Published in final edited form as:

Popul Stud (Camb). 2017 July ; 71(2): 229–248. doi:10.1080/00324728.2017.1282622.

Family composition and marital dissolution in rural Nepal, 1945–2008

Elyse A. Jennings

Harvard Center for Population and Development Studies, Harvard T.H. Chan School of Public Health

Abstract

The presence, number, sex composition and age composition of children can have important influences on couples' marital outcomes. Children are valued across settings, but their value in settings where there is an absence of formalized social security is unique. This paper explored the influences of childlessness, parity, sex composition, and age composition of children on the odds of marital dissolution among couples in rural Nepal. Results revealed that childless couples face significantly higher odds of dissolution than couples with at least one child, and each additional child—but only up to parity three—reduces couples' odds of dissolution. Furthermore, having a child under age two reduces couples' odds of marital dissolution, but interactions revealed that this age effect only holds at parity one. Surprisingly, despite a history of son preference in this setting, there was no evidence that children's within-parity sex composition is associated with odds of marital dissolution.

Keywords

Fertility; Family Composition; Divorce; Marital Dissolution; South Asia

Introduction

The presence and number of children, as well as their age and sex distribution, can have significant implications for marital trajectories across populations (Morgan et al. 1988; Heaton 1990; Waite and Lillard 1991; Bose and South 2003). Evidence has revealed this to be the case in Western settings, where children have long spent their childhood enrolled in school and parents can rely on formalized means of care in their old age (Cherlin 1977; Thornton 1977; Waite and Lillard 1991; de Graff and Kalmijn 2006; Wagner and Weiß 2006; Vignoli and Ferro 2009; Amato and James 2010). In many parts of the world, however, school enrolment has only recently become universal for children, and parents rely on children for assistance with the household economy and support in old age (Cain 1977; Chen and Short 2000; Jennings et al. 2012). The impact of children on couples' risk of marital dissolution is likely even more powerful in these settings, and the influences of parity, age, and sex composition may be distinct.

This paper focused on the influences of different child compositions on marital dissolution among couples in a rural South Asian setting: south central Nepal. In South Asia, people perceive great value in having children, often relying on their children for economic and social well-being (Cain 1977; Caldwell 1982; Yabiku 2004). Sons hold particularly important value for their parents, and children may be valued differently when they are young than when they are older. Hence, there is reason to expect that different child compositions with respect to number, sex, and age will influence marital dissolution in important ways.

Employing data from the Chitwan Valley Family Study (CVFS), this investigation used event history modeling techniques to estimate the hazard of marital dissolution. These extensive, retrospective data—dating as far back as 1945—spanned from the beginning of couples' marriages, capturing the period of marriage before they had their first child, the births of each child, and the dissolution (or not) of their marriages. This allowed for a unique investigation of the influences that particular attributes of marital fertility can have on marital dissolution.

Setting

Marriage and Childbearing in Nepal

In general, marriage in Nepal occurs at early ages and is universal (Yabiku 2005). Most marriages have historically been arranged by parents or other relatives, although it has become more common for young people to participate in choosing their spouse (Niraula 1995; Ghimire et al. 2006). Like marriage, childbearing is nearly universal. Moreover, childbearing occurs almost exclusively within marriage (Jennings et al. 2012). The population of Chitwan is largely dependent on subsistence agriculture and children have been valued for the work they can perform on the farm (Cain 1977). But, with an increase in schooling and an effort among policy-makers to reduce family sizes (Caldwell 1982; Thornton et al. 2012), fertility has drastically declined in the last several decades, from 6.1 in the early 1950s to 2.4 by 2015 (Thornton et al. 2012; Population Reference Bureau 2015).

Ethnicity plays an important role in marriage and childbearing. Ethnicity in Nepal is complex, multi-faceted, and related to both caste and religion. (For detailed descriptions of the different ethnic groups, see Bennett 1983; Fricke 1986; Cameron 1998; Guneratne 2002.) Families of high standing (i.e., the Brahmins and Chhetris) are motivated to protect their prestige and they, therefore, hold their daughters to stricter expectations for following Hindu customs. Other ethnic groups are not held as strictly to Hindu customs (Fricke 1986; Cameron 1998; Guneratne 2002) and their marital practices tend to be less rigid.

Marital Dissolution in Nepal

Under Hindu decree, once a marriage occurs it is bound for life (Holden 2008). Women face greater obstacles in dissolving a marriage than men. They face greater stigma if they divorce, they are disadvantaged in inheritance laws, and they have been limited in their legal ability to file for divorce (Gilbert 1992; Amato 1994; Allendorf 2007). Moreover, due to the patrilineal nature of the Nepalese family system, women were historically disfavored in

custody arrangements. Because divorce is not common in this setting, joint custody arrangements are likely to be rare. However, women are now legally qualified to hold custody of their children as long as they do not remarry (Manzione 2001). Nonetheless, it is likely that these newer laws are not well known or practiced in rural areas (Deuba and Rana 2001).

Despite the rarity of divorce and stigma against it, there are some reasons for a marriage to dissolve that may be considered acceptable, including a couple's infertility or severe domestic violence (Cain 1986). Moreover, a husband may take a second wife, prompting his first wife to seek separation or divorce. Polygamy has been illegal since 1963, but it has taken time for the law to change behavior, especially in rural areas (Deuba and Rana 2001). In this setting, polygamy allows a husband to remarry without dissolving his first marriage, but a wife does not have this option. In some cases, separation may be a more desirable option than divorce for a woman, as it can allow for continued support from her husband and his family.

Theoretical Framework

There is relatively extensive literature in the U.S. and other Western settings suggesting that children reduce the odds of marital dissolution because they introduce value to the marriage (Becker et al. 1977; Morgan et al. 1988). However, we know less about how children and their particular characteristics affect parents' marital outcomes in non-Western settings. The paragraphs that follow explain expectations for how the presence, number (or parity), sex composition, and age composition of children influence couples' odds of experiencing marital dissolution in rural Nepal. To shed light on the possible mechanisms, I offer quotes from local Nepalese people. These quotes come from fieldwork that I performed in fall 2010, during which time in-depth interviews were conducted with 30 residents of Chitwan—men and women of different ethnic backgrounds, between ages 18 and 45, residing at varying distances from the nearest city.

Marital Fertility and Parity

A couple's parity can influence the odds of marital dissolution via multiple mechanisms. Those mechanisms are likely to be distinct for couples at parity zero, compared to couples who have children. Historically, and still today, many Nepalese people consider childbearing to be a central purpose of the marital union. During my fieldwork in Chitwan, one forty-year-old Nepalese woman expressed this sentiment: "I think marriage is nothing more than having children. It's continuity in the world... There is a hope that they would take care [of their parents] in old age..." Moreover, of the 5,254 respondents of the 2008 CVFS, whose average age is 34 (ranging from 15 to 79) only 25 per cent agreed or strongly agreed with the statement "It is okay for a person to decide not to have any children." Given these widespread expectations, a childless couple may face social pressure and stigma from others (Stone 1978; Riessman 2000). This pressure, in turn, may introduce tension into a marriage.

In fact, it is not uncommon for husbands to seek another wife if their first marriage is childless (Cain 1986; Parvez 2011). Until 2006, husbands had the right to file for divorce on the grounds of infertility (Dubey 2006). A twenty-two year old Nepalese woman described a

scenario in which a childless couple may divorce: “If there is no child from a couple then the husband wants to bring another wife to get children to extend his generation...When he gets the second marriage then he gives divorce to his first wife”. In cases of prolonged childlessness, then, marriages may face a high risk of dissolution.

Of course, all couples spend some time without children. Couples who may not be infertile, but who do not yet have children, face reduced barriers to marital dissolution because their marriages do not hold the same value as couples who have children. Together, the possible mechanisms outlined thus far led to the first hypothesis.

