OPEN ACCESS

International Journal of Social Sciences and Management

A Rapid Publishing Journal

ISSN 2091-2986

Indexing and Abstracting

CrossRef, Google Scholar, International Society of Universal Research in Sciences (EyeSource), Journal TOCs, New Jour, Scientific Indexing Services, InfoBase Index, Open Academic Journals Index (OAJI), Scholarsteer, Jour Informatics, Directory of Research Journals Indexing (DRJI), International Society for Research Activity (ISRA): Journal Impact Factor (JIF), Simon Fraser University Library, etc.

Vol-2(1) July, 2015

SEM-Biotech Publishing

Impact factor*: **3.389**

*Impact factor is issued by SJIF INNO SPACE. Kindly note that this is not the IF of Journal Citation Report (JCR).

For any type of query or feedback kindly contact at email ID: editor.ijssm@gmail.com

Brajesh and C. Shekhar (2015) Int. J. Soc. Sci. Manage. Vol-2, issue-3: 197-213
DOI: 10.3126/ijssm.v2i3.12477

ISSN 2091-2986
DOI Prefix: 10.3126/ijssm
International Journal of Social Sciences and Management (IJSSM)

Research Article

ASSOCIATION OF WOMEN EMPOWERMENT WITH INTER-SPOUSAL COMMUNICATION ON RCH MATTERS IN SELECTED SOUTH ASIAN COUNTRIES

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Abstract

Women have commonly less power, chance and empowerment to interfere in making decision about RCH matters between men in most parts of South Asia. It is related to her education, ethnicity, deprivation level, urban/rural classification. This study based on this issue that, does level of woman empowerment affect Inter-spousal communication on RCH matters in the context of India, Nepal and Bangladesh. So, study tries to understand the role of women empowerment on spousal communication about RCH matters with a specified hypothesis. For analysis purpose the Demographic and Health Survey-2006-07 data on currently married women of age 15-49 years has used. Principal Component Analysis (PCA) method used to generate an empowerment index (WEI) to see the effect of empowerment on inter-spousal communication with controlling the selected socio-economic and demographic factors. Bi-variate and tri-varite model findings shows that large proportion of women have low socio-economic and demographic status like age, residence, wealth, religion, education and media exposure and falls with low tertile group of empowerment. The proportion of women is increasing with increasing the level of empowerment for communication related to RCH matter between spouses. Multilevel logistic model found that approximately in range 5 to 8 percent in India, 5 to 7 percent in Nepal and 5 to 6 percent in Bangladesh of the residual variance in spousal communication with and without empowerment for decision making attributable to differences between regions. There is need improvement in socio-economic and demographic factors but India is in good position than Nepal, and Nepal is in good position than Bangladesh in empowerment. In Spousal communication on RCH matter women's empowerment positively associated in all countries.

Keywords: Women Empowerment Index (WEI), Low (L), Medium (M), High (H), Principle Component Analysis (PCA), Multilevel Logistic Regression (MLR), Information, Education and Communication (IEC), Reproductive and Child Health (RCH)

Introduction

The donors and policy makers underline to involve men equally with women. It is mainly in the decision-making process on women's reproductive health, rights and preferences after International Conference on Population and Development (ICPD), Cairo-1994. The women's empowerment role to communicate women with husband in the family profound to sexuality and biological reproduction. It is both for the advance of knowledge and achieving greater equity between men and women (Garcia and de Oliveira, 2001). Countries like India, Nepal and Bangladesh where there is a male dominated society. The men are the supreme authority of community religious, professional and political leader at large proportion. The men are instrumental in promoting family planning related matters and reproductive health services at individual levels and policy level both (Hulton 1996; Davies et al. 1987). Women have low authority in this type of culture for mobility and to take decision-making processes' (Barnett 1998, Hall et al. 2008, Osrin et al. 2002). So, the communication between husband and wife plays a significant role. It is for determining the reproductive preference, health issues because a successful inter-spousal communication between husband and wife is a key strategy to decision-making and responsibilities on sexual health matters by spouses (Santhya & Dasvarma 2002). In such environment, even when women are educated and motivated to practice reproductive health and family planning services they may have little control over this kind of decision making if their husband neglect to services. Women's health, morbidity and access to service differentials between husband and wife significantly affect by gender roles, relationships and power (Pachauri, 1988). The developing nations like India, Nepal and Bangladesh researchers have increased our attention to studying the male's involvement in reproductive health issues of women. In Uttar Pradesh, India has studied male's attitude,

knowledge and behaviour about their wife's sexual and reproductive health (Patel, 1994 & Khan, 1996).

There is few studies mention the root of women empowerment affect inter-spousal communication in the context of reproductive and child health matters much more internationally. Even the positive associations between joint decision-making and couple communication and shared negotiation strategies can improve health practices (Britta et al., 2005). In many countries to communication interventions have been developed and implemented to encourage couples to talk about the number of children, birth spacing and contraceptive use (Sharan and Valente, 2002). In societies where the male is the decision maker in the family in such settings, an understanding of the husband-wife communication effect on family planning, and health related matters associated (Kamal, 2000). If the husband does not approve the use of the contraceptive method of his wife, the likelihood of contraceptive adoption decreases. So, it is observed that active and perfect inter-spousal communication on matters related to family planning is very efficient and a good strategies for the success of any family planning programmes

The Demographic and Health Survey report shows a low level of communication between spouses about family size, family planning and reproductive health matters in many countries including in Asia and Sub-Saharan Africa (DHS 2006). Particularly true in cultures where there is kinship relationship,and lineage structures have a socially determining role among women. In a study on women's reproductive choices found that the importance of mothers-in-law, partner and family interactions affect contraceptive method choice among married women in India (Jeffrey et al. 1989, Patel 1994, Sangwan, 1999). In a study conducted in North India found that in the household mother-in-law were the most influential persons. In the family,she takes a decision on the care for a child with making decisions about health care for a child with acute respiratory infection.

In the Uttar Pradesh by a study (Singh and Bhattacharya, 2004) showed that the mother-in-law decided concerning all aspects of handling to assess the determinants of care for a sick neonate. There is a higher probability of the couples adopting a modern contraceptive method when the mother-in-law was not living with them (Agha, 2010). In a study conducted in Nepal has in fact reported that a positive impact on enhancing the intimacy between husbands and wives and thereby facilitating mutual decision-making in family planning. The communication interventions is a real effort to talk about various reproductive and child health issues (Sharan and Valente, 2002). There are studies that argue that the higher levels of women's autonomy and communication between spouses have associated with the nutritional status (Hindin, 2000b).

