How Much Do Rural Indian Husbands Care About Their Wives' Health

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Abstract

Objective: To ascertain the awareness of husbands and their response to their wives health problems.

Methods: Hundred couples selected through systematic random sampling from 4 purposively selected villages were interviewed by a social worker in rural north India through house to house survey. Role of husbands in pregnancy, puerperium and during wives' illness was explored. Their awareness of reproductive health problems of their wives was also ascertained. Another OPD based interview of women (n=300) patients, 50 each at - health post, sub centre, PHC, CHC, 50 bed hospital and apex institution was also done.. Consultation history was also sought.

Results: Husbands escorted their wives to hospital in 30-40% cases. This was mainly for visit to bigger hospitals in city/ towns. Husbands decided about treatment agency in majority of cases. In 10% cases they took time off work during wives' sickness and helped in household work. Consultation within a week was 100%. Husbands' knowledge about safe period was deficient. Majority (78) said that women remained ill more often. Most wives were satisfied with the role of their husbands during their pregnancy, or illness. Majority (80%) of husbands favored education of women upto 10th standard and 87% were in favor of working women.

Conclusion: Reasonably favourable attitude of husbands towards their wives' health problems was witnessed. This needs to the carefully nurtured.

INTRODUCTION

Men play important and often dominant roles in making decisions which are crucial to women's reproductive health (RH). Because of low status of women in Indian society they still have to depend on their husbands for getting appropriate and adequate health care for their illnesses. Men as a group are frequently blamed for many of women's reproductive health problems, e.g. as a source of sexually transmitted diseases/ reproductive tract infections (STDs/RTIs), as a high risk sexual partner, failing 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 RH of their wives.[1,2,3]

Lately, it has been recognized by health planners that men deserve more attention if reproductive health of women is to be improved.[4] ICPD-1994 Cairo Conference had also recognized the importance of men for ensuring women's RH. The conference encouraged a ‘couple' approach rather than focusing separately on men and women.[1] Against this background the present study was conducted with following objectives –

1. To ascertain the awareness of husbands about and their response to wives' health problems.
2. To determine the concordance of wives' account of their illness with that of their husbands.

MATERIAL AND METHODS

THE HEALTH CARE DELIVERY SYSTEM IN RURAL INDIA

Rural areas of India are divided into community development blocks (CDBs). There are about 500 districts in India, with more than 5000 blocks, to which the government provides health care. Every CDB (average population

100000) has one community health center (CHC) with 4-5 medical specialists three or four smaller primary health centers (PHC) with two generalist doctors in 30000 population and 20-30 sub centers with 2 health workers per 5000 population. At present, there are 130983 subcenters; 22064 PHCs, and 1932 CHCs in India. The pattern described here varies from state to state.

The survey focused on couples where wives' age was upto 49 years. Fifty houses each were selected by a social worker through systematic random sampling from 4 settings – a non subcentre village, a subcentre village, a primary health centre (PHC) village and a community health centre (CHC) village (Total population of four villages - 12778). These 4 areas were purposively selected from rural field practice area of department of Community Medicine, Post Graduate Institute of Medical Education & Research, Chandigarh. Our aim was to interview at least 100 couples. Keeping in view refusals, non-cooperation / non-availability the social worker enlisted 120 couples (who indicated their availability for interview) through house to house survey. The social worker sought an appointment with the selected respondents for interview. A pretested / pilot tested structured interview schedule was used. She first interviewed the women respondents on the fixed day/time. Appointment was again sought to interview the other spouse (if not available on the same day/time). Both husbands and wives were interviewed separately. In majority of cases husbands were not available at the time of wives' interview. So they were contacted on subsequent visits. In some cases the spouse was not available for interview despite earlier commitment. These cases were excluded from the study (20) after 3 unsuccessful visits.

