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DOMESTIC VIOLENCE AND DOWRY: EVIDENCE FROM A SOUTH INDIAN VILLAGE

Sharada Srinivasan

and

Arjun S. Bedi

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Comments are welcome and should be addressed to the author:

Institute of Social Studies - P.O. Box 29776
2502LT The Hague - The Netherlands

workingpapers@iss.nl

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ABSTRACT

In recent years the practice of dowry has witnessed sharp changes in south India. Dowry has become an all caste/class phenomenon and average dowry payments have risen. These changes have been associated with several negative consequences for women, including their survival. Despite these consequences the practice of dowry continues unabated. Based on data from a south Indian village, this paper examines the link between dowry and domestic violence.* We argue that larger dowries reduce marital violence by increasing the economic resources of the marital household, enhancing the social status of the groom and his family, and serving as an asset over which the woman enjoys relatively more control. While women with generous dowries may benefit, a continued upward spiral in dowry expectations will exacerbate daughter aversion and may fuel sex selective abortion and female infanticide.

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1 INTRODUCTION

The practice of dowry, a transfer of resources from the family of a bride to a groom or a groom's family at the time of marriage continues unabated in India.¹ In recent years there has been an increase in the amount of dowry, a spread in the incidence of dowry and changes in the nature of dowry. In much of north India where the practice of dowry has a long history, dowry amounts have spiralled upward. In the south and other regions where the practice was restricted to upper castes/classes it has spread to become an all caste/class phenomenon (Kapadia, 1993; Srinivas, 1984).² According to a countrywide survey conducted by the All India Democratic Women's Association (AIDWA) in 2001, the dowry system has become a pan Indian phenomenon, permeating 'every section, class, caste and religion and even the more egalitarian tribal communities, particularly during the past one and a half decades.' (Taking on dowry, *Frontline* 19(23) November 2002).³ Real dowry payments appear to have risen sharply and several articles in the academic literature and the popular press have commented on the increase in the 'going-rate' for eligible bachelors (see Srinivasan, 2005).

While the scarcity of data on dowry payments precludes a systematic temporal analysis of real (removing price and wealth effects) increases in dowries, there are some figures which support the claim of rising dowries. For instance, based on a study of dowry transactions in Delhi, Paul (1985) shows that average real dowry payments have recorded a 17-fold increase from Rs.3,998 in 1920-29 to Rs.71,173 in 1980-84. Based on data from rural Tamil Nadu, Heyer (1992) displays that the maximum amount of gold given as dowry increased from 25-30 *pavun* in the 1940s-1950s to 75-80 *pavun* in the 1970s.⁴ In their study on Karnataka, Bloch and Rao (2002) report that average dowries are about seven times the average annual income of the bridal family.

¹ Dowry may be provided in cash and/or in kind. Dowry does not constitute the opposite of bride price. While in bride price the payment and the bride move in opposite directions, effectively constituting an exchange, in dowry, both move in the same direction (Goody, 1973).

² Dowry is not unique to India. It is a practice that has existed in several European and Asian societies for centuries. Hughes (1985) points out that the dowry system dates back at least to the ancient Greco-Roman world (332 BC to 284 AD) and that in medieval Europe the dowry system was well-established among a large number of social and economic groups. The ubiquity of the practice in certain parts of Europe is emphasized in Botticini's (1999) study of dowries in a Tuscan town between 1415 and 1436, which concludes that dowry was a *conditio sine qua non* for marriage. Stuard's (1981) study of dowry practices in Dubrovnik contains evidence of substantial increases in dowry between 1235 and 1460. Despite the widespread prevalence of these practices, with modernization, Europe has witnessed a decline and a disappearance of dowry (see Anderson, 2003).

³ The survey covered 10,000 respondents from 16 states and Delhi.

⁴ *Pavun* is the measure of gold used in Tamil Nadu. One *pavun* is equivalent to eight grams of gold.

The nature of dowry has also evolved over time. Till recently, at least in south India, dowry was viewed as a voluntary system of largely token amounts of cash or gifts in kind. The modern avatar of dowry is perceived to be extractive and involves the transfer of large amounts of cash, gold and consumer goods (Kapadia, 1993; Srinivas, 1984; Srinivasan, 2005).

The social consequences associated with the current form of dowry practised in India are alarming.⁵ Between 1999-2003 the National Crime Records Bureau of the Government of India reported approximately 6,000–7,000 dowry-related deaths every year and about 43,000-50,000 cases of mental and physical torture. The dowry burden has a bearing on household consumption and investment decisions as parents may under-invest in a daughter in order to save money for her dowry. Based on a study in rural south India, Srinivasan (2005) finds that the expectation of a large dowry payment tops the list of causes for the undesirability of daughters. The expected dowry burden influences decisions regarding the number of daughters and is the primary justification for sex selective abortion and female infanticide.⁶

While women may suffer and experience life-threatening consequences, it is not uncommon for women to argue in favour of dowry. A recent survey conducted by the Tamil Nadu Women's Development Corporation revealed that despite awareness of the potential link between female infanticide and dowry, only 23 percent of the women belonging to self-help groups were in favour of abolishing dowry. Srinivasan's (2005) work also indicates the same pattern. Almost all the women in the village that she studied were in favour of dowry. They pointed out that a large dowry was essential to be married to a 'good' man; it raised their value and contributed to their marital happiness and security.⁷ They also viewed dowry as their share of parental property (*streedhanam* and pre-mortem inheritance), a gift for their

⁵ The practice of dowry was made illegal in India as early as 1961 (the law was amended in 1984 and 1986). However, more than forty years hence, the practice of dowry thrives and as indicated above has spread and increased.

⁶ While increase in dowry may be one of the main reasons for sex selective abortion and female infanticide, others are of the view that the resulting shortage of girls may reverse the increase in dowry. One of the early proponents of this view was Dharma Kumar (1983a & b), who argued that sex selective abortion would ensure that only wanted girls were born and therefore they would be treated well. In addition, the shortage of brides would lead to the practice of dowry being replaced by bride price and raise the status of women.

⁷ An AIDWA (2003) survey on issues surrounding dowry reports a similar pattern. Of the 173 girls surveyed in Tamil Nadu, 104 felt that a dowry was essential in order for them to be treated with respect in their marital homes.

happiness, and expected their parents to provide a dowry.⁸ Overall, in the context of a patrilineal inheritance system, a woman's demand for dowry may be seen as a way of asserting entitlements in anticipation of the withdrawal of post-marriage material support from her natal family and as a means of enabling her to negotiate status in her marital family.

This paper is motivated by the spread of dowry, its negative consequences for women and the continued support for dowry in terms of its perception as a source of security and respect for women. While the expectation of large dowries may have several undesirable consequences for women, do they at the same time translate into higher welfare for women who receive generous dowries? Based on qualitative and quantitative information gathered from a village study in Tamil Nadu in south India, this paper examines the link between dowry and domestic violence.⁹ This paper is concerned with discussing the various channels through which dowry may influence domestic violence and establishing whether, after controlling for several relevant aspects, there is a link between the amount of dowry and domestic violence. We rely on qualitative and quantitative information to develop a characterization of domestic violence and to develop hypotheses about the manner in which dowry and various other socio-economic attributes may exert an influence on violence. Thereafter, based on our knowledge of the context and the quantitative information we implement an econometric strategy to test the various hypotheses.¹⁰

⁸ Dowry is often regarded as *streedhanam* (female property), which according to Tambiah (1973: 86) 'a woman received from her parents and relatives before and at marriage'.... 'over which a woman exercised dominion independently of her husband'. In the absence of inheritance rights for women Kishwar (1989 a & b) and Oldenberg (2002) argue that dowry may be justified and should be regarded as a pro-woman institution. While this notion of dowry has been disputed (see Agarwal, 1994), recent developments such as the amended Hindu Succession Act (1956), 2005 that ensure equal inheritance rights for daughters, if effectively implemented, may be expected to weaken the role of dowry as a daughter's share of family property (see Agarwal, *The Hindu*, September 25, 2005).

