Social Change, Community Context, Wives and Husbands' Experiences and Domestic Violence against Wives.

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Abstract

This paper examines the influence of community context on domestic violence among the women in Chitwan Valley, Nepal – a predominantly patriarchal society that is in the midst of dramatic social change. Though previous research on domestic violence has emphasized the role of prevailing patriarchal ideology, the recent dramatic changes in the South Asian societies are likely to have important influences on domestic violence in the opposite direction. Using the measures and analytical approaches specifically designed to study the impact of macro level social change on individual-level family behaviors we test the influence of community context on domestic violence. The results show that wives' childhood community context, both wives' and husbands' adulthood community context, and couples' non-family experiences each tend to reduce the likelihood of domestic violence. Non-family experiences that increase exposure to Western ideas appear to be particularly powerful in reducing the likelihood of domestic violence. Husbands' positive attitudes towards mother-in-law obedience, on the other hand, are associated with a higher likelihood of domestic violence. These associations are robust against several key variations in model specification and point toward social psychological mechanisms linking macro-level social change to the individual-level incidence of domestic violence.

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Introduction

This paper examines the influence of community context on domestic violence among the women in a society in the midst of dramatic social change. Over the past decades, particularly after the Fourth World Conference on Women in Beijing in 1995, violence against women has received greater scientific and public policy attention. A large number of studies have indicated a high level of domestic violence against women worldwide, with the highest level and most sever forms of domestic violence in the South Asian region. However, with few exceptions, despite the highest level and most sever forms of violence against women in South Asian region, most empirical evidence on domestic violence comes from western industrialized societies, and little is known about the determinant of domestic violence in South Asia societies. We hypothesize that changes and variation in community context and wives' and husbands' experiences are likely to influence spousal relations leading to reduce levels of domestic violence.

Using measures and analytical approaches specifically designed to study the influence of macro level social change on individual family behaviors we test the influence of community context on domestic violence. The analysis contributes to theoretical and empirical research on the influence of community context on domestic violence in several important ways. First, using life course perspective which suggests that the timing of exposure to the community context may affect individual's behavior in different ways through multiple mechanisms, we examine community context in two points across the individual life course– childhood and adulthood.

Second, research investigating contextual influences on individual's experiences has explored many different contextual levels. Many studies have operationalized context at high levels of aggregation, such as the regional level (Dyson & Moore 1983) or the national level (Entwisle & Mason 1986). However, other studies have shown a significant influence of the local community on individual behaviors, particularly in rural agrarian settings in which daily activities are localized (Axinn & Yabiku 2001; Axinn & Fricke 1996; Entwisle et al. 1989). Because so much of daily social life in poor rural settings is organized near the home (Axinn & Yabiku 2001), this study operationalizes context at a local level, investigating the neighborhood within which individuals conduct most of their day-to-day activities. Moreover, particularly significance here is the CVFS data feature the measures of both individual social and physical context as well.

Third, we examine the influence of community context in a setting that is undergoing rapid social change (Axinn & Barber 2001; Ghimire et al. 2006; Shivakoti et al. 1997). Up until the early 1970s Chiwan was an isolated valley surrounded by rivers and dense forest and heavily infested by deadly malaria. It was purely a subsistence agricultural society with most social activities organized within families and patterns of family formation as they had been for centuries. Beginning in the late 1970s Chitwan valley has undergone a dramatic social change that spurred the spread of wage labor employment, schools, markets, transportation, government services, and the mass media. In 1995 we launched the Chitwan Valley Family Study (CVFS) to document the rapid social changes occurring in Chitwan and investigate their influence on domestic violence.

Finally, CVFS data feature measures of multiple dimensions of individual experiences from identical, but separate interviews with husbands and wives, provides

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unique opportunity to investigate the influence of both the perpetrator's as well as the

victim's individual characteristics.

Theoretical Framework

Scholars have argued that the high level and most sever form of domestic

violence in South Asian region is linked to the prevailing patriarchal ideology, one of the

major components of the South Asian cultural configuration. This cultural configuration

evolved through Hindu religious doctrines emphasize strong hierarchal relations based on

gender (men supremacy over women), caste (high caste Hindus over low caste Hindus),

and seniority (senior over juniors). For example, according to *Manusmriti (9.3),* Hindu

religious scripts, a woman is protected by her father in childhood, by her husband in her

youth, and by her sons in her old age and is never fit for independence. Once a woman is

married, she becomes a property and responsibility of her husband. Her life is supposed

to be devoted to her husband's service and taking care of his children. In ancient times,

when a Hindu man died, his wife either committed sati on his funeral pyre or retired into

a life of social damnation, religious contemplation and perennial solitude.

Although the Hindu ideology which is presumed to be originally associated with

the Indo-Aryan group (who came to Nepal from India in several waves since 13th

Century), it has became pervasive even among other non Indo-Arayan groups through the

adoption of values, beliefs, and customs of the high caste Hindus who are guided by

Sanskrit scholarship – a process often referred as "sanskritization"[1]. Soon after the Indo-

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[1] Sanskritization plays a crucial role in changing the family formation, sexual, and fertility ideals and
behaviors of non-Hindu society. M.N. Srinivas, an Indian Sociologist, defines Sanskritization as process
of: 1) Adoption by lower castes of new values which are said to belong to members of the so called upper

Aryan group took over the political power, they persuaded others to follow their religion and customs. As a result, both as an ideological and normative force, Hindu religious doctrine has played important role in both in marriage and marital relationships, including domestic violence against women (Koeing et al 2006, 2003; Stephenson et al. 2006)

However, during the period of British colonization of the Indian sub-continent, Hindus began to interact with people who had vastly different beliefs about social relationships – people who believed on independence and personal freedom, equality between men and women, marital relationship based on love, and do not believe on caste system (Macfarlane 1986; Smith 1973; Tilly and Scott 1978; Thornton & Li 1994; Thornton 2001; 2005; Tsuya & Choe 1991; Whyte 1990). Nepal, however, was never a colony, and Hindus in this country had little exposure to such alternative views of marriage until after the 1950s. In fact, Nepal remained politically and economically isolated from other countries until the mid-1950s, when Nepal's king first opened the country to interaction with non-Hindu nations and peoples (Bista 1972; Blaikie, Cameron and Seddon, 1980). Since that time, and particularly beginning in the mid-1970s, Nepal has experienced dramatic social and economic change. Exposure to outside world was further accelerated by Nepalese interactions with Western population within Nepal and abroad, as thousands of Western tourists traveled to Nepal and Nepalese traveled to Western countries for work, study, training, seminars and businesses.

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caste. 2) Expression of these new values and ideals in theological and scholarly literature written in Sanskrit language. 3) Adoption of the ways of life of the higher castes. 5) A rise in status within the caste hierarchy. This process of Hindu religio-cultural intrusion often refereed by different terms Hindunization, Bhraminization or Sanskratization has profound impact on the non-Hindu community in Nepal.

In addition, since the very beginning of her planned development effort Nepal started receiving large portion of her development budget in foreign aid from various individual countries, multi-national and bilateral organizations, and international non-governmental organizations. This flow of international aid was primarily targeted to the improvement in living condition of the rural poor through improvement in education systems, health services and rural infrastructure. The result has been a dramatic spread of formal education, wage work, government services, transportation and communication infrastructure, and the mass media. This spread of community level changes ha produced a re-organization of individuals' daily social lives within the lifetimes of Nepal's current population (Axinn and Yabiku 2001). The first signs of the impact of these social changes on social life in the form of increasing participation education, employment, exposure to mass media, international communication and travel and other sociopolitical sphere of social life, are already apparent (Axinn and Yabiku 2001; Beutel and Axinn 2002; Ghimire and Axinn 2006).