Hypothesis 1a: Childless couples face greater odds of marital dissolution, relative to couples with at least one child—Because there are no state-sponsored pension programs and families often depend on subsistence agriculture, children in Nepal have a direct economic value (Cain 1977; Caldwell 1982; Niraula 1995; Biddlecom, Chayovan and Ofstedal 2003; Kpessa 2010; Jennings et al. 2012). Children are also valued for their religious role in securing their parents’ well-being even in the afterlife (Fricke 1986; Bose and South 2003). Across settings, parents may be motivated to avoid marital dissolution in order to maintain access to their children and the value they hold (Becker et al. 1977). In a place like Nepal, where joint custody arrangements are unlikely, parents may have even greater motivation to avoid marital dissolution. They will want to avoid uncertainty about which parent their children will support in old age and whether children will be present to perform death rituals. This motivation to avoid marital dissolution will likely increase with each additional child.

Parents may also be motivated to avoid dissolution in order to avoid possible negative effects on their children. Concerns for children’s well-being are likely to both be internalized and to come from external social pressure. During my fieldwork, one thirty-nine year old man expressed the idea that divorce is bad for children: “...if they have children and if they decide to get divorced after [having] children then they are [making] a great mistake. They are committing a sin in their life; they damage the life of their children”. Because of concerns for their children and fear of social repercussions, parents may perceive higher costs to marital dissolution with each additional child.

Another cost of marital dissolution for parents, especially for mothers, is the difficulty that children present in finding a subsequent spouse (Becker et al. 1977; Thornton 1977; Teachman and Heckert 1985). Women in rural Nepal are especially dependent on marriage: they have few prospects for economic independence and typically must rely on male relatives for their livelihood (Allendorf 2007). Thus, Nepalese women have strong incentive to remarry quickly if they experience a marital dissolution. However, a woman who has had children may anticipate difficulty in finding a second spouse. Indeed, during my fieldwork in Nepal, people expressed this idea: One forty-three year old man told me “If she has children from the first marriage then it can be almost impossible for her to get remarried.” This barrier that children can present to remarriage might motivate women to maintain their first marriages. In fact, this barrier may be operating regardless of whether the woman has custody of her children—the fact that she has had children already may make her especially

undesirable in the marriage market. Again, these barriers may increase in magnitude with each additional child.

Hypothesis 1b: Couples face reduced odds of marital dissolution with each additional child they have—In summary, the number of children a couple has may influence their odds of marital dissolution through a variety of mechanisms. Couples without children may face increased odds of dissolution due to social expectations and pressure to have children, social acceptance of divorce in the case of infertility, and the absence of value that children bring to marriage. Conversely, couples with children, and couples with a greater number of children, may face reduced odds of marital dissolution due to the value that each child brings to a marriage, the concern over children's well-being, and greater perceived difficulty in remarrying.

While hypotheses 1a and 1b, as well as the hypotheses that follow, assume that particular compositions of children may affect couples' odds of marital dissolution, reverse causality is a concern. Couples who dissolve had shorter available time to have children, and so associations we observe between child compositions and marital dissolution may be a result of this limited opportunity rather than an indication that particular child compositions have a causal impact on marital dissolution.

Sex of children

Children's sex composition may have distinct influences in South Asia, compared to Western settings. Even in Western settings, sons have been found to decrease couples' odds of marital dissolution (Morgan et al. 1988; Heaton and Albrecht 1991; Katzev et al. 1994), although more recent evidence suggests that this sex effect is no longer prevalent (Pollard and Morgan 2002; Diekmann and Schmidheiny 2004). In South Asia, sons have a unique value for their parents and son preference has historically been prevalent. Sons play a vital role in death rites and, in this patrilineal setting, they allow for continuation of the family line and ensure consistency in family inheritance practices through male kin (Bennett 1983; Fricke 1986; Karki 1988; Niraula and Morgan 1995; Arnold et al. 1998; Bose and South 2003). Daughters, on the other hand, join their husbands' family upon marriage, leaving their own parents and natal home (Bennett 1983; Gipson and Hindin 2007). Parents have higher expectations for sons to care for them in old age, compared to daughters, who are expected to help care for their parents-in-law (Goldstein et al. 1983; Niraula and Morgan 1995; Jennings et al. 2012).

Couples with sons may be put at ease in knowing that the responsibilities expected of sons will be fulfilled. This may translate into greater marital satisfaction. Moreover, couples with sons may be more motivated to maintain their marriage than couples without sons, or with fewer sons, so as to maintain the particular value that sons provide. In fact, a study using a population of Indian couples found that the presence of at least one son, at low parity, reduced parents' risk of marital dissolution (Bose and South 2003). In Nepal, too, the presence of sons may create barriers to marital dissolution.

Hypothesis 2a: Couples with sons face reduced odds of marital dissolution, holding parity constant—It is important to recognize that, while couples tend to have a

preference for at least one son, they typically want at least one daughter, as well (Pebbley et al. 1980; Karki 1988; Niraula and Morgan 1995; Stash 1996; Pollard and Morgan 2002; Andersson et al. 2006). Couples who have at least one son *and* at least one daughter, then, may experience lower odds of marital dissolution relative to their counterparts at the same parity.

Hypothesis 2b: Couples with mixed sex composition of children face the lowest odds of marital dissolution, holding parity constant—In summary, the sex composition of children may influence odds of marital dissolution through a couple of mechanisms. Sons may increase barriers to marital dissolution via the particularly important role they play in continuing the family line, caring for parents, and performing death rituals. The value that sons bring to a marriage may also reduce odds of dissolution via parents' increased marital satisfaction. Moreover, having at least one daughter, in addition to at least one son, may reduce couples odds of marital dissolution via greater marital satisfaction.

Age of children

Parents may perceive that children are most vulnerable to negative effects of marital dissolution while they are very young. There is evidence from Western settings that this motivation is strong: couples with young children are less happy than couples with older children (White et al. 1986; Twenge et al. 2003), and yet these couples face the lowest rate of marital dissolution (Heaton 1990; Waite and Lillard 1991). Thus, concern for young children's well-being may be so strong that it motivates couples to endure the least happy years of their marriage. Additionally, parents may anticipate a greater emotional cost of dissolution for themselves, as well, while their children are young. The greater amount of care that young children require may enhance the bond that parents feel with their children during this stage of their lives (Waite and Lillard 1991; Kelly and Lamb 2000). Parents' perceived risk of losing regular contact with young children may present an especially strong motivation to avoid marital dissolution.

Hypothesis 3a: Couples with younger children face reduced odds of marital dissolution relative to couples with older children—If these mechanisms concerning children's well-being or maintenance of emotional bonds while children are young are salient, then we should find age effects that are independent of parity effects. However, if these more temporary barriers that young children present are less important than the more long-term barriers, such as concerns about securing old age care, then age effects will be washed away by parity effects. To investigate which mechanisms may be operating, we test the following hypothesis.

Hypothesis 3b: The reduced odds of marital dissolution while children are young are independent of parity effects—In summary, younger children may reduce the odds of marital dissolution through mechanisms such as parental concern for younger children's well-being and parents' desire to maintain the emotional attachment that is enhanced when children are young. If these mechanisms are salient, the association between children's age composition and marital dissolution will be independent of parity.

Data

This study employed data from the CVFS, conducted in 2008. Respondents were drawn using a cluster sampling design, in which 151 neighbourhoods in Chitwan were randomly sampled and each member of those neighbourhoods between the ages of 15 and 59 (and their spouses) were interviewed. Structured interviews and less structured life history calendar interviews were conducted to gather information on events that respondents may have experienced throughout their lives, such as attending school, working, marrying, having children, and splitting from their spouse (see Axinn et al. 1999).

The analytic sample consisted of all ever married female respondents. These retrospective data did not have the capability to match information from women with information from their ex-husbands. Although data came from interviews with women (wives) we can conceptualize the unit of analyses as “couples”: Couples experienced marital events (including childbearing and dissolution) together. With these retrospective data from the life history calendar we observed women’s first marriages from the beginning, thus eliminating concerns about left-censoring. Observations for some respondents dated as far back as 1945. Seventeen couples had missing values on at least one of the key independent measures and were, therefore, excluded from the sample. This left an analytic sample of 3,413 couples.

