive health and behavior implies on women's reproductive health and children well being and society as well.

Maternal and child health services (MCH) are essentially promotive and preventive. They provide avenues for the early detection of mothers and infants at high risk of morbidity and mortality.⁴ Men are often the decision makers about when, where and what health services the family members should avail.

Women alone cannot promote maternal and child health without the cooperation and involvement of men. It is men who actually decides factors like place of health check up, place of delivery, contraceptive use, number of children and health of mother and child. Men as a group are frequently blamed for the many of women's reproductive health problems, feeling as a chief decision maker for seeking appropriate treatment for their wives, and also for failing to act as a responsible partner favouring healthy choices for improving reproductive health of the women.

The concern that emerged from the ICPD conference was that neither women nor men are likely to enjoy good reproductive health, until they are able to discuss sexual matters and make reproductive decisions together. As part of this broader view, reproductive health programmes started to focus their attention on the role of men as it relates to women's access to and utilization of reproductive health services.²³

In recent years a growing area of interest is men's role in maternal and child health issues, including their role in health care decisions and their responsibilities and role as a father and husband. Men can play positive or negative role in maternal and child health behaviours and outcomes. Hence this study purposes to know the men's participation, their knowledge and behaviour in reproductive and child health services utilization by women and children.

OBJECTIVES

The objectives of the present study were;

1. To study the men's participation in utilization of reproductive and child health services by women.
2. To study the current knowledge and behaviour of men in promoting reproductive and child health services.

REVIEW OF LITERATURE

Men's supportive attitude is a critical and fundamental component for making women's world better, be it pregnancy or child care. This is especially important in the communities like India where men play many roles as sexual partners, husbands, fathers and gatekeepers for their families. Importance of men's role in betterment of women's health is now well accepted.

According to one of the strategic themes of India's National Population Policy 2000, the active involvement of men is called for in planning families, supporting contraceptive use, helping pregnant women stay healthy, arranging skilled care during delivery, avoiding delays in seeking care, helping after the baby is born and finally, in being a responsible father.²

One of the goals of NPP 2000 is to address the unmet needs for basic reproductive and child health services, supplies, and to increase the participation of men in planned parenthood.²

Male participation in reproductive health and family planning has recently been understood as an important area among reproductive health programme designers, policy makers, and population researchers for the overall reproductive well-being of the couple.

According to ICDP Programme of action "Changes in both men's and women's knowledge, attitudes and behaviour are necessary conditions for achieving the harmonious partnership of men and women. Men play a key role in bringing about gender equality since, in most societies, men plays a crucial role in every stage of women's life. It is very crucial to improve communication between men and women

on issues of sexuality and reproductive health, and the understanding of their joint responsibilities, so that men and women are equal partners in public and private life.¹

The word "Reproductive Health" implies both men and women. Men are partners in reproduction and sexuality. Men's reproductive health and their behaviors impact on women's reproductive health and children's well-being and society as well. Comprehensive male involvement includes, encouraging men to become more involved and supportive of women's needs, choices, and rights in sexual and reproductive health.⁵

If men and women are aware of each other's health needs, then there is a more chance of them to receive the needed services. Efforts should be made to increase the men's knowledge and responsibility and promote their active involvement in responsible parenthood, sexual and reproductive behaviour.

The World Health Organization (WHO) defines health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity. Reproductive health addresses the reproductive processes, functions and system at all stages of life. Reproductive health, therefore, implies that people are able to have a responsible, satisfying and safe sexual life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this last condition are the right of men and women to be informed of and to have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice and the right of access to appropriate health care services.³²

"Male involvement" is used as a blanket term to cover the various ways in which men relate to reproductive health problems and programmes, reproductive

rights and reproductive behaviour. The way men accept and indicate support to their partners' needs, choices and rights in reproductive health. Other terms that are often used in this context are male responsibility and participation. The term "responsibility" implies the need for men to assume responsibility for the consequences of their sexual and reproductive behaviour, such as caring for their offspring, using contraception to take the burden off their partner and practising safer sexual behaviours to protect themselves, their partners and their families from Sexually Transmitted diseases (STDs), including Human Immunodeficiency Virus (HIV). The term "participation" may seem self-evident since men effectively participate more than women in population and reproductive health programmes, as policy makers, media gatekeepers, religious leaders, managers and service providers, community leaders and heads of households. In this context, "participation" refers to men's supportive role in their families, communities and work-place to promote gender equity, girls' education, women's empowerment and the sharing of household chores and child-rearing. "Participation" also suggests a more active role for men in both.²⁴

The Cairo and the Beijing international conferences have brought up the fact that there is very much need for involving men in safe and responsible parenthood.²

According to the ICPD Plan of Action: "Special efforts should be mad to emphasis men's shared responsibility and promote active involvement in responsible parenthood; sexual and reproductive behaviour including family planning; prenatal and maternal health; prevention of sexually transmitted diseases including HIV; Prevention of unwanted and high risk pregnancies; shared control and contribution to family income, children's education, health and nutrition; recognition and promotion

of the equal value of children of both sexes. Male responsibilities and role as a head of the family must be incorporated in the education of children from the earliest ages; emphasis should be placed on the prevention of violence against women and children”.⁷

The programme to involve men in reproductive health uses many terms, including men’s participation, men’s responsibility, male motivation, male involvement, men as partners, and men and reproductive health.

One of the earliest interventions among Indian men was implemented by Population Council under their Frontiers Project, called Men in Maternity (2000–2002) in India that investigated the feasibility and acceptability.⁸

It is very well known that some of the economic, social and physical factors have got major role in contributing to poor maternal and child health. Some of the other vital factors which acts as barriers and has got a much influential role in maternal and child health are sociocultural, economic and health facilities functioning at the community, family and individual level.⁹ These include inequitable distribution of facilities and/or infrastructure for primary healthcare and maternal healthcare services, inadequate referral services, lack of human resource and overburdened healthcare facilities. It has been unambiguously shown that utilisation of ante-natal and skilled delivery services improve pregnancy outcome.¹⁰

Research showed that men not only acted as decision makers, restricting women and children’s access to health services, but also through exploitation or neglect, men’s actions had direct impact on the health of their partners and their children.¹¹

Most of these studies examined the positive health benefits of men's involvement for wives and children. A study conducted in Mumbai in 1984 found that involving husbands in antenatal care counseling significantly increases the frequency of antenatal care visits, significantly lowers perinatal mortality, and provide additional benefit among uneducated and low socio-economic groups. Further, in contrast to men who do not participate in antenatal care counseling, men participating in antenatal care counseling tend to know more about family planning, nutrition and health of their wives during pregnancy, and the ways and means of preventing complications during pregnancy, at delivery, or during an abortion.¹² An intervention during prenatal consultations to increase men's involvement in their partners' maternal care increased couples' discussion and use of contraception and improved knowledge about pregnancy and family planning.⁸

In Indian scenario, in most of the families' men acts as a chief decision maker in every aspect of household things let it be a matter financial issue, health of the family members. Especially when it comes to health related issue, as it is related to financial state men tend to take decisions and imply that on the wife and children. So by lending a helping hand to women in making decisions about their health and children health, and by giving liberty to take actions in health issues can lead to betterment of women and child health.

It is, therefore, important to examine the involvement of men during pregnancy and child birth in a developing country setting like India. It is all the more important to understand the factors predicting men's involvement in India. Further, it would be interesting to examine whether the involvement of men during pregnancy and child birth yields positive health benefits to their wives and children. The

indicators of men's involvement are considered to measure the presence of men during antenatal visits, presence of men during delivery of the baby, type of aid and support provided during pregnancy, and men's involvement in immunization of the baby.

There is a growing understanding in the international public health community of the role of gender as a fundamental influence, along with decision making power, access to education and earning power. It affects the health choices available to everyone. This concept has been influential in making reproductive health professionals aware of the need to develop creative strategies to reach men- a need that has become increasingly urgent in the growing world.

By empowering and educating women regarding their health issues and by accompanying them to the health services by men proves to be a promising strategy in improving overall wellbeing of the mother and child.

A cross sectional study conducted in Chitradurga, Karnataka in the year 2013 with the sample size of 300 shows that 52% men ensured three Antenatal care for wives during pregnancy but only 13% accompanied wife for ANC check up. 52% men ensured hospital delivery but only 7.7 % were present at the time of delivery. While 6.3% were not involved in any activity related to care during pregnancy. Very few men were involved regularly in day to day activities of child care. Only 4% helped in feeding the child, 2.67% helped in dressing or bathing child, 9% respondents took child to routine immunization sessions regularly. 94.33% respondents sought help for sick child and 85% took child to anganwadi center. Preferred sex of child was male as reported by 45% of respondents. The desired number of children per couple was reported two by 52% of respondents and these respondents also wanted at least one

son. Only 27% respondents were currently using contraceptives. 283 (94.3%) respondents said that they would prefer tubectomy as a permanent method of contraception. 95% responded that breastfeeding is essential for babies, but only 10% men knew the complete immunization schedule and 38% knew about ideal time for weaning.¹³

A study done among slum dwellers in Andhra Pradesh India shows that, 42% of respondents were having positive perception on women autonomy, their active participation in promotion of reproductive health was found to be only 29%. The overall finding of the index on male participation in reproductive health is not satisfactory. Nearly 30% of the males were only actively participating in promotion of reproductive health and 23% were found to have moderately participated.¹⁴

A community based cross sectional study conducted in urban slums of district Agra in the year 2008 with the sample size of 360 showed that only 22.2 % of husbands took advice from their wives in making family decisions. Only 18.33 % of husbands accompanied wives for antenatal checkups. Only 32.5 % of husbands provided help in household work during pregnancy. Majority of couples (71.39 %) did not take decision together about delivery. Only 23.61 % of husbands were aware of problems and complications during pregnancy of their wives in spite of the fact that 58.3% of women had experienced at least one health problem during antenatal period. Majority of them (87.5 %) were present during delivery.¹⁵

A study conducted in rural Ahmednagar, India in the year 2005 to know the men's involvement during pregnancy and child birth showed that around 92 % of men reported, their wives went for antenatal checkups. Around 81% of men reported that they had accompanied their wives for antenatal checkups. Around 82% of Hindus

reported accompanying their wives for antenatal care. The percentage of men of other religions accompanying their wives for antenatal care was only 50%. 84% of men belonged to general castes reported that they had accompanied their wives for antenatal care. The percentage of men accompanying their wives among Schedule Tribe/Schedule Castes (ST/SCs) and 'other backward castes (OBC) were 74% and 80%, respectively. The involvement of men increased considerably with an increase in men's education. Around 90% of men who were educated above high school had accompanied their wives compared to only 70% of men who were educated only up to primary school. 62% of the respondents reported that some one other than themselves and their wives actually decided on the place of delivery. Only 28% of men reported that both the spouses jointly decided on the place of delivery. 52% of the men were present at the time of delivery of their last child.¹⁶

A study conducted in Sangli, Maharashtra, in the year 2013 with the sample size of 140, showed that male partners were found aware of ANC visits, about iron and folic acid tablets consumption and TT immunization of their partners, but were found less aware about PNC visits and complications. Also awareness regarding child health issues was less as compared to ANC components. Education was found significantly associated with overall awareness about maternity care components and child health. 60% of postgraduates showed their participation in Antenatal care (ANC) and Intra Natal Care (INC). 100% participation was showed in child care by post graduates.⁴

A study conducted in New Delhi, India in the year 2013 with the sample size of 232 to know the role of men as partners in maternal health showed that, 61% of participants had accompanied their wives to the antenatal clinics at one or the other

time. However despite of coming to hospital 60.1% were not aware of the components of antenatal care like number of tetanus immunizations or requirements of increased diet during pregnancy. 44% of the men did not approve of their wives working outside home. 30% of the men admitted to have physically abused their partner on single or multiple occasions. 31% of the pregnancies were unplanned. 75.7% of the men thought that ideal family size comprises of two children. Only 36.2% of the men knew that male sterilization was safer than female sterilization.¹⁷

A study conducted in New Delhi in the year 2002 with the sample size of 400 showed that 57.75% of men had accompanied their wives for ANC checkup. 10.25% of men took their wives for TT immunization. 61% of husbands accompanied their wives to hospital for delivery. Only 5.7% ensured rest and 9.5 % ensured increased diet to their wives during pregnancy. 25 % of the husbands ensured weaning at the appropriate age. 13.8% of participants took their children to immunization.²⁷