Moreover, scholars have documented dramatic impact of these social changes on the many different dimensions of family change, including childbearing, marriage timing and marital arrangements (Aheren 2004; Axinn & Yabiku 2001; Axinn & Barber 2001; Barber & Axinn 2004; Ghimire, Axinn, Yabiku & Thornton 2006; Ghimire & Axinn 2006; Niraula 1994; Morgan & Niraula 1995). Together these changes have created a transition from large families with extended family living, high parental authority, low youth autonomy, young ages at marriage and childbearing, or low women's status and independence to smaller families with nuclear family living, low parental control, high youth autonomy, older age at marriage and childbearing, or high women's status and

independence (Caldwell, Reddy, & Caldwell 1983, 1988; Dyson & Moore 1983; Goode 1970; Rindfuss & Morgan 1983; Sastry and Ross 1998; Thornton, Chang, & Lin 1994). We hypothesize that the macro level social changes and the changes in family behavior produced by the social changes are likely to have important influence on the spousal relations leading to reduce level of domestic violence.

Although a large body of research documents important influences of individual factors on domestic violence, the potential influences of community context have been less thoroughly studied. This is an important area given that individuals' marital relations may be greatly shaped by interactions structured by the characteristics of the community in which they live (Brewster et al., 1993). Brewster et al. (1993) suggest that community context influences individuals' behavior in two ways: the local opportunity structure may facilitate and constrain individual behavior; or the community may promote mainstream values and norms by delineating boundaries of desirable behaviors for young people.

To link community context with domestic violence, we draw on two theoretical perspectives: 1) the mode of social organization framework (Thornton, Fricke, Yang & Chang 1994; Thornton & Fricke 1987); and 2) Mead's exposure hypothesis (Mead 1967 [1934]). We elaborate below.

Modes of social of organization framework

This framework focuses on the extent to which the activities of daily social life, including authority patterns, information flow, living arrangements, production, consumption, socialization, and reproduction, are organized by the family versus by other non-family social institutions. Transitions along this continuum are likely to influence marital relationship in at least three important ways.

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First, in a substance agricultural society in which most of social life is organized within the family, the spread of new non-family organizations and services creates new opportunities to reorganize daily social life outside the family (Axinn & Yabiku 2001; Ogburn & Tibbits 1934; Thornton & Lin 1994). One key prediction from the mode of social organization framework is that increased exposure to non-family social activities among young people leads to greater independence, resulting in the adoption of new ideas and values based on individual independence, personal freedom, equality and interpersonal relations based on mutual consent (Thornton & Fricke 1987; Thornton, Fricke, Yang & Chang 1994). To the extent newly married people have participated in these non-family activities, they will be more likely to hold positive attitudes towards new ideas that are likely to fundamentally alter the dynamics of their marital relationship.

Second, recent work using the mode of social organization framework suggests that the organization of social life during childhood shapes individuals' long-term personality characteristics (Axinn & Yabiku 2001) which then may dictate their later life social interactions, including domestic violence. This research points toward potentially important long term influences of early non-family experience on personality development (Axinn, Ghimire, & Barber 2006; Yabiku, Axinn & Thornton 1999). In a Hindu context, young people who have substantial non-family experience in early childhood themselves, as adults may be more likely to develop interaction skills and values consistent with new ideas of individual independence, personal freedom, equality and relationships based on mutual consent (Axinn & Yabiku 2001; Axinn & Barber 2001). If so, then childhood exposure non-family social context may lower violence against women, independently of adult social context in South Asia.

Third, in societies where arranged marriage is common, evidence indicates that greater youth independence, including more involvement of young people in spouse choice, can change the nature of marital relationships, leading to more love and affection and less disagreement and violence (Rindfuss and Morgan 1983; Thornton and Lin 1994; Wu 1996). Recent evidence demonstrates that in such settings participation in non-family activities speeds the transition away from arranged marriage toward youth involvement in spouse choice (Ghimire et al. 2006; Thornton and Lin 1994). Therefore, wives' and husbands' non-family experience is likely to encourage more orderly conduct and lower the likelihood of violence.

Mead's exposure hypothesis

Classical sociological theories and recent empirical work suggest that a simple exposure to community services such as schools, health services, employment centers, bus stops, or cooperatives is likely to influence the individuals' attitudes and beliefs in important ways (Barber 2004; Mead, 1967 [1934]; Zajonc, 1968). Mead suggests that individuals can develop their "self" in part by interacting with nonhuman "others" such as the institutions around them. For example, the presence of an employment center may increase the chances an individual views herself as a potential employee. This may then substantially change the views of that individual about both the employment center and non-family work (Barber 2004). Therefore, we expect that exposure to local non-family organizations and services is likely to reduce domestic violence by creating positive attitudes toward the non-family activities leading increased participation and adoption of new values that are based on independence, personal freedom, equality and interpersonal relations based on mutual consent. This purely psychological mechanism may act

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independently of the social organization mechanisms described above, or it may act jointly with those mechanisms.

Setting

Western Chitwan Valley, which lies in the south central part of Nepal, is the study area for this research. Historically this population is characterized by early marriage, arranged marriage, rapid transitions to the first birth, rare contraceptive use, and large completed family sizes (Axinn & Yabiku 2001; Axinn & Barber 2001; Yabiku 2005). During the later half of the 20th century, Nepal has undergone dramatic social and economic changes resulting in the dramatic expansion of non-family service organizations, including schools, health services, bus stops, cooperatives, and employment centers, within the study area. This expansion of service organizations has tremendously increased access to these service organizations. For example, in Figure 1 we present the history of change in the access to service organizations of Chitwan Valley: historical time increases along the x-axis, and travel time in minutes increase on the y-axis. The lines represent, across 43 years (1953-1996), the average time (mean for all neighborhoods) time required to walk to the nearest school, health service, bus stop, market, or employer. The declining slopes of these lines indicate that the average time to walk to each of these services has declined dramatically over the recent history of Chitwan Valley. Importantly, the differences among the lines indicate which of these changes spread through the valley first, second, and third.

(Figure 1 About Here)

In addition, because these service organizations were not opened or available to all the neighborhoods at the same time, and were of varying distances, access varied tremendously. Figure 2 shows the percent of neighborhoods that have a specific service

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within a given travel time for the most recent year of data (1996). The minutes to the

specific service in 1996 are grouped along the x-axis and the percent of neighborhoods is

along the y-axis. Each bar represents the percent of neighborhoods that have that specific

service within that specific walking time. For example, almost 50% of neighborhoods

have a school within a 5-minute walk. Similarly more than 40% neighborhoods have

health services, and a little less than 30% have markets within a 5-minute walk. However,

less than 5% of neighborhoods have a cinema within a 5-minute walk and for more than

half of the neighborhoods the nearest cinema is over an hour away.