Measures

Dependent

Marital dissolution was operationalized by combining the events of separation and divorce—a common approach, as there can be a temporal lag in the time from separation to divorce (Morgan and Rindfuss 1985; Morgan et al. 1988; Martin and Bumpass 1989; Schoen 1992; South 2001; Hirschman and Teerawichitchainan 2003). The measure of marital dissolution indicated marital breakdown; separation due to temporary migration was not considered to be dissolution for the purpose of this investigation. Combining separation and divorce into a single event allowed the pinpointing of the time at which the marriage was first disrupted. This is especially important in a setting where separations often occur without a divorce to follow (Dommaraju and Jones 2011). On the other hand, separation is not a prerequisite for divorce in this setting, and many dissolutions were the result of immediate divorce.

Following previous research on divorce in Asia (Hirschman and Teerawichitchainan 2003), this investigation focused on dissolution of first marriages (as reported by the wife). In Nepal, nearly everyone experiences marriage (Yabiku 2005), but remarriage is rare. As of 2008, only 10 per cent of ever-married women ages 40 and older in the CVFS sample had been married more than once. Research demonstrates that remarriages are prone to a greater likelihood of dissolution than first marriages (Becker et al. 1977; Cherlin 1978; Martin and Bumpass 1989; Bramlett and Mosher 2002). Thus, this investigation was limited to first marriages.

This dependent measure was coded from the life history calendar and indicated the yearly hazard of marital dissolution. It was appropriate to code this measure from wives’ reports: Husbands are less likely to report an event as a marital dissolution, as they can be married to

multiple women simultaneously. The measure of marital dissolution was coded as 0 in every year the couple was married and 1 in the first year in which the couple was separated (for at least a year) or divorced, after which the couple ceased to contribute to couple-years of exposure to the risk of marital dissolution.

Independent

Measures reflecting different family compositions came from the life history calendar data and were time-varying. These and all other time-varying measures in the analyses are precise to the year and lagged by one year. In order to investigate the influence of having children and having a greater number of children, the analyses used a series of dummy measures. The measures indicated (i) whether the couple is childless, (ii) whether the couple has one child, (iii) whether the couple has two children, (iv) whether the couple has three children, (v) whether the couple has four children, and (vi) whether the couple has five or more children. Couples with five or more children were combined because so few (11 per cent) had more than five children.

Next, to investigate the influence of children's sex, a series of dummy measures were coded to specify within-parity sex composition. These measures indicated whether couples at parity one have (i) a boy or (ii) a girl; whether couples at parity two have (iii) two boys, (iv) two girls, or (v) one of each sex; and whether couples at parity three or higher have (vi) at least three sons, (vii) only one or two sons, or (viii) no sons.

Finally, to investigate the influences of children's age, I coded two measures to indicate the age characteristics of the couples' youngest child. The first measure was continuous and indicated the age of the youngest (or last born) child, in years. The second measure was a dummy measure indicating whether the youngest child was under the age of two. Ages two and older were combined because, in a model investigating the influence of a series of dummy measures (not shown), couples with a youngest child age one were revealed to have statistically similar odds of marital dissolution relative to couples with a youngest under the age of one. The odds of marital dissolution became greater for couples with a youngest child age two or older.

Controls

The models also included a number of control variables to account for other factors that may influence both fertility and marital dissolution. Time-varying controls came from the life history calendar interviews, while time-invariant controls came from the 2008 structured survey unless otherwise noted.

First, the models included a time-varying measure of whether the couple experienced the death of a child. This measure was coded 0 in every year that a couple had not experienced the death of a child, and 1 in the first year that they experienced the death of a child and every year thereafter.

Wife's age at marriage was coded as a continuous variable, in years. Wife's participation in spouse selection was coded from an item in the structured survey, phrased: "People marry in different ways. Sometimes our parents or relatives decide whom we should marry, and

sometimes we decide ourselves. In your case, who selected your (first) spouse? Your parents/relatives, yourself, or both?” Three dummy measures were created, to reflect that (i) the wife chose her husband herself (full choice), (ii) the wife shared choice with her parents/relatives, or (iii) the wife’s parents/relatives chose her spouse (no choice). Marital duration was coded in time-varying years, indicating the number of years that had lapsed since the couple was married. I also control for the couples’ marital cohabitation with a time-varying dummy variable that indicated whether the couple was living together for at least six months of the couple-year of observation—coded 1 if so and 0 if not.

Next, the models accounted for wife’s experiences in activities outside the home, or nonfamily experiences. Measures of wife’s education came from the life history calendar. This series of dummy measures, indicating wife’s accumulated years of school enrollment at marriage, reflected whether the wife had (i) never attended school, (ii) attended school for one to ten years, or (iii) attended school for eleven or more years. These dummy measures were grouped into years of schooling based on the fluctuating association between years of schooling and marital dissolution, as revealed in preliminary analyses (not shown). A wife was considered to have attended a year of school if she was enrolled for at least part of the year. The analyses also accounted for a time-varying measure of whether the wife was enrolled in school in each year, coded 1 during the years in which the wife was enrolled for at least part of the year, and 0 otherwise. A time-varying measure of wife’s work experience was also included, indicating whether the wife worked for wages in each year and coded 1 in the years that the wife worked and 0 in the years the wife did not work. A measure indicating wife’s childhood community context was coded as the sum of the number of services—bus stop, health center, employer, school, and market—that were within a one hour walk from the wife’s home up until she was twelve years old.

The models also accounted for the wives’ ethnicity, which is largely reflective of husbands’ ethnicity, as well (Jennings 2014). Ethnicity was coded as four dummy variables: (i) Brahmin/Chhetri (or upper caste Hindus), (ii) Dalit (or lower caste Hindus), (iii) Hill indigenous, and (iv) Terai indigenous.

Lastly, models controlled for the couples’ marital cohort. Marital cohort was coded as five dummy variables, indicating the decade in which the couple’s marriage occurred: (i) 1969 or earlier, (ii) between 1970 and 1979, (iii) between 1980 and 1989, (iv) between 1990 and 1999, and (v) between 2000 and 2008.

Analytic Method

The analyses used discrete-time multi-level event history models and logistic regression to investigate the yearly risk (or odds) of marital dissolution. The models adjusted standard errors for clustering within neighbourhoods. Couples exposed to the risk of marital dissolution were defined as those in which wives were in their first marriage and no older than 50 years, as the odds of marital dissolution became extremely rare after that age. Widowhood was treated as a competing risk. The analyses used 58,654 couple-years of observation.

The results are discussed as odds ratios, which is the anti-log of the coefficient, reflecting the odds of marital dissolution in each yearly interval given that the couple did not dissolve in the previous interval. Odds ratios can be easily transformed into per cent change in the odds associated with each unit change in the respective independent variable by subtracting 1 from the odds ratio and multiplying by 100 (Thornton et al. 2007, pages 352–353). Because so few marital dissolutions occurred in each yearly interval, the yearly odds of marital dissolution are comparable to the rate of marital dissolution. For this reason, I sometimes discuss the rate of marital dissolution as interchangeable with the odds of marital dissolution. As alluded to above, it is important to keep in mind that the associations revealed in this investigation should not be interpreted as causal, and reverse causality is a concern in the study of how child composition affects marital outcomes.

Six per cent of the analytic sample experienced marital dissolution during the period of observation. Although this is a small proportion, it presents a large enough incidence of marital dissolution to allow for the use of logistic regression with event history analysis (King and Zeng 2001). Moreover, with such a small number of events, tests of significance are likely to be conservative.

Results

Table 1 displays means for the two samples used in the analyses: the full sample of couples and the sample of couples who have children. Because the units of observation are couple-years, the table includes statistics from both the first year and the last year of observation for time-varying measures. Focusing on the full sample, very few of the couples had children at first observation (i.e., the first year of marriage). By the last observation, only 9 per cent of couples had no children, and most (75 per cent) had at least two children. Among couples at first parity (16 per cent of the sample) slightly more had a daughter than a son. At parity two (30 per cent of the sample) most couples had a son and a daughter, and fewer had two sons than two daughters. At parities three and higher (45 per cent of the sample), most couples had a mixed sex composition, and very few have no sons.