A study conducted in Kathmandu, Nepal in the year 2010 with the sample size of 2178 revealed that the percentage of males who accompanied their partners for ANC (39.3%), arranged Skilled Birth Attendant (SBA) and accompanied them for child immunization (10.9%). 96.3% men agreed with mother need more food during pregnancy. 56.2% helped wives in domestic work. Majority (99.6%) agreed with necessity of breast feeding and 58.7% encourage for exclusive breast feeding.¹⁸

A study conducted in Bangladesh in the year 2013 with the sample size of 615, to know the determinants of male participation in reproductive health care services showed that the mean age of the respondents was 34 years. About two-thirds of the respondents discussed reproductive health issues with their wives and accompanied them to healthcare facilities. The contraceptive-use rate was 63% among

the men who attended the evening clinics. Analysis showed a significant association with education, occupation, income, access to media, and number of living children. Results showed that secondary to higher education level, number of living children, paid employment status, long marital duration, and access to media were important correlates of males' involvement in reproductive healthcare services.¹⁹

A study conducted among Salvadoran fathers in North Carolina, United States of America in 2005 showed that 90% of the recent Salvadoran fathers who were surveyed participated in a prenatal care visit, attended the delivery, or participated in a postpartum well- baby care visit. 34% participated in all three of the activities. Attendance at delivery was most common as reported by 81% of fathers. The most common reason that subjects cited for not attending was that they had work. Furthermore the participation of fathers in these maternal and child health care activities provided new opportunities to educate and further support men in both their own health and their family health.²⁰

A study done in Malawi in 2011 reported that most husbands participated in maternal health care, when wife conceived after a long waiting time. Men who had participated in maternal health care informed their peers about their experience. The other men become motivated and discussed with their wives. When they agreed, the couple visited the antenatal care together.²¹

According to study a done in America in 2004 with the sample size of 104 showed that the involvement of father in child's life has many important benefits for child's health and development. Fathers were important to children only as economic providers and disciplinarians; evidence has shown that fathers play a unique and pivotal role in the overall development and well-being of children. Numerous studies

show that increased father involvement is associated with improved cognitive, academic, psychological- emotional, and social- adaptive outcomes for children. In addition, father involvement has other positive effects on Maternal and Child Health (MCH) outcomes. Father involvement increases the likelihood that a woman will receive prenatal care in her first trimester by 40 percent. Expectant fathers can be influential advocates for breastfeeding by playing a critical role in encouraging a mother to breastfeed the newborn infant. Fathers who also accompanied the mother on a prenatal visit were more likely to engage in father-child activities later in the child's life.²³

METHODOLOGY

The present study was conducted in the Urban Field Practice area of Ramnagar Urban Health Centre (UHC) which is an urban field practice area of Department of Community Medicine, Jawaharlal Nehru Medical College, Belgaum. The Ramnagar UHC has 18 anganawadi, having total population of 32,521. The UHC is situated at a distance of 2 kilometers from J.N. Medical College, towards south west.

Design

The study design was community based cross - sectional study.

Duration

One year – conducted from 1st January 2013 to 31st December 2013.

Participants

Husband's of women in the age group of 18-45 years having at least one living child in the age group of 12-24 months and residing in the urban field practice area of Ramnagar Urban Health Centre, at least one year preceding the survey.

Selection criteria

Inclusion criteria

1. Husband's of women in the age group of 18-45 years
2. Having at least one living child in the age group of 12-24 months and residing in the urban field practice area of UHC Ramnagar, for at least one year preceding the survey.

Sample size

The required sample size is calculated using the formula: $N = 4 p q / d^2$

Where, **N** sample size

p percentage of husbands participating in utilization of RCH services by woman

q (100-p)

d absolute error.

p = 50 %

q (100-p)

d absolute error = 5 %

Total sample (n) = 400.

Sampling method

Simple random sampling method by using random number table.

Sampling procedure

Under area of Ramnagar UHC, the total number of children in the age group of 12-24 months were 522, as per the information collected from under-five register maintained by ANM's of UHC, last updated in December 2011.

Out of 522, 400 cases were selected by simple random sampling method by using random number table.

Ethical Clearance

The study was approved by the Institutional Ethics Committee for Human Subjects' Research, Jawaharlal Nehru Medical College, Belgaum. (Annexure-I)

Informed consent

Based on the selection criteria, the study participants were selected and written informed consent (Annexure-II) was obtained from all the participants, before collecting the data.

Data collection procedure

A questionnaire was prepared and pilot study was conducted using the predesigned structured questionnaire and required modifications were made. (Annexure III)

Data was collected on the following aspects.

1. Socio Demographic Factors.- name, age, sex, religion, education, occupation, socio economic status
2. Men's knowledge and behaviour of reproductive and child health programme services utilization by women and children (Annexure) were assessed based on following aspects
 - a. Antenatal care
 - b. Intranatal care
 - c. Postnatal care
 - d. Immunization
 - e. Family planning

Instruments used for data collection

Predesigned and pre structured questionnaire.

Statistical analysis

The data was tabulated and master chart was prepared (Annexure). Data collected in the questionnaire was coded and entered in the microsoft excel sheet. Data was analyzed using Statistical Package for Social Sciences (SPSS), trial version 18.0 and the prevalence of each risk factor was expressed in terms of percentages. Statistical analysis was done using Pearson's Chi- Square test to find out the associations. A probability value (P value) of less than 0.05 was considered as significant.

DEFINITION OF STUDY VARIABLES

Step 1: Socio Demographic Factors.

Age: Age was recorded to the nearest completed year as on last birthday as per information given by the study subjects.

Religion: The subject's religion was noted and was grouped as "Hindu", "Muslim", and "Others" (Jain, Buddhist, Parsi, etc).

Educational status: The subjects were asked about their highest level of completed education and were grouped into following categories.

Illiterate - A person who cannot read and write.

Primary school – Person who has studied up to 7th standard.

High school – Person who has studied up to 10th standard

Pre-university college / Diploma: A person who had studied up to pre university collegiate education and/or studied diploma.

Graduate: A person who has studied up to graduation and has obtained a degree.

Occupation:

Business: A person who had a shop or hotel (self employed)

Labourers – A person who makes living on daily wage basis other than farm lands.

Skilled labourers– A person who has acquired special skills like carpentry

Homemaker: An individual whose primary activity is in carrying out household tasks without being paid.

Type of family:¹

Nuclear family- Household, where married couple along with their dependent children live in the same house.

Joint family- Household, where many married couples and their children live in the same house. Males are blood relatives and females of the family are related by either marriage or blood relation.

Socioeconomic status:

Information of total monthly income of the family in rupees was obtained as well as the family size. Per capita monthly income in rupees was calculated, and then the family was classified using modified B. G. Prasad's classification.²⁸

Modified B. G. Prasad's Classification

Socioeconomic class	Prasad's classification (1961) per capita income in Rs/ month ²⁸	Modified Prasad's classification in the study period (2013) Per capita income in Rs/month ²⁹
I	100 & above	5157 and above
II	50 to 99	2578 to 5156
III	30 to 49	1547 to 2577
IV	15 to 29	773 to 1546
V	below 15	below 733

Average Consumer Price Index for the year was 2013 = 1046²⁹

Modification was done with the aid of Correction Factor (C.F.), which was obtained as below:

$$\begin{aligned}
 \text{C. F.} &= \frac{\text{Average Consumer Price Index for study period}}{100} \times 4.93 \\
 \text{C. F.} &= \frac{1046}{100} \times 4.93 \\
 &= 51.56 \quad 52.
 \end{aligned}$$

Step 2: Assessment of men's participation in Reproductive and Child Health Services Utilization by women based on following aspects

a. Antenatal care:

Antenatal care is the care of the woman during pregnancy.

Antenatal period starts from the time of conception to the onset of labour.

The primary aim of antenatal care is to achieve at the end of a pregnancy a healthy mother and a healthy baby.

Ideally the mother should attend the antenatal clinic once a month during the first seven months, twice a month, during the next month, and thereafter once a week, if everything is normal.

Every pregnant woman must receive at least 4 checkups during pregnancy (Registration and 1st check-up within 12 weeks, 14-26 weeks, 28-32 weeks and 36-40 weeks).

The first dose of TT should be given as soon as the woman registers for ANC. The second dose is to be given 4-6 weeks after the first dose, but preferably at least one month before the Expected Date of Delivery (EDD).

Administer tablet of IFA (100 mg of iron and 0.5 mg of folic acid) daily for at least 100 days, after 1st trimester for prophylaxis against anaemia and double the dose in case anaemia is diagnosed.

b. Intra-natal care

It means care of the pregnant women taken during delivery

c. Postnatal care

Care of the mother and the newborn after delivery is known as postnatal care.

Brest feeding to be initiated within half an hour of birth in case of normal delivery and within 4 hours of birth in case of caesarean section.

Exclusive breast feeding- This means feeding the mother's milk only and no other drinks like honey, water, glucose water, gripe water, juices, vitamin drops, animal milk, powdered milk or foods are given to the newborns.³⁰

It should be given for first six months of life.

Complimentary feeding or weaning should be started from the 6th month onwards only.³¹

d. Immunization

It is a procedure in which immunological substances are administered to strengthen the defence mechanism as to protect the individual against the disease.³³

e. Family Planning

Family planning means planning the size of the family in a manner, compatible with the physical and socioeconomic resources of the parents and conducive to the health and welfare of all members of the family.

WHO defined family planning as, "A way of living and thinking, that is adopted voluntarily upon the basis of scientific knowledge, attitude and responsible decisions by individuals and couples, in order to promote the health and welfare

of the family groups and thus contribute effectively to the social and economic development of a country”.³²

Contraceptive Methods or Family Planning Methods

Contraceptive method is the one which helps the woman to avoid unwanted pregnancy resulting from coitus.¹

Contraceptive methods may be broadly grouped into two classes

I - Spacing Methods

1) Barrier methods

- a. Physical methods: Condoms, Diaphragm, Vaginal sponge.
- b. Chemical methods: Foams, Creams, jellies, Suppositories, Soluble films
- c. Combined methods

2) Intra-uterine devices

3) Hormonal methods

4) Post-conceptual methods

5) Miscellaneous

II – Terminal methods

1) Male sterilization - Vasectomy

2) Female sterilization – Tubectomy

RESULTS

The present study was conducted in the Urban Field Practice Area of Ramnagar- Urban Health Centre under the Department of Community Medicine, Jawaharlal Nehru Medical College, Belgaum, Karnataka among 400 subjects during the period of 1st January 2013 to 31st December 2013.

The Anganwadi Workers, Health Assistants, Health workers, Private Practitioners and Medical Officer of UHC- Ramnagar provided necessary health care facilities.