⁹ Domestic violence is an important aspect of a woman's welfare and has severe health and social consequences for women. We provide a more detailed discussion of domestic violence later on in the text.

¹⁰ There are several papers on India and on other countries which have explored the empirical link between domestic violence and various socio-economic attributes. Studies on India are ICRW (1999, 2000, 2002), Panda and Agarwal (2005), Sen (1999), Martin et al. (1999), Karlekar (1998). There are a few empirical explorations that combine qualitative and quantitative information and focus on the link between dowry and women's welfare. Our paper contributes to this latter strand of the literature. Examples include Jejeebhoy (1998) and Bloch and Rao (2002). Bloch and Rao (2002) use data from a neighboring Indian state to examine the link between domestic violence and dowry. However, the main focus of their work is on the use of violence as a method for extracting additional transfers from the wife's natal family. The motivation and spirit of our paper is closest to the work of Zhang and Chan (1999) who focus on the role of dowry in influencing women's welfare in Taiwan.

This paper is organized as follows. The following section provides a description of the study area and a discussion on marriage, dowry and other related social norms in the area under study. Section 3 characterizes domestic violence and develops our hypotheses. Section 4 outlines an empirical specification. Section 5 discusses the data and our econometric estimates. Section 6 contains concluding remarks.

2 THE CONTEXT OF THE STUDY

The study is based in a small agrarian village (210 households) in Salem district in Tamil Nadu state in south India.¹¹ Agriculture is the main occupation and it is one of the few villages in the district to benefit from a major irrigation (Mettur dam) project. It is a multi-caste village and includes three of the major castes of Salem district, namely Vanniyars, Vellala Gounders and Dalits. Vanniyars are the numerically dominant caste in the study village (as in the district). They account for 58 percent of households followed by Pavalam Katti (PK) Gounders (22 percent), Dalits (nine percent), and Kongu Vellala (KV) Gounders (eight percent).¹² In terms of social hierarchy, KV comes first, followed by PK and Vanniyars. Dalits occupy the lowest position. Over the last couple of years a few families have embraced Christianity, however, due to the risk of social ostracism and loss of benefits from affirmative action policies, some continue to report themselves as Hindus.

The distribution of land, a key asset, is highly skewed. Gounders who account for 30 percent of households own more than half the total agricultural land. The average land size is about 1.6 acres. Among Vanniyar households, 61 percent are landless while Dalits and other castes are landless. The average monthly household income is Rs.1,500, which is about the average for villages in this region of the state. Most families from all castes own their houses and the homestead land (on which they

¹¹ The district, block and the study village were purposively selected. According to the 2001 Census, district Salem has one of the lowest female-male 0-6 sex ratios in the country suggesting that daughter elimination is widespread. Within Salem, Idapadi block was selected as it reported a high incidence of female infanticide. Within the block we chose a village that displayed caste and class variations while at the same time exhibiting an average level of socio-economic development. The study village is multi-class and multi-caste— with three of the major castes of Salem district. Kinship arrangements including marriage and dowry practices in the village are typical of the region.

¹² KV and PK are sub-castes of the Vellala Gounder caste.

are built). About a third of households own televisions, and about a sixth have telephone connections.

While agriculture is the primary source of income for 80 percent of households, most households (69 percent) rely on more than one source of income. Given the large number of landless households as well as the small size of land holdings, agricultural wage labour is an important component of the livelihood basket for most people. These features are also conducive to high labour force participation for women. Most women in our study participate in economic activities and this is true even for women from landowning households many of whom often combine work on family fields with wage work.

A striking feature of the village and the district is the highly unequal sex ratio in the age group 0-6 years. Tamil Nadu is a recent entrant on the list of Indian states with high female deficit (see Chunkath & Athreya, 1997 & 2000; Premi, 2001) and within the state, Salem district has the lowest 0-6 sex ratio of 851 girls per 1,000 boys (Census 2001). In 2000, 42 percent of infant deaths in the district were reported to be due to 'social' causes (Primary Health Centre/Deputy Director of Health Services, Salem, 2000).¹³

The expectation of a burdensome dowry is reported as one of the main reasons for the recent spread of female infanticide and sex selective abortion. Indeed, the practice of dowry in the study village has undergone several changes.¹⁴ Among the upper castes the amount of dowry has risen substantially while at the same time it has spread to other castes in the village, which hitherto did not practice dowry. While the amount of dowry is strongly linked to caste (higher the caste the larger the dowry), the practice has become universal and the general perception is that it is impossible for a woman to be married without a sizable dowry. The content and the amount of dowry are negotiated prior to marriage and the transaction usually takes place at or before marriage. As a Vanniyar woman put it,

whatever comes or not, *seeru* (dowry) has to arrive in the groom's house before the married couple enter. Even if the *ponnu* (girl) does not arrive, it is okay, but the *pon* (gold) has to be there.

¹³ Usually only female infanticide and death due to neglect are recorded in this category. Hence female infanticide deaths are often referred to as death due to 'social' causes.

¹⁴ For a detailed discussion on the size, prevalence, emergence and spread of dowry in the study area see Srinivasan (2005).

In addition to dowry there are marriage expenses. However, unlike north India where a bride's family is expected to bear the marriage costs, in the study village (as in the rest of Tamil Nadu) marriage costs are usually shared between the families of the bride and the groom.¹⁵ Although not widespread in our sample, a recent trend is the emergence of post-marriage dowry-like demands on the bride's family. These demands are made at the time of important events such as the birth of a first child or the death of family member.¹⁶

The main exception to the practice of dowry occurs in cases where marriages are choice-based or 'love' marriages. In such cases, there is no dowry payment and the couple usually elopes to get married.¹⁷ However, 'love' marriages are rare and the norm in the village is 'arranged' marriages. Every woman is expected to marry (an unmarried woman is described as a shame to her family) and marriages are arranged by parents and relatives with limited input from the prospective bride and the groom. Arranged marriages are caste endogamous and it is not unusual for relatives to marry.¹⁸ Cross-kin marriages (marriage to a maternal uncle, cousin, or a distant relative) are quite common.¹⁹ While such marriages still take place, they are on the decline among the younger generation across all castes with a growing trend towards marrying a *pudhu sondam*, a new relative, as unrelated marriages are referred to. This trend indicates not only a changing preference in marrying outside the kin group but also a shortage in marriageable kin. Whether related or unrelated, the main criteria used to determine matches and dowries are economic status and horoscope compatibility. In the words of a KV Gounder woman,

First wealth compatibility and then horoscope compatibility. No marriage is possible if these two do not match, even among close relatives.

¹⁵ In 56 percent of the marriages costs were equally shared, in 11 percent all expenses were met by the groom's family, in another 11 percent all costs were met by the bride's family and in 18 percent a majority of the costs were borne by the groom's family.

¹⁶ In 15 percent of the cases in our sample there were demands after marriage.

¹⁷ While 'love' marriage is generally discouraged, its consequences are severe if it is inter-caste. A Gounder woman who marries outside her caste is considered dead while this need not be the case for Gounder men. Vanniyars and Dalits are less rigid about inter-caste marriage and the outcome varies with each case.

¹⁸ Endogamy is the preferred or prescribed practice of marrying within a defined group, be it clan, lineage or village. The opposite principle is exogamy: the preferred or prescribed practice of marriage outside the group (adapted from the *Oxford Concise Dictionary of Sociology*, 1994).