Mitchell (1972) in his study of the husband-wife relationship in urban Hong Kong noted that many women were favourably inclined to practice family planning, due to not receiving enough encouragement from their spouses. Women who discuss family planning with their partner may be more likely to use a contraceptive. They are exposed to mass media messages on family planning because they want fewer children. The context of this study finds out to the association of women empowerment with inter-spousal communication on selected various reproductive and health matters in selected countries India, Nepal and Bangladesh.

The selection of inter-spousal communication between husband and wife related to family planning, child and women health based on three most factors information, education and communication. It is a process that involves more than sending and receiving messages between spouses. For more understanding of communication, it is important to consider various components of communication such as the relationship between partners, the context, the mode or channel, consequence in terms of behaviour. Moreover, there is a fundamental question, as far as the strategy concerned, about whether empowerment increases women's power over their communication with partners or whether it will help to empower women.

Many Studies have shown that a supportive male spouse facilitates women's contraceptive use, reduces risks of spiralling rates of sexually transmitted diseases (STDS) and reduces sexual violence (UNFPA, 1995; Verma, 1998). The overwhelming frame of this study is to find out the participation of inter-spousal communication in decision-making could be considered the perceived involvement of men in the promotion of reproductive and child health in India, Nepal and Bangladesh.

The studies suggest that the information, education and communication (IEC) is an excellent platform to make a strategy for the men participates equally with wife in the decision-making process on various issues of reproductive health. This kind of also affords provide the opportunity to take a decision on other parts of her life. The women will be more aware from right, law and responsibility.

Need of the study

India, Nepal and Bangladesh, these three major countries of South Asia, are very vast countries with all types of diversity across the states. In such countries, researchers have devoted considerable efforts to investigating factors in term of demographic, socio-economic characteristics and culture practices. Women low social status has identified as a barrier towards national health and population policy progress in most parts of South Asia. The United Nation declaration of women's rights 1967 formally postulated the principle of equality of men and women and advocated its universal recognition in law by all countries as an absolute necessity.

The general assembly of United Nations proposed this egalitarian, the concept of assuring and achieving equal rights to women as those of men. Study try to attempt to identify that how women empowerment plays an important role in different socio-economic, demographic and culture hierarchy in these countries. How inter-spousal communications make possible to take decision by the root of empowerment in these three countries. So there are many types of factors influence at individual level, family level and community level. It is direct and indirect indicators of female autonomy in term of maternal and child health care and practices.There are many studies by the researchers and population scientists that focus only women empowerment linked with the reproductive health of women. There are no such studies that correlate that how women 's empowerment associated with inter-spousal communication on various reproductive and child health matters.

So, this study is an attempt to identify how women's empowerment plays an important role in husband and wife communication on reproductive and child health matters. These points to the need for a closer examination of the mechanisms for women's empowerment effect on spousal communication on decision-making among couples. The women will be aware for their fundamental rights and have to be treated equally in the society as men. So, empowering women is means empowering family because women are the base of the family.

Research Question

- Does women empowerment relate to communication across various RCH matters between husband and wife?

Objective of Study

- To understand the role of women empowerment in spousal communication on RCH matters in the selected countries.

Hypothesis of study

- Women empowerment positively associated with spousal communication on RCH matters

Source of data

The Demographic and Health Survey data conducted during the period 2006-2007 in India, Nepal and Bangladesh has used for study purpose. National Family Health Survey-3 data carried out during the year 2005-06 by International Institute for Population Sciences, Mumbai, India has used. Demographic Health Survey data has used for Nepal and Bangladesh.Currently married woman of age 15-49 years has taken for women empowerment.

The empowerment variables used where there is the mutual decision of women with husband and alone. Selected communication variable on reproductive and child health issues has taken where there is possible communication between husband and wife. The present study key variable of interest used is the women's empowerment which is measured by some indicators: participation in household decision making, attitude towards wife beating and decision regarding money spend and same desire for number of child.

A respondent is said to be not involve (Never involved) in decision if she did not participate in making any of the decisions above, she is said to be partially involve if she has participated jointly either with her husband or another person in making decision on the decision making variables, also, she is said to be fully involved if she has participated in making decision alone

Methodology

All below direct and indirect indicator can be organized into a specified group called as an autonomous factor of women's empowerment. These independent factors are described by their relevant criteria which explained as,

- A woman has freedom of movement as she is alone allowed to go-to-market, to take the health facility & to go places outside their village or community.
- A woman has decision-making power as she finally says in making the decision for small/large household's purchases, resource allocation and financial decision on daily needs and deciding what to do with money earned by their husband/household income.
- A woman has access to resources as she has freedom to expand money in her healthcare that she alone can decide how to use,whether she has a bank/savings account, and she given a loan program.
- A woman believes that it is not justified to the husband to beat him if she goes outside without telling to husband, neglects the children, unfaithful, disrespectful to in-laws, argues with him or refuses to have sex with him.
- A woman believes that it is right to refusing her husband sex if either she knows her husband has sexually transmitted diseases, her husband has sex with other woman or she is tired or not in the mood.
- A woman is employed in any field (professional, technical, clerical, salesman, agriculture-employee, private/government services, skilled/unskilled worker, etc) and having decision how to spend money earning from her which is received either in the form of cash or in the form of a kind.
- A woman is never experienced any emotional, severe and sexual violence.

Principal Components Analysis

This methodology used to generate an empowerment index from above mention indicators of women activities. So,principal components analysis (PCA) a method of factor analysis (FA). In PCA one wishes to extract from a set of *p* variables a reduced set of *m* components or factors that accounts for most of the variance in the *p* variables. In other words, we wish to reduce a set of *p* variables to a set of *m* underlying superordinate dimensions. These primary factors are inferred from the correlations among the *p* variables. Each factor is estimated as a weighted sum of the *p* variables. The i^{th} factor is thus

$$F_i = W_{i1}X_1 + W_{i2}X_2 + \ldots + W_{ip}X_p$$

One may also express each of the *p* variables as a linear combination of the *m* factors,

$$X_j = A_{1j}F_1 + A_{2j}F_2 + \ldots + A_{mj}F_m + U_j$$

Where, U_j is the variance that is unique to variable *j*, the variance that cannot be explained by any of the common factors. W_{ipe} is the weight for m^{th} principal component and P^{th} variables.