The data obtained was tabulated and analyzed under following headings as below:

- 1) Socio-demographic Profile of the study participants**
- 2) Obstetric history of wives**
- 3) Husband's participation and knowledge about Antenatal, Intra-natal, Post-natal care, care of the child and Family planning practice.**

PROFILE OF STUDY PARTICIPANTS

Table 1: Distribution of the study participants (husbands) according to age (N=400)

Age in years	Numbers	Percentage
30	245	61.2
31-40	145	36.2
41-50	10	2.5
Total	400	100

In the present study, 245 (61.2%) participants were in the age group of 30 years or less than 30 years, 145 (36.2%) between 31-49 years, 10 (2.5%) between 41-50years. Mean age of the husband was 30.4 ± 3.66 (24-49) years

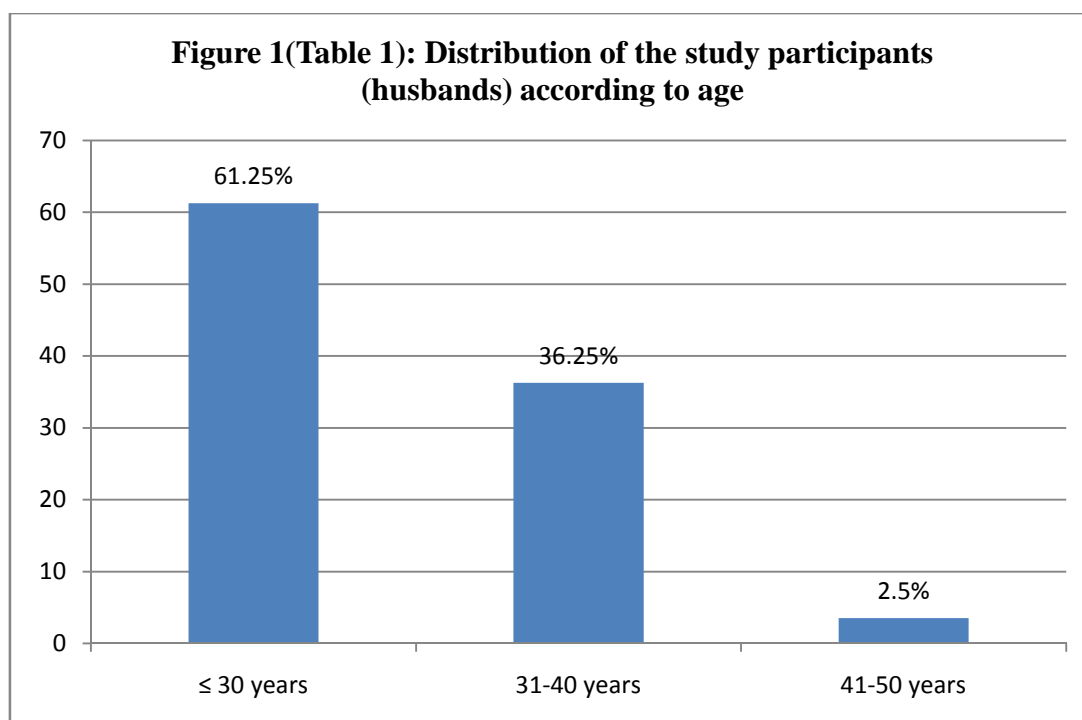


Table 2: Distribution of the study participants according to the age of the wife (N=400)

Age in years	Number	Percentage
15-19	24	6
20-24	205	51.25
25-29	136	34
30-34	26	6.5
35-39	9	2.25
TOTAL	400	100

In the present study, 24 (6%) were between 15-19 years, 205 (51.25%) between 20-24 years, 136 (34%) between 25-29 years, 26 (6.5%) between 30-34 years and 9 (2.25%) between 35-39 years. Mean age of the wife was 24.3 ± 3.33 (19-37) years.

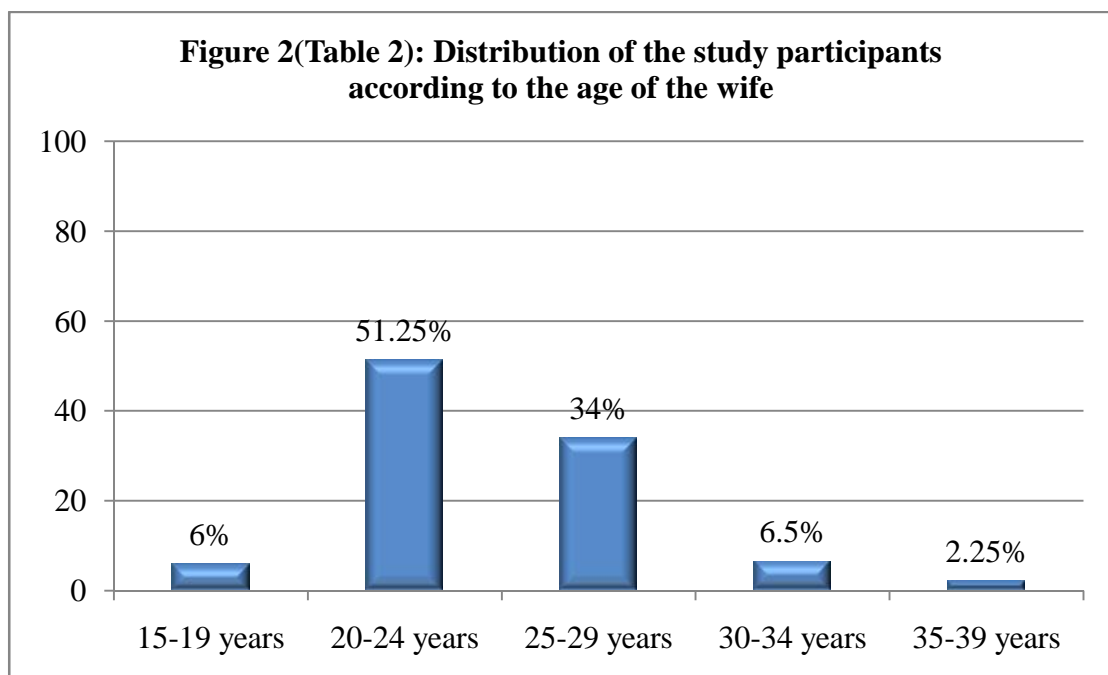


Table 3: Distribution of the study participants according to the family size (N=400)

Family Size	Number	Percentage
3	69	17.2
4	103	25.8
5	50	12.5
6	54	13.5
7	60	15
8	64	16
Total	400	100

In the present study, 69 (17.2%) participants belonged to family of 3 members, 103 (25.8%) to 4 members, 50 (12.5%) to 5 members, 54 (13.5%) to 6 members, 60 (15%) to 7 members and 64 (16%) to 8 or more than 8.

Table 4: Distribution of the study participants according to the religion (N=400)

Religion	Number	Percentage
Hindu	172	43
Muslim	228	57
Total	400	100

In the present study, 228 (57%) were Muslims and 172 (43%) were Hindus.

Table 5: Distribution of the study participants according to the type of the family (N=400)

Type of the family	Number	Percentage
Nuclear family	190	47.5
Joint family	210	52.5
Total	400	100

In the present study, 210 (52.5%) participants belonged to joint family and 190 (47.5%) participants belonged to nuclear family.

Table 6: Distribution of study participants according to the occupation of the husband (N=400)

Occupation of the husband	Number	Percentage
Self employee	123	30.8
Office employee	142	35.5
Skilled labourer	66	16.5
Unskilled labourer	22	5.5
Others	47	11.8
Total	400	100

In the present study, 142 (35.5%) participants were office employees, 123 (30.8%) were businessmen/self employees, 66 (16.5%) were skilled labourers, 47 (11.8%) belonged to other professions and 22 (5.5%) were unskilled labourers.

Table 7: Distribution of the study participants according to the occupation of the wife (N=400)

Occupation of the wife	Number	Percentage
Home maker	271	62.8
Office employee	22	5.5
Unskilled labourer	23	5.8
Others	84	21
Total	400	100

In the present study, 271 (62.8%) wives were homemakers, 23(5.8%) were unskilled labourers, 22 (5.5%) were office employees and the rest 84 (21%) wives were doing many other professions.

Table 8: Distribution of the study participants according to socio economic status (as per the modified B.G. Prasad's classification, 2013) (N = 400)

Socioeconomic Status	Number	Percentage
Class I	78	19.5
Class II	122	30.5
Class III	103	25.75
Class IV	91	22.75
Class V	6	1.5
Total	400	100

As per the modified B.G. Prasad's socio-economic status classification, in the present study, 122 (30.5%) participants belonged to class II SES, followed by 103 (25.8%) to class III, 91 (22.8%) in class IV, 78 (19.5%) in class I and 6 (1.5%) in class V.

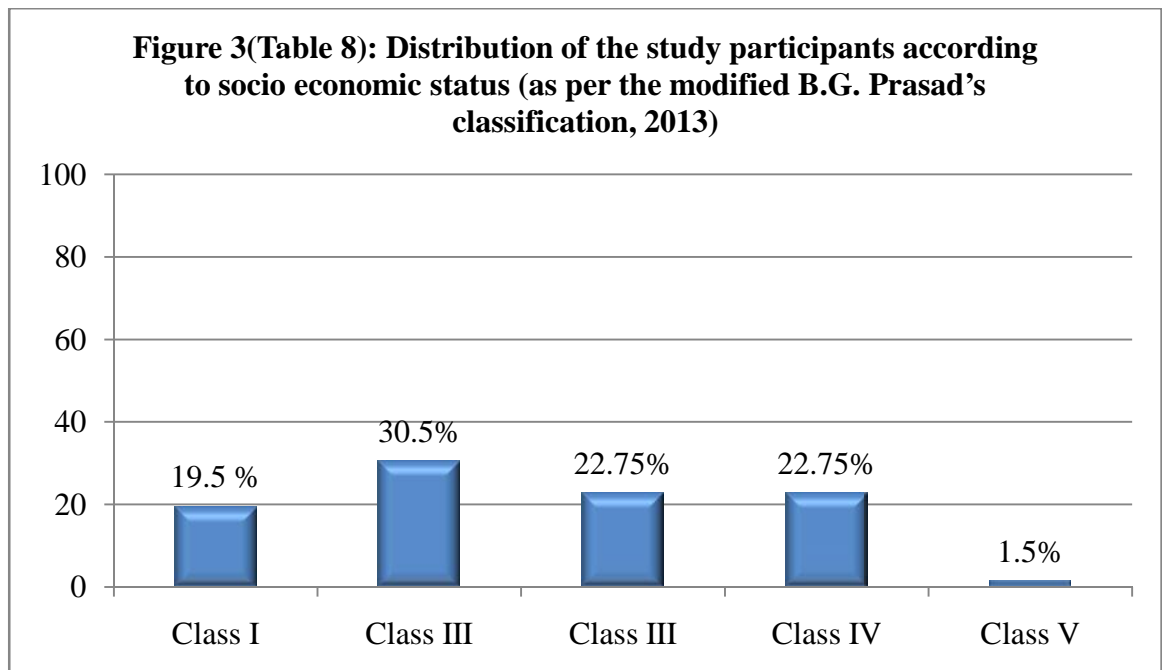


Table 9: Distribution of the study participants according to the literacy level of the couple

Literacy level	Husband		Wife	
	No.	%	No.	%
Illiterate	8	2	35	8.8
Primary	27	6.8	70	17.5
Secondary	168	42	150	37.5
PUC/Diploma	84	21	89	22.2
Graduation	113	28.2	56	14
Total	400	100	400	100

In the present study, 42% husbands had studied up to secondary level, 28.2% were graduates, 21% had studied up to PUC/Diploma, 6.8% were studied up to primary level and 2% of husbands were illiterates.

In the present study, 37.5% wives had studied up to secondary level, 22.2% were studied up to PUC/Diploma, 17.5% were studied up to primary level, 14% were graduates and 8.8% of wives were illiterates.

Figure 4 (Table 9): Distribution of the study participants according to the literacy level of the couple

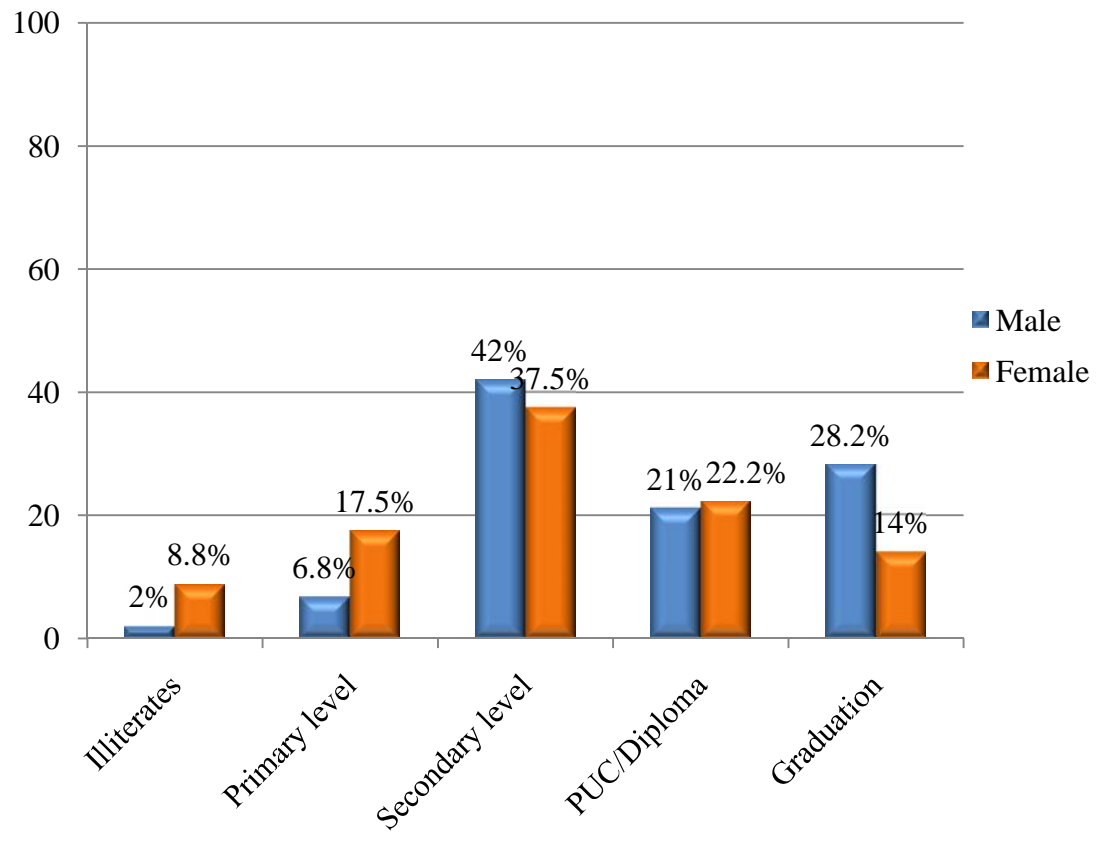


Table 10: Distribution of the study participants according to the wife's Obstetrics information