¹⁹ Following Kapadia (1995) we use cross-kin marriages as the range of marriageable kin in Tamil kinship extends beyond what is usually referred to as cross-cousin.

Following marriage, residence is mostly virilocal.²⁰ Most of the brides are from in and around the study village, that is, within a distance of about 100 kilometres.

While all women are expected to marry, it is quite difficult although not impossible to leave a marriage. The possibilities and the method for leaving a marriage are determined largely by caste. Gounders rarely consider ending a marriage. In cases where it may be required they resort to formal legal institutions to obtain divorce, and remarriage amongst Gounder women are not permitted. Vanniyar and Dalit women are permitted to initiate separation and to remarry. In their case, marriages may be terminated through the intervention of senior male relatives and village male elders (mediated separation or *theermanam*). If a divorce or a separation occurs, all items received as dowry (gold jewelry, land, livestock, utensils) except the cash component, have to be returned to the woman.

3 DOMESTIC VIOLENCE – A CHARACTERIZATION AND HYPOTHESES

This section provides an analytical narrative designed to aid interpretation of our empirical work. After setting out the relationship between domestic violence and women's welfare, we develop a characterization of domestic violence which draws on discussions with women, their remarks during focus group discussions, life-histories of key respondents and responses to structured questionnaires.

Domestic violence is an important aspect of women's welfare. It has severe health (physical and psychological) and social consequences for women (WHO, 2002). Various studies have shown (Carrillo, 1992; Heise et al., 1994; Menon-Sen and Shiva Kumar, 2001; Morrison and Orlando, 1999; UNICEF, 2000) the large economic and social costs of domestic violence. Violence or even the threat of violence constrains the choices women make and restricts their participation in development, thus, preventing them from realizing their full potential (ICRW, 1999, 2000 & 2002). It also undermines their confidence and self-esteem. As an outcome of gender asymmetries, marital violence exposes women's vulnerability particularly in a context where marriage is non-negotiable and leaving a bad marriage is often not an option.

²⁰ The wife takes up residence with the husband and (with or near) his parental family (Agarwal, 1994: 506).

(a) A characterization of domestic violence

While there is no universally accepted definition of domestic violence, a central feature is that it is at once a symptom and an outcome of unequal gendered power relations that sanction and condone male violence. The boundaries of the relationship between the perpetrator and the abused, the norms of acceptable behaviour and specific acts constituting violence are crucial elements in defining domestic violence.²¹ In this paper we focus on inter-spousal physical or psychological (verbal) violence.²² Additionally, our focus is on domestic violence and not just dowry violence. It is important to make this distinction as there is a tendency in policy and popular discourse in India to equate domestic violence with dowry violence. Until recently (with the passing of the Domestic Violence Act 2005) domestic violence was not legally recognised as a problem in India. As Visaria (1999: 5) observes, ‘... both Section 498A of the Indian Penal Code and the Dowry Prohibition Act emphasise violence within the context of dowry harassment’. Besides invisibilising the ‘widespread, daily, psychological, physical and sexual abuse’ that women experienced outside dowry harassment, this meant that legally the only way to tackle domestic violence was to foist charges of dowry harassment (see Oldenburg, 2002).

The information collected from the study village shows that domestic violence is almost entirely one-way, that is, husband on wife, and that the husband is the primary assailant.²³ The survey and discussions reveal that there are a variety of triggers and underlying reasons for domestic violence. Notwithstanding responses such as ‘he is a bad/mad character’, ‘he hits without a reason’, and ‘don’t know’, two main motives for inflicting violence may be distilled.²⁴ First, violence seems to be used by men as a way of releasing stress, frustration and venting their anger. The main sources of stress appear to be economic and/or social. Lack of income, limited land, unemployment, lack of education and more generally, meagre economic resources

²¹ See ICRW (1999) for a discussion on definitional issues.

²² Physical violence includes acts such as slapping, beating, arm-twisting, stabbing, strangling, kicking and burning. Psychological violence includes insults, threats of abandonment/murder, threats to harm children and cursing.

²³ In group and individual discussions instances of parents-in-law and in some cases other members in the husband’s family hitting married women were mentioned. There are also instances of sons beating their parents. According to our survey, for two-thirds of the women who had experienced domestic violence the husband was the only assailant while for the remaining one-third the husband as well as other family members had inflicted violence. In our sample of 176 married women there was only one case of a wife resorting to physical violence.

²⁴ About 20 percent of the women who experienced violence provided answers along the lines of ‘don’t know’ and/or ‘no reason’.

create economic stress which in turn places a strain on marital life.²⁵ Social stress is generated by the husband's standing in society and may be linked to his (lack of) education, his wife's education and conduct, the number of children, the number of daughters and sons and the amount of dowry received. Comments made by friends, neighbours, parents and other relatives on these and other issues create social stress that may manifest itself in violence.

Second, violence seems to be used as a way of punishing and controlling women with the aim of maintaining male authority in the household. When women questioned their husbands' behaviour, whereabouts or why they hit, a frequently heard response was, 'I am a man. I will hit, kick. I will do anything'. The survey data show that 53 percent of the women experiencing violence listed improper performance of household tasks, improper supervision of children or workers as the main reason for being subjected to violence. About six percent of women experienced violence as their husbands did not want them to talk with neighbours, or were unhappy if they talked with other men or if they visited their parents.

The use of violence against transgression (of male authority, acceptable gender roles and women's behaviour) and as a way of ensuring obedience, appears to be justified by women and men. Whether male violence is used to release frustration or against transgression or without any reason, the responses reflect (and even an acceptance of) the privilege of a man to do what he pleases. A noticeable aspect emerging from discussions with most women is their justification of wife beating, 'if wife is wrong', even as there was near unanimity that it was wrong for men to hit women. As one respondent put it, 'if not beaten, some women cannot be controlled'. This reflects the hold of prevailing gender norms especially about appropriate 'wifely' behaviour and the acceptability of being punished if a woman does not perform her role as a wife as brought out in the following response of a Dalit woman,

They [Husbands] are family elders. We must obey them. If we don't then they will hit..... We don't hit because we cannot... [out of] fear.... respect..... People will say, why women themselves will say – she is indisciplined, that is why she hit the man who tied the *thali*²⁶.

²⁵ About 12 percent of the women who experience domestic violence listed economic issues as the main factor underlying violent behaviour.

²⁶ *Thali* is a piece of gold strung on a gold chain or turmeric thread and is tied around a woman's neck by the husband at the time of marriage. It symbolises her status as a wife.

With these remarks and characterization we begin to explore the expected effects of several variables of interest on the incidence of violence.

(b) A change in household economic resources

Based on the idea of economic stress as a source of violence it may be expected that an expansion of household economic resources, for example, due to an increase in income or an increase in land holding should ease economic stress and in turn reduce violence. In particular, since agricultural land is the key income generating asset in the village, an increase in access to land should be associated with a decline in violence. While an increase in overall economic resources should relieve the stress experienced by a husband, the source of the increased resources probably plays a key role in determining the relative welfare of the members of the household. An increase in the economic resources of the household, attributable to the husband, may unambiguously be expected to reduce economic stress and in turn to a reduction in violence. A husband's improved employment prospects should exert a similar effect.

In contrast, an increase in household economic resources attributable to the wife may be expected to have an ambiguous effect on violence. While an increase in earnings reduces economic stress it may also introduce additional tension and struggle within the household. In an effort to extract and control the increased income and to counter the threat to the image of the male bread winner a man may resort to violence. The remarks of a Vanniyar man on the role of a women's self-help group are illustrative of this tension. Talking to one of us he said,

the *sangam* (self-help group) is doing all kinds of things for women. They now want these women to set up a shop in the *sandai* (local market) to sell vegetables. These things are getting into their head. If they go too far, start behaving smart, [we have to] tell them to go live in the shop.