Multilevel Binary Logistic Model

Assume observed response comes from a Binomial distribution with a denominator for each cell, and an underlying probability/proportion

$$y_{ij} \sim \text{Binomial}(n_{ij}, \pi_{ij})$$

Underlying proportions/probabilities, in turn, are related to a set of individual and neighborhood predictors by the logit link function

$$\text{Logit}(\pi_{ij}) = \ln\frac{\pi_{ij}}{(1-\pi_{ij})} = \beta_0 + \beta_1 x_{1ij} + \beta_2 x_{2ij} + \beta_3 x_{3ij} + u_{0j}$$

Linear predictor of the fixed part and the higher-level random part and Quasi-likelihood IGLS applied

$$\text{VPC} = \frac{\text{Level 2 variance}}{\text{Level 1 variance} + \text{Level 2 variance}}$$

$y_{ij} \sim \text{Binomial}(p_{ig}, 1)$

$\text{logit}(p_{ij} \mid x_{ij,} u_{j,}) = a + bx_{1ij} + u_j$

$\text{Var}(u_j) = s_u^2$

$\text{var}(y_{ij} - p_{ij}) = p_{ij}(1 - p_{ij})$

Level 1 (individual ID) variance is function of predicted probabilityThe level 2(Region ID) variance s_u^2 is on the logit scale and the level 1 variance $\text{var}(y_{ij} - p_{ij})$ is on the probability scale so they cannot be directly compared.Also, level 1 variance depends on p_{ij} and therefore $x_{1ij.}$

Possible solutions include i) set the level 1 variance = variance of a standard logistic distribution

Then intraclass correlation is

$$\rho = \frac{\sigma_u^2}{\sigma_u^2 + 3.29}$$

Where VPC is intraclass correlation,that indicate the difference between region (level -2)

***Dependent variable*:** Selected spousal communication variable on RCH matters where there is possible communication between husband and wife.

Independent variables: Age of women, residence, wealth quintile, religion, education of women, media exposure, women empowerment tertile specified by low, medium and high categories

Methodology: Bi-variate**,** Tri-variate analysis used to see the effect of women empowerment on selected socio-economic and demographic factors. ***Multilevel analysis*** *by* ***ML-Win software*** has used to see differences by region in selected communication with and without empowerment.

Use of data analysis tools

The analysis has done through SPSS, STATA, ML-Win and Excel software. Principal Component Analysis (PCA) has used to venerated women's empowerment index that is a method of Factor analysis, and it is categorized into three tersely categories low (L), medium (M) and high (H) tertile. Another kind of study also used this kind of several techniques.

Results and Discussion

Roll of women empowerment on RCH communication

In India

The results of the Table-1 show very clearly the magnitude of participation of the spouse in decision making on various reproductive and child health issues concerned according to empowerment. The result shows that there are variations in different reproductive and child health-related communication between husband and wife in the direction of empowerment in decision making in India. Though, the proportion of women in all categories of empowerment tertile not very much satisfactory in matters related to the decision about desired number of children between spouses. This proportion was high in the low and medium tertile of empowerment group. The majority of a couple (33 percent) in medium tertile and (35 percent) in the low tertile of empowerment communicate related to the same desire for children jointly. So, by the level of women's empowerment the couple's decision for desired number of children is high in low and medium tertile group in India.

Table-1: Women empowerment association with spousal communication on Reproductive and Child Health matters in India, Nepal and Bangladesh, 2006-2007

Bangladesh		Total	Both desire for same children	Women talk to husband about Family Planning in last three months	Both usually makes decisions about child's health care	Men talk to wife about her discussions with medical staff	Respondent present during check-ups for youngest child
	Low	33.4	32.8	31.5	22.3	31.5	30.8
	Medium	33.5	33.4	35.0	35.5	33.3	34.9
	High	33.1	33.8	33.5	42.2	35.2	34.4
India		Total	Both desire for children	Both decision maker for using contraception	Husband know the wife using contraception	Wife justified asking husband to use condom if he has STD	Husband AIDS information source
	Low	33.1	35	26	27.5	23.7	26.9
	Medium	33.6	32.6	34.6	35.2	34.4	36.5
	High	33.3	32.4	39.3	37.3	41.9	36.6
Nepal		Total	Both desire for children	Both decision maker for using contraception	Husband know the wife using contraception	Frequency talking to husband about FP	
	Low	32.4	36.3	21.4	21.2	33.4	
	Medium	33.4	33.9	41.2	40.6	35.6	
	High	34.2	29.8	37.3	38.3	31.0	

Where low, medium and high indicate the level of empowerment of women age 15-49 years

When both husband and wife are making a decision about the use of family planning, then 26 percent, 35 percent and 39 percent falls respectively in low, medium and high tertile group. When husband know that the wife is using any family planning method, So the majority of the respondent (37%) in the high tertile group and (35%) of majority falls in medium tertile group. In case of when wife justified using condom if husband has STD, a majority of (42%) falls in high tertile empowerment have similar view due to increases the empowerment level from low to high, and fewer (23 percent) in low empowerment group. When the husband is a source of information related to AIDS for a wife than these are 30 percent with low, 36 percent both medium and high empowerment. This result shows that by increasing the level of empowerment the decision regarding RCH communication can be increases.

In Nepal

In Nepal when couples communicate together regarding desired number of children than a majority (36 percent) of falls in low tertile, (34 percent) in medium tertile and (30 percent) in high tertile group of empowerment. When a couple takes joint decision for using contraception than majority more than (41 percent) of couples falls in medium tertile and the majority (37 percent) in high group of empowerment. Means by increasing the level of women's empowerment couples have more chance to communicate about contraceptive use. In the case when husband have knowledge that their wife is using family planning than a majority (40 percent) of the couple falls in medium tertile and 38 percent in the high tertile group of wempowerment.This indicates that husband and wife both have mutual understanding. There are 21 percent couples in low tertile group and (38 percent) in high tertile group of empowerment in Nepal.When wife talking to husband about family planning methods than36 percent of couple falls in medium tertile. It is 31percent in the high tertile group and 34 percent in a low group of empowerment. These are showing mutual understanding between husband and wife both for family planning in Nepal.The findings suggest that where the level of empowerment is high their decision and discussion both between spouses will be more.

In Bangladesh

The couple decision for desired number of children is increasing when the level of empowerment is increasing in

Bangladesh. A majority (34 percent) of couples in the medium tertile of empowerment as compared to low and high tertile (32.8 percent) group for a decision on the same desire of children in Bangladesh. In case, when women talk to her husband about family planning method during last three months than the majority (31 percent) of falls in the low level of empowerment. It is (33.5 percent) in high level of empowerment. It is also increased by increasing the level of empowerment. When the couple takes jointly decision about child health care than the majority (42 percent) of the couple falls in high level of empowerment tertile. Similar results are found for all RCH matters. When both usually takes decision about child health care than the vast majority of women falls in high tertile group by increased level of empowerment from low tertile into high, and only (22 percent) respondent takes decision jointly when they are in low tertile.

Another spousal communication variable is similarly distributed by the level of empowerment from low into medium and high tertile group. These percentages of couples are more in medium and high tertile group of empowerment in Bangladesh. The proportion of the respondents is less when they are in low tertile group of empowerment or when their socio-economic, cultural and demographic condition is not good. There should be an improvement in their socio-economic, demographic and cultural condition. So there will be more chance for spousal communication regarding reproductive and child matters in Bangladesh.