Characteristics		No.	%
1) Age of wife at marriage	< 18 years	158	39.5
	18 years	242	60.5
2) Wife is pregnant at the time of survey	Yes	71	17.8
	No	329	82.2
3) Weeks of pregnancy registration	< 12 weeks	336	84
	12 weeks	64	16
4) ANC taken regularly	Yes	362	90.5
	No	38	9.5
5) Reasons for not taking ANC regularly	Busy at work	30	79
	Least knowledge	8	21
6) Number of living children the couple had at the time of study	1	230	57.5
	2	145	36.2
	3	18	4.5
	4	7	1.8

In the present study, mean age of wife at marriage was 19.3 ± 2.31 years. Out of 400, 242 (60.5%) wives were 18 years or more than 18 years at the time of marriage and 158 (39.5%) were less than 18 years. 71 (17.8%) were pregnant at the time of study. 336 (84%) women registered their pregnancy less than 12 weeks and 64 (16%) registered at 12 weeks or more than 12 weeks. 362(90.5%) members had taken ANC regularly. 38 (9.5%) wives did not take ANC regularly. Out of 38, 30 (79%) women were busy at work and 8 (21%) had least knowledge about ANC checkup.

In the present study, 230 (57.5%) participants had one child, 145 (36.2%) had two children, 18 (4.5%) had three children and 7 (1.4%) had four or more than four children.

Mean duration of the couples' married life was 5 ± 2.2 years

Table 11: Husband's participation in Antenatal care (during last pregnancy)
(N=400)

Characteristics		No.	%
1) Husbands accompanied his wife to ANC	Yes	345	86.2
	No	55	13.8
2) If yes, number of times husband accompanied his wife to ANC	Once	112	28
	2-3 times	196	49
	4-5 times	31	7.8
	6 times	6	1.5
3) Husband helped in domestic work during pregnancy	Yes	339	84.8
	No	61	15.2

In the present study, 345 (86.2%) husbands accompanied their wives to ANC checkup and 55 (13.8%) never accompanied their wives to ANC checkup. Out of 345, 196 (49%) husbands accompanied for 2-3 times, 112 (28%) accompanied only once, 31 (7.8%) for 4-5 times and 6 (1.5%) husbands accompanied their wives to six or more times for ANC checkup. 339 (84.8%) husbands helped their wives in domestic work during pregnancy.

Table 12: Husband's participation in the intra-natal care of his wife

Characteristics		No.	%
1) Type of delivery	Full term	334	83.5
	Pre term	66	16.5
2) Husband accompanied his wife to hospital for delivery	Yes	242	60.5
	No	158	39.5
3) Gender of the baby	Male	146	36.5
	Female	254	63.5
4) In case of female baby what would have been husband's reaction?	Happy	335	83.8
	Not happy	65	16.2
5) Decision taken by whom about the place of delivery?	Husband	54	13.5
	Wife	11	2.8
	Together	205	51.2
	Parents/in laws	130	32.5
6) Who paid the woman's delivery expenses?	Husband	180	45
	Parents	209	52.2
	In laws	11	2.75

In the present study, 334 (83.5%) were full term, 66 (16.5%) were pre-term deliveries. Out of 400 babies, 254 (63.5%) were female and 146 (36.5%) were male babies. In case of birth of female baby, 335 (83.8%) husbands would have been happy and 65 (16.2%) husbands would have been unhappy. In 205 (51.2%) cases, husband and wife together took the decision about the place of the delivery, 130 (32.5%) cases parents/ in laws, 54 (13.5%) cases only husbands and in 11 (2.8%) cases only wives made the decision about the place of delivery. In 209 (52.25%) deliveries, woman's parents paid the hospital expenses, 180 (45%) cases husbands paid and 11 (2.75 %) cases in woman's parent in-laws paid the delivery expenses.

Table 13: Husband's participation in wife's post natal care

characteristic		No.	%
Who took care of your wife after the delivery?	Wife's parents	333	83.25
	Husband's parents	55	13.7
	Husband	5	1.2
	Herself	7	1.8

In the present study majority 333 (83.25%) cases women's mother took care of the women after the delivery, 55 (13.7%) cases in woman's in-laws took care, 7 (1.8%) cases wife took care of herself and husband took wife's care in 5 (1.2%) cases.

Table 14: Participation of husbands in family planning

Characteristics		No.	%
Husband's awareness of family planning methods	Yes	368	92
	No	32	8
Used any family planning methods after the last delivery	Yes	318	79.5
	No	82	20.5
Method of family planning practiced	Temporary	233	58.25
	Permanent	85	21.25
	None	82	20.5
If temporary, which method was practiced	Cu-T	99	42.5
	Condom	69	29.6
	OC Pills	65	27.9
Decision maker of using family planning methods	Husband	149	37.2
	Wife	10	2.5
	Together	238	59.5
	Others	3	0.8
Who should undergo permanent family planning procedure according to the husband?	Husband	13	3.25
	Wife	294	73.5
	Not yet decided	93	23.25

In the present study, 368 (92%) husbands were aware and 32 (8%) were unaware of family planning methods. 318 (79.5%) husbands reported that they had used family planning and 82 (20.5%) had not used any family planning methods after the last childbirth. Out of 318 participants, 233 (58.25%) used temporary family planning methods and 85 (21.25%) used permanent family planning methods. Out of 233 participants who used temporary method of family planning, 99 (42.5%) used Copper T, 69 (27.6%) used condom and 65 (27.9%) used on Combined Oral Contraceptive pills. In 238 (59.5%) cases, husband and wife together decided about the use of family planning method, in 149 (37.2%) couples - husband only decided, 10 (2.5%) wife only decided and in 3 (0.8%) cases, others decided about the usage of family planning methods. Out of 400 husbands, 294 (73.5%) husbands opined that wife should undergo tubectomy and 13 (3.25%) husbands opined that husband should undergo vasectomy; the rest 93 (23.2%) husbands had not yet decided about any method of family planning at that time.

Table 15: Knowledge of the husband about wife' antenatal care

Characteristics		No	%
Increased food frequency during pregnancy	Yes	374	93.5
	No	26	6.5
TT immunization during pregnancy	Yes	275	68.75
	No	125	31.25
If yes, how many TT to be taken?	1	69	17.2
	2	110	27.5
	3	55	13.8
	Don't know	41	10.2
Ferrous sulphate and folic acid intake	Yes	238	59.5
	No	162	40.5
Rest during pregnancy	Yes	392	98
	No	8	2
If yes, how many hours of rest per day to be taken by pregnant wife?	1-2 hrs	94	23.5
	2-4hrs	194	48.5
	4-6hrs	101	25.25
	>6hrs	11	2.75
Knowledge about the nearest health facility	Yes	386	96.5
	No	14	3.5

In the present study, 374 (93.5%) husbands knew that wife should increase the food frequency and 26 (6.5%) husbands did not know that wife should increase the food frequency during pregnancy. 275(68.75%) husbands knew and 125 (31.25%) husbands did not know about TT immunization during pregnancy. Out of 275 husbands who knew the importance of TT immunization during pregnancy, 110(27.5%) husbands mentioned two doses of TT, 69 (17.2%) husbands mentioned that one dose of TT, 55 (13.8%) husbands mentioned that 3 doses of TT should be taken during pregnancy by pregnant women and 41 (10.2%) husbands had no knowledge about the number of doses of TT immunization during pregnancy.

Out of 400 husbands 238 (59.5%) knew and 162 (40.5%) did not know about the intake of Ferrous Sulphate and Folic Acid tablets intake during pregnancy. 392 (98%) husbands knew and 8 (2%) did not know about the rest to be taken during pregnancy. Out of 392 husbands, majority 194 (42.5%) husbands suggested 2-4 hrs of rest,101 (25.2%) husbands suggested 4-6 hrs,94 (23.5%) husbands suggested 1-2 hrs and only 3 (0.8%) husbands opined > 6 hrs of rest to be taken by the pregnant women. 386 (96.5%) husbands knew and 14 (3.5%) did not know about the nearest health facility.

Table 16: knowledge of husband about wives intra-natal care

Knowledge of husband about the ideal time of initiation of breast feeding for the baby(N=400)	No.	%
Within half an hour	65	16.2
½ hr-4hr	237	59.2
4 hr-24 hr	22	5.5
Don't know	76	19

In present study, majority 237 (59.2%) husbands said initiation of breast feeding should be within half an hour to four hour of birth of the baby, 65 (16.2%) husbands said within half an hour, 22 (5.5%) husbands opined after one day of the birth of the baby and 76 (19%) husbands did not know the time of initiation of breast feeding.

Table 17: knowledge of husband about wife's post-natal care

Characteristics (N=400)		No.	%
According to husband's knowledge - exclusive breast feeding of the baby for how many months?	0-6 months	280	70
	6months-1year	81	20.2
	Don't know	39	9.8
According to husbands knowledge- ideal time of weaning for the baby is:	0-6 months	17	4.2
	6months-1year	281	70.2
	Don't know	102	25.2

In the present study, regarding exclusive breast feeding of the baby, 280 (70%) husbands knew 0-6 months as the ideal period, 81 (20.2%) knew 6 months-1 year as the ideal period of exclusive breast feeding of the baby and 39 (9.8%) had no knowledge about exclusive breast feeding. 281 (70.2%) husbands knew 6 months-1 year as the ideal time for weaning of the baby, 17 (4.2%) husbands knew as 0-6 months as the ideal time for weaning of the baby and 102 (25.2%) had no knowledge about weaning time of the baby.

Table 18: participation of men in child care:

Characteristics (N=400)		No.	%
Men accompanying their child to the immunization	Yes	351	87.75
	No	49	12.25
If yes, How many times men accompanied the baby to the immunization?	1	96	24
	2	207	51.8
	3	44	11
	4+	4	1

In the present study, 351 (87.75%) study participants accompanied and 49(12.25%) did not accompany their children to immunization. Out of 351 men who accompanied their kids for immunization, 207 (51.85%) men accompanied for twice, 96 (24%) only one time, 44 (11%) for three times and 4(1%) men accompanied for more than three times to the immunization of the baby.

Table 19: Association of Husband accompanying wife to ANC checkup according to the age of the husband

Husband's age (in yrs)	Yes		No		Total
	Number	Percentage	Number	Percentage	Number
30	222	90.6	23	9.4	245
31-40	117	80.7	28	19.3	145
41-50	1	10	9	90	10
Total	340	85	60	15	400

$$\chi^2 = 52.283 \quad \text{d.f.} = 2 \quad P < 0.001$$

The study shows that, out of 245 husbands in the age group of 30 years or more than 30 years, 222 (90.6%) accompanied their wives. Out of 145 husbands in the age group of 31-40 years, 117 (80.7%) and out of 10 husbands in 41-50years age group only one (10%) accompanied his wife. Association of husband accompanying wife to ANC checkup according to age of the husband was found to be statistically significant.

Table 20: Association of Husband accompanying wife to ANC checkup according to the religion of the husband

Religion	Yes		No		Total	
	No.	%	No.	%	No.	%
Hindu	163	94.8	9	5.2	172	43
Muslim	177	77.6	51	22.4	228	57
Total	340	85	60	15	400	100

$$\chi^2 = 22.579 \quad df= 1 \quad P=<0.001$$

In the present study out of 172 Hindus 163 (94.8%) members and out of 228 Muslims 177 (77.6%) members accompanied their wives to ANC checkup. So the accompanying their wives to ANC checkup is more in Hindu husbands than Muslim husbands and it was found to be statistically significant.