The respondents were asked about role of husbands during ante-, intra-and post-natal care and during hospitalization of their wives. They were also asked about current illnesses of their wives. Their awareness about reproductive health status of their wives was also sought.

In addition to the house to house survey, 50 women patients each were interviewed by the social worker in six OPD settings – (i) at health post in a non-subcentre village where weekly clinic is held by the department, (ii) at a sub-centre clinic run by the department, (iii) at a PHC (Primary Health Centre) clinic, (iv) at a CHC (Community Health Centre) clinic, (v) at a government 50 bed civil hospital and, (vi) at an apex institution i.e. PGIMER (Post Graduate Institute of Medical Education and Research) Chandigarh. These patients were enlisted in the waiting area/halls. Random selection was not insisted upon. Available respondents were interviewed consecutively. In civil hospital/PGIMER various OPDs were covered (including Gyne/Obst. OPD). Another single page pretested / pilot tested structured interview schedule was used for this.

The respondents were asked about the nature of their disease, date of onset, consultation lag, money spent etc. They were also asked (along with actual observation) about the people who had accompanied them to hospital/ clinic and about role of their husbands in treatment seeking.

The data was analysed manually. Responses of husbands and wives were compared. Percentages and chi-square test were used for analysis. Verbatim responses of some of the respondents were also noted on the interview schedule.

ETHICAL ASPECTS

Consent of all the respondents was taken. They were explained the purpose of the study. They were told that the data would be kept confidential.

RESULTS

HOUSE TO HOUSE SURVEY OF 100 COUPLES

Age-wise, 19 wives were aged 15-24 yrs, 46 were 25-34 yrs and 35 were above 35 yrs. Literacy rate of husbands was 79% (4 graduates) and of wives was 59% (2 graduates). Most of the women (87%) were housewives (6 shopkeepers, 2 in service). Almost half of the husbands (49%) were labourers or farmers (20 shopkeepers, 10 in service). Joint family system was more prevalent (57%). Majority of the families (72%) had 5-8 members (13 had 1- 4 and 15 had 9 -12 members). Half of the couples had 3 or more children. Range of monthly family income was Rs.1000 – Rs.15000 (US$ 20-300). Per capita monthly income was Rs.142 – Rs.2500 (US$ 3-50) . Half of the respondents were lower caste Hindus (52%), and 29% were high caste Hindus. Rest were Muslims (16) and Sikhs (3). Most (92%) belonged to middle or lower middle social class (3% upper middle & 5% lower social class).

Eleven women were pregnant (4 primigravida) at the time of the survey. One woman became pregnant twice during the study period. In 61, the youngest child was more than 2 years old and in 24 cases it was less than 2 years old. Of the 36 women (24+11+1) who became pregnant during last 24 months more than 3 antenatal care (ANC) visits were made in 27 (75%) cases. In 14 (39%) cases husbands escorted the women to the doctor/hospital. Decision about the choice of health agency for ANC was taken by husbands (19; 53%), wives (3) or both (6). In 7 cases (19%) husbands reported

about complications during pregnancy (wives reported complications in 10 cases).

Of the 27 women who delivered during past 24 months (9 were still pregnant when the study ended), 19 were home delivery by dais (in 7 cases doctors and in 1 case nurse conducted the delivery in hospital). In all except one (2 as per wives' statement) it was a full term delivery. Some complications were reported in 6 cases (4 as per husbands). Decision about the place of delivery was made by the husband in 13 cases (16 as per husbands) and by both husbands and wives in 6 cases.

Household work was resumed by the women within 40 days of delivery in 11 cases as told by wives (6 as per husbands). In 19 cases dais (traditional birth attendants) provided post natal care. Complications in post natal period were reported in 5 cases. In 10 cases husbands took time off work during pregnancy/ puerperium. In all the cases wives were satisfied with the role played by husbands during pregnancy / puerperium.