<center>(Figure 2 About Here)</center>

Despite the dramatic changes, most parts of the valley are still quite rural. Except

for the national highway that runs along the northern border of the study area, most of the

roads within the study area are still seasonal and unpaved. Employment centers are

basically service-oriented government agencies and a few agro-based industries. And

most importantly, despite the massive transformation, this valley remains predominantly

an agriculture-based society. Eighty-three percent of the households in the study reported

that they were growing crops in 1996. Thus, dramatic variation in neighborhood

characteristics – in terms of access to service organizations – and history of high level of

domestic violence based on patriarchal ideology makes Chitwan an ideal setting to study

the influence of community context on domestic violence against wives – wife beating.

<center>**Data and Methods**</center>

Data

This study uses multiple data sets collected by the Chitwan Valley Family Study

(CVFS) since 1996: neighborhood histories and individual interviews with life history

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calendars. The data to test our hypotheses come from a study of 171 neighborhoods

scattered throughout Western Chitwan Valley. For the purposes of this study, a

neighborhood was defined as a geographic cluster of five to fifteen households. These

neighborhoods were chosen as an equal probability, systematic sample of neighborhoods

in Western Chitwan, and the characteristics of this sample closely resemble the

characteristics of the entire Chitwan Valley population (Barber et al. 1997).

Once a neighborhood was selected, a history of each neighborhood was collected

using a calendar method (for details please see Axinn, Barber & Ghimire 1997). A

household census along with a household relationship grid was administered in all the

households in the selected neighborhoods. All individuals aged 15 to 59 residing in the

sampled households were also interviewed using a standardized questionnaire and a life

history calendar (LHC). In the standardized interviews, individuals were asked a variety

of questions regarding their family background, personal characteristics, experiences,

childhood community context. The LHC portion of the survey collected information on

residence, marital status, children, contraceptive use, schooling, and work experience.

The LHC and the structured interview allow these reported events to be linked to

personal and contextual characteristics.

From the CVFS data, we use a sample of married women aged 15 to 59 in 1996.

Because the outcome (beaten by husband) is measured retrospectively and the timing and

frequency of violence is not available, in order to maintain temporal order we limited the

wives' and the husbands' experiences to premarital experiences.

Measuring Domestic violence

The outcome of our interest is domestic violence. Our measure of domestic

violence is narrowly interpreted as physical violence. Because in our setting women experience disproportionately high level of domestic violence compare to men, our investigation focuses on physical violence against women – wife beating. Domestic violence is measured by women's responses to a question in the private individual interview. Respondent in the individual interview were asked, "Has your (most recent) (husband/wife) ever beaten you? If a respondent answered affirmatively to the question then that was categorized as having experienced domestic violence and coded as "1" and otherwise coded as "0".

Measures of independent variables

The main interest of our study here is to evaluate the influence of community context and couple's (wives' and husbands') premarital experiences on domestic violence against women.

Community characteristics

In Chitwan, changes in community characteristics occur largely through the expansion of new non-family service organizations, transportation facilities, and changes in neighborhood land use. Except some non-family services, such as school and health service, several of these changes were first introduced near the urban center – Narayanghat –, and gradually spread throughout the valley. Many of the measures we use to examine the influence of community characteristics are measures of spatial location of the community in relation to non-family services. These measures are useful operationalizations of the community characteristics in terms of a respondent's opportunity structure and exposure. These measures are in line with Roderick Mckenzie's (1968) theorization of context. He notes that individual immediate context or distance is

"a time-cost concept rather than a unit of space. It is measured by minutes and cents rather than yards and miles." Thus, an individual's opportunity structure often depends on how far she lives from the different kinds of services. Similarly, Giddens (1984) suggests that the distance to these services and time it takes to reach them constrains the opportunity structure.

As we discussed above in the theoretical framework section, because the timing and sequencing of access and exposure to new service organizations are likely to influence an individual's life in fundamentally different ways, we measure the access and exposure to new non-family services organizations separately for childhood and more recent adulthood. For the convenience of discussion, we call them childhood non-family service organizations and adult non-family service organizations.

Childhood non-family service organizations. Information about childhood non-family services was collected through individual interview conducted in 1996. In that individual interview, respondents were asked a series of questions about whether there was a specific service organization within one-hour walk from their place of residence at any time in their lives before they were 12 years old. For example, respondents were asked "Was there a school within a one-hour walk from your home at any time before you were 12 years old?" If the response to this question is positive, it is coded as "1," and "0" otherwise. This question was repeated for health posts, and employment centers. From the responses to these questions we construct dummy variables for whether each of these specific non-family services existed within a one-hour walk from the place of the respondent's residence at any time before she or he was 12 years old. Because these measures are correlated, and in order to avoid problems of multicollinearity, we sum

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these four variables to a scale with values ranging from zero to four. In this scale, a value

of zero means the respondent had none of the services within one hour walk, whereas a

value of four means the respondent had all four services within one-hour walk of their

residence at some point in childhood.

Contemporary non-family service organizations. The neighborhood history data

provides a measure of distance in walking time from the respondents' current

neighborhoods to the nearest school, health service, bus stop, employment center, and

agriculture cooperative. The specific techniques involved in NHC data collection

methods are described in detail elsewhere, so we do not repeat those here (Axinn et al.

1997). These data provide dynamic measures of how far away each service was from the

neighborhood for each year from 1953 to 1996 (Axinn et al. 1997). These walking times

vary from 0 minutes (when the service is located within the neighborhood) to hundreds of

minutes (a couple of day's walk from the neighborhood). We create dummy variables

indicating whether or not the nearest service was within 15 minutes of walking distance

from the respondent's neighborhood in a specific year. We then sum up these responses

that give us the total number of years a certain service organization was within a 15-

minute walking distance. Finally, we sum up the responses from each of the services and

divide by the number of services. This coding system has been successfully used in

previous studies (Axinn & Yabiku 2001; Yabiku 2004, 2005).

Measures of controls

The controls include additional neighborhood characteristics, parental

experiences, and respondents' characteristics and experiences.

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Neighborhood characteristic. We control for neighborhood characteristics –

distance to urban center that are likely to influence domestic violence.   Measure of

distance to an urban center also come from neighborhood history data. However, unlike

the distance to non-family services, the unit of distance here is miles, not minutes. During

the neighborhood history data collection the exact latitude and longitude location of each

neighborhood was also calculated from 1:25,000 maps based on aerial photographs of the

valley. These locations were entered into a Geographic Information System (GIS), which

calculated the distance in miles between each neighborhood and Narayanghat, the

valley's only urban center.

Yet to written

 Parents' characteristics

Respondent's characteristics

Results

Analytical strategy

Influence of childhood community context

Table 2

Influence of adulthood community context

Table 3

Wives' and husbands' experiences

Table 4

Discussion

References

Acharya, M. and L. Bennett. 1981. *The Status of Women in Nepal.* Volume II
    Kathmandu CEDA.

Adhikari, D. P. 1998. *The History of Nepalese Nationalism.* Jeewan Printing Support

Press, Nayabazar, Kathmandu.

Adikari, Ramesh K. 2003. "Early marriage and childbearing: Risks and consequences."
    Pp62-66 in *Towards adulthood: Exploring the sexual and reproductive health of
    adolescents in South Asia* edited by Bott et al. Geneva: World health Organization.

Ahearn, Laura Marie. 2001. *Invitations to love: literacy, love letters, and social
    change in Nepal*. Ann Arbor: University of Michigan Press.

Allendorf, Keera. 2006. "He Said, She Said, They Said: Couples' Reports of Women's
    Autonomy and Health Care in Nepal." Paper presented at the 2006 Annual
    Meeting of the Population Association of America, Los Angeles CA, March 30-
    April 1 2006.