Effect of Empowerment on RCH Communication with Selected Background Characteristics of Women

In India

The results in Table-2 indicate that the majority (61 percent) of women falls in the age less than 20 years group at low level of empowerment and at high age group these proportion is significant in high tertile group of empowerment. So, when women are in low age group at low level of empowerment than the percentage of the couple is large and by increasing the age of the women and empowerment the couple same desire for number of children increases. So, both age and empowerment are the important factors and associated with each other. The majority (46 percent) of the respondent are in the age group 20-24 years and (43.7 percent) for 25-29 years in the middle tertile group.

The distribution by the age of women with tertile group of empowerment is found similar for all RCH communication variables in India. These percentages is also high when women are belonging from rural areas and have a low level of empowerment, women from urban areas have more empowerment so the communication percentage is high between the spouse. By the wealth of woman, those belong from poorest; poorer and middle categories and low level of empowerment in that case the couple percentage is large for the same desire number of children. With increases, the level of empowerment and wealth power the large majority of couple making decision jointly. Education is an important factor for women. When women have no education, primary level of schooling belong to the low level of empowerment than the proportion of couple is large. Means most of couple is not communicating to each other in India. In case of media, this percentage is low when women have no any mass media exposure and have at low level of empowerment.

The couple percentage is high when women have any mass media exposure but women have at high level of empowerment. Where the socio-economic, demographic factors of women are week and level of empowerment is also low so at those cases the percentage of couple communication on RCH services is low as compared to their counterparts. Percentage of spousal communication is large when socio-economic, demographic and culture factors have strong, and empowerment level is high in India. So, overall findings suggest from these that by increasing the level of empowerment, socio-economic, the demographic condition the chance of communication may be increase for RCH matters. Conceptual framework for women empowerment associated with inter-spousal communication on various reproductive and child health matters has been shown in Fig. 1.

In Nepal

Results of Table-3 demonstrate that in Nepal women from low age group with a low level of empowerment less talk to the husband or have minimum cooperation jointly as compared to their counterparts. These proportions are increasing by the increasing the level of empowerment proportionally with the age of the women. At women age less than 20 years, 72 percent couple are at a low level of empowerment has discussed jointly for desire number of children in Nepal. By improvement in the level of empowerment and age of the women, the chance of couple for communication will be more to discuss on reproductive and child health related matters.

These percentages are large with medium empowerment group when women are in the 25 years or above age group. The percentage of communications between the couple is high in those who are belonging from rural areas but have at low level of empowerment as compared to urban couple who have at medium or high level of empowerment. By the wealth quintile, the proportion of women has an inverse relationship with low and medium tertile group. It is large in poorest, poorer and middle wealth power group with low and medium tertile group. So, this percentage of communication is high in poorest, poorer and middle wealth quintile but few in the low level of tertile group of empowerment as compared to richer and richest wealth categories with a high tertile group of women

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Table 2: Effect of empowerment of women on inter-spousal communication by background characteristics, India-2006-2007.

Background Characteristics	Both desire for same children			Joint decision for using contraception			Husband know the wife using contraception			Wife justified to ask husband to use condom if he has STD		
	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
Age of Wife												
<20 years	61.2	25.3	13.5	63.8	23.2	13	64.1	23.2	12.7	45.6	29.2	25.2
20-24 years	46.1	31.5	22.4	39.6	34	26.4	41.4	34	24.5	32.5	34.5	33
25-29 years	31.8	34.9	33.3	29.5	35.7	34.7	31.9	35.8	32.3	25.5	36.4	38.2
30years & above	22.1	34.2	43.7	22	34.7	43.4	24	35.3	40.7	21	34	45
Residence												
Urban	24.8	32.4	42.9	18.5	32.2	49.3	19.8	33.1	47.1	17.4	32.5	50.1
Rural	40.1	32.8	27.2	30.3	36	33.7	31.2	36.2	32.6	26.8	35.3	37.8
Wealth Index												
Poorest	37.5	33.1	29.3	29.7	36.5	33.8	30.2	36.2	33.6	28.3	34.5	37.2
Poorer	41.6	32.1	26.3	30	37	33.1	31.1	37.1	31.8	27.8	36.4	35.8
Middle	40.2	32.8	27.1	29.9	35.4	34.7	30.6	35.7	33.7	26.6	35.8	37.5
Richer	35.7	33.3	31	26.3	35.2	38.5	27.4	35.5	37.1	22.4	35.6	42
Richest	23.7	32	44.3	18.5	31.1	50.5	19.6	32	48.4	14.4	30.1	55.6
Religion												
Major	35.5	32.4	32.1	26	34.6	39.5	27.3	35.1	37.5	24.2	34.3	41.6
Others	33.1	33.6	33.2	26.5	34.9	38.6	28.4	35.3	36.3	21.8	35	43.2
Women Education												
No Education	38.2	33	28.8	29.2	36.2	34.7	30.4	36.3	33.4	27.6	35.6	36.8
Primary	38.8	33.9	27.3	27.8	35.7	36.5	28.7	35.8	35.4	25.1	36.9	38
Secondary	34.7	32.6	32.7	24.3	33.7	42	24.8	34.2	41	19.1	33	48
Higher	16	29.2	54.8	12.3	27.9	59.8	11.9	27.9	60.2	6.4	22.3	71.4
Media Exposure												
No	40.2	33	26.8	32.3	35.6	32.1	33.4	35.8	30.9	29.4	35	35.6
Yes	31.9	32.4	35.7	23.4	34.2	42.4	24.7	34.9	40.4	20.1	34	45.9
Total	**35**	**32.6**	**32.4**	**26**	**34.6**	**39.3**	**27.5**	**35.2**	**37.3**	**23.7**	**34.4**	**41.9**

Table 3: Effect of empowerment of women on inter-spousal communication by background characteristics, Nepal-2006-2007.