Overall, 42 women reported some illness at the time of survey or during past 15 days as compared to 39 cases where husbands reported their wives to be sick. There was some disparity in the responses of husbands and wives regarding symptoms experienced by the women (Table I). Treatment was taken in all except 4 cases. In 10 cases consultation was done on the same day. In rest, a doctor was consulted within a week. In most of the cases husbands decided about the treatment agency. In 15 cases husbands escorted their wives to the doctor. In 18 cases they went alone. In 6 cases no money and in 15 cases less than Rs.100 (~ $2) were spent on treatment. Thirteen cases spent Rs.100-500 ($2-11). In 4 cases Rs. 750 ($17) were spent. Only 2 women reported use of home remedies. In 7 cases husbands helped the wives in household work during their illness (in 8 cases the children did so). In 11 cases nobody helped. In 7 cases husbands took time off work during wives' illness. All except 3 women said that they were satisfied by their husbands' support during their illness.

Figure 1

Table 1: House-to-house survey – Health problems of wives as reported by them and their husbands

Health Problems of wives	Respondent	
	Husband	Wife
Pain in legs	31	29
Acid Peptic Disease	21	32
Diarrhea	4	6
Urinary trouble	13	14
Cough (URTI)	22	21
Fever	30	30
Breathlessness	19	29
Diminished visual acuity	23	35
Weakness	44	60
Skin infection/boils	26	27
High BP	64	56
Anxiety/tension	32	39
Sleeplessness	11	10
Menstrual problem	19	23
Vaginal discharge	28	35
Itching around vagina	5	11
Backache	51	55
Dyspareunia	10	18
Mass coming out of vagina	13	15
Genital ulcer	2	3
Pain lower abdomen	22	22
Headache	37	29
Dental problem	7	7

(The figures indicate the number of cases in which health problems were reported).

Half of the women had been hospitalized at least once since their marriage. Thirtynine had some major illness at least once since their marriage. Husband was the main decision maker for choosing the hospital. In 44 (of 50) cases husband escorted the wife and also stayed with her in the hospital. In 44 cases the women had undergone some operation. In 5 cases blood transfusion was also done. Of them, husband was the donor in one case. In remaining 4 cases relatives donated the blood.

Most (83%) husbands told that in girls the usual age at menarche was 11-16 yrs; eleven told it to be 17-20 yrs. Five were not aware about it (one told it to be 5-10 yrs). Sixty six of them told the usual age at menopause to be 40+ yrs; 25 did not know about it. Majority told that menstrual cycles

lasted for 26-30 days. Rest told it to be 31-35 day (24) or <25 days (2). One did not know about it. Duration of menstrual bleeding was told to be <5 day (50) or 5-10 days (47). Rest told it to last for 11 days or more. Twenty husbands told that chances of conception were the highest just after menses, 19 told that midcycle had the maximum risk of pregnancy. One told that the highest risk was during the bleeding days while the others (8) told that few days before menstruation was the risky period. Rest did not know about it. Seventy eight husbands told about the last menstrual period of their wives (LMP) correctly, while 2 did not know about it. Nine of them told it wrongly. In 29 cases menstrual cycles of the wives were irregular. In all except one case, husbands knew about the materials used by their wives as menstrual pad. Commercial / market pads were used in 7 women.

Sixty two couples used some family planning method (39 tubectomy, 2 Copper T, 17 Condoms, 2 Oral pills, 2 others). When asked about duration of use of the family planning methods, in 89 cases both husbands and wives gave similar responses while in 11 cases different responses were given. Majority (73-74) told that there should be two children in the family (6 opted for 3 kids & 20 opted for one kid). Most of them (85) told that both husband & wives should decide on family size. Most of them (87-90) said that the gap between children should be 2-4 years. Date of the birth of their children was told correctly by 49 and wrongly by 6 husbands. Among wives 57 told it correctly and 2 told it wrongly. Rest did not remember it.