Allendorf, Keera. 2007. "Couples' report of women's autonomy and health-care use in
    Nepal." *Studies in Family Planning* 38(1): 35-46.

Axinn, William G. and Arland Thornton. 1996. "The Influence of Parents' Marital
    Dissolution on Children's Attitudes toward Family Formation." _Demography_
    33(1):66-81.

Axinn, William G. and Scott T. Yabiku. 2001. " Social Change, the Social organization
    of Families, and Fertility Limitation." *American Journal of Sociology* 106 (5):
    1219-61

Axinn, William G. and Jennifer S. Barber. 2001. " Mass education and Fertility
    Transition." *American Sociological Review*. 66(4): 481-505.

Axinn, William G., Jennifer S. Barber, and Dirgha J. Ghimire. 1997. "The Neighborhood
    History Calendar: A Data Collection method Designed for Dynamic Multilevel
    Modeling." *Sociological Methodology* 355-392.

Axinn, William. G., Lisa D. Pearce, and Dirgha J. Ghimire, 1999. "Innovations in Life
    History Calendar Applications." *Social Science Research* 28: 243-264.

Banerjee, Sir Gooroodass. 1984. *The Hindu Law of Marriage and Stridhana*. 4th Ed.,
    Delhi: Mittal Publications.

Basu, Alka Malwade. 1993. " Cultural influences on the timing of first births in India:
    Large differences that add up to little difference." *Population Studies* 47 (1): 85-
    95.

Bennett, Lynn. 1976. "Sex and Motherhood among the Brahmins and Chhetris of
    East-Central Nepal." *Contributions to Nepalese Studies* 3, (Special issue):1-
    52.

Bennett, Lynn. 1980 (1979). *Tradition and Change in the Legal Status of Nepalese Women.* The Status of Women in Nepal, Vol. I: Background Report, Part 2. Kathmandu: CEDA.

Bennett, Lynn. 1983. *Dangerous Wives and Sacred Sisters: Social and Symbolic Roles of High Caste Women in Nepal.* New York: Columbia UP.

Berreman, Gerald D. 1972. *Hindus of the Himalayas: Ethnography and Change.* 2nd edition, Berkeley: University of California Press.

Bista, Dor B. 1972. *People of Nepal.* Ratna Pustak Bhandar, Kathmandu.

Bista, Dor B. 1991. *Development and Fatalism: Nepal's Struggle for Modernization.* Calcutta: Orient Longman Limited.

Blaikie, P., J. Cameron, and D. Seddon. 1980. *Nepal in Crisis: Growth and Stagnation at the Periphery.* Oxford University Press, Delhi.

Bloom, David E. and Pat. H. Reddy. 1986. "Age Patterns of Women at Marriage, Cohabitation and First Birth in India." *Demography* 23 (4): 509-523.

Cain, M., S. R. Khanam, and S. Nahar 1979. "Class, Patriarch, and Women's Work in Bangladesh" *Population and Development Review* 5 (3): 405-438

Caldwell, J. C. 1998. "Global Fertility Transition and Nepal." *Contribution to Nepalese Studies* 25(Special Issue): 1-7.

Caldwell, J. C. 1982. Theory of Fertility Decline Academic Press Inc. (London) LTD.

Caldwell, J.C, P.H. Reddy, and P. Caldwell. 1983. "The Causes of Marriage Change in South India" Population Studies 37:343-361.

Caldwell, J.C, I. Gajanayake, B. Caldwell, and P. Caldwell. 1989. "Is marriage delay a multiphasic response to pressure fro fertility decline? The case of Sri Lanka." *Journal of Marriage and the Family*, 51: 337-351.

Caplan, Lionel. 2000. *Land and Social Change in East Nepal: A Study of Hindu-tribal Relation.* 2nd Edition Himal Books.

Caplan, L. 1974. "Inter-caste marriages in a Nepalese Town." Pp 40-59 in C. Haimendorf edited *Contributions of the Anthropology of Nepal*, Warminister: Aries and Phillips Ltd.

Caplan, A. Patricia. 1972. *Priests and Cobblers: A Study of Social Change in a Hindu Village in Western Nepal.* London: Inter text Books.

Central Bureau of Statistics. 2003. *Population Monograph of Nepal.* Central Bureau of Statistics, National Planning Commission Secretariat, His majesty's Government of Nepal, Singha Darbar, Kathmandu, Nepal.

Chauhan, R. S. 1971. *The Political Development in Nepal, 1950- 1970: Conflict between Tradition and Modernity.* New York, Barnes & Noble

Chaudhury R. H. 1982. S*ocial Aspects of Fertility with Special Reference to Developing Countries* Vikash Publishing House Pvt. Ltd. 5 Ansari Road New Delhi 110002

Childs, Geoff H. 1998. Cultural and Historical analyses of Demographic Trends and Family Management strategies among the Tibetans of Nubri, Nepal. Un published PhD dissertation, Indiana University.

Choe, Minja Kim, Shyam Thapa, and Vinod Mishra. 2004. "Early Marriage and Early Motherhood in Nepal." *Journal of Biosocial Science* 37:143-162.

Choe, Minja Kim, Shyam Thapa, and Sulistnah Irawati Achmad. 2001. "Surveys Show Persistence of Teenage Marriage and Childbearing in Indonesia and Nepal." *Asia-Pacific: Population and Policy.* East-West Center.

Dahal, Dilli Ram and Thomas E. Fricke. 1993. "The Family Context of Marriage Timing in Nepal." *Ethnology* 32,4:305-323.

Dayson T. and M. Moore.1983. "On kinship structure, Female Autonomy and Demographic Behavior in India." *Population and Development Review* 9(1): 35-60

Duberman, Lucile and Koya Azumi. 1975. "Sexism in Nepal." *Journal of Marriage and the Family* 37 (4) Special Section: Macrosociology of the Family: 1013-1021.

Fricke, Tom, William G. Axinn and Arland Thornton. 1993. "Marriage, Social Inequality, and Women's Contact with Their natal Families in Alliance Societies: Two Tamang Examples." *American Anthropology* 95(2):395-419.

Furuta, Marie and Sarah Salway. 2006. "Women's position within the household as a determinant of maternal health in Nepal." *International family planning Perspective* 32(1)17-27.

Gipson, Jessica D. and Michelle J. Hindin. 2007. "Marriage means having children and forming your family, so what is the need of discussion? Communication and negotiation of childbearing preferences among Bangladeshi couples." *Culture, Health and Sexuality* 9(2): 185-198.

Goldstein, Melvyn C. 1975. " Fraternal Polyandry and Fertility in a High Himalayan Valley in Northwest Nepal." *Human Ecology* 4 (2): 223-33

Goode, William J. 1970. *World Revolution and Family Patterns*. New York: The Free Press.

Gray, John N. 1991. "Marriage and the Constitution of Hierarchy and Gender in Bhaun-Chhetri Households." *Contribution to Nepalese Studies*18(1):53-82.

Gray, John N. 1995. *The Householder's World: Purity, Power and Dominance in a Nepali Village.* Oxford University Press.