Wives in the full sample were married at about age 17, on average. Most (62 per cent) did not participate in choosing their spouse, while about a quarter had full choice in their spouse. By the end of the period of observation, couples had been married for an average of about 17 years. (Among marriages that dissolved, this average was 8.64 years.) Eighty five percent of couples were living together at first observation, and about two-thirds were living together at last observation. Forty per cent of wives had never attended school at the time of marriage, while the remaining 60 per cent was evenly split between attending school for one to ten years and 11 or more years (or partial years). Although a quarter were enrolled in school at first observation, only four per cent were enrolled at last observation. At first observation, 26 per cent of wives were working, and this rose to 32 per cent by the last observation. Wives lived within a one hour walk from an average of 3.54 of the five possible services up until the age of 12. Half of the sample (50 per cent) identified as Brahmin/Chhetri, 11 per cent identified as Dalit, 20 per cent identified as Hill indigenous, and 19 per cent identified as Terai indigenous. Many of the couples were married in the 1990s (29 per cent) and the

2000s (27 per cent), while smaller proportions were married in the 1980s (19 per cent), 1970s (13 per cent), or before 1970 (12 per cent).

Table 2 displays results from event history analyses. Model 1 investigated the association between childlessness and couples' odds of marital dissolution, testing hypothesis 1a. The odds ratio of 2.25 indicates that couples with no children face 2.25 greater odds (or a 125 per cent faster rate) of marital dissolution than couples who have at least one child. This coefficient is statistically significant and independent of marital characteristics, wife's nonfamily experiences, and demographics. This result supports hypothesis 1a.

In sensitivity analyses (not shown) marital duration was interacted with the measure indicating childlessness, revealing that childless couples' risk of marital dissolution is statistically significantly greater at longer marital durations. However, another sensitivity analysis (not shown), which used observations from only the first two years of marriage, revealed a similar result as shown in Model 1. Hence, although this childlessness effect may increase in magnitude at longer marital durations, it is not limited to longer marital durations.

Model 2 examined the associations between parity and the odds of marital dissolution, testing hypothesis 1b. Due to the retrospective nature of the data, couples who reach parity one spent some time without children, couples who reach parity two spent some time at parity one, and couples who reach parity three or higher spent some time at parity two (with the exception of multiple births) during the period in which we observe them. In Model 2, couples with no children were treated as the reference category. In this model, couples with one child experience 0.67 times the rate, or 33 per cent lower odds, of marital dissolution than childless couples. Couples with two children experience 70 per cent lower odds and couples with three children experience 83 per cent lower odds of dissolution than childless couples. Couples with four children and couples with five or more children experience 90 per cent and 92 per cent lower odds than childless couples, respectively. These results offer evidence in support of hypothesis 1b.

Separate analyses (not shown), in which the reference category was alternated, revealed that additional children beyond the third do not significantly reduce the rate of marital dissolution. Thus, in subsequent models, couples at parity three and higher were combined into a single category.

Next, we turn to possible influences of the sex composition of children, testing hypotheses 2a and 2b. Figure 1 displays predicted probabilities of marital dissolution based on couples' parity and sex, using the mean of marital duration at last observation. (See Table A.1 in the Appendix for logistic regression results, with childlessness treated as the reference category.) This figure illustrates a result that was also identified in Table 2: childless couples have the greatest probability of marital dissolution, and couples at parity one have a greater probability than couples at higher parities. At parity 2, couples with a son and a daughter appear to experience lower probability of marital dissolution than couples with two sons or two daughters, but these differences are not statistically significant. In fact, alternating the reference category (not shown) revealed that there are no statistically significant within-

parity sex differences. These results suggest that parity may be more important than children's sex composition in predicting couples' marital dissolution. The evidence does not support hypotheses 2a or 2b.

Table 3 expands the investigation to examine the influence of children's age composition on couples' odds of dissolution, testing hypotheses 3a and 3b. In this table, the observations were limited to years in which couples had at least one child (i.e., parents; N=3091). Due to smaller cell sizes among this sample, the two most recent marital cohorts were combined into a single category. Model 1 investigated the influence of the age of the youngest child, revealing that the youngest child's age is significantly and positively associated with the odds of marital dissolution. The odds ratio of 1.12 suggests that the rate of marital dissolution increases by 12 per cent with each additional year of the youngest child's age. This offers support for hypothesis 3a.

Model 2 of Table 3 investigated the influence of having a youngest child under the age of two on parents' marital dissolution. Complementing the result from Model 1, the odds ratio of 0.49 indicates that having a youngest child under age two suppresses the odds of marital dissolution, relative to having a youngest child age two or older. This offers further support for hypothesis 3a. Note that investigations for effects of the oldest child's age were also conducted (not shown), revealing that this is not significantly associated with parents' marital dissolution, contrary to some findings from the United States (Heaton 1990).

Model 3 controlled for parity. In this model, the association between the youngest child's age and marital dissolution remains significant, even as the association between parity and marital dissolution is strong. Couples with a youngest child under age two face a 44 per cent slower rate of marital dissolution than couples whose youngest child is older, independent of parity. This offers some support for hypothesis 3b.

However, children's age and parity are correlated, making it difficult to estimate their independent effects. For this reason, Model 4 investigated interactions between children's age and parity. Couples who have three children with a youngest child under age two (i.e., those at the lowest risk of marital dissolution) are treated as the reference category. The model revealed significant interaction effects between age and parity. Specifically, compared to the reference category, couples with one child under age two face 2.76 times greater odds of marital dissolution and couples with one child age two or older face 7.23 times greater odds. Couples who had two children with the youngest under age two face 2.03 times greater odds of marital dissolution than the reference category, and couples with two children age two or older face 2.55 times greater odds. Within-parity differences were tested (not shown), revealing that couples with one child age two or older face significantly greater odds of marital dissolution than couples with one child under age two. There were no significant within-parity differences for couples with two children or with three or more children. Overall, then, Table 3 reiterated the important role of parity and revealed that child's age is associated with marital dissolution. The table also illustrated that these two characteristics of child composition interact in their association with marital dissolution. The differential effects of children's age, however, are no longer significant for couples with more than one child. Thus, hypothesis 3b is not strongly supported.

In Tables 2, 3, and A.1, the coefficients reflecting associations with marital duration become statistically insignificant when accounted for couples' parity, indicating the conflated effects of parity and marital duration on marital dissolution. In fact, among these 58,654 couple-years of observation, the correlation between yearly marital duration and an interval measure of parity (top-coded at three children) is $r=0.68$ ($p<0.001$). The effects of parity cannot be entirely disentangled from the effects of marital duration. Figure 2 illustrates the proportion of couples experiencing a marital dissolution across marital durations, with vertical lines indicating the average marital duration at which couples have a first, second, and third child for those who reach each respective parity. Marital dissolutions are clustered in the early years of marriage—the same years that couples are bearing children.

Conclusion

This paper has explored the influences of marital fertility on marital dissolution in a setting where children maintain important economic, social, and religious value and where marital dissolution has historically been uncommon. The evidence revealed that parity tends to have a more robust association with marital dissolution than either children's age or sex composition. Each additional child, up to three, is associated with suppressed odds of couples' marital dissolution. Although parents were found to face lower odds of marital dissolution when they have younger children, and especially when they have a child under age two, children's age was no longer associated with parents' marital outcomes once they had a second child. Moreover, perhaps most surprising in this setting where son preference has been prevalent (Cleland et al. 1983; Brunson 2010), children's within-parity sex composition does not influence couples' odds of experiencing marital dissolution. Overall, these results suggested that additional children may add value to a marriage and increase barriers to dissolution, regardless of the additional child's sex. Moreover, once a couple has two children, these increased barriers are not specific to certain ages but hold throughout the children's lives.

The finding that additional children can suppress marital dissolution is not unique to this setting, nor is it surprising in this setting, given the particular value of children (Cain 1977; Niraula 1995; Watt et al. 2013). It is notable that these associations weren't limited to childless or infertile couples. Moreover, it isn't until couples have reached parity three that the gains in marital stability plateau with additional children. Interestingly, there is evidence that marital stability may only increase up to third parity in the United States, as well, despite the lower fertility rates and different mechanisms likely at play (Heaton 1990; Santelli and Melnikas 2010).