The majority of husbands (78) and wives (83) told that it was women who remained ill more often. Majority of husbands (75) and wives (67) told that the capacity to tolerate pain and illness was more in women. Fifty three husbands and 37 wives told that the decision regarding treatment should be taken by husbands while 43 husbands & 61 wives told that the decision should be taken by both. Almost all husbands & wives told that the husbands should escort their wives for treatment.

The majority (78-80) told that wives should be educated upto at least high school. Almost all of them agreed that women should have some money (ready cash) with them. Four husbands said that women should not have any cash. 49 husbands and 55 wives said that women should have Rs.100-500/- ($2-11) with them. Rest said that they should have more than Rs. 500/-. Less of husbands (86) as compared to wives (95) were of the view that women should work (thirteen husbands as against 2 wives were against the idea).

Various factors were enumerated by the husbands when asked what was the cause of their wives' illness viz. weakness (21), poor diet (2), tension/ worries/stress (20), poverty (3), supernatural (2), tubectomy (6), leucorrhea (7), heat (2), improperly conducted delivery (2), no kids (2), death of only son (2), no male kid (2).

Awareness of husbands about women's illnesses was less for certain diseases (Table II).

Figure 2

Table 2: House to house survey – List of illnesses commonly experienced by women in general as enumerated by the respondents

Women's illnesses	Respondent	
	Husband	Wife
Excessive bleeding in menses	13	35
Irregular menses	19	41
Pain during menses	1	8
Pain lower abdomen	23	39
Vaginal discharge	26	60
Uterine prolapse	13	42
Low backache	19	35
Swelling of uterus	4	14
Mass/growth in uterus	53	43
Abortion	1	7
Uterine carcinoma	22	21
Breast carcinoma	3	4
Genital ulcer	2	2
Blood pressure	11	22
No menses	6	5
AIDS	15	7
Anemia	20	10
Headache	6	13
Weakness	17	17

OPD STUDY OF 300 WOMEN PATIENTS

Age wise, 50 (17%) wives were aged 15-24 yrs, 114 (38%) were 25-34 yrs and 136 (55%) were above 35 yrs. In higher level institutions (civil hospital and PGIMER) consultation was within a month of onset of illness for 36% cases and in

64% cases it was at least one month after the onset. In lower level institutions these percentages were 56% and 44% respectively (²=10.7, d.f.=1, p=<0.01). Table III shows that the lag between symptom onset & consultation was significantly more for CH/PGIMER as compared to HP, SC, PHC (²=22.8, d.f.=2, p<0.001).

Figure 3

Table 3: OPD study – Time lag between onset of symptoms & consultation in different health care settings

Consultation lag	Health post/ subcentre (n=100)	PHC / CHC (n=100)	Civil hospital/ Tertiary hospital (n=100)
< 1 week	60	47	27
> 1 week	40	53	73

χ^2 22.8, d.f. 2, p < 0.001

Of the 300 women interviewed 5 had consulted a doctor within 24 hrs of their having fallen sick, 59 (20%) did it within 1-7 days. In rest, the consultation was at least one week after the onset of illness.

Husbands escorted their wives (81/300; 27%) in more instances where visit was to the civil hospital or to PGIMER (apex institute). Women's visit to clinic without any escort was more frequent for lower level health facilities. (²=52.0, d.f.=2, p<0.001). Main reason for husbands not escorting wives to hospital was either the husband was busy (127; 65%) or was out of town (58; 29%). There were more instances (28; 44%) when husbands were not aware of their wives' visit to a doctor for HP-PHC. This was less so for CHC-CH-PGIMER visit (4; 24%). Only in 2 cases husbands did not approve their wives consulting a doctor.

Decision about consultation of different agencies was taken by wives alone (19; 40%) or by both husbands and wives (107; 36%). However, in PGIMER it was mostly (35) a joint decision of the couple (only in 3 cases wives alone decided to consult PGIMER on their own as compared to 31 and 26 cases where wives alone decided for consulting health post or subcentre clinic respectively). In almost half the cases some treatment was sought before consulting a particular agency.