Thus, unlike the divorce-threat models presented by Farmer and Tiefenthaler (1997) and Zhang and Chan (1999) which predict that an increase in a woman's income unambiguously decreases the level of violence/increases welfare in intact marriages through its effect on raising her threat point, or the separate-spheres bargaining models presented by Lundberg and Pollack (1993) and Suen, Chan and Zhang (2003) which show that even when divorce is not an option an increase in a woman's income increases her welfare, our characterization of violence combined with the context under scrutiny suggest that the effect will be ambiguous.

The divorce-threat models are unlikely to apply in the current context. In much of rural India it is not easy for a woman to leave a marriage.²⁷ Even if a woman can support herself financially and live on her own, leaving a husband is likely to invite strong social disapproval. Whitehead in her study (1981:109) on the conjugal contract points out that ‘the relative power of husbands and wives does not simply reflect relative wages commanded in the labour market’. Regardless of their employment and income prospects, familial ideologies about roles and responsibilities, of society’s expectations, may often lead women to continue in a marriage.

Even if divorce is not an option and an increase in a woman’s earnings increases her welfare in terms of increased consumption of private and public goods, as in the separates-spheres bargaining models, this may not always translate into reduced violence. Given the use of violence as a way of retaining control it is quite possible that an increase in consumption induced by an increase in women’s income is accompanied by additional control-induced violence. This is similar to the possibly ambiguous effects of income on violence as proposed by Tauchen et al. (1991). Based on a non-cooperative family model, Tauchen et al. (1991) point out that if a man’s marginal utility of violence were increasing with a woman’s consumption, then he may allow her greater consumption but also inflict more violence as her income increases.

Overall, leaving a marriage is unlikely to present a credible threat to a husband and while the additional earning capacity of a woman may expand the consumption possibilities of the wife and the household it may also incite more violence. Thus, the effect of an increase in a woman’s earnings and an improvement in her employment prospects are likely to have an ambiguous effect on violence.

(c) Education

The predicted effects of education on domestic violence are similar to the differential patterns expected for an increase in the incomes of the husband and wife. While an increase in husband’s education through its effect on income and reinforced through its effect on his social standing may be expected to reduce violence, the effect of women’s education on violence may be ambiguous. To the extent that a woman’s

²⁷ The survey conducted in December 2003 covered 178 adult women. Of these, 145 were married, 27 were widowed, six were divorced/separated from their husbands. These figures represent a divorce/separation rate of about four percent.

education is associated with an increase in income it should reduce violence. However, her education and awareness may also be a source of social stress for the man as it may challenge the traditional male image. In order to assert his authority, he may resort to violence.

(d) Dowry

There are several channels through which dowry may have an effect on a woman's intra-household status. First, the direct and immediate impact of dowry is an increase in the economic resources (income and wealth) of the marital household. To the extent that dowry alleviates the economic stress of the marital household it should exert a positive impact on the welfare of the bride. Second, a generous dowry is a source of pride for the groom and his family and provides 'bragging rights', as illustrated by this response of a Vanniyar woman,

[why dowry?] for *perumai* (pride). When daughter-in-law comes [we] can go around saying 'she brought this, she brought that. They [her parents] put xx amount of gold'.

Since dowry is a reflection of a man's value in the marriage market, a larger dowry is likely to enhance the social standing (reduce social stress) of the groom and his family and in turn could pave the way for a smoother marital relationship.

Third, while dowry expands household economic resources, it is also a source of household wealth over which a wife enjoys relatively more control. While the cash and livestock portion of a dowry are usually assimilated in overall household resources, typically, the gold jewelry portion of a dowry is reported to be under a wife's control. While norms vary across the country, in the study village (and possibly in other parts of Tamil Nadu) it appears that women keep possession of a large part of their dowry and have a say over how the dowry is used. About 60 percent of married women in the study village mentioned that for the most part they retained possession of the gold portion of their dowry for their own use or that it had been deposited in a bank in their name. Other uses of the gold were: debt repayment, financing of consumption, collateral for loans and dowry for daughters. The control that women in the study village and in Tamil Nadu may exercise over their dowries is similar to the findings reported in Jejeebhoy (1998). Based on surveys conducted in rural areas of Uttar Pradesh and Tamil Nadu in 1993-94, she constructs an index of 'say over dowry'. This index ranges from 0-2 with a higher value indicating greater 'say over

dowry'. The average for women in Tamil Nadu was 1.53 as compared to 0.62 for women in Uttar Pradesh. Thus, while it does not apply country-wide, at least in Tamil Nadu it seems that women do exercise some degree of control over their dowries.²⁸

A large dowry may represent a large proportion of the wealth of the marital household and it may change the balance of wealth in the marital household. However, this is unlikely to generate the same control-induced violence as an increase in a woman's education and/or income. As discussed above, by reflecting a man's worth and his family's standing, dowry and a dowry-induced increase in the wealth of the marital household confirm his male image. At the same time, dowry is viewed as belonging to a woman and is socially accepted as her asset. While it may be used by the household as collateral for borrowing or maybe sold in times of need it is usually done with the co-operation of the woman. However, this does not mean that women are free to use their jewelry as they wish. For instance, if a woman wishes to use her jewelry as collateral to avail a loan for herself or her natal family she has to consult her husband.

Forcible extraction of a woman's dowry is likely to draw social censure, particularly from her natal kin who in giving a dowry have 'bought' a right to intervene in their daughter's marital life.²⁹ Despite the spread of dowry in the study area and elsewhere in south India, the asymmetry between the status of wife-givers and wife-takers is not as sharp as it is in the exogamous context of north Indian marriages. Furthermore, women in south India enjoy not just natal contact but support even after marriage. The culture of village and kin endogamy ensures that the bride is not a stranger to the village (even in case of unrelated marriages) and she can appeal to relatives (including the husband's) to prevail upon him and in extreme cases even seek the intervention of village (male) elders for restoration of her dowry. Thus,

²⁸ An underlying issue here is whether dowry should be viewed as the pre-mortem inheritance of daughters over which they may exercise ownership rights or whether they should be viewed as groom-price transfers over which they have no ownership rights. The appropriate characterization is likely to depend on the context. For example, Anderson (2004) uses data from Pakistan to examine whether dowries should be treated as pre-mortem inheritance or as groom-price. The analysis suggests that in urban Pakistan the groom-price model applies while in rural Pakistan dowries appear to serve as pre-mortem inheritance.

²⁹ Several women believed that providing a large dowry gives parents a right to intervene in crises in their daughter's marital life. As this response of a Vanniyar woman illustrates,

Earlier people did not bother about how daughters were after marriage. So [they] did not bother about how much (*seeru*) they did. Now they do, as is expected, and ask if something goes wrong.

unlike exiting a marriage which is not a credible threat, social censure from one's own community and wife's natal family in case of dowry grabbing can pose a credible threat.

Overall, by expanding the income and wealth of the marital household a generous dowry is likely to reduce the economic and social stress experienced in the marital household. Even though it is a resource controlled by a woman it does not threaten a man. Access to an important source of household wealth, combined with social sanctions which militate against dowry-grabbing strengthen the intra-household position of the woman. Thus, a dowry may be expected to reduce stress-related violence while at the same time it does not generate any control-induced violence. Based on these arguments we may expect a negative link between dowry and violence.³⁰

(e) Number and type of children

If a family does not have the required number of children or more accurately the appropriate number of sons and daughters it is likely to be a source of social stress. This social stress is likely to manifest itself in terms of a higher level of violence. Unsurprisingly, there is a strong preference for sons in the village and it is likely that women who have more sons are highly regarded and less likely to experience violence. The opposite should hold for women who have had more daughters.