It is surprising that these results failed to provide evidence that children's sex compositions exert within-parity influences on marital dissolution. Nearly three decades ago, Morgan, Condran, and Lye (1988) published an important paper revealing that, in the United States, sons can have a suppressing influence on parents' marital dissolution compared to daughters. Although the effect may have weakened recently in Western countries (Pollard and Morgan 2002; Diekmann and Schmidheiny 2004), somewhat recent research in India has suggested that son preference plays a role in marital dissolution (Bose and South 2003). Given the value of sons and their importance in the similarly Hindu-based Nepal, it is

surprising that sons did not reduce parents' odds of marital dissolution among the sample analyzed here. It is possible that the data used here picked up on either a reduction in son preference over time, as some evidence indicates to be occurring (Guilmoto 2009; Das Gupta 2010), and/or the often-overlooked value that daughters provide to their parents (Folmar 1992). In addition to revealing a lack of evidence that the presence of sons benefits marriages, the present results also suggested that having children of both sexes is not differentially associated with couples' odds of marital dissolution.

Results indicating that younger children reduce their parents' odds of marital dissolution, independent of total family size, are similar to results from Western settings (Lillard and Waite 1993; Wu 1995). Having children under the age of two may be particularly associated with suppressed marital dissolution due to concerns regarding infant mortality: Parents may perceive that children are most vulnerable in these first couple of years of life and that both parents are needed to help the child survive these years. Moreover, couples who have older children are more likely to have stopped childbearing than couples who have young children, and this may have contributed to the observed associations. However, the within-parity differences in age effects only hold for couples with one child—a state that most couples will only experience for a short time. Once a couple has a second child, the youngest child's infancy is no longer significantly associated with marital dissolution. This suggests that the temporary state of having a very young child is not as important of a determinant of marital outcomes as is the value added with each additional child.

Overall, these results suggest that the added value that each child brings to a marriage is the most likely mechanism through which family composition may affect marital dissolution. Mechanisms such as social expectations and social pressure to have children may be operating for childless couples, but these mechanisms do little to explain the reduced risk of marital dissolution that couples experience when they have a second or third child. Moreover, because we find no within-parity sex differences, it is likely that the mechanisms that are operating have more to do with the non-economic value of each child than their economic value. Alternatively, daughters may have greater economic value for parents than previously assumed, leading them to be valued similarly to sons. For example, as fertility has declined and fewer families are having at least one son, daughters may be increasingly taking on the role of caring for elderly parents, thereby reducing the relative value of sons. Finally, there is limited evidence to suggest that mechanisms are operating which have to do with children's enhanced emotional value while they are very young.

Although this study offers important insight into the relationship between fertility and marital dissolution, limitations exist. First, it is possible that happier couples, who are prone to have successful marriages, are selected into parenthood (Lillard and Waite 1993; Lawrence et al. 2008) and into higher parity. A second, related limitation is that we cannot rule out concerns over reverse causality (Heaton 1990; Morgan et al. 1988). Some of the effects that we observe may be due to couples having no or few children as a result of their dissolution (rather than the other way around). The associations observed in the present analyses are not indicative of causality. Third, although I have tried to address the inseparable effects of marital duration and parity, some of the negative influences found for parity may be a reflection of the reduced risk of marital dissolution that couples experience

at longer marital durations (Waite and Lillard 1991). Fourth, the retrospective nature of the data does not necessarily represent the current influences of fertility on marital dissolution in contemporary Nepal, as the Nepalese family is rapidly changing (Axinn and Yabiku 2001). On a related note, the analyses are limited in that, because the average marital duration at dissolution is more than eight years, a relatively older marital cohort is required to allow for observation of marital dissolution events. Finally, the uncommon occurrence of marital dissolution among this analytic sample brings into question the ability to generalize these results. The 219 couples who experience dissolution may be unique in unobserved ways.

It is worth making note of a couple of additional factors that were not explicitly addressed in the present study. First, it is important to recognize that the absence of dissolution is not necessarily indicative of a happy marriage (Heaton and Albrecht 1991; Jones 1994). At the extreme, intact marriages may suffer from domestic violence (Ghimire et al. 2015). Second, ethnicity plays an important role in marital outcomes. The analytic sample contained a greater number of Brahmin-Chhetris than any other ethnic group. The results indicated that each other group experienced faster rates of marital dissolution than Brahmin-Chhetris, but it was beyond the scope of this paper to investigate the variation in both fertility and marital dissolution that likely exists between each of the groups.

Some important policy implications can be inferred from this investigation. Marital dissolution is likely to create economic hardship, particularly for women (Smock et al. 1999). People in Nepal and similar settings tend to rely on children for economic support. Yet, the people who suffer hardship from marital dissolution disproportionately have no children or few children to rely on. These men and women of dissolved couples would benefit from policies that support them through this difficult time and, especially if they remain childless, into old age. These policies become even more important as fertility rates have fallen and may continue to fall (Thornton et al. 2012). While fertility trends and marital dissolution trends are independently important for policy, the two trends combined raise the priority for policies that protect individuals from the potential detriments of these family changes.

Acknowledgments

I am grateful for support from the Population Studies Center at University of Michigan (grant numbers R24 HD041028 and T32 HD007339), from the Carolina Population Center at the University of North Carolina (grant numbers T32 HD007168 and R24 HD050924), and from the National Science Foundation (grant number OISE 0729709). I would like to thank the Institute for Social and Environmental Research in Chitwan, Nepal for collecting the data used here; Keera Allendorf, William Axinn, Jennifer Barber, Dirgha Ghimire, Katherine Lin, Philip Morgan, Sowmya Rajan, and Abigail Stewart for helpful comments on earlier versions of this paper; and Cathy Sun for assisting with data management. All errors and omissions remain the responsibility of the author.

APPENDIX

Table A.1

Odds ratios from logistic regression of gender and parity composition on marital dissolution

Model 1	
<i>Fertility experiences</i>	

	Model 1
Parity and sex (ref: has no children)	
<i>Parity 1</i>	
Has one son	0.69 ⁺ (-1.81)
Has one daughter	0.66 [*] (-2.08)
<i>Parity 2</i>	
Has two sons	0.33 ^{**} (-2.87)
Has one son and one daughter	0.28 ^{***} (-4.85)
Has two daughters	0.34 ^{***} (-3.73)
<i>Parity 3 or higher</i>	
Has three or more sons	0.10 ^{***} (-6.26)
Has mixed sex children	0.14 ^{***} (-7.21)
Has no sons	0.10 ^{***} (-3.43)
At least one child has died	0.71 (-1.48)
<i>Characteristics of the marriage</i>	
Wife's age at marriage	0.94 ^{**} (-2.71)
Wife's spouse choice (ref: had no choice)	
Had full choice	0.98 (-0.14)
Shared choice with parents/relatives	0.56 ⁺ (-1.95)
Length of marriage	1.01 (0.79)
Marital cohabitation	1.15 (0.91)
<i>Wife's nonfamily experiences</i>	
Accumulated school enrollment at marriage (ref: 0 years)	
1-10 years	0.91 (-0.57)
11 or more years	0.62 (-1.52)
Current enrollment	0.76 (-0.57)
Wage work	1.69 ^{***} (3.96)
Number of services within one hour walk in childhood	0.82 ^{***} (-4.42)
<i>Demographics</i>	
Ethnicity (Ref: Brahmin/Chhetri)	
Dalit	2.64 ^{***} (5.07)

	Model 1
Hill indigenous	2.10 *** (3.97)
Teraí indigenous	1.75 ** (2.83)
Marriage cohort (ref: married before 1970)	
Married 1970–1979	0.99 (−0.05)
Married 1980–1989	1.72 ** (2.59)
Married 1990–1999	1.63 + (1.95)
Married 2000–2008	1.01 (0.01)
Total couple-years	58,654
Total couples	3,413
Total couples experiencing marital dissolution	219

Source: As for Table 1

Estimates are presented as odds ratios. *t*-ratios are given in parentheses.