Significantly more money was spent when consultation was with higher level medical institutions (Table IV).

Figure 4

Table 4: OPD study – Money spent on treatment in different health care settings

Money spent	HP S/C PHC (n=150)	CHC/CH (n=100)	Tertiary / Apex institution (n=50)
< Rs. 100	115	42	12
> Rs. 100	35	58	38

χ^2 55.2, d.f. 2, p < 0.001

The diagnostic categorization of the patients included – High risk pregnancy (38), pain in abdomen (31), vaginal discharge (29), Giddiness/ headache (25), backache (23), chest pain/URI (19), joint pain (16), scabies/ skin infection (18), hypertension (17), weakness (21), gastritis (27), fever (24), menstrual problem (15) and others.

Views of some of the wives and husbands on women's health problems, as recorded during the interviews, are given below:

'Women discuss their sorrows & miseries with everyone. Men keep their problems to themselves'. (38 yrs old male)

'Men raise a ruckus even if they have a little bit headache. Women do all household work even when sick'. (28 yrs old female)

'She is from a rough & tough area – where Mahabharata was fought. It was a dry/barren land. She has similar nature. She can tolerate illness easily'. (25 yrs old male)

'When a woman has some illness... she does not bother about her health... but is worried about other family members'. (21 yrs old female)

'Tolerance depends on the kind of diet one gets. It enough nutritious diet is there both (men and women) can tolerate'. (30 yrs old male)

'I wanted to have 2 kids – one son, one daughter... but my father-in-law told us to have one more son, because there was only one male child in their family for last many generations. He wants to break this chain' (27 yrs female).

'Women give excuses of various illness only when they get a tolerant husband – they have hundreds of excuses – vaginal discharge, swelling of body, operation etc'. (32 yrs male).

DISCUSSION

For ensuring optimum reproductive health of their wives the husbands should have adequate knowledge of reproductive

health problems of women in general. They should:

- Be aware of RHP of their wives
- Listen to their wives about their RHP
- Take appropriate action for RHP of their wives i.e. arrange to get appropriate treatment (developing country context)
    - escort their wives to hospital
    - arrange / provide money for treatment
    - permit wife to seek treatment
- Provide emotional support to wives during their RHP
- Be understanding to wives' condition during RHP (empathy)
- Help in household work during RHP of their wives
- Have healthy attitude to family planning
- Observe safe sex
- Honor/respect RH rights of wives.

Our study revealed that rural north Indian males were quite concerned about the reproductive health of their wives. They fared well on most of the abovementioned parameters of good husbands. For example, 39% of them accompanied their wives for antenatal check ups. Methodological triangulation through OPD study also endorsed this finding. In most of the hospitalization cases also (44/50) they escorted their wives to hospitals and stayed with them. In few cases (10%) they even took time off their duties. In some (7) they helped their wives in household work also. Antenatal care (3 visit) coverage was quite good (75%). Consultation with a doctor for wives' illness within a week was reported in all cases.

There was, however, ample evidence of expressions of typical male attitude towards women's health problems.

For example, when asked, ‘Do you help in household work when your wife is sick?’ a husband replied, ‘One can serve food/water to kids. But serving food to wife is out of question'. (it is beneath us – below our dignity).

When asked if he consulted his wife about the choice of treatment agency for her health problems a respondent reported ‘Why to ask wife about treatment. Relief is all she should be concerned about. Women are meant for household work. The families where women's say runs, do not prosper. Such families disintegrate soon. Woman is the root cause of all problems'. (27 yrs old male)

The majority of the husbands had satisfactory knowledge about menstruation. However, misconception about safe-period was widely prevalent. As many as 81% did not have correct knowledge about safe period. Many of them told that the period preceding, during and after menstrual flow was ‘unsafe'. Similar results were reported in our earlier study.[10] Other authors have reported similar findings.[1] Awareness of husbands about menstrual status of their wives also was satisfactory. Most of them told correctly the usual age at menarche in girls. Market pad (sanitary napkin) was used by 7% wives as reported by their husbands. Casual attitude of the husbands about family affairs was reflected by the fact that only 49% remembered date of birth of their kids. Some of the husbands were still not in favour of working wives. Male dominance was also reflected by the fact that they were the decision makers in most cases of choice of treatment agency or place of delivery.