Background Characteristics	Both desire for same children			Decision maker for using contraception			Husband know the wife using contraception			Frequency talking to husband about Family Planning		
	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
Age of Wife												
<20 years	72.2	19.4	8.4	51.9	33	15.1	41.4	33.2	25.4	69	20.9	10.1
20-24 years	49.1	32.1	18.8	34	41.7	24.4	32.8	43.2	24	44.1	32.1	23.7
25-29 years	33.3	33.6	33.1	28.5	35.1	36.3	29.1	35.8	35.1	31.2	36.9	31.9
30years & above	16.9	40.3	42.7	14.7	43.7	41.6	15.9	41.9	42.3	19	40.7	40.4
Residence												
Urban	20.9	51.4	27.7	13.9	47.9	38.2	13.9	46.3	39.8	16.6	51.1	32.3
Rural	39.1	30.7	30.2	23.2	39.7	37.1	22.6	39.4	38	36.8	32.5	30.7
Wealth Index												
Poorest	34.9	28.1	37	20.6	45.1	34.4	20.9	40.6	38.5	32.8	31.8	35.4
Poorer	39.6	27.9	32.5	18.8	33.5	47.8	19.1	33.3	47.6	35.5	29.2	35.3
Middle	46.7	28	25.4	30.3	35.6	34.1	28.5	38.6	32.9	44.6	28.8	26.7
Richer	40.9	34.6	24.5	23.6	39.8	36.5	21.3	41.3	37.4	38	36.3	25.7
Richest	22.5	47.7	29.8	14.7	50.1	35.1	14.9	48.4	36.7	19.3	48.6	32.1
Religion												
Major	37.1	34.2	28.7	22	40.8	37.2	21.8	40	38.2	34.1	35.2	30.7
Others	31.5	32.6	35.9	16.6	44.8	38.6	15.4	45.4	39.2	29.1	38.1	32.8
Women Education												
No Education	35	31.4	33.6	22.2	39.3	38.6	21.9	39	39.1	33.4	32.9	33.7
Primary	41.8	30.5	27.7	20.6	43.1	36.3	20.8	40.3	38.9	37.1	32.8	30.2
Secondary	36.4	40	23.6	21.2	45.5	33.2	19.4	46.7	34	32.9	41.4	25.8
Higher	25.7	46.2	28.1	13.4	45.4	41.2	7.9	58.3	33.7	21.1	50.2	28.7
Media Exposure												
No	37	29.9	33.1	19.5	40.1	40.4	19.1	40.2	40.6	33.8	30.3	36
Yes	36	35.5	28.5	22.2	41.7	36.2	22.1	40.7	37.2	33.3	37.5	29.2
Total	**36.3**	**33.9**	**29.8**	**21.4**	**41.2**	**37.3**	**21.2**	**40.6**	**38.3**	**33.4**	**35.6**	**31**

Education is the most important and necessary factors for couple to communicate on RCH matters. The percentage of the couple is large when women have no schooling, primary level of schooling at low level of empowerment. The couple are more communicating about RCH matters those has secondary, higher level of schooling with the medium and high level of empowerment.

So overall finding indicates that the percentage of couples is large in low and medium tertile empowerment group where the women have low socio-economic and demographic condition. These types of similar results are found in Nepal background characteristics of women regarding communication on reproductive and child health matters. So, the most of couple with a high level of socio-economic and demographic status are belonging in the medium tertile group of women's empowerment in Nepal

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Table 4: Effect of empowerment of women on inter-spousal communication by background characteristics, Bangladesh-2006-2007.

Background Characteristics	Both desire for same children			Talked to your husband about Family Planning in last three months			Who usually makes decisions about child's health care			Husband talk to wife about her discussions with medical staff		
	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
Age of Wife												
<20 years	47.9	32.6	19.5	44.7	35.9	19.4	32.1	35.6	32.3	46.2	35.6	18.2
20-24 years	35.1	32.3	32.6	34.0	33.3	32.7	22.1	35.2	42.6	28.4	34.5	37.1
25-29 years	29.9	34.6	35.5	29.8	35.6	34.6	21.6	37.5	40.9	40.3	28.4	31.3
30years & above	28.3	33.7	38.0	25.8	35.3	38.8	21.2	34.9	43.9	27.4	34.7	37.9
Residence												
Urban	26.6	31.7	41.7	25.3	34.8	39.9	17.1	33.8	49.1	22.0	30.0	48.0
Rural	34.6	33.9	31.5	33.4	35.0	31.5	23.9	36.1	40.1	34.2	34.2	31.6
Wealth Index												
Poorest	33.4	35.1	31.5	30.3	38.1	31.6	25.1	36.1	38.8	32.1	36.8	31.2
Poorer	37.0	33.1	29.9	33.0	35.1	31.9	23.9	35.5	40.6	32.2	34.3	33.4
Middle	36.9	32.6	30.5	37.0	34.0	29.0	27.3	33.5	39.2	43.1	30.5	26.4
Richer	32.9	33.5	33.5	34.4	32.9	32.7	22.0	37.9	40.1	32.0	34.0	34.0
Richest	24.5	32.9	42.6	23.7	35.4	41.0	13.4	35.0	51.6	19.0	30.7	50.4
Religion												
Major	33.2	33.0	33.8	31.9	34.8	33.3	23.0	35.1	41.9	31.2	33.5	35.4
Others	29.3	37.1	33.5	27.6	36.7	35.7	16.0	39.4	44.6	35.1	31.8	33.0
Women Education												
No Education	32.8	34.0	33.3	30.1	36.0	33.9	23.2	36	40.8	34.7	31.7	33.6
Primary	34.4	34.0	31.6	31.9	36.7	31.3	22.3	37.1	40.6	33.5	36.1	30.4
Secondary	34.9	33.0	32.1	35.2	33.9	30.9	24.4	35.1	40.5	26.4	36.5	37.1
Higher	14.8	30.1	55.1	16.9	30.2	53.0	8.5	27.8	63.7	16.2	13.7	70.1
Media Exposure												
No	36.9	34.2	28.9	35.0	36.1	28.9	25.1	36.8	38.1	36.5	34.7	28.8
Yes	29.5	32.8	37.7	29.1	34.2	36.7	19.9	34.4	45.7	26.4	31.9	41.7
Total	**32.8**	**33.4**	**33.8**	**31.5**	**35.0**	**33.5**	**22.3**	**35.5**	**42.2**	**31.5**	**33.3**	**35.2**

In Bangladesh

Findings of the Table-4 indicate that the distributions of couple's communication are almost similar for India, Nepal and Bangladesh on various RCH related matters. Results show the percentage of couple are large in less than 20 years age group when they are at low level of empowerment, and at the age of 30 years & above group when they are at medium and high level of empowerment. These proportions of women have an inverse relationship with the wealth quintile in low and medium tertile group. It is large in the poorest, poorer and middle wealth power group with low and medium tertile group. It is increasing when wealth is decreasing.

So women with low level of wealth power facing at low level of empowerment. Religion does not playing any role in Bangladesh. This magnitude is high in the medium tertile of empowerment in another religious group of Bangladesh. The matrix of age of women, residence, wealth, religion, education and media exposure in low, medium and high empowerment suggest that the percentage of couple falls at starting and ending point. Means starting point where the percentage of couple is high indicate that women have low level of socio-economic and demographic condition with low level of empowerment. At the ending point of matrix where women's socio-economic and demographic conditions are good and level of empowerment is medium or high. So the percentage of couple's communication is also high for all reproductive and child health related matters in context of Bangladesh.