(f) Excessive alcohol consumption

A number of women pointed out the link between alcohol and violence. In response to questions on the reasons for violence, several respondents mentioned that their husbands resort to violence when they are drunk. In group discussions several factors such as economic and social stress, peer pressure and the availability of liquor, were cited as reasons for drunkenness. For example, according to participants in an adolescent girls group discussion,

Men say they drink or else they can't sleep peacefully and work the next day. They say they have too many worries, too many responsibilities.... They have to educate the son, get the daughter married...

³⁰ Zhang and Chan (1999) predict a similar dowry effect which is driven by an income effect and a bargaining power effect. The increase in a woman's bargaining power and an increase in her threat point are implicitly linked to the possibility of exiting a marriage.

Thus, it is likely that the same observed and unobserved factors that create economic and social stress and lead a man to inflict violence are likely to drive excessive alcohol consumption. This suggests that drunkenness should not be treated as an exogenous variable but as an outcome of the same factors that may drive a man's violent actions. This view is corroborated by an extensive review of the literature. The review confirms a strong association between excessive alcohol consumption and violence, but points out that alcohol typically triggers violent behaviour mainly in interaction with a number of other factors, ranging from socio-economic, cultural to psychological and biochemical. While alcohol abuse may spark violent behaviour and serve as a catalyst, it is a symptom and not a cause of aggressive behaviour (The Amsterdam Group Report 2001).³¹

To summarize, on the basis of the discussion presented in this section it may be expected that women in households with larger economic resources experience less violence. An increase in employment prospects and income of the man and an increase in his educational endowment are likely to reduce violence. In contrast, improved employment and income prospects and a higher educational endowment of a woman have ambiguous effects on violence. Due to its effects on reducing economic and social stress, its role as a signal of the worth of man and its effect on the intra-household position of a woman we expect a larger dowry to enhance the welfare of a woman and to be associated with reduced violence. Given the strong preference for sons we expect that women who have borne the desired number of sons are held in high regard and are less likely to experience violence. The opposite pattern should hold for women with a larger number of daughters.

4 EMPIRICAL SPECIFICATION

The hypotheses outlined above are testable and this section outlines a framework to subject our expectations to empirical scrutiny. Let V , a dichotomous variable, denote the presence of physical and psychological violence in the household. Based on the discussion in the preceding section, V may be treated as a function of variables

³¹ A report prepared by the Social Issues Research Centre (1998) reaches a similar conclusion, 'From the research evidence available, we can conclude that there is no direct causal relationship between alcohol and violence. Where the immediate social context is non-aggressive and where cultural beliefs and norms inhibit aggression, drinkers are highly unlikely to become aggressive'.

capturing the overall economic position of the household (X_E), a husband's socio-economic characteristics (X_H), a wife's socio-economic characteristics (X_W), the amount of dowry (D), the number of living sons and daughters (X_C), and a vector of additional explanatory variables (X_O). Thus, violence may be represented as,

$$V = X_E \beta_E + X_H \beta_H + X_W \beta_W + \beta_D D + X_C \beta_C + X_O \beta_O + \varepsilon \quad (1)$$

The β s are coefficients to be estimated and ε represents unobservable factors which may influence violence. Based on the assumption that ε follows a normal distribution this equation may be estimated using a probit model.

In operational terms, V captures the incidence of inter-spousal physical and psychological violence. The overall economic position of the household is captured by the amount of land owned by a household. The husband's socio-economic characteristics include his occupation (self-employed in agriculture, employed in non-agricultural activities), years of education, age at marriage and whether he drinks. The wife's characteristics include her occupation, years of education, age at marriage and her contribution to household income (as a proportion of total household income). The dowry variable is restricted to the amount of dowry paid in gold and cash.³² Other variables included in the specification indicate the family background of the wife (education and occupation of wife's father), whether the couple had an arranged or a love marriage, whether a woman is married to a relative and the type of marital family, that is, joint or nuclear.

A key concern in our empirical work is the potential endogeneity between the amount of dowry and violence. It is possible that unobserved factors that influence the amount of dowry are correlated with unobserved factors that motivate violence. For example, the physical attractiveness or the health of a bride may influence dowry payments and may also have implications for the extent of violence inflicted on a woman. Thus, in equation (1), dowry may be correlated with the error term and single-equation estimates of (1) may be biased. To tackle this issue we endogenize dowry (D) and treat it as a function of a vector of explanatory variables (X_2), that is,

32 Although gifts at the time of marriage may include a number of other items such as silver anklets, household utility goods, cows, goats or poultry, bags of paddy and cereals, it is not uncommon for women to consider only the gold and cash components of these gifts as dowry. In a number of cases where silver jewelry and household items such as a bed or utensils only were provided women reported that they did not receive a dowry.

$$D = X_2\delta + \nu \quad (2)$$

The vector X_2 contains several variables that overlap with the variables in (1) but it also contains variables that determine dowry but are assumed not to have a bearing on violence (excluded from the violence equation). Equations (1) and (2) are simultaneously estimated using a maximum likelihood approach as well as a two-stage conditional maximum likelihood approach (see Rivers and Vuong, 1988).

While the estimation methodology is straightforward, a key issue in such procedures is identification and the validity of exclusion restrictions. While differences in the functional form of the two equations (first stage is a linear model while the second stage is a non-linear model) aids identification, it is a weak basis for identifying a model. In our case, in addition to differences in functional form there are some natural and potentially very strong candidates that may serve as instruments. For instance, caste captures a family's economic and social standing and is a crucial variable in determining the amount of dowry paid. The caste of a family should be strongly correlated with dowry payments but should have no bearing on violence, after controlling for the economic resources of a household.³³ Additionally, as pointed out in Section 2, horoscope compatibility is a key criterion used to determine marriage partners and is also likely to influence the amount of dowry but should have no bearing on violence. In our empirical work we test the validity and strength of our instruments and explore the sensitivity of our results to a variety of specification changes.

³³ While caste is an important variable shaping gender norms, roles and gender asymmetries, violence against women appears to be a persistent feature across all castes. Group discussions held separately with women from different castes in the study village suggested little inter-caste variation in domestic violence. Furthermore, a number of the studies in ICRW (1999, 2000 & 2002) explore the links between caste and domestic violence. The study on Rajasthan reports that there is 'no significant variation with respect to the caste of the respondent'. Similarly, the study on Tamil Nadu finds that 43 percent of non-Dalit men have inflicted physical violence as compared to 45 percent among Dalit men. On the other hand, studies on Gujarat and Punjab find that lower castes are more likely to exert violence as compared to higher castes. While the link is likely to vary across states and the numbers for Tamil Nadu do not show much caste variation, a shortcoming of these studies is that they rely on a bivariate analysis to investigate the link between caste and violence.

5 DATA AND EMPIRICAL ANALYSIS

(a) The data

The empirical work in this paper is based on qualitative and quantitative information gathered from married women (18 years and above) in a village in Salem district. In particular, data for the econometric work comes from structured surveys that were fielded in April 2002 and December 2003. The iterative research design allowed us to gain greater familiarity with respondents and enabled a deeper understanding of the socio-cultural and economic issues confronting women in their daily lives.

The structured surveys collected information on wealth and socio-economic characteristics of households, fertility history of each respondent, and detailed information on issues related to marriage, dowry and domestic violence. The information on dowry included questions on whether dowry was given, reasons for giving dowry, amount and form of dowry, the manner in which dowry is being used/has been used, and whether there have been any subsequent demands for dowry.