Family and societal customs dictate the extent to which a woman is permitted to seek health care. Mothers-in-law or husbands are the main decision makers as far as health care is concerned. Men and other family members play crucial roles in assuring prompt care. Men are often the ones who decide when a woman's condition is serious enough to seek medical care.[5] Men are often called ‘gate keepers' because of the many powerful roles they play in society – as husbands, fathers, uncles, religious leaders, doctors, policy makers and local and national leaders. Thus, they can control access to health information and services, finances, transportation and other resources. Koenig and Foo had also reported from rural north India that in the locus of reproductive decision making wives were likely to occupy a subordinate role relative to their husbands or other family members.[6]

Still, on the whole, women respondents of our study were satisfied with their husbands' role during pregnancy and puerperium. None of them complained about their husbands. Similarly, all except 3 women were satisfied with the response of their husbands to their illness.

Our study showed that husbands usually do not escort their wives during their illness for consultation with doctors within the village or neighbouring health centres. However, for consultation with bigger hospitals which involved travel

to other towns with presumably more serious health problems they usually escorted their wives. Our earlier studies in a Chandigarh village and in rural Haryana had also yielded similar results.[7,8] Similar views were expressed by Khan et al who opined that men seemed to have a limited role to play in routine illnesses/antenatal care of their wives and that their presence was mainly required during emergencies, RH problems were usually considered women's affairs by their respondents. They opined that perhaps it reflected the social environment which strictly segregated roles and responsibilities by gender and discouraged husband-wife communication particularly on reproductive processes. However, this scenario helped in sustaining a social structure where physical and moral support to the pregnant women are provided by the entire family rather than the husband alone.[3]

Mulgaonkar et al[5] reported that husbands often do not allow their wives to go for gynecological check up. Women often become frustrated and depressed due to lack of concern shown by husbands for their health and gradually become used to not to show any interest in seeking health care. They summarised their respondents' views that menfolk often felt that women's health needs should be limited to care during pregnancy, childbirth and puerperium. There was no concept of preventive medicine or care for general illnesses or gynecological problems in particular.

As far as husbands' awareness about the status of their wives health is concerned, comparison of the responses of wives and their husbands regarding enlisting of RHP of wives revealed that by and large our male respondents were well conversant with ‘what ails my wife' status. Khan et al however, had reported considerable inconsistency between husbands' and wives' responses on reporting of pregnancy in preceding 24 months. They also reported that at least half of the men were not aware of their wives' health status or the prenatal care services received by them during last pregnancy.[3]

In our study much of the list of illnesses enumerated by wives matched with their husbands' lists. Some discordance however, was noted for few of the diseases. Some of the symptoms were reported more by wives as compared to their husbands. e.g. acid peptic disease (32 vs. 21), breathlessness (29 vs. 19), weakness (60 vs. 44), diminished acuity of vision (35 vs. 22), dyspareunia (18 vs. 10) and vaginal discharge (35 vs. 28). Symptoms like tension and irritability/anger were reported more by the husbands for their wives who reported these less frequently.

Similarly, for most of the parameters of RHP of women, concordance was observed between responses of wives and husbands. Some discordance was, however, observed for items like – resumption of work by women after delivery – here, husbands' responses tended to indicate that adequate rest (>42 days) was provided to the wives after delivery (n=21) as compared to wives who reported that this was not so in all the cases (only 16 said that they resumed work 42 days after delivery. Rest started it earlier).