Guneratne, Upali Arjun 1994. "The Tharus of Chitwan: Ethnicity, Class and The State in Nepal." Unpublished Ph. D. dissertation. The University of Chicago, Chicago, Illinois

Guneratne, Arjun. 1998. "Modernization, the State and the Construction of Tharu Identity in Nepal." *The Journal of Asian Studies* 57 93): 749-773.

Gurung, Ganesh Man. 1988. "The process of Identification and Sanskritization: The Duras of West Nepal." *Kailash* 14(1 &2): 41-64.

His Majesty's Government of Nepal. 2001. *Statistical Year Book of Nepal 2001.* His Majesty's Government of Nepal, National Planning Commission Secretariat, Central Bureau of Statistics, Ramshah Path, Thapathali, Kathmandu.

Hoftun, Martin., William Raeper and John Whelpton . 1999. *People, Politics and Ideology: Democracy and Social Change in Nepal*. Kathmandu: Mandala Book Point.

Levine, Nancy E. 1987. "Caste, State, and Ethnic Boundaries in Nepal." *The Journal of Asian Studies* 46(1): 71-88.

Levine, Nancy E. 1981-82. "Social Structure, Fertility and the Value of Children in Northwestern Nepal." *Contributions to Nepalese Studies* 9,1-2:1-19.

Macfarlane, Alan. 1976. *Resources and Population: A study of the Gurungs of Nepal*. Cambridge: Cambridge University Press.

Majupuria, I and T.C Majupuria. 1989. *Marriage customs in Nepal: Traditions and Wedding Ceremonies Among various Nepalese Ethnic Groups*. Craftsman Press, Ltd. 487-42 Soi Wattanasilp, Pratunam, Bangkok, Thailand

Malhotra, Anju. 1991. "Gender and Changing Generational Relations: Spouse Choice in Indonesia." *Demography* 28(4): 549-570

Malhotra, Anju, and Mark Mather. 1997. "Do Schooling and Work Empower Women in

Developing Countries? Gender and Domestic Decisions in Sri Lanka." *Sociological Forum* 12: 599-630

Manandhar, L. K. and Krishna B. Bhattachan. 2001. *Gender and Democracy in Nepal*. Central Department of Home Science Women's Studies Program, Tribhuvan Univeristy and Fridrich-Ebert Stiftung.

Maskey, Govinda. 1996. *Social life in Nepal: From Tradition to Modernity, 1901-1925*. Delhi:Anmol.

Mason, Karen Oppenheim. 2001. "Gender and Family Systems in the Fertility Transition" *Population and development Review* 27 (Supplement: Global fertility Transition): 160-176.

Mason, K. Oppenheim and Herbert L. Smith. 2000. Husbands' Versus Wives Fertility and Use of Contraception: The Influence of Gender Context in Five Asian Countries, *Demography* 37(3): 299-311.

Matthews, D. J. 1989. "Love and Marriage in Modern Nepali Literature." *Kailash* 15(3 & 4): 157-165.

Miller K, E. M. Zulu and S. C. Watkins. 2001. "Husband-Wife Survey Responses in Malawi." *Studies in Family Planning* 32: 161-74.

Miller, Nancy B. and Lawrences A. Kannae. 1999. "Predicting Marital Quality in Ghana." *Journal of Comparative Family Studies* 30(4): 599-615.

Ministry of Health [Nepal], New Era, and ORC Macro. 2002. *Nepal Demographic and Health Survey 2001*. Family Health Division, Ministry of Health; New EERA; and ORC Macro Calverton, MD, USA.

MOPE. 2002. Nepal Population Report 2002. Ministry of Population and Environment (MOPE), Shihadarbar Kathmandu HMG,Nepal.

Ministry of Population and Environment [Nepal]. 1998. *Review of Population Policy in Nepal*. Kathmandu Nepal.

Montgomery, Mark R. 1986. "Female Education and First Marriage in Malaysia" An

Morgan S. Philip and Bhanu B. Niraula. 1995. "Gender Inequality and Fertility in Two Nepali Villages." *Population and Development Review* 21(3): 541-561.

Neidell, Shara G., Bhanu B. Niraula, S. Philip Morgan, and Sharon Stash. 1998. "Moslem and Non-Moslem Fertility Difference in the Eastern Terai of Nepal." *Contribution to Nepalese Studies* 25 (Special Issue): 109-128.

Niraula, Bhanu. 1994. "Marriage Changes in the Central Nepali Hills." *Journal of Asian and African Studies* 29 (1-2): 91-109.

Niraula, Bhanu and Dovan Lawoti. 1998. "Women's Autonomy and Reproductive Behavior in Two Urban Areas of Nepal." *Contribution to Nepalese Studies*. 25(Special Issue): 157-172.

Niraula, Bhanu and S. Philip Morgan. 1996. "Marriage Formation, Post-marital Contact with Natal Kin and Autonomy of Women: Evidence from Two Nepali Settings." *Population Studies* 50(1): 35-50.

Olenick, I. 1998. "Level of Unwanted Childbearing are High in Nepal, Where only One in Three Women Use Contraceptives." *International Family Planning Perspectives* 24 (2): 95-96.

Pigg, Stacy Leigh. 1996. The Credible and the Credulous: The Question of "Villagers' Beliefs" in Nepal. *Cultural Anthropology* 11(2): 160-201.

Pigg, Stacy Leigh. 1992. "Inventing Social categories through Place: Social Representations and Development in Nepal." *Comparative Studies in Society and History* 34(3):491-513.

Putnam, A M. 1975. "The Tea Shop as an Arena of Ethnic Interaction in Nepal." *Contribution to Nepalese Studies (INAS Journal)* 2(1):11-17.

Regmi, Mahesh C. 1978. *Thatched Huts and Stucco Palaces: Peasants and Landlords in 19th-century Nepal*. Vikash Publishing House Pvt. Ltd.

Regmi Research Pvt. Ltd. 1988. Marriage and Conjugal Relations. Nepal Miscellaneous Series, vol. 1988 KM.

Rijal, Sangeeta. 2003. "Domestic violence: A major cause of increasing divorce cases." *The Kathmandu Post* April1, 2003.

Jeffery, Jeffery and Alaka M Basu. 1996. *Girls' Schooling, Women's Autonomy and Fertility Change in South Asia*, Sage Publications New Delhi/Thousand Oaks/London

Sharan , Mona and Thomas W. Valente. 2002. "Spousal Communication and family Planning Adoption: Effects of a Radio Drama Serial in Nepal." *International Family Planning Perspectives* 28(1): 16-25.

Sharma, Prayag Raj. 1977. "Caste, Social Mobility and Sanskritization: A Study of Nepal's Old Legal Code." *Kailash* 5(4): 277-299.

Shella, J. and N. Audinarayana. 2003. "Mate Selection and Female Age at Marriage: A Micro level Investigation in Tamil Nadu, India." *Journal of Comparative Family*

Studies 34(4): 497-508.

Shrestha, Devendra P. 1998. "Socioeconomic Changes, Women's Autonomy, and Timing of First Birth in a Semi-Urban Community in Nepal." *Contribution to Nepalese Studies* 25(Special Issue): 129-143.

Shrestha, D. B. and C. B. Singh. 1987. *Ethnic groups of Nepal and their ways of living.* Himalayan Booksellers, Kathmandu, Nepal.

Srinivas, M. N. 1952. *Religion and Society among the Coors of South India.* Oxford: Clarendon Press

Stone, Linda. 1978. "Cultural Repercussion of Childlessness and Low Fertility in Nepal." *Contribution to Nepalese Study.* Journal of the Research Center for Nepal and Asian Studies Tribhuvan University Nepal 5(2): 1-36.