Information on domestic violence, defined in this study in terms of whether a woman has ever experienced spousal violence, included questions on the incidence of psychological or physical violence, frequency of violence, reasons and reactions subsequent to violence.³⁴ While most women responded to questions on the incidence of violence they were usually less certain and less forthcoming about the frequency and severity of violence. Accordingly, in this paper we focus on the incidence of violence rather than its frequency. Notwithstanding, their willingness to respond, it is likely that for several reasons even the incidence of domestic violence may be underreported. There is considerable shame and fear surrounding domestic violence, respondents have differing perceptions about what constitutes violent behavior and some forms of domestic violence enjoy social sanction (even) among women. All these factors suggest that our data should be viewed as representing a lower bound of the incidence of domestic violence.

The information collected through the structured surveys is complemented by discussions conducted with individuals and groups of women and men across different castes, classes and generations. The aim of these discussions was to

³⁴ Existing literature relies on two measures of spousal violence. These are: (i) whether there has ever been an incident of spousal violence, and (ii) whether there has been any spousal violence in the 12 months preceding the survey. We tried to collect information on both these measures but it was difficult for the respondents to distinguish between the two measures, and the survey question essentially became, 'have you ever experienced spousal violence?'

strengthen our understanding of women’s welfare, decision-making, marriage, forms of domestic violence and daughter elimination.

In terms of sample size, the data collection covered 178 adult women who were in the village at the time of the survey but paid special attention to the 145 women who were currently married. For our formal econometric work we rely on a smaller set of 137 married women for whom we have a more complete set of information.³⁵

(b) Descriptive statistics

Table 1 provides information on whether women have ever experienced inter-spousal violence. 45 percent or 65 of the 145 married women of the women in our sample have experienced verbal or physical violence. About 18 percent or 26 women have experienced both forms of violence, while 27 percent or 39 women have experienced only verbal abuse. The figures for overall violence appear to be in accordance with the incidence reported in other studies for Tamil Nadu. For example, a five-site study of about 3,000 women in rural India, conducted by the International Center for Research on Women (ICRW) (2000) reported that 49 percent of women in Tamil Nadu had experienced at least one incidence of physical or psychological abuse. The incidence of psychological abuse was about 29 percent, close to the figures reported in our study. However, there are sharp differences in the data on physical abuse. While we report an incidence of 18 percent, ICRW (2000) reports figures close to 40 percent for

Table 1
Incidence of Domestic Violence (%)
[Absolute numbers]

Verbal or Physical Abuse	45 [65]
Verbal abuse only	27 [39]
Verbal and Physical Abuse	18 [26]
<i>N</i>	145

Note: Domestic violence is defined as inter-spousal physical or verbal violence that has occurred since marriage. Incidence is defined in terms of the percentage of women in our sample who have experienced violence.

³⁵ We lose some observations due to missing information on household and husband characteristics. A few respondents were unable to provide information on the amount of land owned by the household and/or the age and education of their husbands.

rural Tamil Nadu.³⁶ Another source of information, the National Family Health Survey-II (1998-99) reports that for the entire state (rural and urban) the incidence of lifetime inter-spousal physical violence is 36 percent.

It is possible that while respondents are willing to admit to some form of violence they may be less willing to reveal physical violence. Since the combined figures for physical or verbal violence obtained from our village survey are closer to the numbers for overall violence reported in other studies, we use the incidence of any kind of violence as the dependent variable in our analysis.³⁷

Descriptive statistics for the independent variables are provided in table 2.

Table 2
Descriptive Statistics

Variable	Mean	Std. Dev.
Land owned by household (in acres)	1.62	2.46
Thatched roof and walls of dwelling = 1	0.34	0.47
Household possesses a TV = 1	0.39	0.49
Household has a phone = 1	0.16	0.37
Husband's education (in years)	4.31	5.27
Husband is self-employed in agriculture = 1	0.32	0.46
Husband is employed in non-agri. Activities = 1	0.21	0.41
Husband's age at marriage	25.9	5.01
Husband drinks = 1	0.24	0.43
Wife's education (in years)	3.18	4.29
Wife is self-employed in agriculture = 1	0.32	0.47
Wife is employed in non-agri. activities = 1	0.08	0.26
Wife's contribution to household income (percent)	0.33	0.27
Wife's age at marriage	17.41	2.89
Amount of land owned by wife (in acres)	0.048	0.21
Wife's father was self-employed in agriculture	0.28	0.45
Amount of dowry in gold <i>pavuns</i> at 1973 prices	23.0	35.49
Number of living sons	1.06	0.67
Number of living daughters	0.69	0.76
Love marriage = 1	0.08	0.26
Duration of marriage	21.8	11.8
High horoscope compatibility = 1	0.22	0.42
Nuclear family = 1	0.52	0.50
Married to a relative = 1	0.48	0.50
Caste - Vanniyar = 1	0.57	0.49
Caste - Pavallam Katti Gounder = 1	0.26	0.44
Caste - Kongu Vellala Gounder = 1	0.08	0.28
Caste - Others and Dalits = 1	0.09	0.28

Notes: A *pavun* is 8 grams of gold. The number of observations for the variables range from 139 to 145.

³⁶ It is not clear whether the ICRW figures are for the 12 months preceding the survey or for life-time violence.

³⁷ In principle we could estimate separate models for verbal abuse only and for verbal *and* physical abuse. However, due to the reluctance to report physical abuse as well as a comparison of the numbers for the incidence of physical violence from other sources, we decided to use the incidence of verbal *or* physical abuse as our measure of domestic violence. The implicit idea is that the incidence of verbal *or* physical abuse is a better measure for verbal and physical abuse as compared to the information directly provided by respondents.

Some of the salient features of these data are discussed below. The average land holding is 1.62 acres, which may not seem too small, but it is deceptive as 40 percent of households do not own any land. Although husbands are typically more educated than wives (four years versus three years) the average education level is quite low. About 60 percent of women are illiterate while the corresponding figure for men is 44 percent. Thirty two percent of husbands and wives are self-employed in agriculture while the remaining work as agricultural labourers or in non-agricultural activities. Almost all women are engaged in economic activities and on average wives contribute about 33 percent of the total household income.³⁸ The average number of children per household is about two. This is relatively low in the Indian context but it is not unusual for this part of rural India.³⁹ About 24 percent of the men consume alcohol. While this may not appear to be alarming, it should not be interpreted as benign social drinking but as an indicator that a man drinks excessively.⁴⁰ Horoscope compatibility is measured as a dummy variable indicating whether the husband and wife's horoscopes were very well-matched as opposed to adequately matched. In about 22 percent of marriages the husband and the wife were very well-matched.

A crucial variable in our work is dowry. The survey shows that dowry was given in 82 percent of the marriages and the main form of dowry was gold (jewelry). In all cases where dowry was given (146 marriages), gold jewelry was a component of the dowry. In contrast cash was provided in 30 marriages while land was included as part of dowry in 13 marriages.⁴¹ In addition to these items, some form of livestock

³⁸ Ideally we would have liked to use information on the actual income generated by the husband and the wife. However, as is well known, in a rural context in a developing country such as India, it is difficult to gather accurate information on income particularly to identify the income generated by each member of a household. Notwithstanding these difficulties we gathered information on household income but were unable to gather information on the contribution of each individual within the household. In an attempt to get some idea of a woman's contribution to household income we asked respondents to provide an idea of the share of income that they thought they generated (as compared to their husband's). Their responses lie in broad intervals such as contribution to household income is 100 percent, more than 50 percent, 50 percent, less than 50 percent and none.

³⁹ On Tamil Nadu's demographic achievements see Antony (1992), Kishor (1994), Chunkath and Athreya (1997), and Nagaraj (2000).

⁴⁰ Our survey instrument contained two questions on the drinking patterns of men. The first question enquired whether the respondent's husband drinks or not and the second enquired whether the respondent's husband drinks excessively (gets drunk) every day, every month, or at social events. Except for four cases all husbands who were reported to drink, drink excessively. Thus, at least in the current context, drinking alcohol may be viewed as synonymous with drinking excessively. Rao (1997) makes a similar point in a paper that relies on data from a neighboring state. He reports that 75 percent of men do not consume any alcohol but 'those who do tend to consume a great deal'.