Two-tailed tests

+ $p < 0.10$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

References

- Allendorf, Keera. Do women's land rights promote empowerment and child health in Nepal? *World Development*. 2007; 35(11):1975–1988. [PubMed: 23700354]
- Amato, Paul R. The impact of divorce on men and women in India and the United States. *Journal of Comparative Family Studies*. 1994; 25(2):207–221.
- Amato, Paul R., Spencer, James. Divorce in Europe and the United States: Commonalities and differences across nations. *Family Science*. 2010; 1(1):2–13.
- Andersson, Gunnar, Hank, Karsten, Røsen, Marit, Andres, Vikat. Gendering family composition: Sex preferences for children and childbearing behavior in the Nordic countries. *Demography*. 2006; 43(2):255–267. [PubMed: 16889128]
- Arnold, Fred, Choe, Minja Kim, Roy, TK. Son preference, the family-building process and child mortality in India. *Population Studies: A Journal of Demography*. 1998; 52(3):301–315.
- Axinn, William G., Pearce, Lisa D., Ghimire, Dirgha. Innovations in life history calendar applications. *Social Science Research*. 1999; 28(3):243–264.
- Axinn, William G., Yabiku, Scott T. Social change, the social organization of families, and fertility limitation. *The American Journal of Sociology*. 2001; 106(5):1219–1261.
- Becker, Gary S., Landes, Elisabeth M., Michael, Robert T. An economic analysis of marital instability. *Journal of Political Economy*. 1977; 85(6):1141–1187.
- Bennett, Lynn. *Dangerous Wives and Sacred Sisters: Social and Symbolic Roles of High-Caste Women in Nepal*. New York: Columbia University Press; 1983.
- Biddlecom, Ann, Chayovan, Napaporn, Ofstedal, Mary Beth. Intergenerational support and transfers. In: Hermlin, AL, editor. *The Well-being of the Elderly in Asia: A Four-country Comparative Study*. Ann Arbor: University of Michigan Press; 2003. p. 185–229.

- Bose, Sunita, South, Scott J. Sex composition of children and marital disruption in India. *Journal of Marriage and Family*. 2003; 65(4):996–1006.
- Bramlett, Matthew D., Mosher, William D. *Vital Health Statistics*. Washington, DC: U.S. Government Printing Office; 2002. Cohabitation, marriage, divorce, and remarriage in the United States. Series 23
- Brunson, Jan. Son preference in the context of fertility decline: Limits to new constructions of gender and kinship in Nepal. *Studies in Family Planning*. 2010; 41(2):89–98. [PubMed: 21466108]
- Cain, Mead T. The economic activities of children in a village in Bangladesh. *Population and Development Review*. 1977; 3(3):201–227.
- Cain, Mead T. The consequences of reproductive failure: Dependence, mobility, and mortality among the elderly of rural South Asia. *Population Studies*. 1986; 40(3):375–388.
- Caldwell, John C. *Theory of Fertility Decline*. New York: Academic Press; 1982.
- Cameron, Mary M. *On the Edge of Auspicious: Gender and Caste in Nepal*. Chicago: University of Chicago Press; 1998.
- Chen, Feinian, Short, Susan E. Household context and subjective well-being among the oldest old in China. *Journal of Family Issues*. 2000; 29(10):1379–1403.
- Cherlin, Andrew. The effect of children on marital dissolution. *Demography*. 1977; 14(3):265–272. [PubMed: 892110]
- Cherlin, Andrew. Remarriage as an incomplete institution. *American Journal of Sociology*. 1978; 84(3):634–650.
- Cleland, John, Verrall, Jane, Vaessen, Martin. Preferences for the sex of children and their influence on reproductive behaviour. Voorburg, Netherlands: International Statistical Institute; 1983. World Fertility Survey Comparative Studies No. 27
- Das Gupta, Monica. Family Systems, Political Systems and Asia's 'Missing Girls'. *Asian Population Studies*. 2010; 6(2):123–152.
- de Graff, Paul M., Matthijs, Kalmijn. Change and stability in the social determinants of divorce: A comparison of marriage cohorts in the Netherlands. *European Sociological Review*. 2006; 22(5): 561–572.
- Deuba, Arzu R., Rana, Pinky Singh. *Psycho-Social Impacts of Violence Against 47 Women and Girls with Special Focus on Rape, Incest, and Polygamy*. Kathmandu: Saathi and SNV; 2001.
- Diekmann, Andreas, Schmidheiny, Kurt. Do parents of girls have a higher risk of divorce? An eighteen-country study. *Journal of Marriage and Family*. 2004; 66(3):651–660.
- Dubey, Prakash. Infertility is no ground for divorce, rules Nepalese Supreme Court. Kathmandu (Asia News). 2006 Mar 31.23:04. 2006. Nepal.
- Dommaraju, Premchand, Gavin, Jones. Divorce trends in Asia. *Asia Journal of Social Science*. 2011; 39(6):725–750.
- Folmar, Steven. Wives' roles in fertility decision-making among Nepalese caste-Hindus. *Central Issues in Anthropology*. 1992; 10:39–50.
- Fricke, Tom E. *Himalayan Households: Tamang Demography and Domestic Processes*. Ann Arbor, MI: UMI Research Press; 1986.
- Ghimire, Dirgha J., Axinn, William G., Yabiku, Scott A., Thornton, Arland. Social change, premarital non-family experience and spouse choice in an arranged marriage society. *American Journal of Sociology*. 2006; 111(4):1181–1219.
- Ghimire, Dirgha J., Axinn, William G., Smith-Greenaway, Emily. Impact of the spread of mass education on married women's experience with domestic violence. *Social Science Research*. 2015; 54:319–331. [PubMed: 26463551]
- Gilbert, Kate. Women and family law in modern Nepal: Statutory rights and social implications. *New York University Journal of International Law and Politics*. 1992; 24:729–758.
- Gipson, Jessica D., Hindin, Michelle J. 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*. 2007; 9(2):185–198.

- Goldstein, Melvyn C., Schuler, Sidney, Ross, James L. Social and economic forces affecting intergenerational relations in extended families in a Third World country: A cautionary tale from South Asia. *Journal of Gerontology*. 1983; 38(6):716–24. [PubMed: 6630908]
- Guilmoto, Christophe Z. The Sex Ratio Transition in Asia. *Population and Development Review*. 2009; 35(3):518–549.
- Guneratne, Arjun. Many tongues, one people: The making of Tharu identity in Nepal. Ithaca, NY: Cornell University Press; 2002.
- Heaton, Tim B. Marital stability throughout the child-rearing years. *Demography*. 1990; 27(1):55–63. [PubMed: 2303141]
- Heaton, Tim B., Albrecht, Stan L. Stable unhappy marriages. *Journal of Marriage and Family*. 1991; 53(3):747–758.
- Hirschman, Charles, Teerawichitchainan, Bussarawan. Cultural and socioeconomic influences on divorce during modernization: Southeast Asia, 1940s to 1960s. *Population and Development Review*. 2003; 29(2):215–253.
- Holden, Livia. *Hindu Divorce: A Legal Anthropology*. London: Ashgate Publishing Limited; 2008.
- Jennings, Elyse. Marital discord and subsequent dissolution: Perceptions of Nepalese wives and husbands. *Journal of Marriage and Family*. 2014; 76(3):476–488. [PubMed: 25484450]
- Jennings, Elyse A., Axinn, William G., Ghimire, Dirgha J. The Effect of parent attitudes on marriage timing of sons in Nepal. *American Sociological Review*. 2012; 77(6):923–945. [PubMed: 23483623]
- Jones, Gavin W. *Marriage and Divorce in Islamic South-East Asia*. Singapore: Oxford University Press; 1994.
- Karki, Yagya B. Sex preference and the value of sons and daughters in Nepal. *Studies in Family Planning*. 1988; 19(3):169–178. [PubMed: 3406965]
- Katzev, Aphra R., Warner, Rebecca L., Acock, Alan C. Girls or boys? Relationship of child gender to marital instability. *Journal of Marriage and Family*. 1994; 56(1):89–100.
- Kelly, Joan B., Lamb, Michael E. Using child development research to make appropriate custody and access decisions for young children. *Family and Conciliation Courts Review*. 2000; 38(3):297–311.
- King, Gary, Langche, Zeng. Logistic regression in rare events data. *Political Analysis*. 2001; 9(2):137–163.
- Kpressa, Michael W. Ideas, institutions, and welfare program typologies: An analysis of pensions and old age income protection policies in Sub-Saharan Africa. *Poverty and Public Policy*. 2010; 2(1): 37–65.
- Lawrence, Erika, Cobb, Rebecca J., Rothman, Alexia D., Rothman, Michael T., Bradbury, Thomas N. Marital satisfaction across the transition to parenthood. *Journal of Family Psychology*. 2008; 22(1):41–50. [PubMed: 18266531]
- Lillard, Lee, Waite, Linda J. A joint model of marital childbearing and marital disruption. *Demography*. 1993; 30(4):653–681. [PubMed: 8262286]
- Manzione, Lara L. Human rights in the Kingdom of Nepal: Do they exist on paper? *Brooklyn Journal of International Law*. 2001; 27:193–244.
- Martin, Teresa C., Bumpass, Larry L. Recent trends in marital disruption. *Demography*. 1989; 26(1): 37–51. [PubMed: 2737357]
- Morgan, Philip S., Lye, Diane L., Condran, Gretchen A. Sons, daughters, and the risk of marital disruption. *American Journal of Sociology*. 1988; 94(1):110–129.
- Morgan, Philip S., Rindfuss, Ronald R. Marital disruption: Structural and temporal dimensions. *American Journal of Sociology*. 1985; 90(5):1055–1077.
- Niraula, Bhau B. Old age security and inheritance in Nepal: Motives versus means. *Journal of Biosocial Science*. 1995; 27(1):71–78. [PubMed: 7876297]
- Niraula, Bhau B., Morgan, Philip S. Son and daughter preferences in Benighat, Nepal: Implications for fertility transition. *Biodemography and Social Biology*. 1995; 42(3–4):256–273.
- Parvez, Kazi Nadira. Master's Thesis. Universitas Bergensis; 2011. Social Changes and Women-Initiated Divorce in Dhaka, Bangladesh: Gaining or Losing Power?.