Suwal, Juhee V. 2001. "Socio-cultural dynamics of first birth intervals in Nepal." *Contribution to Nepalese Studies* 28(1): 11-33.

Thapa, Sahyam. 1997. "Timing of Family Formation in the Ethnic Mosaic Nepal: A District_Level Analyses." *Asia-Pacific Population Journal* 12(2).

Thapa, Krishna B. 1988. *Main Aspects of Social, Economic and Administrative History of Modern Nepal.* Mitra Chhapakhana, Bangemuda, Kathmanu.

Thornton, A., T. Fricke, L. S. Yang and J. S. Chang. 1994. "Theoretical Mechanism of Family Change." In Arland Thornton and Hui-Sheng Lin (eds) *Social Change and the Family in Taiwan.* The University of Chicago Press: Chicago.

Vaidya, Tulsi Ram, Tri Ratna Manandhar and Shankar Lal Joshi. 1993. *Social history of Nepal.* New Delhi: Anmol.

Vannoy, Dana and Lisa A. Cubbins. 2001. "Relative Socioeconomic Status of Spouses, Gender Attitudes, and Attributes, and Marital Quality Experienced by Couples in Metropolitan Moscow." *Journal of Comparative Family Studies* 32(2): 195-217.

Watkins, Joanne Carol. 1996. *Spirited Women, Big-hearted Man: a Study of Gender, Trade and Religion in the Nepal Himalaya.* New York: Columbia University press.

Weiss, Linda Joan. 1996. Women Alone: The Causes and Consequences of Non-Marriage and Marital disruption among high caste Hindus in Nepal (Brahman, Chetri, Widows). Unpublished PhD dissertation, Columbia University.

Zhenzhen, Zheng. 2000. "Social-demographic influence on first birth interval in China 1980-1992." *Journal of Biosocial Science* 32:315-327

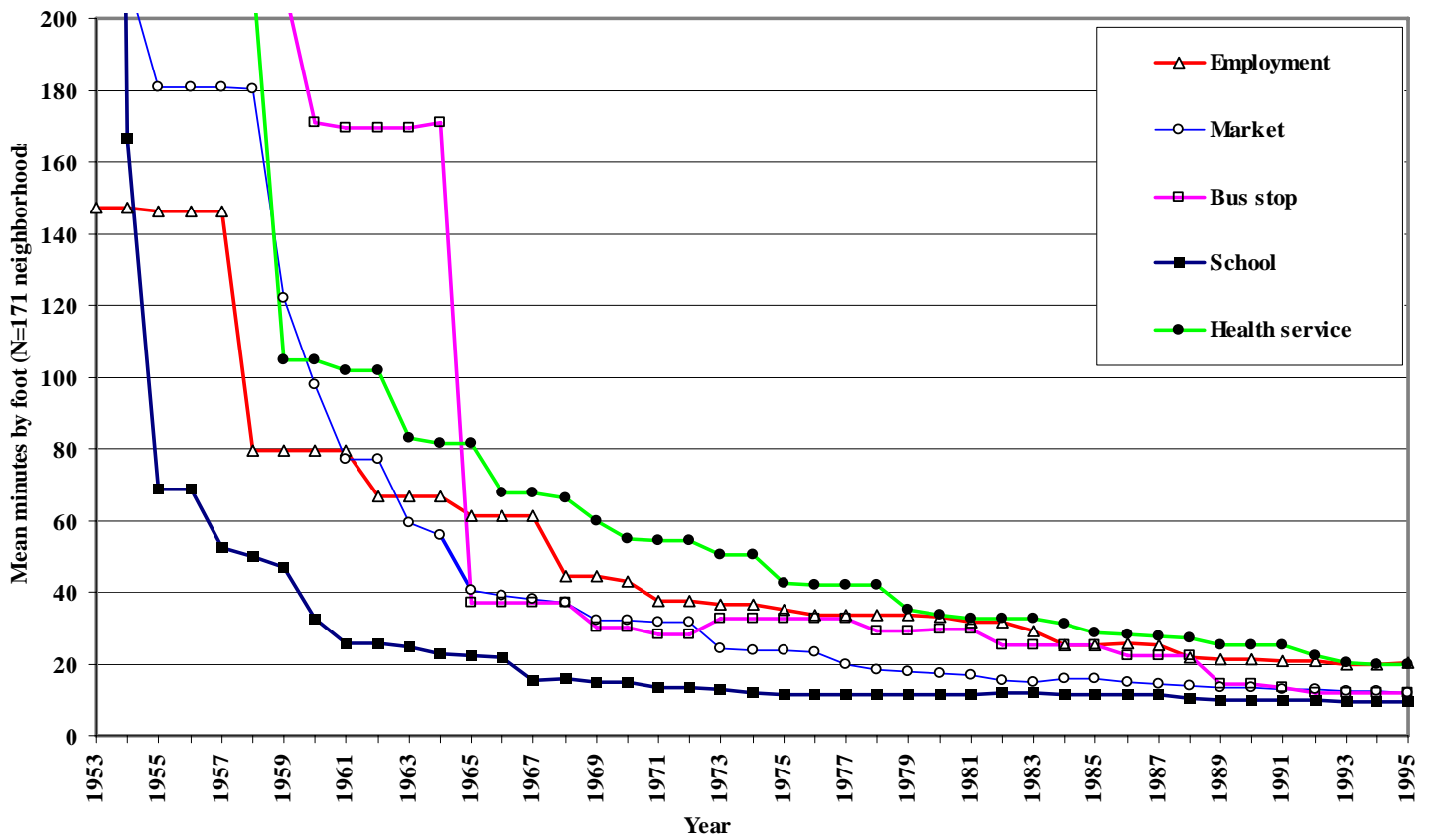**Figure 1. Change over Time in Minutes by Foot to the Nearest Non-family Services**