Multilevel Model Results to Understand Differential in Spousal Communication by Region at Different Level of Women's Empowerment

Multilevel analysis uses the two-level random intercept models for all type effect on the probability of spousal communication. These effects are comming for allowing regional level variation with and without empowerment on RCH matters. The model is using iterative generalised least squares (IGLS) to estimate the value. This model is based upon marginal quasi-likelihood and calculates Variance partition coefficient (VPC) or Intra-unit correlation for a two-level random intercept model. It is the proportion of total residual variance that is attributable to level-2 (here level two is the region).

In India

Results of the Table-5 reflect conclusion regarding the effect of age, wealth tertile, women's education and residence to see the change for allowing regional level variation with empowerment for communication to make decision on RCH matters between spouses in India. Using a threshold representation of the model approximately six percent (6%) to seven percent (7%) changes have found in spousal communication without empowerment. The similar type of effect is also found in the case of with empowerment by women's characteristics like age, wealth, education and residence. These residual is approximately nearly seven percent with above characteristics. So, approximately in the range of 6 percent to 8 percent of the residual variance in spousal communication found with empowerment and nearly 5 percent to 7 percent without empowerment for decision-making. In case of religion it is almost unchanged. So, these are differences between the regions in India.

For more explaining the communication variables like age, wealth, residence, and education (except husband know wife using contraception) are changing with and without empowerment. These are also changing in case of with empowerment when spouses have low and medium tertile group of empowerment. Using a threshold we obtain residual variance approximately four percent without empowerment and 5 percent with empowerment. When husband knows the wife is using family planning than it is found approximately 7 percent without empowerment and almost 8 percent with empowerment by differences between regions in India. In the communication when the husband is providing AIDS-related information to wife if control all the covariate in the model. The difference between regions is 7 percent without empowerment 6 percent to 8 percent with empowerment for spousal communication in India. The odds ratio by the age of women, wealth quintile and education are increasing, which are showing a positive effect on the spousal communication on RCH matters in India. By putting the different empowerment level in the model the odds ratios of these factors are changing because women have not the same level of empowerment and same socio-economic and demographic profile. Overall the difference by the region is 5 percent to 7 percent with and 5 percent to 8 percent without the empowerment on communication regarding reproductive and child health matters between spouses in whole India.

In Nepal

Like India the similar pattern also found in case of Nepal (Table-6). These difference explained by region is 5 percent to 6 percent difference without empowerment and 5 percent to 8 percent difference with empowerment of the residual variance for RCH communication. Results also provide the effect of age, wealth quintil; education and residence are changing for allowing regional level variation with empowerment and without empowerment in decision making for family planning communication between spouses in Nepal. The odds ratio of women's age is 2 to 5 times higher as compared to reference < 20 years age of women. The odds ratio range (odds, 1.87-3.25) by the wealth power of women from poorer to richest as compared to poorest wealth quintile. So, these are showing a positive effect on spousal communication, i.e. those women who have at higher age group and wealth power in those cases spouses are more participate in communication regarding RCH.

Table 5: Multilevel model results predicting effect of women empowerment on spousal communication about selected RCH matters in India:2006 using Full (IGLS) Maximum Likelihood Estimation (N = 87,925)

Background Characteristics	Decision maker for using contraception		Husband know the wife using contraception		Husband provide AIDS-related information to wife	
	Model-I	**Model-lI**	**Model-I**	**Model-lI**	**Model-I**	**Model-II**
Age of Wife						
<20 years	1	1	1	1	1	1
20-24 years	3.13	3.01	4.04	3.98	1.12	1.09
25-29 years	7.02	6.53	10.38	10.08	1.07	1.01
30years & above	10.97	9.54	18.90	18.17	0.84	0.78
Residence						
Urban	1	1	1	1	1	1
Rural	0.976	0.99	0.959	0.968	1.08	1.09
Wealth Index						
Poorest	1	1	1	1	1	1
Poorer	1.30	1.31	1.36	1.36	1.47	1.48
Middle	1.62	1.63	1.62	1.59	1.94	1.95
Richer	1.87	1.89	1.71	1.72	2.29	2.30
Richest	2.08	2.10	1.51	1.52	3.47	3.49
Religion						
Major	1	1	1	1	1	1
Others	0.658	0.65	0.56	0.556	0.97	0.964
Women Education						
No Education	1	1	1	1	1	1
Primary	1.25	3.49	1.25	1.250	1.41	1.40
Secondary	1.22	3.38	0.93	0.923	1.83	1.81
Higher	1.13	3.08	0.43	0.423	2.58	2.50
Empowerment Tertile						
Low		1		1		1
Medium		1.21		1.11		1.21
High		1.38		1.12		1.22
σ_0^2	.231	.243	.165	.172	.261	.279
$\rho = \frac{\sigma_0^2}{\sigma_0^2 + \sigma_\varepsilon^2}$ *in (%)percentage*	6.55	6.87	4.77	4.96	7.35	7.81

Note: σ_0^2 variance of observed value and σ_u^2 variance of standard logistics distribution

ρis symbol of *variance partition coefficient* (*VPC*)indicate the intra-correlation coefficient

6N is total number of eligible women age 15-49 years for analysis in the study

Model- I am without empowerment and Model- II is with empowerment of women

Where low, medium and high indicate the level of empowerment of women age 15-49 years

Table 6: Multilevel model results predicting effect of women empowerment on spousal communication about selected RCH matters in Nepal:2006 using Full (IGLS) Maximum Likelihood Estimation (N = 8244)

	Decision maker for using contraception		Husband knows that Wife is using contraception	
Background Characteristics	**Model-I**	**Model-lI**	**Model-I**	**Model-lI**
Age of Wife				
<20 years®	1	1	1	1
20-24 years	2.11	1.91	3.13	2.79
25-29 years	3.64	3.10	5.83	4.86
30years & above	5.03	3.99	7.99	6.13
Residence				
Urban®	1	1	1	1
Rural	0.986	0.975	0.917	0.949
Wealth Index				
Poorest®	1	1	1	1
Poorer	1.87	1.87	2.04	2.05
Middle	2.32	2.37	2.61	2.69
Richer	2.61	2.62	2.64	2.67
Richest	3.25	3.24	2.80	2.80
Religion				
Major®	1	1	1	1
Others	0.682	0.673	0.669	0.658
Women Education				
No Education®	1	1	1	1
Primary	1.10	1.08	0.87	0.851
Secondary	1.11	1.08	0.69	0.673
Higher	1.17	1.10	0.32	0.299
Empowerment Tertile				
Low®		1		1
Medium		1.73		1.73
High		1.45		1.59
σ_0^2	.174	.182	.219	.251
$\rho = \frac{\sigma_0^2}{\sigma_0^2 + \sigma_\varepsilon^2}$ *in (%)percentage*	5.02	5.24	6.24	7.08