- Pebbley, Anne R., Delgado, Hernan, Brineman, Elena. Family sex composition preferences among Guatemalan men and women. *Journal of Marriage and Family*. 1980; 42(2):437–447.
- Pollard, Michael S., Morgan, Philip S. Emerging parental gender indifference? Sex composition of children and the third birth. *American Sociological Review*. 2002; 67(4):600–613. [PubMed: 20411039]
- Population Reference Bureau (PRB). 2015 World Population Data Sheet. Washington, DC: 2015.
- Riessman, Catherine Kohler. Stigma and everyday resistance practices: Childless women in South India. *Gender & Society*. 2000; 14(1):111–135.
- Santelli, John S., Melnikas, Andrea J. Teen fertility in transition: Recent and historic trends in the United States. *Annual Review of Public Health*. 2010; 31:371–383.
- Schoen, Robert. First unions and the stability of first marriages. *Journal of Marriage and the Family*. 1992; 54(2):281–284.
- Smock, Pamela J., Manning, Wendy D., Gupta, Sanjev. The effect of marriage and divorce on women's economic well-being. *American Sociological Review*. 1999; 64(6):794–812.
- South, Scott J. The geographic context of divorce: Do neighborhoods matter? *Journal of Marriage and Family*. 2001; 63(3):755–766.
- Stash, Sharon. Ideal-family-size and sex-composition preferences among wives and husbands in Nepal. *Studies in Family Planning*. 1996; 27(2):107–118. [PubMed: 8714308]
- Stone, Linda. Cultural repercussion of childlessness and low fertility in Nepal. *Contribution to Nepalese Study*. 1978; 5(2):7–36.
- Teachman, Jay D., Alex, Heckert. The impact of age and children on remarriage: further evidence. *Journal of Family Issues*. 1985; 6(2):185. [PubMed: 12266959]
- Thornton, Arland. Children and marital stability. *Journal of Marriage and Family*. 1977; 39(3):531–540.
- Thornton, Arland, Axinn, William G., Xie, Yu. *Marriage and Cohabitation*. Chicago: University of Chicago Press; 2007. p. 352-353.
- Thornton, Arland, Binstock, Georgina, Yount, Kathryn, Abbasi-Shavazi, Mohammad Jalal, Ghimire, Dirgha, Xie, Yu. International fertility change: New data and insights from the developmental idealism framework. *Demography*. 2012; 49(2):677–698. [PubMed: 22403035]
- Twenge, Jean M., Campbell, W Keith, Foster, Craig A. Parenthood and marital satisfaction: A meta-analytic review. *Journal of Marriage and Family*. 2003; 65(3):574–583.
- Vignoli, Daniele, Irene, Ferro. Rising marital disruption in Italy and its correlated. *Demographic Research*. 2009; 20(4):11–36.
- Wagner, Michael, Bernd, Weiß. On the variation of divorce risks in Europe: Findings from a meta-analysis of European longitudinal studies. *European Sociological Review*. 2006; 22(5):483–500.
- Waite, Linda J., Lillard, Lee A. Children and marital disruption. *American Journal of Sociology*. 1991; 96(4):930–953.
- Watt, Melissa H., Perera, Bilesha, Østbye, Truls, Rananbahu, Shyama, Rajapakse, Harshini, Maselko, Joanna. Care-giving expectations and challenges among elderly and their adult children in Southern Sri Lanka. *Ageing and Society*. 2013; 34(5):838–858.
- White, Lynn K., Booth, Alan, Edwards, John N. Children and marital happiness: Why the negative correlation? *Journal of Family Issues*. 1986; 7(2):131.
- Wu, Zheng. The stability of cohabitation relationships: The role of children. *Journal of Marriage and Family*. 1995; 57(1):231–236.
- Yabiku, Scott T. Marriage timing in Nepal: Organizational effects and individual mechanisms. *Social Forces*. 2004; 83:559–86.
- Yabiku, Scott T. The effect of non-family experiences on age at marriage in a setting of rapid social change. *Population Studies*. 2005; 59(3):339–354. [PubMed: 16249154]

Figure 1. Predicted probabilities of couples' marital dissolution by parity and sex compositions, Chitwan Valley, Nepal, 1945 to 2008

Source: Chitwan Valley Family Study, Nepal 1997–2009

See Table A.1 for results from logistic regression hazard models from which these predicted probabilities were produced.

Figure 2. Scatterplot of the proportion of marital dissolutions by marital duration, Chitwan Valley, Nepal, 1945 to 2008

Source: As for Figure 1

Vertical lines depict average marital duration at time of first (3.62 years), second (6.48 years), and third (9.59 years) births among couples (wives) in the sample who progress to each parity.

Table 1

Variable means, couples in Chitwan Valley, Nepal, 1945–2008

	Full sample (N=3,413)		Parents (N=3,091)	
	<i>First Obs.</i>	<i>Last Obs.</i>	<i>First Obs.</i>	<i>Last Obs.</i>
Marital dissolution (proportion)		0.06		0.04
<i>Fertility experiences</i>				
Has no children	0.97	0.10		
Has one child	0.03	0.16		
Has two children	0.0003	0.29		
Has three children	0.00	0.17		
Has four children	0.00	0.11		
Has at least five children	0.00	0.17		
Age of youngest (continuous)			0.00	8.85 ¹
Youngest under age 2			1.00	0.16
<i>Parity 1</i>				
Son	0.02	0.07		
Daughter	0.01	0.09		
<i>Parity 2</i>				
Two sons	0.00	0.04		
One son, one daughter	0.00	0.16		
Two daughters	0.0003	0.10		
<i>Parity 3 or higher</i>				
Three or more sons	0.00	0.17		
Mixed sex	0.00	0.25		
No sons	0.00	0.03		
At least one child has died	0.02	0.18	0.09	0.20
<i>Characteristics of the marriage</i>				
Wife's age at marriage	17.46 ²		17.31 ³	
Wife's spouse choice				
Had no choice	0.62		0.64	
Had full choice	0.24		0.23	
Shared choice with parents/relatives	0.14		0.13	
Marital duration	1.00	17.19 ⁴	3.63	18.40 ⁵
Marital cohabitation	0.85	0.67	0.81	0.67
<i>Wife's nonfamily experiences</i>				
Accumulated school enrollment at marriage				
0 years	0.40		0.41	
1–10 years	0.30		0.31	
11 or more years	0.30		0.28	
Enrolled in school	0.25	0.04	0.08	0.02
Wage work	0.26	0.32	0.30	0.33