Table 21: Association of Husband accompanying wife to according to the family type

Family type	Yes		No		Total	
	No.	%	No.	%	No.	%
Nuclear family	161	84.7	29	15.3	190	47.5
Joint family	179	85.2	31	14.8	210	52.5
Total	340	85	60	15	400	100

$$\chi^2 = 0.020 \quad df= 1 \quad P=0.888$$

The study shows that out of 210 husbands from joint family, 179 (85.2%) members and out of 190 husbands from nuclear family, 161 (84.7%) members accompanied their wives to ANC checkup.

Table 22: Association of Husband accompanying wife to ANC checkup according to the socioeconomic status of the husband

Socio-economic status	Yes		No		Total	
	No.	%	No.	%	No.	%
Class I	67	85.9	11	14.1	78	19.5
Class II	107	87.7	15	12.3	122	30.5
Class III	79	76.7	24	23.3	103	25.7
Class IV	82	90.1	9	9.9	91	22.7
Class V	5	83.3	1	16.7	6	1.5
Total	340	85	60	15	400	100

$$\chi^2 = 7.992 \quad df= 3 \quad P=0.046$$

In the present study, out of 91 participants of class IV, 82 (90.1%) husbands, out of 122 participants of class II 107 (87.7%) husbands, out of 78 participants of class I 67 (85.9%) husbands, out of 6 participants of class V, 5 (83.3%) husbands and out of 103 participants of class III, 79 (76.7%) husbands accompanied their wives to ANC checkup.

Table 23: Association of Husband accompanying wife to ANC checkup according to the literacy level of the husband

Literacy level of husband	Yes		No		Total	
	No.	%	No.	%	No.	%
Illiterate	3	37.5	5	62.5	8	2
Primary	22	81.5	5	18.51	27	6.75
Secondary	131	78	37	22	168	42
PUC/Diploma	74	88.1	10	11.9	84	21
Graduation	110	97.3	3	2.7	113	28.25
Total	340	85	60	15	400	100

$$\chi^2 = 35.061 \quad df = 4 \quad P < 0.001$$

The present study showed that 110 (97.3%) participants out of 113 graduates accompanied their wives to ANC checkup. graduates, 74 (88.1%) participants out of 84 who had studied up to PUC/Diploma, 22 (81.5%) participants out of 27 who had studied up to primary school, 131 (78%) members out of 168 who had studied up to secondary school and 3 (37.5%) of illiterates accompanied their wives to ANC checkup. So as the education level of the husbands increased, the husband accompanying wife to ANC checkup also increased and this was found to be statistically significant.

Table 24: Association of Husband accompanying wife to ANC checkup with Occupation

Occupation of the husband	Yes		No		Total	
	No.	%	No.	%	No.	%
Self employee	110	89.4	13	10.5	123	30.75
Office employee	130	91.5	12	8.5	142	35.5
Skilled labourer	54	81.8	12	18.2	66	16.5
Unskilled labourer	15	68.2	7	31.8	22	5.5
Others	31	66	16	34	47	11.75
Total	340	85	60	15	400	100

$$\chi^2 = 25.443 \quad df = 4 \quad P = 0.001$$

In the present study, 130 (91.5%) out of 142 office employee, 110 (89.4%) out of 123 self employee, 54 (81.8%) out of 66 skilled labourers, 15 (68.2%) out of 22 unskilled labourers and 31 (66%) out of 47 who were other professionals accompanied their wives to ANC checkup. As the occupational status increased the amount of husband accompanying their wives to ANC also increased and it was found to be statistically significant.

Table 25: Association of Husband accompanying wife to ANC checkup according to the number of children

No of children	Yes		No		Total	
	No.	%	No.	%	No.	%
1	217	94.3	13	5.7	230	57.5
2	112	77.2	33	22.8	145	36.25
3	11	61.1	7	38.9	18	4.5
4	0	0	7	100	7	1.75
Total	340	85	60	15	400	100

$$\chi^2 = 53.57 \quad df = 2 \quad P < 0.001$$

The present study shows that 217 (94.3%) out of 230 husbands who had one child accompanied their wives to ANC checkup. 117 (77.2%) out of 145 husbands who had 2 children, 11 (61.1%) out of 18 husbands, who had 3 children accompanied their wives to ANC checkup and none of the husbands who had 4 or more than 4 children had accompanied their wives to ANC checkup. So as number of children increased, the husbands accompanying their wives to ANC checkup decreased and this was found to be statistically significant.

Table 26: Association of husband accompanying wife to hospital for delivery according to the age of the husband

Husband's age (in years)	Yes		No		Total	
	No.	%	No.	%	No.	%
30	148	60.4	97	39.6	245	61.25
31-40	93	64.1	52	35.9	145	36.25
41-50	1	10	9	90	10	2.5
Total	242	60.5	158	39.5	400	100

$$\chi^2 = 11.475 \quad df = 2 \quad P = 0.003$$

The study shows that, out of 245 husbands in the age group of 30 years or less than 30 years, 148 (60.4%) accompanied their wives to hospital for delivery. Out of 145 husbands in the age group of 31-40 years, 93 (64.1%) and out of 10 husbands in 41-50 years age group only one (10%) accompanied their wives to hospital for delivery.

Table 27: Association of husband accompanying his wife to hospital for delivery according to the Religion of the husband

Religion of the husband	Yes		No		Total	
	No.	%	No.	%	No.	%
Hindu	101	58.7	71	41.3	172	43
Muslim	141	61.8	87	38.2	228	57
Total	242	60.5	158	39.5	400	100

$$\chi^2 = 0.400 \quad df = 1 \quad P = 0.527$$

In the present study out of 172 husbands who were Hindu by religion 101 (58.7%) and out of 228 husbands who were Muslims by religion 141 (61.8%) accompanied their wives to hospital for delivery.

Table 28: Association of the husband accompanying his wife to hospital for delivery according to the family type

Family type	Yes		No		Total	
	No.	%	No.	%	No.	%
Nuclear family	133	70	57	30	190	47.5
Joint family	109	51.9	101	48.1	210	52.5
Total	242	60.5	158	39.5	400	100

$$\chi^2 = 13.667 \quad df = 1 \quad P < 0.001$$

The present shows that 133 (70%) husbands out of 190 from the nuclear family and 109 (51.9%) out of 210 husbands from the joint family accompanied their wives to hospital for delivery.

Table 29: Association of the husband accompanying his wife to hospital for delivery according to the literacy level of the husband

Literacy level of husband	Yes		No		Total	
	No.	%	No.	%	No.	%
Illiterate	0	0	8	100	8	2
Primary	19	70.4	8	29.6	27	6.75
Secondary	89	53	79	47	168	42
PUC/Diploma	49	58.3	35	41.7	84	21
Graduation	85	75.2	28	24.8	113	28.25
Total	242	60.5	158	39.5	400	100

$$\chi^2 = 27.746 \quad df = 4 \quad P < 0.001$$

Among 113 husbands who were graduates, 85 (75.2%) accompanied their wives to hospital for delivery. 19 (70.4%) out of 27 husbands who had studied up to primary level, 49 (58.3%) out of 84 husbands who had studied up to PUC/Diploma, 89 (53%) out of 168 husbands who had studied up to secondary level accompanied their wives to hospital for delivery. None of the illiterates accompanied their wives to hospital for delivery. As education level of husbands increased, the husbands accompanying their wives to hospital for delivery increased and this was found to be statistically significant.

Table 30: Association of the husband accompanying his wife to hospital for delivery according to the occupation of the husband

Occupation of the husband	Yes		No		Total	
	No.	%	No.	%	No.	%
Business/self employee	65	52.8	58	47.2	123	30.8
Office employee	116	81.7	26	18.3	142	35.5
Skilled laborer	39	59.1	27	40.9	66	16.5
Unskilled laborer	9	40.9	13	59.1	22	5.5
Others	13	27.7	34	72.3	47	11.8
Total	242	60.5	158	39.5	400	100

$$\chi^2 = 54.496 \quad df = 4 \quad P < 0.001$$

In the present study, out of 142 office employees 116 (81.7%) accompanied their wives to hospital for delivery, followed by 39 (59.1%) husbands out of 66 skilled labourers, 65 (52.8%) out of 123 self employee, 9 (40.9%) out of 22 unskilled labourers and 13 (27.7%) out of 47 other professionals accompanied their wives to hospital for delivery. As the occupational status increased the husbands accompanying their wives to hospital for delivery was also increased and was found to be statistically significant.

Table 31: Association of the husband accompanying his wife to hospital for delivery according to the number of children

No of children the couple already had	Yes		No		Total	
	No.	%	No.	%	No.	%
1	122	53	108	47	230	57.5
2	104	71.7	41	28.3	145	36.25
3	16	88.9	2	11.11	18	4.5
4	0	0	7	100	7	1.75
Total	242	60.5	158	39.5	400	100

$$\chi^2 = 13.121 \quad df = 2 \quad P = 0.001$$

The present study showed that 122 (53%) out of 230 husbands who had one child, 104 (71.7%) out of 145 husbands who had two children and 16 (88.9%) out of 18 husbands who had three children accompanied their wives to hospital for delivery. None of the husbands who had four or more children did accompany their wives during delivery of the last child. As the number of children the couple already had increased, the husbands accompanying their wives to hospital for the last delivery increased and this trend was to be statistically significant.

Table 32: Association of the husband accompanying his baby to immunization according to the age of the husband

Husband's age (in years)	Yes		No		Total	
	No.	%	No.	%	No.	%
30	201	82	44	18	245	61.25
31-40	112	77.2	33	22.8	145	36.25
41-50	8	80	2	20	10	2.5
Total	321	80.25	79	19.75	400	100

$$\chi^2 = 1.324 \quad df = 2 \quad P = 0.516$$

The study shows that, out of 245 husbands in the age group of 30 years or more than 30 years, 201 (82%) accompanied their baby to immunization. Out of 145 husbands in the age group of 31-40 years, 112 (77.2%) and out of 10 husbands in 41-50 years age group only 8 (80%) accompanied their baby to immunization.

Table 33: Association of the husband accompanying his baby to immunization according to the Religion of the husband

Religion	Yes		No		Total	
	No.	%	No.	%	No.	%
Hindu	152	88.4	20	11.6	172	43
Muslim	169	74.1	59	25.9	228	57
Total	321	80.25	79	19.75	400	100

$$\chi^2 = 12.560 \quad df = 1 \quad P < 0.001$$

In the present study out of 172 Hindus, 152 (88.4%) husbands and out of 228 Muslims, 169 (74.1%) husbands accompanied their wives to ANC checkup. So Hindu husbands accompanying their baby to immunization was more than Muslim husband's accompanying their baby to immunization and shows statistical significance.

Table 34: Association of husband accompanying baby to immunization according to the Family type

Family type	Yes		No		Total	
	No.	%	No.	%	No.	%
Nuclear family	138	72.6	52	27.4	190	47.5
Joint family	183	87.1	27	12.9	210	52.5
Total	321	80.25	79	19.75	400	100

$$\chi^2 = 13.253 \quad df = 1 \quad P < 0.001$$

The present study showed that 183 (87.1%) participants out of 210 who were staying in nuclear family, 138 (72.6%) participants out of 190 who were staying in joint family, accompanied their baby to immunization. More husbands in nuclear family than joint family accompanied their baby for immunization which was statistically significant.

Table 35: Association of the husband accompanying his baby to immunization with the Socio economic status of the husband

Socio economic status	Yes		No		Total	
	No.	%	No.	%	No.	%
Class I	57	73.1	21	26.9	78	19.5
Class II	99	81.1	23	18.9	122	30.5
Class III	84	81.6	19	18.4	103	25.75
Class IV	76	83.5	15	16.5	91	22.75
Class V	5	83.3	1	16.7	6	1.5
Total	321	80.25	79	19.75	400	100

$$\chi^2 = 3.355 \quad df = 3 \quad P = 0.340$$

In the present study, out of 91 participants of class IV group 76 (83.5%) husbands and out of 6 participants of class V group 5 (83.3%) husbands, out of 122 participants of class II group 99 (81.1%) husbands, out of 103 participants of class III group 84(81.6%) husbands and out of 78 participants of class I group 57 (73.1%) husbands accompanied their baby to immunization. As the socioeconomic class increased husbands accompanying their baby to immunization decreased.