Table 7: Multilevel model results predicting effect of women empowerment on spousal communication about selected RCH matters in Bangladesh:2006 using Full (IGLS) Maximum Likelihood Estimation (N = 10146)

	Wife talks to Husband about Family Planning		Husband talk to wife about her discussions with medical staff	
Background Characteristics	**Model-I**	**Model-lI**	**Model-I**	**Model-lI**
Age of Wife				
<20 years®	1	1	1	1
20-24 years	1.194	1.171	1.4	1.38
25-29 years	1.192	1.161	2.25	2.23
30years & above	0.696	0.674	2.28	2.24
Residence				
Urban®	1	1	1	1
Rural	0.89	0.891	1.11	1.12
Wealth Index				
Poorest®	1	1	1	1
Poorer	0.962	0.967	0.94	1.06
Middle	0.956	0.963	0.85	0.86
Richer	0.901	0.899	0.89	0.89
Richest	0.91	0.902	0.97	0.97
Religion				
Major®	1	1	1	1
Others	1.011	1.007	0.76	0.76
Women Education				
No Education®	1	1	1	1
Primary	1.355	1.351	1.08	1.08
Secondary	1.855	1.846	0.81	0.8
Higher	2.309	2.246	0.79	0.77
Empowerment Tertile				
Low®		1		1
Medium		1.24		1.04
High		1.189		1.093
σ_0^2	0.194	0.198	.203	.211
$\rho = \frac{\sigma_0^2}{\sigma_0^2 + \sigma_\varepsilon^2}$ *in(%) percentage*	5.56	5.68	5.18	6.02

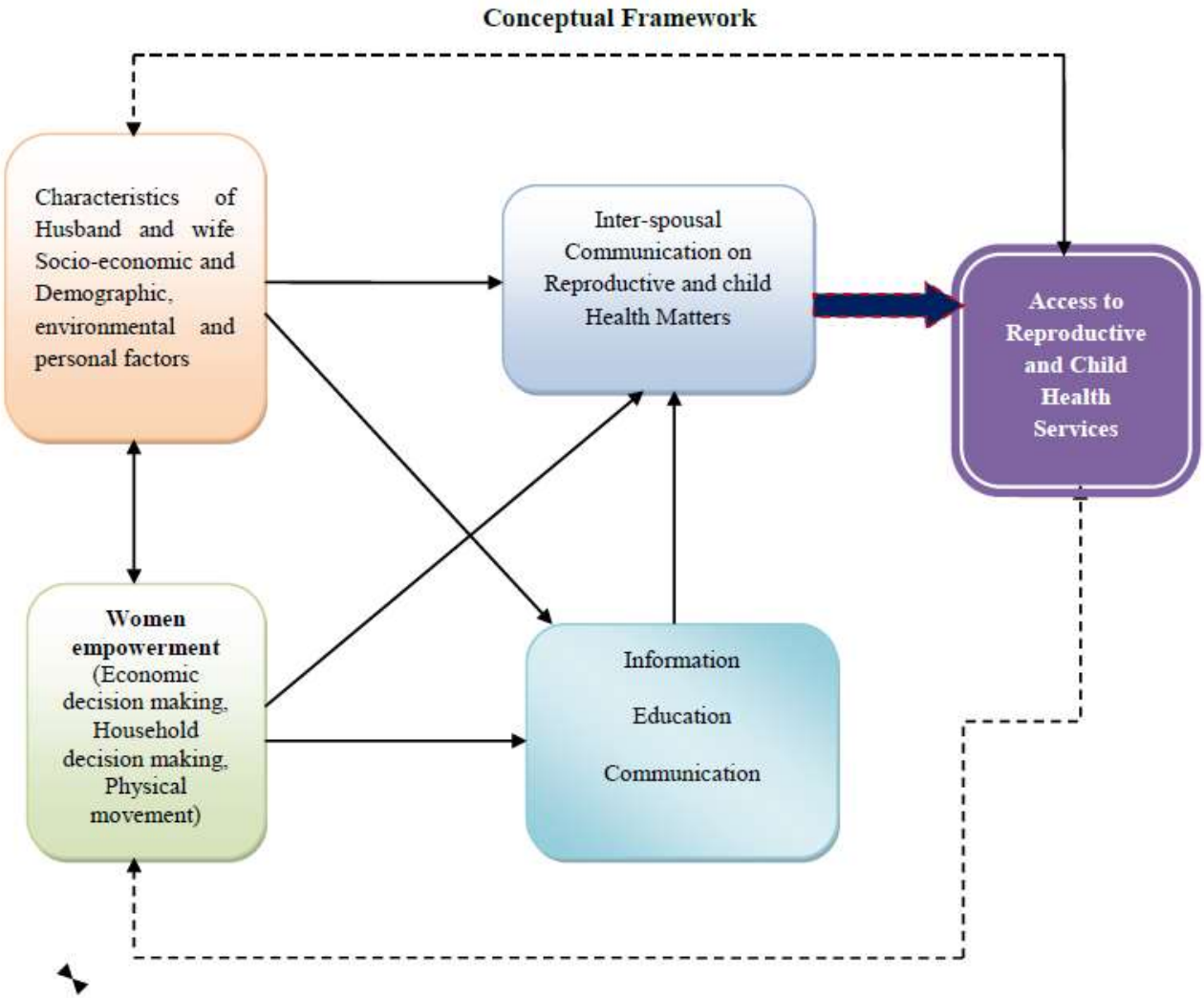

Fig. 1: Conceptual Framework for women empowerment associated with inter-spousal communication on various reproductive and child health matters

Education of women has a positive effect and odds ratio range (OR, 1.10-1.17) from primary to a higher level of education as compared to non-educated women. When women are educated than the upbringing of women tends to a couple more communicate at various RCH matters. So, education, age of women, wealth and empowerment has a positive effect on spousal communication about RCH matters in Nepal.

In Bangladesh

Results of the table-7 shows the effect of age, education, residence and religion are changing for allowing regional level variation without women's empowerment and with empowerment in Bangladesh. Empowerment tertile has a positive effect in case when wife talking to the husband about family planning. Without empowerment (5.6 percent) and with empowerment (5.7 percent) residual is found in Bangladesh.

The odds ratios are in the range of (odds, 1.04) without and (odds, 1.09) with empowerment respectively with medium and high empowerment tertile in Bangladesh. So the higher odds value shows that if the level of empowerment will be increases than the chance of communication between spouses will be more on RCH. When husband talks to wife to discussion with medical stop than age, residence, and empowerment tertile have a positive effect and residual are found 5.1 percent without empowerment and 6 percent with empowerment. The odds ratios values are found in the range (Odds, 1.40 to 2.38) for < 20 years and 30 years & above without and with empowerment, odds value for residence (Odds, 1.11) without empowerment and 1.12 with empowerment.