⁴¹ Given the extent of land ownership KV Gounders always include cash as part of the dowry. So distinct is this practice that they are also known as *petti* (briefcase) Gounders. The cash, usually a large amount, is given in a briefcase.

(poultry, goats, cows or buffaloes) was provided in 27 percent of the marriages and household utility goods (usually bed, mattresses, copper or steel utensils, cupboard, trunk) were provided in 65 percent of marriages. In some cases the range of these items included a radio, television, bicycle, and in two marriages a moped.⁴² Typically, the most sought after and discussed item in the dowry is gold and discussions usually focus on the *pavuns* of gold jewelry that were provided as part of the dowry. In our work we focus on the gold and cash portion of the dowry and convert these two items into *pavuns* of gold at constant 1973 prices.⁴³ Based on this conversion, the average dowry includes 23 *pavuns* or 184 grams of gold. There are substantial differences across castes, with the higher castes (Gounders) paying an average of 40 gold *pavuns*, while the Vanniyars and the Dalits provide average dowries of 12 and three *pavuns*, respectively. In terms of current prices the average value of this portion of the dowry is about Rs.50,000 which is about two to three times the average annual household income of families in the village.

(c) Domestic violence and selected characteristics

As a preview to the econometric work, table 3 shows the bivariate relationship between domestic violence and some selected characteristics. The numbers show that domestic violence is lower in economically better-off households. The mean land holding for households in which violence occurs is 1.27 acres as compared to 1.91 acres for those without such events. The education levels of the husband and wife have differential effects on domestic violence. While better-educated husbands are less likely to inflict violence, the education of a woman does not appear to offer any relief. Similarly, a wife's contribution to household income has no bearing on violence. The effect of age at marriage differs across husbands and wives. While a man's age at marriage has no bearing on violence, getting married at an older age increases the incidence of violence for women. There is a sharp difference in the mean amount of dowry across the two categories. The mean dowry for households recording domestic violence is about 15 *pavuns* of gold while it is 28 *pavuns* in households with no such incident. Despite expectations, the number of living sons and

⁴² While we are unable to value the various items that are provided as part of the dowry, there is a positive correlation (0.27-0.41) between the amount of gold/cash provided as dowry and the incidence of dowry provided in the form of consumer goods, land and livestock. Thus, these other items do not substitute but are complements for the gold/cash portion of the dowry.

⁴³ 1973 is the earliest year for which we can get information on gold prices and price deflators.

daughters in a household does not appear to have a bearing on violence, a finding also reported in NFHS-II (1998-99).

Table 3
Domestic Violence and Selected Characteristics

Variable	DV = 0	DV = 1	<i>p</i> -value
Land owned by household	1.91	1.27	0.121
Thatched roof and walls of dwelling	0.30	0.38	0.287
Household possesses a TV	0.46	0.30	0.058
Household has a phone	0.19	0.12	0.294
Husband's education	5.05	3.40	0.061
Husband's age at marriage	25.7	26.3	0.477
Husband drinks	0.15	0.39	0.001
Wife's education	3.30	3.03	0.708
Wife's age at marriage	17.05	17.85	0.099
Wife's contribution to household income	0.32	0.33	0.848
Amount of dowry in gold <i>pavuns</i> at 1973 prices	29.3	15.2	0.019
Number of living sons	1.05	1.06	0.910
Number of living daughters	0.65	0.74	0.487
Duration of marriage	21.4	22.3	0.633

Notes: A *pavun* is 8 grams of gold. DV is an acronym for domestic violence. The last column of the table reports the *p*-value for a two-tail t-test. The null hypothesis is equality of means. The number of observations with DV = 1 ranges from 62 to 65 and the number of observations with DV = 0 ranges from 76 to 80.

(d) Single equation probit estimates

Table 4 presents estimates of several probit specifications of the violence equation. Specification 1 and 2 may be viewed as the baseline specifications while the other specifications are presented in the spirit of a sensitivity analysis. Following the narrative provided in the previous section our discussion focuses on the role of household economic resources, the education of the husband, the education and earning contribution of the wife, dowry and the number of sons and daughters in the household.

The amount of land owned by a household is negatively linked to violence but the effect is not statistically significant.⁴⁴ Consistent with expectations, a husband's education – a measure of his socio-economic status – works towards reducing violence. The estimated effect reflects the correlation between education and income which reduces economic stress and the status-conferring effect of education which

⁴⁴ We also examined the link between women's ownership of land and domestic violence (see Table A1, spec. 2). While land ownership is negatively correlated with violence, given that only six of the women included in our regressions own land, it is not surprising that the effect is statistically insignificant.

reduces social stress. A one-year increase in a man's education is associated with a 2.1 to 3.5 percentage point reduction in violence.

Table 4
Probability of Experiencing Violence – Probit Estimates
(Absolute value of T-statistic)

Variable	Marginal Effects Spec. 1	Marginal Effects Spec. 2 ^A	Marginal Effects Spec. 3 ^B	Marginal Effects Spec. 4 ^C	Marginal Effects Spec. 5 ^D
Land owned by household	-0.022 (0.89)	-0.020 (0.65)	-0.011 (0.41)	-0.020 (0.72)	-0.020 (0.72)
Husband's education	-0.023* (1.65)	-0.021 (1.35)	-0.032* (1.86)	-0.037* (2.16)	-0.037* (2.16)
Husband's age at marriage	-0.003 (0.29)	-0.002 (0.16)	-0.003 (0.28)	-0.004 (0.40)	-0.004 (0.40)
Wife's education	0.029* (1.83)	0.024 (1.46)	0.031* (1.89)	0.030* (1.80)	0.030* (1.78)
Wife's age at marriage	0.038* (1.84)	0.039* (1.99)	0.042* (2.14)	0.044* (2.25)	0.044* (2.25)
Wife's contribution to household income	-0.010 (0.06)	-0.018 (0.10)	-0.045 (0.25)	-0.118 (0.63)	-0.118 (0.63)
Amount of dowry in gold <i>pavun</i>	-0.004* (1.81)	-0.004* (1.93)	-0.004* (1.77)	-0.004* (1.68)	-0.004* (1.68)
Number of living sons	0.007 (0.09)	-0.007 (0.09)	-0.030 (0.40)	-0.025 (0.34)	-0.025 (0.34)
Number of living daughters	0.061 (0.99)	0.071 (1.08)	0.031 (0.42)	0.022 (0.31)	0.022 (0.31)
Duration of Marriage	0.005 (1.04)	0.004 (0.83)	0.005 (0.88)	0.004 (0.71)	0.004 (0.71)
Father of wife was self-employed in agri.	0.084 (0.79)	0.102 (0.92)	0.095 (0.87)	0.061 (0.55)	0.061 (0.55)
Education of father of wife	-0.002 (0.16)	-0.002 (0.15)	-0.004 (0.24)	-0.007 (0.49)	-0.007 (0.48)
Husband drinks	.	.	0.394* (3.37)	0.410* (3.47)	0.410* (3.57)
Caste – Vanniyar = 1	.	.	.	-0.075 (0.37)	-0.075 (0.37)
Caste – Pavallam Katti Gounder = 1	.	.	.	-0.023 (0.10)	-0.023 (0.10)
Caste – Kongu Vellala Gounder = 1	.	.	.	0.177 (0.67)	0.177 (0.66)
Horoscope Compatibility	.	.	.	.	0.001 (0.01)
<i>N</i>	138	138	138	137	137
Pseudo R ²	0.101	0.111	0.176	0.187	0.187

Notes: The t-statistics are based on heteroscedasticity consistent standard errors. * indicates, statistically significant at, at least the 10 percent level.