Table 36: Association of the husband accompanying his baby to immunization with Literacy level of the husband

Literacy level of husband	Yes		No		Total	
	No.	%	No.	%	No.	%
Illiterate	4	50	5	50	8	2
Primary	22	81.5	5	18.5	27	6.75
Secondary	129	76.8	39	23.2	168	42
PUC/Diploma	62	73.8	22	27	84	21
Graduation	104	92	9	8	113	28.25
Total	321	80.25	79	19.75	400	100

$$\chi^2=18.02 \quad df=4 \quad P=0.001$$

Among 113 husbands who were graduates 104 (92%) accompanied their baby to immunization. 22 (81.5%) out of 27 husbands who studied up to primary level, 129 (76.8%) out of 168 husbands who studied up to secondary level, 62 (73.8%) out of 84 husbands who studied up to PUC/Diploma accompanied their baby to immunization. As education level of the husband increased, the husbands accompanying their children for immunization also increased and this trend was found to be statistically significant.

DISCUSSION

The present community based cross sectional study was conducted in the Urban Field Practice Area of Ramnagar-Urban Health Centre, Belgaum under the administrative control of Department of Community Medicine, Jawaharlal Nehru Medical College, Belgaum, during the period 1st January 2013 to 31st December 2013.

I. PROFILE OF STUDY PARTICIPANTS (Tables 1-9)

In the present study, 400 husbands were interviewed. Among them, 245 (61.2%) were in the age group of 30 or more years, 10 (2.5%) of participants were in the age group of 41-50 years, with mean age of the husband was 30.4 ± 3.66 (24-49) years. Maximum number of women, 205 (51%) were in the age group of 20-24 years and minimum number 9 (2.2%) were 30-35 years with the mean age of the women was 24.3 ± 3.33 years and the average duration of married life was 5 ± 2.2 years.

Similarly a study conducted at Agra in the year 2008 with the sample size of 360 showed that the mean age of male and female in the study group was 30.1 years (± 5.65) and 26.62 years (± 5.15) respectively. Majority of the men (61.10%) were in the age group of 25 to 34 years. Majority of women (69.70%) were in the age group 20 to 29 years.¹⁵

In another study done at Delhi in the year 1997 with the sample size of 155 showed that majority of the men (72.8%) were in the age group of 25 to 34 years. The age of wives ranged from 20 to 36 years and the median age was 26 years. Majority of the women (79.4 %) were in the age group of 20 to 29 years.²³

In the present study, 42% husbands had studied up to secondary level followed by 28.2% were graduates and 2% were illiterates. With reference to wives' education,

37.5% had studied up to secondary level, followed by 22.2% had studied up to PUC/Diploma, and 8.8% were illiterates. More women were illiterates (8%) compared to men (2%). 57% were Muslims and 43% were Hindus. 52.5% participants belonged to joint family and 47.5% participants belonged to nuclear family. 35.5% participants were office employees, next 30.8% were businessmen, and least 5.5% were unskilled laborers.

In a similar study conducted at Delhi in the year 1997 with the sample size of 155 showed almost half of the respondents (49.7%) were graduates and above, 36.7% had passed high school and 7.7% had studied up to middle school. With reference to female education, graduates constituted 36.4%, followed by high school pass 33%. However, more women were illiterates (9.1%) as compared to men (1.3%).²³

A similar study conducted at Chitradurga in the year 2013 with sample size of 300 showed out of 300 subjects, 8.7% were illiterate & most of them (74 %) had studied up to high school level. 61% were Hindus and 32% were Muslims. Majority of the respondents (62%) were unskilled labourers. About 70% belonged to nuclear family.¹³

In the present study, majority of study participants belonged to class II SES (30.5%), followed by class III (25.8 %) and the least belonged to class V (1.5 %) as per B.G. Prasad's modified classification. A similar study done at Agra in the year 2008 with the sample size of 360 showed that all the families were found to be in the lower socio-economic class.

II- Distribution of study participants according to obstetrical History- (Table 10)

In the present study, mean age of wife at marriage was 19.3 ± 2.31 years. 60.5% wives were more than 18 years at the time of marriage and 39.5% were less than 18 years. 84% registered their pregnancy within 12 weeks of gestation and 16% registered at 12 or more weeks of gestation. Out of that 90.5% members had taken ANC regularly. Out of 9.5% wives who did not take ANC regularly, 79% were busy at work and 21% had least knowledge about ANC checkup. 17.8% were pregnant at the time of study, 57.5% participants had one child, followed by 36.2% had two children, 4.5% had three children and 1.4% had four or more than 4 children. Mean duration of married life was 5 ± 2.2 years.

A study done at Agra in the year 2008 and the sample size of 360 showed shows 72.4% had one or two children and the remaining (27.6%) per cent of couples had three or four children.¹⁵

III. Husband's participation in antenatal care (Table 11)

In the present study, majority 86.2% husbands accompanied their wives to ANC checkup and 13.8% husbands never accompanied their wives to ANC checkup. About 49% husbands accompanied wife for 2-3 times for ANC checkup, 28% accompanied only once, 7.8% for 4-5 times and only 1.5% accompanied for more than six times for ANC checkup. Majority (84.8%) husbands helped their wives in domestic work during pregnancy. According to National Family Health Survey 3(NFHS-3) report, that in urban area 65 % men accompanied their wives to ANC check up.

A study done at Ahmednagar in 2005 with the sample size of 1091, around 81% of men reported that they had accompanied their wives for antenatal checkups. Among those who did not accompany their wives during antenatal visits, 24% reported that their job did not permit and around 42 percent cited other reasons.¹⁶

A study done in Delhi in the year 2013 with the sample size of 232 showed that 61% of husbands had accompanied their wives to antenatal clinic.¹⁷

A similar study done at Agra in the year 2008 with the sample size of 360 showed that only 18.33% of husbands were present during wife's antenatal checkups. On analyzing the reasons for not accompanying wife during ANC from husbands who were not present, majority of them (72.45%) told that they didn't have time to go with them. Only 32.5 % of husbands provided help in household work during pregnancy.¹⁵

IV. Husband's participation in the intra-natal care of the wife (Table 12)

In the present study, 83.5% deliveries were full term, 16.5% deliveries were pre term deliveries. Out of 400 babies, 63.5% were female and 36.5% were male. In case if female baby was born, 83.8% husbands responded as they would have been happy and 16.2% husbands would have been unhappy. 60.5% of husbands accompanied wives to hospital for delivery.

A study conducted at Agra in the year 2008 with the sample size of 360 showed that 87.5% of husbands were present during delivery.¹⁵ A study done at rural Uganda in the year 2010 with the sample size of 140 showed during labour, 68.6% were accompanied by their spouses.²⁴ A study conducted in Salvodaron in the year 2003 with the sample size of 418 showed that 81 % men attended their wives delivery. 45% women gave birth to female baby and 55% to male baby.¹⁵

In the present study 51.2% cases, husband and wife together took the decision about the place of the delivery, 32.5% cases parents / in-laws, 13.5% cases husbands and in 2.8% cases wives made the decision about the place of delivery. In 52.25% deliveries parents paid the expenses, 45% cases husbands and 2.75 % cases in laws paid the delivery expense of the women.

A study done at rural Uganda in the year 2010 with the sample size of 140 showed, in 25% of cases husbands paid, in 30% other family members paid the money for delivery expense.²⁰ A study conducted at Agra in the year 2008 with the sample size of 360 showed that majority of couples 71.39% did not take decision together about delivery.¹⁵

As per NFHS-3 report, currently married women who usually participated in household decisions were only 48.2% in Uttar Pradesh., 47.9% in Uttarakhand and 52.5 % in India. A study conducted in Uttar Pradesh showed that wives basically agreed with the decisions taken by their husbands.²⁵

V. Husband's participation in the postnatal care of the wife c

In the present study, majority 83.25% cases woman's mother took care after delivery, 13.7% cases in-laws took care, 1.8% cases woman took care of herself and husband took care of wife in 1.2% only.

A similar study conducted at Delhi in the year 2002 with the sample size of 400 showed that women in the course of survey have commented that their husband would advice rest but did not do anything to ensure rest after delivery.²⁷

Men's participation in post natal care of the wife was negligible and so some promotive activities should be undertaken to improve the men's participation in post natal care of the women.

VI. Husband's participation in Family Planning (Tables 14)

In the present study, 92% husbands were aware and only 8% were unaware of family planning methods. 79.5% husbands reported that they had used family planning methods and 20.5% did not use any family planning method after the last delivery. Out of 318 participants, 233 (58.25%) used temporary method and 85 (21.25%) used permanent family planning methods. Out of 233 participants who used temporary method of family planning, 99 (42.5%) were using Copper T, 69 (27.6%) were using condom and 65 (27.9%) were on OC pills.

In 238 (59.5%) cases, husband and wife together decided about the use of family planning methods, 149 (37.2%) couples- husband decided, 10 (2.5%) couples - wife decided and in 3 (0.8%) cases other family members decided about the usage of family planning methods. Out of 400 husbands, 294 (73.5%) husbands opined that wife should undergo tubectomy, 13 (3.25%) husbands opined that husband should undergo vasectomy and 93 (23.2%) couples had not yet decided about undergoing permanent family planning methods.

A similar study done at Chitradurga in 2013 with the sample size of 418 showed that only 27% men were using contraceptives. 283 (94.3%) men said that they would prefer tubectomy as a permanent method of contraception.¹³

A similar study conducted at Delhi in the year 2002 with the sample size of 400 showed that vasectomy was adopted by only 1.8 percent of the males and another 13.8 percent were using condoms at the time of the survey.²⁷

VII. Knowledge of husband about wives antenatal care (Tables 15)

In the present study, 93.5% husbands knew that wife should increase the food frequency and 6.5% husbands did not know that wife should increase the food frequency during pregnancy.

68.75% husbands knew and 31.25% husbands did not know about TT immunization during pregnancy. Out of 275 husbands who knew TT immunization during pregnancy, 27.5% husbands said two doses of TT, 69 (17.2%) husbands said one dose, 13.8% husbands said three doses of TT to be taken during pregnancy by pregnant women and 10.2% husbands had no knowledge about the number of doses of TT immunization during pregnancy.

A study done at Delhi in the year 1997 with the sample size of 155 showed that 60.1% were not aware of the components of antenatal care like number of tetanus immunizations or requirements of increased diet during pregnancy.²³

Out of 400 husbands, 59.5% knew and 40.5% did not know about the intake of Ferrous Sulfate and Folic Acid tablets intake by the woman during pregnancy. 98% husbands knew and 2% did not know about the rest to be taken by the woman during pregnancy. Out of 392 husbands, 42.5% husbands suggested 2-4 hours of rest, 25.2% husbands 4-6 hours, 23.5% husbands 0-2 hours and only 0.8% husbands expressed that 6 hours or more rest may be taken by the pregnant women. In the present study,

96.5% husbands knew about the nearest health facility for pregnancy and delivery care.

A similar study done in Chitradurga in the year 2013 with sample size of 300 showed that 31% men ensured IFA tablets intake by women, 59.3% ensured nutritious food or extra meal and 61% men ensured adequate rest for wife during pregnancy.¹³

A study conducted by Action Research Community Health and Development (ARCH) in Gujarat in the year 2009 showed that men had high levels of correct knowledge on need for good nutrition and reduced workload during pregnancy, though they knew little about the details of antenatal care, iron tablets, or tetanus injections. In another study, also in Gujarat, husbands were found to be unaware of the care their wives received during pregnancy and delivery.²⁶

VIII. knowledge of the husband about wives intra natal care (Tables 16)

In the present study, 59.2% husbands said initiation of breast feeding should be within 4 hours, 16.2% husbands said within half an hour of birth, 5.5% said after one day after the birth of the baby and 19% did not know the time of initiation of breast feeding for baby.

The Men in Maternity Care project in Delhi in the year 2004 found that including men in ANC education resulted in significantly more babies breastfed within the first hour of life.⁸

IX. Knowledge of husband about wives postnatal care (Tables 17)

In the present study, 70% husbands knew 0-6 months as the ideal period of exclusive breast feeding, 81 (20.2%) knew 6 months-1 year and 9.8% had no knowledge about exclusive breast feeding for the baby. 70.2% husbands knew 6 months-1year, 4.2% husbands knew 0-6 months and 25.2% had no knowledge about weaning time of the baby.