Findings suggest that the 5 percent to 6 percent difference explained from the region by without empowerment and also 5 percent to 6 percent for spousal communication on RCH matters in Bangladesh. Without empowerment, 5.6 percent and 5.7 percent with empowerment residual is found approximately in Bangladesh. When husband talks to wife her discussion with medical stop then, age, residence, women's empowerment tertile have effected and residual is

found 5.1 percent without empowerment and 6 percent with empowerment for communication between spouse. So the difference by region is nearly fall 5% without women's empowerment and 6 % with empowerment regarding RCH communication between spouses in Bangladesh.

So nearly 5% without empowerment and 6 % with empowerment difference by region is regarding communication between spouse in Bangladesh. The factors of women background characteristics have found significant and positive effect on spousal communication in both casese with and without empowerment. So, not only the level of women's empowerment is important for communication between spouses but these all factors are also important and have positive effect for all these three countries.

Summary

Broadly the results of this study suggest two paths of analysis of empowerment, first path cover the association of empowerment to increases communication and second part cover the effect of women empowerment on spousal communication reproductive and child health matters in selected countries.The communication between couple flows in the root of women empowerment,for example, when they take a decision about the desired number of children jointly,desired family size, use of family planning method and other RCH matters.These results provide that the level of empowerment play a significant important role between spouses to communicate. When increases the level of empowerment than the level of communication more increases in empowered women as compared their counterparts. Smililar results found in a study conducted in Nepal was stated that by improved couple communication may achieve women's empowerment and their health goals. So, spousal communication is associated with women's empowerment. The age, wealth, education and residence t are most important significant factors with empowerment for improvement in communication between spouses.

Using a threshold representation of the model with empowerment the same effect is found in age, wealth, education and residence. The residual is approximately seven percent. So, approximately in range six percent to eight percent of the residual variance in spousal communication with and without empowerment for decision-making is attributable to differences between regions in India. It is five percent to six percent without empowerment difference by region and five to eight percent difference by region with empowerment of the residual variance in Nepal, and nearly five percent without empowerment and six percent with empowerment in Bangladesh. Empowered individuals by nature are more proactive; they know that it is up to them and their capabilities to better their situation in life. An empowered person is more likely to go out of his/her way to find and create opportunities to improve his/her life. (Malhotra et al.,2005) noted that to measuring empowerment indicators in these various dimensions should happen at different levels of social aggregation, such as the household, community and broader areas (i.e. regional, national and global). Where there is a different type of social, traditional, cultural and problem of religious factors influence. Some authors argue that the concept of empowerment can be problematic in developing countries, where relationships are strongly rooted in the family context for the individual decision-making process (Basu, 1999).

Since the concept of women's autonomy originates from the western feminist and in a patriarchal society men has supreme authority and traditional values influence in the root of empowerment of women countries like India, Nepal and Bangladesh. This research findings support a study conducted in a fishing village in Indonesia indicate that in a traditional society, women can have a high degree of autonomy. In this village, women made autonomous decisions in the domains of income generation (as fish traders), the household economy, and family planning and reproductive health care (Niehof, 2007). This should prevent us from a priori associating high levels of women's autonomy with modernity and the lack of it with traditionalism. So the traditional value does not matter if knowledge is important.

The present study also influence by above various factors and the level of empowerment. The level of empowerment is low in those women who have at low level of schooling, lower age, low level of wealth power, leaving in rural setting, have less than two child, no any mass media expousre and not participant any paid employment. The positive results are found for women's empowerment and its association with spousal communication on RCH matters. Its indicate that the joint decision about RCH matters also remained strong after adjustment for potential confounders, implying that the act of making a decision joint between spouses necessitates higher level of communication. Couples in which the both husband and wife made RCH decisions are the most likely to be using RCH services, followed by alone decision-makers. It may be that women who are from high socioeconomic subgroup have lower probabilities of empowerment compared to women from low status. This indicates that being from the higher socioeconomic group does not indicate that the woman will be more empowered. There exist regional differences, perhaps to be captured further by other variables such as level of female literacy in the region, working condition of women, employment opportunities for women in that region, religiosity of the community, cultural factors. So, region also difference to women for empowerment and empowerment affect to inter-spousal communication by which women is not participating more in RCH matters with husband.

Conclusion

The level of women empowerment cannot be improved when the Scio-economic, demographic and culture factors influence at the individual level, household level or community level. Factors like education, occupation, economic status, media awareness and urbanization have a positive effect on almost every aspect of women's status in all these three countries. Status of women in urban areas is good and they are availing and aware of all health care facilities and taking part in decision-making but at large percentage of women are living in rural areas who are not availing such kind of health care facilities and they don't have known their rights in decision-making process. A large percentage of women are still neither educated nor employed and no aware about media exposure. Women those have educated and living in urban sectors have much better knowledge about decision-making and aware more about right and law as compared to their counterparts.

So, by reducing school dropout, increasing age of women, controlling religious and traditional problem, increasing employment, their wealth power, changing rural setting like urban and increasing media exposure can be increases the level of empowerment. So, these study shows that until these problems are not addressed, the condition of women's health status will not improve in India, Nepal and Bangladesh. At the country level, India is in a good position than Nepal, and Nepal is in a good position than Bangladesh in empowerment. In Nepal media has not significant more role.

In Bangladesh, at a higher level of women's empowerment media is playing a role. Spousal communication on reproductive and child health matter positively associated with women's empowerment. There is five to eight percent difference are coming by region in spousal communication with women's empowerment after controlling all covariates in India. It is four to six percent in Nepal and almost five percent in Bangladesh. Overall conclusion decision making for contraception is satisfactory, but the empowerment in other RCH services is very low, and the empowerment of women for all three dimensions in Bangladesh is the least. A large proportion of women is in medium tertile in Nepal. So, by increasing information, education and communication we can achieve desire level of women empowerment in all these three countries.

Policy Recommendations

The Policies are needed to encourage the rural families to give their girls chance for attending higher level education and professional course. So she can get a better job opportunity and can economically support their family as son are expected to do. There are more in-depth qualitative studies needed at the community level to understand better the determinants and consequences of this complex and sensitive issue. In particular, further investigation and research are needed to ascertain the long-term reproductive health consequences through inter-spousal communication. This way they will not attain self-efficiency but by improving their socio-economic, demographic, and cultural setting and by increase the level of empowerment. By making these effort women will be encouraged for communication with husband, their family members and outsider on reproductive and child health matters. So, a shared strategies can improve health practices more positive and also in other areas of their life.

Acknowledgement

This work is part of my **(**First author) research in Master of Philosophy (MPhil.) course under the guidance of Prof. Chander Shekhar in International Institute for Population Sciences, Mumbai (under the administrative control of Ministry of Health and Family Welfare, Government of India).

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