Figure 2. Proportion of Neighborhoods Having Non-family Services within certain Walking Distance in Minutes
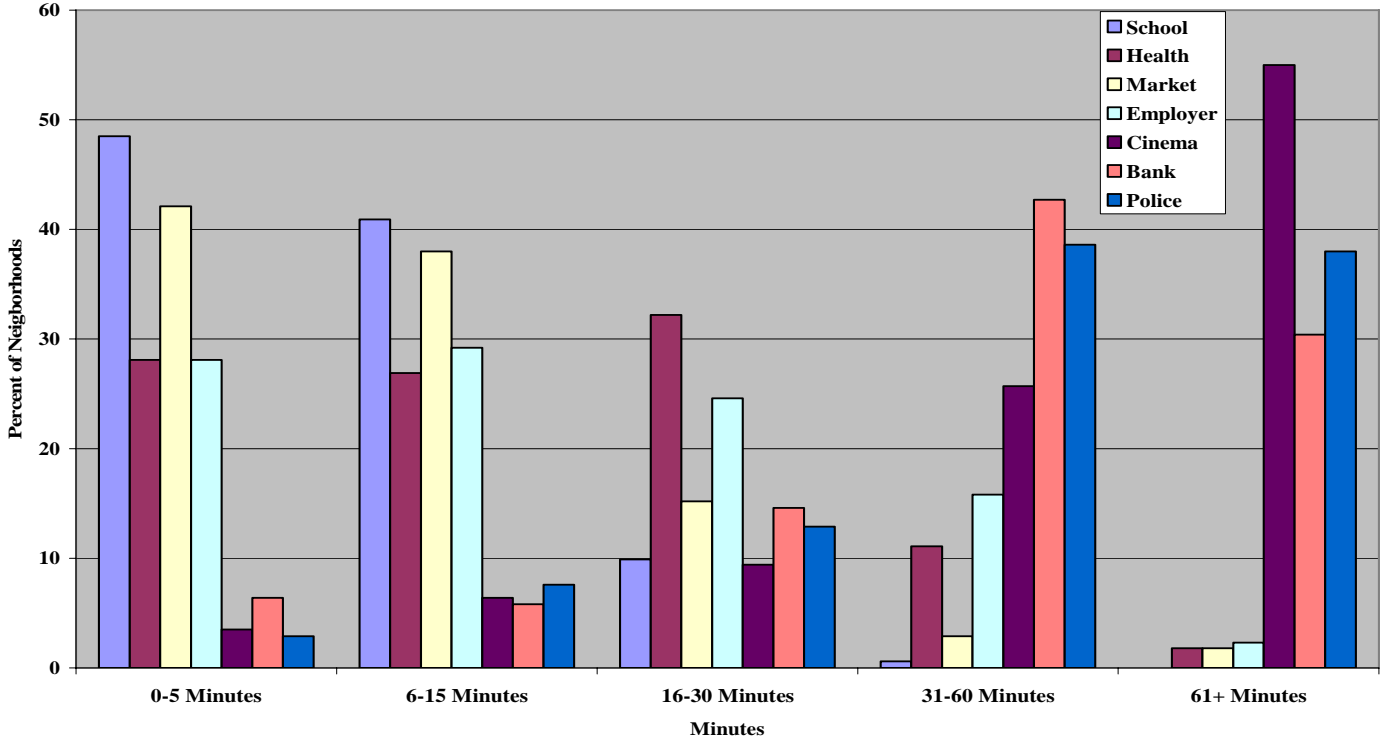
Table 1. Descriptive statistics of measures used in the analyses (N=1844 ever married women)

Community Context	Coding	Wives'				Husbands'			
		Mean	S. Dev.	Min.	Max.	Mean	S. Dev.	Min.	Max.
Childhood community characteristics									
School within one hour of walk	0=no, 1=yes	0.84	0.37	0	1	0.82	0.38	0	1
Health service within one hour of walk	0=no, 1=yes	0.54	0.50	0	1	0.51	0.50	0	1
Employment center within one hour of walk	0=no, 1=yes	0.54	0.50	0	1	0.52	0.50	0	1
Average of all three services	Mean of three services	0.64	0.36	0	1	0.62	0.37	0	1
Adulthood community characteristics									
School within a 15-minute walk	years	28.09	11.81	0	42				
Health service within a 15-minute walk	years	10.59	12.69	0	40				
Employment center within a 1-minute walk	years	12.31	14.18	0	43				
Average of all three services	Mean of three services	16.99	9.678	0	41				
Non-family experiences									
Education									
Schooling before marriage	years	3.23	4.54	0	20	6.41	5.37	0	22
Travel									
Ever travel to Kathmandu (capital city) before marriage	0=no, 1=yes	0.06	0.24	0	1	0.12	0.33	0	1
Media exposure									
Ever watched television before marriage	0=no, 1=yes	0.23	0.42	0	1	0.34	0.47	0	1
Attitude									
Attitude towards Daughter-in -law obedience	0=disagree, 1=agree	0.61	0.49	0	1	0.49	0.50	0	1
Controls									
Ethnicity									
Upper caste Hindus	0=no, 1=yes	0.46	0.50	0	1	0.46	0.50	0	1
Lower caste Hindus	0=no, 1=yes	0.12	0.32	0	1	0.12	0.32	0	1
Hill tibeto-burmese	0=no, 1=yes	0.18	0.38	0	1	0.17	0.37	0	1
Newar	0=no, 1=yes	0.06	0.24	0	1	0.06	0.24	0	1
Terai tibeto-burmese	0=no, 1=yes	0.18	0.38	0	1	0.19	0.39	0	1
Birth cohort									
Age in years	year	32.77	10. 18	15	54	38.46	11.87	17	80
Birth Cohort									
Born between 1972 – 81 (age 15 – 24 Cohort0)	0=no, 1=yes	0.26	0.44	0	1	0.11	0.30	0	1
Born between 1962 – 71 (age 25 – 34 Cohort1)	0=no, 1=yes	0.32	0.46	0	1	0.34	0.47	0	1
Born between 1952 – 61 (age 35 – 44 Cohort2)	0=no, 1=yes	0.25	0.43	0	1	0.26	0.43	0	1
Born between 1942 – 51 (age 45 – 54 Cohort3)	0=no, 1=yes	0.17	0.37	0	1	0.19	0.39	0	1
Parents, experiences									
Mother's number of children	number	6.13	2.71	1	19	5.77	2.57	1	18
Mother's schooling	0=no, 1=yes	0.04	0.20	0	1	0.03	0.16	0	1
Outcome									
Ever beaten by husband	0=no, 1=yes	0.17	0.37	0	1				

Table 2. Logistic Regression Estimates of Effect of Wives' and Husbands' Childhood Community Context on Wife beating

		Wives'				Husbands		
Model	1	2	3	4	5	6	7	8
Childhood community context								
School within one-hour walk	0.75*				0.79			
	(1.71)				(1.28)			
Health service within one-hour walk		0.85				0.00		
		(1.19)				(1.00)		
Employment center within one-hour walk			0.80†				0.85	
			(1.62)				(1.13)	
Average all three services				0.69*				0.81
				(1.95)				(0.99)
Controls								
Birth cohort†								
Born between 1962 – 71 (Cohort1)	1.02	1.03	1.02	1.01	1.14	1.16	1.13	1.13
	(0.13)	(0.15)	(0.11)	(0.04)	(0.72)	(0.79)	(0.66)	(0.64)
Born between 1952 – 61 (Cohort2)	1.38*	1.38*	1.38*	1.31†	1.44*	1.51*	1.42*	1.41*
	(1.78)	(1.74)	(1.65)	(1.44)	(1.93)	(2.09)	(1.79)	(1.74)
Born between 1936 – 51(Cohort3)	1.65**	1.69**	1.66**	1.54*	1.61*	1.82**	1.65**	1.61*
	(2.49)	(2.59)	(2.54)	(2.05)	(2.16)	(2.71)	(2.36)	(2.07)
Ethnicity††								
Lower Caste Hindus	2.37**	2.41**	2.36**	2.36**	2.99**	2.96**	2.97**	2.97**
	(4.35)	(4.45)	(4.33)	(4.31)	(5.25)	(5.20)	(5.21)	(5.21)
Hill Tibeto-Burmese	1.16	1.16	1.15	1.13	1.35†	1.37†	1.36	1.36†
	(0.78)	(0.78)	(0.71)	(0.64)	(1.50)	(1.56)	(1.53)	(1.52)
Newar	1.76*	1.75*	1.78*	1.75*	1.80*	1.79*	1.83*	1.81*
	(2.22)	(2.20)	(2.27)	(2.20)	(2.19)	(2.18)	(2.25)	(2.21)
Terai Tibeto-Burmese	1.73**	1.77**	1.73**	1.71**	1.92**	1.92**	1.91**	1.91**
	(2.86)	(2.98)	(2.83)	(2.77)	(3.24)	(3.26)	(3.21)	(3.22)
Parents' characteristics								
Mother's Number of Children	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
	(0.15)	(0.25)	(0.31)	(0.26)	(0.17)	(0.16)	(0.13)	(0.15)
Mother's Education	0.86	0.86	0.89	0.89	1.01	0.99	1.03	1.02
	(0.43)	(0.35)	(0.33)	(0.32)	(0.03)	(0.02)	(0.09)	(0.06)
N	1839	1840	1839	1840	1717	1716	1714	1717
Deviance	1521.37	1520.56	1520.66	1518.47	1376.13	1378.28	1374.26	1375.97

Note:†*P*<.10, * *P*<.05, ** *P*<.01; all probabilities are one-tailed. Odds ratios are reported on the first line, with Z statistics in the parentheses on second line

All models were estimated using multivariate logistic regression. † Born 1972-81 (age 15-24 Cohort 0) as reference group. †† High Caste Hindus as reference group.