A study conducted in Delhi in the year 2002 with the sample size of 400 states that 27.5% of men ensured breast feeding of the baby by the mother.²⁷

X. participation of men in child care(Tables 18)

In the present study, 87.75% husbands accompanied their children to immunization and 12.25% husbands did not accompany their children to immunization. Out of 351 husbands who accompanied their kids for immunization, 51.85% husbands accompanied twice times, 24% accompanied once, 11% three times and only one percent of husbands accompanied for more than three times to the immunization of the baby.

A study done at Chitradurga in the year 2013 with the sample size of 412, showed that 29% of men reported taking child to immunization most of the times and 84% men sometimes. 94% took the child to the doctor when sick most of the times and only 7% reported taking child to doctor sometimes.¹³

A study conducted in Delhi in the year 2002 with the sample size of 400 states that 13.8% of men accompanied their children to the immunization.²⁷

XI. Association of Husband accompanying wife to ANC checkup according to various socio-demographic variables (Tables 19-25)

In the present study 90.6% men in the age group of 30 or more years accompanied their wives to ANC compared to 80.7% men in the age group of 31-40 and only 10% men in the age group of 41-50 years accompanied their wives to ANC. So as the husband's age increased, husband accompanying wife to ANC checkup decreased and association of husband accompanying wife to ANC according to age was statistically significant.

In the present study, 94.8% Hindus accompanied their wives to ANC checkup compared to 77.6% Muslims. Hindu husbands' accompanying their wives was more than Muslim husbands accompanying their wives to ANC checkup and was found to be statistically significant. A similar study done in Maharashtra in 2005 showed that among Hindu 82% husbands accompanied wife to ANC checkup, among other religion, 50% of husbands accompanied wife to ANC checkup.¹⁶

In the present study there was no difference in husbands accompanying their wives to ANC checkup among husbands belonging to nuclear family (84.7%) and joint family (85.2%). In a study done at Ahmednagar in 2005 showed that 78% husbands of nuclear family and 81% husbands from non nuclear family accompanied their wives to ANC checkup.¹⁶

In the present study, 90.1% husbands of class IV, 87.7% of class II, 85.9% of class I, 83.3% of class V and 76.6% of class III accompanied their wives to ANC checkup and socioeconomic status was not found to be associated with husband accompanying wife to ANC checkup.

The present study showed, 97.3% of graduates, 88.1% of men studied up to PUC/Diploma, 81.5% of men had studied up to primary level, 78% men had studied up to secondary level and 37.5% of illiterates accompanied their wives to ANC checkup and as the education level increased the men accompanying their wives to ANC checkup also increased and it was found to be statistically significant.

A study done at Ahmednagar in 2005 with the sample size of 1091 revealed that education of the husbands was found to be significant. Men educated above high school were 2.4 times more likely to accompany their wives compared to men educated only up to primary school.¹⁶

So increased education level of men, plays a positive role, in increasing utilization of reproductive and child health service by women.

In the present study, 94.3% of husbands who had one child, 77.2% who had two children, 61.1% who had three and none of the husbands who had more than equal to 4 children had accompanied their wives to ANC checkup. As the number of children increased, husbands accompanying wives to ANC decreased and the association was found to be statistically significant. In a study done at Ahmednagar in 2005 with the sample size of 1091 showed the similar findings, men who had less than two children were more likely to assist their wives compared to men who had more than two children.¹⁶

Considering the profession of the husband, 91.5 % office employee, 89.4% of self employee/ business and the least 66% who belonged to other professions accompanied their wives to ANC checkup and was found to be statistically significant. A study conducted at Ahmednagar in 2005 with the sample size of 1091

showed the similar findings that 87% of office employees, 83% of self employees, and 75 % of other professionals accompanied their wives to ANC checkup.¹⁶

As the occupational status increases, there is increased participation on men in accompanying their wives to ANC checkup.

XII. Association of husbands accompanying their wives to hospital for delivery according to socio demographic variables (Tables 26-31)

Around 64.1% men in the age group of 31-40years, 60.4% men of 30 or more than 30 years, only 10% men in the age group of 41-50 accompanied their wives to hospital for delivery and was found to be statistically significant.

A study done in Maharashtra in the year 2001 with the sample size of 802 showed 55.3% men of more than 30 years accompanied their wives to the hospital for delivery.³⁴

In the present study, 61.8% Muslims and 58.7% Hindus accompanied their wives to hospital for delivery, shows religion was not associated with association of husbands accompanying wives to hospital for delivery significant. A study done by at Ahmednagar in 2005 showed that 52.5% Hindus and 47.4% others accompanied.¹⁶

In the present study among nuclear family, 70% of husbands and 51.9% husbands among joint family accompanied their wives to the hospital for delivery.

A study done at Maharashtra in the year 2001 with the sample size of 802 showed 40.5% husbands from nuclear family 26.4% husbands from joint/non nuclear family accompanied their wives to hospital for delivery.³⁵

A study done at Ahmednagar in 2005 showed similar findings of more participation of husbands from nuclear family compared to husbands from joint family in accompanying wife to the hospital for delivery.¹⁶

In the present study the association of the husband accompanying their wives to the hospital for delivery according to family type was found to be statistically significant. Reason for increased participation by nuclear family husbands could be due to non-availability of other family members to escort pregnant women.

In the present study, 75.2% of graduates, 53 % of men studied up to secondary level and none of the illiterates accompanied their wives to the hospital for delivery.

As literacy level of the husband increased, the husband accompanying wives to hospital for delivery increased and this difference was found to be statistically significant. A study done at Maharashtra in the year 2001 showed the similar findings that 31.8% of husbands who had studied up to high school, 23 % of husbands who had studied up to primary level accompanied their wives to hospital for delivery. So increase in educational level of men leads to increased accompaniment of wives by their husbands to the hospital for delivery.

In the present study, 81.7% office employee, 52.2% of self employee, 27.7% of other professionals accompanied their wives to hospital for delivery. As occupational status increased the husband accompanying their wives to hospital for delivery was also increased and the association was found to be statistically significant.

A study done at Ahmednagar in 2005 with the sample size of 1091 showed that 54.6% of self employee and 55.6 % of other professionals accompany their wives to the hospital for delivery.¹⁶

In the present study, 53 % of husbands who had one child, 71.7% who had two children, 88.9% of husbands who had three children and none of the husbands who had more than equal to four children accompanied their wives to hospital for delivery and this trend found to be statistically significant. A study at Ahmednagar in 2005 with the sample size of 1091 showed that men having more than two living children, 30 percent more likely to be present during delivery at hospital compared to men having two or less than two living children.¹⁶

XIII. Association of husband accompanying baby to the immunization according to the socio-demographic variables (Tables 32-36)

In the present study, 82.5 % of participant's 30 or less than 30 years, 77.2 % in the age group of 31-40 years, 80% in the age group of 41-50 years accompanied their baby to the immunization. The study showed that the husband's age had no association with accompanying child to the immunization. Most of the (88.4%) Hindus compared to Muslim (74.1%) husbands accompanied to their child to the immunization and was found to be statistically significant. It could be due to most of the Hindu families were nuclear families and in most of the cases father has to accompany the child to the immunization. Husbands (87%) who lived in joint family accompanied the child to immunization more when compared to the husbands (72.6%) who lived in nuclear family and was found to be statistically significant.

In the present study, 83.5% husbands of class V, 83.3% husbands of class IV, 81.6% of class III, 81.1% of class II, 73.1% of class I husbands accompanied their

children to immunization. As socioeconomic status increased, husbands accompanying their children to immunization decreased and this was found to be statistically significant.

Considering the literacy level of the husbands, 92% of graduates, 81.5% of participants studied up to primary level, 76.8% who studied up to secondary level, 75% of participants who studied up to PUC/Diploma and 50% of illiterates accompanied their children to the immunization. As the education level of husband increased, the men accompanying their baby to the immunization increased and it was found to be statistically significant.

A study done in Nepal in 2010 with the sample of 2178, showed that those men who were uneducated or had primary level education and were aged 25 years or above were more likely to accompany their partners for immunization of children than those men who were educated at secondary or higher level and were aged 24 years or below. Men with an high income per month were less likely to accompanied their partners for the immunization of their child.¹⁸

CONCLUSION

The current study revealed that men had participated actively in providing antenatal, intra natal care and child care, but were less involved in post natal care. Though they had a good knowledge about family planning methods, only women were practicing the family planning methods in most of the cases. Men insisted women to undergo permanent family planning method, when question was asked about who should undergo permanent family planning method. Desire to get vasectomy done was very low among men. Various factors like age, education, occupation, religion, number of children the couple had and socio-economic status influenced the men's participation in promotion of reproductive and child health.

LIMITATIONS

The limitations of the study are:

- Recall bias could have been present even after restricting inclusion to husbands whose wives last delivered 12-24 months prior to the survey and had child in the age group of 12-24 months.
- Additionally reporting bias arising from men wanting to provide socially desirable responses especially regarding the care during pregnancy, hospital delivery and child care issues could have been a possible draw back to the study. This could have been overcome by cross confirmation of the men's responses by women interviews.

RECOMMENDATIONS

On the basis of this study, the following recommendations have been made for the improvement of utilization of Reproductive and child health by women and children

- Strategies need to be developed to involve men in the RCH programme and men should be made aware about their roles and responsibilities in maternal and child health.
- This may be achieved by reaching male audiences with appropriate IEC messages to encourage couple communication and to improve acceptance of male methods.
- Family planning programmes may be made more male-friendly.
- Laying more emphasis on female education and women empowerment to change their traditional perceptions about gender inequality and the role of husbands in maternal and child health.

SUMMARY

The present study – “Men’s participation in utilization of reproductive and child health services by women - A community based cross sectional study” was undertaken to assess the participation and knowledge of men in maternal and child health and also to distinguish the various socio-demographic factors influencing the men’s participation in promotion of reproductive and child health.

This community based cross sectional study was carried out in the Urban field practice area of Urban Health Centre, Ramnagar, Belgaum which is under the administrative control of J. N.M.C, Belgaum. A total of 400 Husband’s of women in the age group of 18-45 years, having at least one living child in the age group of 12-24 months and residing in the urban field practice area of UHC Ramnagar, for at least one year preceding the survey were selected for the study. The duration of the study was one year from 1st January 2013 to 31st December 2013. The data was collected with a predesigned structured questionnaire.

In the current study, 61.2% participants were in the age group of 30 or less than 30 years, 51% of spouses of the participants were in the age group of 20-24 years and 57% were Muslim by religion. 25.8% had family size of four and 52.5% were living in a joint family. 35.5% of participants were office employees and 62.8% of their wives were home makers. A large number of participants and their wives had studied up to high school (42% and 37.5% respectively). 30.5% of the participants belonged to class II socio-economic status as per modified B. G. Prasad’s classification.

Amongst study participants' wives, 60.5% had married at the age of 18 years or more and the mean age of wife at marriage was 19.3 ± 2.31 years. Mean duration of couples married life was 5 ± 2.2 years. Majority, (82.2%) of wives were not pregnant at the time of survey and 57.5% of couples had one child at the time of survey and the rest had more than one child.

About 84% of the participants' wives had registered their pregnancy within 12 weeks of gestation and 90.5 % of them had taken regular ANC visits. Being busy at work was the often cited reason for not taking regular ANC. Most, (86.2%) husbands accompanied their wives to ANC checkup and among those who accompanied, 49 % accompanied their wives for 2-4 times. Majority, 84.8% of husbands helped their wives in domestic work during pregnancy.

Around 68% of husbands knew that TT immunization should be taken during pregnancy and among them, 27.5% knew that two doses of TT should be taken. 59.5% husbands knew that ferrous Sulphate and folic acid to be taken during pregnancy and 98% knew rest is needed during pregnancy and around 48.5% insisted & ensured 2-4 hours of rest/day to their wives during pregnancy.

Most, 97.5% deliveries occurred in health care set up and 83.5% were full term deliveries. In 60.5% cases, husband accompanied their wives to the hospital for delivery. Of the children born, majority, 63.5% were girls. 83.8% of husbands responded as happy if a female baby would have born to them. In 51.2% of cases husband and wife together took the decision about the place of delivery and parents paid the hospital expense in 52.2% deliveries. In majority 83.25% mothers took care of women after the delivery.