	Full sample (N=3,413)		Parents (N=3,091)	
	<i>First Obs.</i>	<i>Last Obs.</i>	<i>First Obs.</i>	<i>Last Obs.</i>
Number of services within one hour walk in childhood	3.54 ⁶		3.52 ⁷	
Demographics				
Brahmin/Chhetri	0.50		0.51	
Dalit	0.11		0.11	
Hill indigenous	0.20		0.19	
Terai indigenous	0.19		0.19	
Marriage cohort				
Married before 1970	0.12		0.12	
Married 1970–1979	0.13		0.14	
Married 1980–1989	0.19		0.19	
Married 1990–1999	0.29		0.32	
Married 2000–2008	0.27		0.23	

Source: Chitwan Valley Family Study, Nepal 1997–2009

¹Standard deviation=7.11; minimum value=0, maximum value=34

²Standard deviation=3.72; minimum value=5, maximum value=40

³Standard deviation=3.53; minimum value=5, maximum value=35

⁴Standard deviation=11.34; minimum value=1, maximum value=46

⁵Standard deviation=10.98; minimum value=1, maximum value=46

⁶Standard deviation=1.64; minimum value=0, maximum value=5

⁷Standard deviation=1.64; minimum value=0, maximum value=5

Table 2

Odds ratios from logistic regression of childlessness and parity on marital dissolution, Chitwan Valley, Nepal, 1945 to 2008

	Model 1	Model 2
<i>Fertility experiences</i>		
Has no children	2.25 *** (4.78)	
Parity (ref: has no children)		
Has one child		0.67 * (-2.49)
Has two children		0.30 *** (-5.87)
Has three children		0.17 *** (-6.54)
Has four children		0.10 *** (-6.06)
Has five or more children		0.08 *** (-6.43)
At least one child has died	0.53 ** (-2.70)	0.77 (-1.12)
<i>Characteristics of the marriage</i>		
Wife's age at marriage	0.94 ** (-2.84)	0.95 ** (-2.65)
Wife's spouse choice (ref: had no choice)		
Had full choice	1.01 (0.04)	0.98 (-0.15)
Shared choice with parents/relatives	0.54 + (-1.92)	0.55 + (-1.95)
Length of marriage	0.96 *** (-3.35)	1.01 (1.15)
Marital cohabitation	1.06 (0.39)	1.17 (1.01)
<i>Wife's nonfamily experiences</i>		
Accumulated school enrollment at marriage (ref: 0 years)		
1-10 years	0.93 (-0.45)	0.91 (-0.59)
11 or more years	0.65 (-1.29)	0.61 (-1.52)
Current school enrollment	0.68 (-0.74)	0.78 (-0.52)
Wage work	1.63 *** (3.46)	1.70 *** (3.97)
Number of services within one hour walk in childhood	0.83 *** (-4.12)	0.82 *** (-4.43)
<i>Demographics</i>		
Ethnicity (ref: Brahmin/Chhetri)		
Dalit	2.65 *** (4.90)	2.68 *** (5.14)

	Model 1	Model 2
Hill indigenous	2.14 ^{***} (3.90)	2.13 ^{***} (4.01)
Terai indigenous	1.67 [*] (2.52)	1.77 ^{**} (2.87)
Marriage cohort (ref: married before 1970)		
Married 1970–1979	0.96 (−0.18)	0.98 (−0.10)
Married 1980–1989	1.57 [*] (2.07)	1.68 [*] (2.45)
Married 1990–1999	1.53 (1.63)	1.60 ⁺ (1.87)
Married 2000–2008	1.04 (0.09)	1.00 (0.01)
Total couple-years	58,654	58,654
Total couples	3,413	3,413
Total couples experiencing marital dissolution	219	219

Source: As for Table 1

Estimates are presented as odds ratios. *t*-ratios are given in parentheses.

Two-tailed tests

⁺
 $p < 0.10$

^{*}
 $p < 0.05$

^{**}
 $p < 0.01$

^{***}
 $p < 0.001$

Table 3

Odds ratios from logistic regression of age characteristics of youngest child on marital dissolution, couples with at least one child, Chitwan Valley, Nepal, 1945 to 2008

	Model 1	Model 2	Model 3	Model 4
<i>Fertility experiences</i>				
Youngest child's age (continuous)	1.12 *** (3.55)			
Youngest child is under age two		0.49 *** (-3.63)	0.56 ** (-3.13)	
Parity (ref: has one child)				
Has two children			0.48 *** (-3.76)	
Has three or more children			0.22 *** (-6.04)	
Parity and age (ref: has three children, with youngest under age two)				
<i>Parity 1</i>				
Has one child under age two				2.76 ** (2.93)
Has one child with youngest age two or older				7.23 *** (6.37)
<i>Parity 2</i>				
Has two children with youngest under age two				2.03 + (1.95)
Has two children with youngest age two or older				2.55 ** (2.85)
<i>Parity 3</i>				
Has three children with youngest age two or older				1.14 (0.40)
At least one child has died	0.67 (-1.46)	0.65 + (-1.82)	0.80 (-0.98)	0.78 (-1.10)
<i>Characteristics of the marriage</i>				
Wife's age at marriage	0.90 ** (-2.98)	0.91 ** (-3.13)	0.92 ** (-3.00)	0.92 ** (-3.06)
Wife's spouse choice (ref: had no choice)				
Had full choice	0.98 (-0.09)	0.99 (-0.07)	0.95 (-0.25)	0.94 (-0.31)
Shared choice with parents/relatives	0.38 + (-1.92)	0.39 * (-2.16)	0.40 * (-2.26)	0.40 * (2.28)
Length of marriage	0.89 *** (-4.70)	0.93 *** (-5.20)	0.98 (-1.16)	0.99 (-0.85)
Marital cohabitation	1.03 (0.11)	1.03 (0.17)	1.14 (0.69)	1.17 (0.85)
<i>Wife's nonfamily experiences</i>				
Accumulated school enrollment at marriage (ref: 0 years)				
1-10 years	0.76 (-1.09)	0.77 (-1.18)	0.77 (-1.31)	0.77 (-1.29)

	Model 1	Model 2	Model 3	Model 4
11 or more years	0.89 (-0.29)	0.86 (-0.40)	0.83 (-0.54)	0.84 (-0.53)
Current school enrollment	1.21 (0.17)	1.47 (0.41)	1.14 (0.15)	1.29 (0.29)
Wage work	1.88 ** (3.12)	1.80 ** (3.30)	1.90 *** (3.91)	1.91 *** (3.98)
Number of services within one hour walk in childhood	0.79 *** (-3.60)	0.80 *** (-3.84)	0.80 *** (-4.08)	0.80 ** (-4.09)
Demographics				
Ethnicity (ref: Brahmin/Chhetri)				
Dalit	2.22 ** (2.75)	2.29 ** (3.15)	2.26 ** (3.27)	2.22 ** (3.23)
Hill indigenous	2.39 ** (3.21)	2.40 *** (3.57)	2.38 *** (3.73)	2.37 *** (3.73)
Terai indigenous	1.33 (0.97)	1.39 (1.20)	1.47 (1.47)	1.47 (1.49)
Marriage cohort (ref: married before 1970)				
Married 1970–1979	0.94 (-0.17)	1.08 (0.26)	1.22 (0.74)	1.28 (0.90)
Married 1980–1989	1.57 (1.38)	1.67 + (1.79)	2.04 ** (2.63)	2.14 ** (2.82)
Married 1990–2008	1.24 (0.55)	1.35 (0.87)	1.56 (1.37)	1.64 (1.53)
Total couple-years	48,745	48,745	48,745	48,745
Total couples	3,091	3,091	3,091	3,091
Total couples experiencing marital dissolution	130	130	130	130

Source: As for Table 1

Estimates are presented as odds ratios. *t*-ratios are given in parentheses.

Two-tailed tests

+ $p < 0.10$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$