Table 3. Logistic Regression Estimates of Effect of Couples' Adulthood Community Context on Wife Beating

Model	Couples			
	1	2	3	4
Adulthood community context				
School within a 15-minute walk	0.99*			
	(1.77)			
Health service within a 15-minut walk		0.99†		
		(1.62)		
Employment center within 15-minute walk			0.99	
			(1.07)	
Average all three services				0.98*
				(2.03)
Controls				
Distance to Narayanghat	0.97*	0.96*	0.96*	0.95*
	(1.66)	(1.81)	(1.80)	(2.14)
Childhood community context	0.70*	0.71*	0.70*	0.71*
	(1.74)	(1.66)	(1.80)	(1.68)
Birth cohort†				
Born between 1962 – 71 (Cohort1)	1.11	1.10	1.10	1.10
	(0.56)	(0.52)	(0.52)	(0.54)
Born between 1952 – 61 (Cohort2)	1.39*	1.39*	1.36†	1.39*
	(1.69)	(1.67)	(1.59)	(1.69)
Born between 1936 – 51(Cohort3)	1.56*	1.55*	1.54*	1.56*
	(2.01)	(1.97)	(1.95)	(1.99)
Ethnicity††				
Lower Caste Hindus	2.96**	2.99**	2.94**	2.99**
	(5.16)	(5.21)	(5.14)	(5.21)
Hill Tibeto-Burmese	1.36†	1.42	1.40*	1.43*
	(1.51)	(1.72)	(1.65)	(1.75)
Newar	1.80*	1.86*	1.82*	1.90**
	(2.17)	(2.28)	(2.21)	(2.35)
Terai Tibeto-Burmese	1.87**	1.92**	1.93**	1.88**
	(3.04)	(3.18)	(3.19)	(3.09)
Parents' characteristics				
Mother's Number of Children	1.02	1.01	1.01	1.01
	(0.60)	(0.56)	(0.56)	(0.57)
Mother's Education	1.07	1.08	1.08	1.09
	(0.14)	(0.17)	(0.17)	(0.19)
N	1716	1716	1716	1716
Deviance	1381.68	1383.09	1383.87	1384.11

Note:†$P<.10$, * $P<.05$, ** $P<.01$; all probabilities are one-tailed. Odds ratios are reported on the first line, with Z statistics in the parentheses on second line All models were estimated using multivariate logistic regression. † Born 1972-81 (age 15-24 Cohort 0) as reference group. †† High Caste Hindus as reference group.

Table 4. Logistic Regression Estimates of Effect of Wives' and Husbands' Non-family Experiences on Wife beating

Model	Wives'				Husbands			
	1	2	3	4	5	6	7	8
Non-family experiences								
Educational attainment	0.93** (3.51)				0.92** (4.70)			
Travel		0.52* (1.83)				0.86 (0.65)		
Media exposure			0.64* (2.09)				0.56** (3.08)	
Attitude								
Attitudes toward daughter in-law obedience				0.88 (0.89)				1.51** (2.92)
Controls								
Distance to Narayanghat	0.95* (2.19)	0.95* (2.15)	0.95** (2.32)	0.95* (2.13)	0.96* (1.81)	0.96* (1.90)	0.96* (1.89)	0.95* (2.15)
Childhood community context	0.83 (0.90)	0.73† (1.54)	0.71* (1.65)	0.70* (1.77)	1.15 (0.64)	0.85 (0.73)	0.93 (0.33)	0.88 (0.58)
Adulthood community context	0.99* (1.70)	0.98* (2.02)	0.98* (2.14)	0.98* (2.03)	0.99† (1.58)	0.98 (1.78)	0.99† (1.59)	0.98* (2.01)
Birth cohort†								
Born between 1962 – 71 (Cohort1)	0.93 (0.40)	1.05 (0.27)	0.90 (0.55)	1.10 (0.51)	1.04 (0.22)	1.11 (0.54	0.92 (0.43)	1.15 (0.74)
Born between 1952 – 61 (Cohort2)	1.05 (0.22)	1.30† (1.38)	1.10 (0.42)	1.39* (1.69)	1.14 (0.65)	1.36 (1.52)	1.01 (0.03)	1.45* (1.85)
Born between 1936 – 51(Cohort3)	1.15 (0.60)	1.47* (2.72)	1.19 (0.71)	1.57* (2.01)	1.27 (0.96)	1.64* (2.01)	1.18 (0.64)	1.60* (2.02)
Ethnicity††								
Lower Caste Hindus	2.51** (4.26)	2.96** (5.15)	2.85** (4.93)	3.08** (5.28)	2.32** (3.78)	3.04** (5.14)	2.86** (4.85)	2.87** (5.00)
Hill Tibeto-Burmese	1.32 (1.34)	1.46* (1.86)	1.41* (1.66)	1.46* (1.85)	1.38† (1.55)	1.56*† (2.17)	1.59* (2.24)	1.40* (1.66)
Newar	1.91* (2.35)	1.99** (2.50)	1.80* (2.12)	1.92** (2.38)	1.05** (2.50)	1.91* (2.26)	1.84* (2.09)	2.00* (2.53)
Terai Tibeto-Burmese	1.54* (2.03)	1.90** (3.12)	1.65** (2.36)	1.96** (3.19)	1.37† (1.42)	1.85** (2.89)	1.74** (2.62)	1.73** (3.62)
Parents' characteristics								
Mother's Number of Children	1.01 (0.51)	1.01 (0.56)	1.02 (0.60)	1.02 (0.63)	1.01 (0.45)	1.01 (0.34)	1.01 (0.46)	1.02 (0.84)
Mother's Education	1.28 (0.54)	1.16 (0.33)	1.12 (0.26)	1.08 (0.17)	1.29 (0.57)	1.10 (0.22)	1.22 (0.45)	1.12 (0.25)
N	1716	1716	1691	1716	1626	1626	1618	1716
Deviance	1373.47	1381.85	1344.40	1381.65	1274.10	1296.62	1288.85	1379.61

Note:† $P<.10$, * $P<.05$, ** $P<.01$; all probabilities are one-tailed. Odds ratios are reported on the first line, with Z statistics in the parentheses on second line
All models were estimated using multivariate logistic regression. † Born 1972-81 (age 15-24 Cohort 0) as reference group. †† High Caste Hindus as reference group.