When asked ‘what were common health problems of women in general', there was reasonable concordance in responses of husbands and wives. However, there were some diseases which were enumerated more by wives e.g. menstrual problem, pain in abdomen, vaginal discharge, uterine prolapse, backache and abortion. Some diseases were, however, enumerated more frequently by husbands as compared to their wives viz. Mass in uterus, anemia, AIDS, cancer of uterus.

Weakness, diet, heat and stress were told by many of husbands as the cause of their wives' illness. Similar findings were observed by the authors in their earlier studies.[2,10]

Duration of use of family planning methods as reported by husbands and wives also differed. Others have also reported that men and women differ in reported contraceptive use (men tend to over report).[9] Reasonably progressive view of husbands about family size was reflected in our study where most of them opted for a two child family with 2 years gap in pregnancies.

As far as attitude towards working women is concerned, whereas most (86%) men agreed that women should work, some (14%) were still against it. Among women almost all (95%) were in favour of working women. Barring 4 husbands who opined that women should not have any money (ready cash) with them, half of them agreed that they may have cash (<Rs. 500/-; $ 10). It was encouraging to note that most of husband and wives agreed that women should be educated upto 10th standard.

ICPD Cairo (1994) had clearly emphasized the need to involve men in improving reproductive health status of women.[11] National Population Policy of India, 2000 also emphasized the need to focus attention on men in IEC campaigns to promote small family norm.[4] Surveys around the world increasingly are interviewing men and reporting about their role in reproductive health of women.[9] This

reflects widening recognition of need to focus on men.

Our study also revealed that men, in general, are not as aloof about women's (or their wives') illnesses as is generally believed. Though there were expressions of typical male attitude towards issue women's related to health some evidence of their favourable attitude towards women empowerment was also witnessed. There is, however, a need of careful nurturing it further by creating an atmosphere conducive to male involvement in reproductive health of women. Suitable aesthetically devised subtle messages through print and electronic media may also help (e.g. advertisement showing fathers changing the nappies or husband accompanying the wife to a doctor).

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References

1. Drennan M. Reproductive Health: New Perspectives on Men's Participation. Population Reports Series J. No. 46. Baltimore, Johns Hopkins University School of Public Health. Population Information Program, 1998.
2. Singh AJ. Reproductive health of women of north India - men's point of view. Journal of Family Welfare, 1999; 45: 80-85.
3. Khan, ME, Khan I and Mukerjee N. "Involving men in safe motherhood", The Journal of Family Welfare, 1997; 43: 18-30.
4. Govt. of India. National population policy, New Delhi, Ministry of Health and Family Welfare, 2000
5. Mulgaonkar VB, Parikh IG, Taskar VR, Dharap ND and Pradhan VP. Perception of Bombay slum women regarding refusal to participate in a gynecological health program. In: Listening to Women Talk about their Health - Issues and Evidence from India, J. Gittlesohn et al (eds.), New Delhi, Har-Anand Publications 1994.
6. Koenig M and Foo GHC. Patriarchy, women's status and reproductive behaviour in rural north India. Demography India, 1992; 21: 145-166.
7. Singh AJ. Husband's role in wives' health in India. Bull PGI 2003; 37: 149-157.
8. Singh AJ, Mobile clinic approach to tackle reproductive health problems of women in North India. Bull PGI 2004; 38: 66-70.
9. Salem R. Men's surveys: New Findings. Population Report. Series M No. 18. Baltimore, Johns Hopkins Bloomberg School of Public Health. The INFO Project. Spring 2004.
10. Singh AJ. Women's illness - the Indian male perspective - a search for linkage with Vedic concept of health and Hindu mythology. Bull Ind Inst Hist Med 2001; 31: 39-56.
11. Khanna J. Editor. New directions in reproductive health research. Progress in Human Reproduction Research no. 47, 1998.

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