59.2% husbands knew that half an hour to 4 hours is the ideal time to initiate breast feeding for the baby. Most, 70% husbands stated that exclusive breast feeding period as 0-6 months and 70.2% husbands knew that 6months-1 year as the ideal time for weaning of children.

Majority (87.75%) participants accompanied their baby to the immunization. Among them 51% of participants accompanied their baby twice to the immunization. Most of the participants were aware of their children's health problem and 62% participants took their child to the hospital when they were sick.

Regarding family planning methods, 92% of husbands were aware, and 79.5% of couples used some family planning methods after the last delivery. Temporary method was the most commonly (58.25%) used family planning method. Among temporary family planning method, most commonly practiced method was Copper T insertion (42.5%). In 59.5% of cases, husband and wife together made the decision of using family planning methods. 73.5% husbands felt that wife should undergo permanent family planning procedure (i.e. tubectomy) and only 3.25% of men supported vasectomy & the rest had not decided yet about the same.

Various socio-demographic variables had influence over men's participation in promotion of Reproductive and Child Health. Significant associations were found between husband's participation in ANC, PNC and child care with the age, religion, literacy level, education and occupation of the husband and the number of children they had.

Hence, the present study recommends that in order to improve the men's participation in Reproductive and Child Health, periodic IEC activities have to be held at health centers. Principally both husband and wife need to be counselled about the importance of taking adequate care during pregnancy and how it influences the mother and child health.

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ANNEXURE I- ETHICAL CLEARANCE LETTER



K.L.E.SOCIETY'S
JAWAHARLAL NEHRU MEDICAL COLLEGE,
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Ref: MDC/DOME/ 895

Date: 11/10/2012

To,

PG student in Community Medicine,
J.N.Medical College,
BELGAUM.

Sub: Institutional Ethical Clearance for the study.

With reference to the above, we wish to inform you that your proposed research project titled "MEN'S PARTICIPATION IN UTILIZATION OF REPRODUCTIVE AND CHILD HEALTH SERVICES BY WOMEN – A COMMUNITY BASED CROSS SECTIONAL STUDY" is ethical and justifiable. The proposed research project has been cleared by the JNMC Institutional Ethics Committee on Human Subjects Research.

(Dr.Hema Dhumale)
Member Secretary
JNMC Institutional Ethics Committee
on Human Subjects Research,
J.N.Medical College, Belgaum.

(Dr.Ganga Pilli)
Chairman,
JNMC Institutional Ethics Committee
on Human Subjects Research,
J.N.Medical College, Belgaum.

ANNEXURE II - INFORMED CONSENT

“MEN’S PARTICIPATION IN UTILIZATION OF REPRODUCTIVE AND CHILD HEALTH SERVICES BY WOMEN – A COMMUNITY BASED CROSS SECTIONAL STUDY”

INVESTIGATORS: _____

Introduction:

I am a post graduate student of Dept of Community Medicine, JNMC, KLE University, Belgaum. I am conducting a study in the field practice area of Ramnagar Urban Health Centre.

Methodology:

I will be interviewing husbands of women in the age group of 18-45 years having at least one living child in the age group of 12-24 months, residing in the urban field practice area of Ramnagar Urban Health Centre, 1 year preceding the survey.

Possible benefits:

You will not be eligible for any kind of monetary benefits or free services by virtue of your participation in the study. You will be benefitted by the health education given during the study regarding the services available for pregnant women and care to be taken during pregnancy.

Possible risks:

Methods applied to do the study are safe. No risk is involved in the study.

Cost of participation:

The cost of the study will be borne by the researcher. You will not have any costs attached to your participation.

Legal rights:

By signing this consent form you are not waiving any of your legal rights.

Privacy and Confidentiality:

The results of the study may be published for scientific purposes. However your identity will not be revealed. All information collected will be coded so that no one other than the investigator will know your identity.

Withdrawal from the study:

You can withdraw from the study at any time if you wish to do so.

Authorization to publish the results:

The researcher may use the information gathered from this study for presentation in scientific journals. However your identity will not be revealed.

Questions:

If you have any queries regarding the study, you can contact Dr. _____ on mobile no _____. If you have any questions about rights as a research participant you can contact Dr. _____, Chairman, J. N. M. C Institutional Ethics Committee on human subjects' research on _____.

Consent summary:

“I have been explained all the contents of this consent form in my local language and having understood and clarified all my queries about the study to the best of my knowledge, I hereby give my voluntary consent for participation in the study. I do sign the informed consent form in front of an eyewitness whom I recognize.”

Name and Signature/ left thumb impression of the participant:

Name and Signature of the interviewer:

Name and Signature/ left thumb impression of the eyewitness:

Signature of the guide:

Date:

ANNEXURE III – PROFORMA

K.L.E. UNIVERSITY's

J.N.MEDICAL COLLEGE, BELGAUM

DEPARTMENT OF COMMUNITY MEDICINE

RESEARCH QUESTIONNAIRE

Investigator: Dr _____ **Guide: Dr.** _____

**“MEN’S PARTICIPATION IN UTILIZATION OF REPRODUCTIVE AND
CHILD HEALTH SERVICES BY WOMEN – A COMMUNITY BASED CROSS
SECTIONAL STUDY”**

[Note: All the personal information provided during this study will be kept confidential.

Only aggregated data will be published.]

I] GENERAL INFORMATION:

Sl. No. _____ Date of survey. _____

Name: _____ Age: _____ years

House No:

Religion: Hindu/Muslim/Others

Type of family: Nuclear/Joint/Extended/Broken Family size:

Total income: Rs _____/month Per capita income: Rs _____/month

Health insurance done for the family in last one year: Yes/No

Socio Economic Status (Modified BG Prasad's classification): - I \ II \ III \ IV \ V

Education: Illiterate /Primary/Secondary/PUC or Diploma/Graduation

Occupation of the husband: Business/Office employee/skilled labourer/unskilled labourer/Others

Occupation of wife: Home maker/Office employee/unskilled labourer/others

Obstetric information: 1. Age of wife at marriage:

2. Duration of married life:

3. Pregnancy status: Yes/No

4. Number of living children the couple had at the time of study?

a) 1 b) 2 c) 3 d) 4

I - Antenatal Care (last pregnancy)

1.1 Weeks of pregnancy registration: a) <12 wks b) >12 wks

1.2 Was ANC taken regularly: Yes/No

If no why?—————(specify the reason)

1.3 Did you accompany your wife to ANC: Yes/No

If yes how many times you accompanied her: a) At least once

b) 2-3 times

c) 4-5 times

d) 6 times

1.4 Whether you helped your wife in domestic work during pregnancy: Yes/No

1.5 Knowledge of husband about

a) Did you know that your wife should increase the food frequency and healthy food during pregnancy? Yes/No

b) Did you know that your wife should take TT immunization during pregnancy? Yes/No

If yes, how many to be taken? a) 1 b) 2 c) 3 d) don't know

c) Did you know that your wife should take Ferrous sulphate and Folic Acid tablets during pregnancy? Yes/No

d) Did you that your wife should take rest during pregnancy? Yes/No

If yes how many hours to be taken? a) 1-2 hours b) 2-4 hours c) 4-6 hours d) >6 hours

II – Intra natal Care (during last pregnancy)

2.1 Type of delivery: Full term/Preterm`

2.2 Whether you accompanied your wife to the hospital during labour? Yes/No

2.3 Sex of the baby: Male/Female

2.4 In case of female baby what was your reaction? a) Happy b) Not happy

2.5 Place of delivery: decision taken by whom? a)husband b)wife c) together
d)parents/in laws

2.6 did you know about the nearest health care facility? Yes/no

2.7 Husbands knowledge regarding the ideal time of initiation of the breast feeding for
the baby:

a) Within half an hour of birth b) ½ hour- 4 hour c) 4 hours-24 hours d) don't know

2.8 who paid the delivery expense? a) Husband b) Parents c) in laws d) others

III — Postnatal Care

3.1 Husbands knowledge about exclusive breast feeding of the baby for how many
months?

a)0-6 months b) 6months -1 year c)don't know

3.2 Knowledge of husband about ideal time of weaning for the baby:

a) 0-6 months b) 6months -1year c) don't know

3.3 If yes who took care after delivery? a) Mother b) in laws c) husband d) herself

IV – Immunization history (of the youngest child)

4.1 Did you (husband) accompany the baby to the immunization? Yes/No

4.2If yes how many you accompanied? a) 1 b) 2 c) 3 d) 4+ times

V – Family Planning

5.1 Are you aware of family planning methods? Yes/No

5.2 Are you using any family planning methods after last delivery? Yes/No

5.3 If yes which is the method you are practicing? A) Temporary b) permanent c) none

5.4 If temporary which method you are following? a) cu-T b) condom c) OC pills

5.5 Who should undergo family planning procedure? a) Husband b) wife c) not yet decided

5.6 Decision of using family planning methods a) husband b) wife c) together d) others

ANNEXURE – IV - KEY TO MASTER CHART

**“MEN’S PARTICIPATION IN UTILIZATION OF REPRODUCTIVE AND
CHILD HEALTH SERVICES BY WOMEN – A COMMUNITY BASED CROSS
SECTIONAL STUDY”**

Investigator: Dr. _____

- A) Age of wife in years
- B) Age of husband in years
- C) Religion:
 - 1. Hindu
 - 2. Muslim
 - 3. Others
- D) Type of family
 - 1. Nuclear
 - 2. Joint
- E) Family size
- F) Socio Economic Status (Modified B. G. Prasad’s Classification):
 - 1. Class I
 - 2. Class II
 - 3. Class III
 - 4. Class IV
 - 5. Class V
- G) Husband’s education:
 - 1. Illiterate
 - 2. Primary School
 - 3. High School
 - 4. PUC/Diploma
 - 5. Graduate

- H) Wife's education:
1. Illiterate
 2. Primary School
 3. High School
 4. PUC/Diploma
 5. Graduate
- I) Occupation of the husband:
1. Business
 2. Employee
 3. Skilled labourer
 4. Unskilled labourer
- J) Occupation of the wife:
1. Homemaker
 2. Employee
 3. Unskilled labourer
 4. Others
- K) Age of wife at the time of marriage in years :
1. < 18 years
 2. > 18 years
- L) Duration of married life in years: _____
- M) Wife is pregnant at the time of study: 1) Yes 2) No
- N) Number of living children:
1. 1
 2. 2
 3. 3
 4. 4
- O) Weeks of pregnancy registration:
1. < 12 weeks
 2. 12 weeks
- P) ANC taken regularly:
1. Yes
 2. No

AJ) Knowledge of husband about the ideal time of weaning of the baby:

1. 0-6 months
2. 6 months-1 year
3. Don't know

AK) Who took care the women after the delivery?

1. Mother
2. In laws
3. Husband
4. Self care

AL) Did participant accompanied the baby to the immunization?:

1. Yes
2. NO

AM) If yes, how many times men accompanied his baby to the immunization?

1. Once
2. 2 times
3. 3 times
4. 4 times

AN) Awareness of husband about the family planning methods:

1. Yes
- 2.No

AO) Any family planning methods used by the couple after the last delivery:

1. Yes
2. No

AP) Decision of using family planning methods:

1. Husband
- 2.Wife
3. Together
4. Other family members

AQ) Method of family planning method practicing:

- 1) Temporary
- 2) Permanent
- 3) None

AR) If following temporary method, then which method of temporary family planning method practicing?

1. Cu-T
2. Condom
3. Oral Contraceptive Pills

AS) According to husband, who should undergo permanent family planning procedure?

1. Husband
2. Wife
3. Not yet decided

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS		
27	35	2	2	15	3	3	4	3	1	22	5	2	2	1	1	0	2	0	2	1	2	0	2	1	1	1	1	1	1	1	1	4	1	1	2	1	2	0	1	1	3	1	3	2		
25	32	2	2	7	2	3	2	1	1	18	8	1	2	1	1	0	1	1	1	1	2	0	2	1	1	1	1	2	2	3	1	2	1	2	2	1	1	2	1	1	2	1	2	2		
31	38	1	1	5	2	5	5	2	1	24	6	2	3	1	1	0	1	4	1	1	1	2	1	1	2	2	1	2	1	2	1	2	1	1	2	2	1	1	1	1	1	0	2	1		
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25	34	2	2	6	4	3	3	4	4	16	8	1	2	1	2	1	2	0	1	1	2	0	1	1	1	1	2	1	1	3	1	4	1	1	2	1	1	2	2	2	1	3	0	1		
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