^A Specification 2 includes all the variables in specification 1 and a set of occupational variables indicating whether the husband and wife are self-employed in agriculture, or employed in non-agricultural activities, whether their marriage was a love marriage, an indicator for the type of family (nuclear or joint) and whether a woman is married to a relative.

^B Specification 3 includes all the variables in specification 2 and a variable indicating whether the husband drinks.

^C Specification 4 includes all the variables in specification 3, a set of variables indicating the caste of the family.

^D Specification 5 includes all the variables in specification 3 and a variable indicating whether horoscope compatibility was the main reason for the marriage.

In sharp contrast with the violence reducing effect of a man's education, a woman's education is positively linked to violence. This result persists across all specifications and suggests that a one-year increase in a wife's education is associated with a 2.4 to 3.1 percentage point increase in violence.⁴⁵ Based on our characterization of domestic violence, *a priori*, the effect of a woman's education on violence is not clear. While women who are more educated may have better labour market prospects and may have a higher social status they may also be perceived as a threat to male authority and prevailing gender norms. A man may resort to violence as a response to the perceived threat and to inculcate submission in his wife. The overall effect of education on violence reflects the tension between these two effects and our results show that the control-motive appears to dominate and that women with more education are more likely to face violence. Other socio-economic variables such as the economic contribution of the women to the household and various occupational characteristics do not appear to have an impact on violence and their inclusion does not alter the effect of a woman's education on violence (see table 4, specifications 3, 4 and 5).⁴⁶

A man's age at marriage has no bearing on violence. In sharp contrast, across all specifications we find that women who get married at a later age are more likely to experience violence. The results indicate that the effect of delaying marriage by one year raises the probability of violence by 3.7 to 4.4 percentage points. The large effect of this variable despite its low mean (17 years) and limited spread (standard deviation of about three) supports the idea that the socially acceptable age of marriage for women lies in an extremely narrow range. Women who delay marriage are likely to experience more violence for several reasons. Older women may be more assertive, they may have greater awareness and knowledge and thus may be subjected to

⁴⁵ Rao (1993) and Zhang and Chan (1999) estimate specifications where dowry or women's welfare, are treated as functions of educational and age differences between husband and wife. As pointed out by Edlund (2000) such specifications impose the restriction that the attributes of husband and wife influence dowry/women's welfare in a symmetric manner. This may not be and is certainly not the case in our data and hence we treat violence and dowry as functions of individual traits rather than differences.

⁴⁶ The manner in which income enters the specification is inconsistent with the theoretical discussion and is a shortcoming in our empirical work. As mentioned earlier we were unable to gather information on the individual income contribution of each household member. However, we do have some idea of a wife's income contribution and we use this information along with information on overall household income to create two income variables. These are the level of the wife's income and the level of the income of the rest of the household. A specification with these two variables is presented in Table A1, spec. 3. Both variables exert a negative influence on domestic violence but are statistically insignificant. The effects of the other variables are in the same range as reported in table 4.

additional control-induced violence.⁴⁷ It is also possible that women whose marriages are delayed possess some unobserved characteristics that make it difficult for them to get married and which is also associated with violence. For example, doubts about a woman's chastity may delay marriage and violence may be used as a means to punish her for the perceived lack of this virtue. As discussed by Srinivasan (2005), while modernization, education and greater awareness have delayed marriage for women they are still expected to get married at an appropriate age. In the study area, parents report that they feel pressure to get their daughters married at an acceptable age and liken the burden of preserving a girl's chastity to 'an inferno in the stomach', which can be extinguished by marrying her off early.

As discussed in section 3, dowry is expected to have a negative impact on violence for several reasons. Consistent with this expectation, regardless of the specification there is a negative effect of dowry on violence. The magnitude of the effect is also quite steady and indicates that an increase in dowry by one *pavun* is associated with a 0.3-0.4 percentage point reduction in violence. Alternatively, a ten *pavun* (1/3 of a standard deviation) increase in dowry is associated with a three-four (percentage) point reduction in violence. At the mean, this implies that an increase in dowry by ten *pavun* may be expected to reduce violence by seven-nine percent. Our results on the negative effect of dowry on violence are consistent with Bloch and Rao's (2002) work based on data from Karnataka (a neighbouring state). They also match the effects reported in Zhang and Chan's (1999) work on Taiwan, that is, a higher dowry increases a women's welfare. Zhang and Chan (1999) find that husbands of women who have brought generous dowries are more likely to help with household tasks.

We are unable to find any evidence to support the argument that violence is negatively related to the number of sons and positively linked to the number of daughters. This may seem surprising, especially, given the importance attached to sons in the study area. However, at second blush this result may not be unexpected. As discussed in section 2, female infanticide and sex selective abortion are common in the village and it is likely that such practices have ensured that parents have the

⁴⁷ Regardless of whether education delays marriage or not, it is clear that women who get married at a later age are more educated. The average years of education for women whose age at marriage (N = 66) is greater than the mean is 4.12 while it is 2.26 for those whose age at marriage is less than or equal to the mean (N=72). These differences are statistically significant. Of those who have married late, 21 have more than eight years of education.

number and type of children that matches their preferences. Thus, the number and composition of their children are no longer factors that create social stress as there is little divergence between the desired and actual number and type of children.⁴⁸

Consistent with the bivariate analysis presented in table 3, the duration of marriage has no bearing on violence.⁴⁹ Unlike Bloch and Rao (2002), we do not find that women from wealthier backgrounds are more likely to experience domestic violence. Bloch and Rao's (2002) work was concerned with the use of violence as a way of extracting additional transfers (post-marriage) from the wife's natal family. In the current context, as mentioned in section 2, post-marriage demands are not widespread.⁵⁰ Accordingly, the occupation and educational background of a wife's father do not have any bearing on violence.

While alcohol consumption certainly appears to trigger violence (see table 3), as argued earlier, it is likely that unobserved factors (for instance, work pressure, temperament) that lead to drunken behaviour are correlated with domestic violence and domestic violence and alcohol consumption are endogenous. Nevertheless, in the spirit of conducting a sensitivity analysis we include an indicator of the drinking habits of husbands in our estimated models (table 4, see specifications 3, 4 and 5). As may be expected there is a large and statistically significant effect of drinking on violence.⁵¹ While drunken behaviour may be a reflection of the unobserved economic

⁴⁸ We also estimated a specification with a dummy variable indicating that a woman has no children. This does not alter the results. This is not surprising as there are only six women in our data set who do not have any children.

⁴⁹ To examine potential interactions between duration of marriage and dowry we estimated specifications where we interacted the two variables. The interacted variable did not reveal any pattern. We also examined the interaction between duration of marriage and dowry by running separate models for women who have been married for 20 or more years and those who have been married for less than 20 years. For both sets dowry exerts a negative effect on violence and the magnitude of the effect lies in the range reported in Table 4. These results suggest that the effect of dowry is durable and does not depend on the duration of marriage.

⁵⁰ As mentioned in section 2, about 15 percent of the women in our sample reported post-marriage dowry-like demands. Violence or the threat of violence may be used to extract additional payments and refusal of such demands may trigger violence. Accordingly, ignoring such demands may lead to omitted variable bias in our estimates. To examine the effect of such an omission we estimated specifications that included a dummy variable to capture the incidence of such demands and we also estimated specifications where women who had experienced such demands were dropped from the sample. As shown in Table A1, spec. 4, the incidence of post-marriage dowry like demand is positively correlated with violence but is statistically insignificant. Furthermore, regardless of the approach used, the coefficients on dowry and the other variables did not display much variation.

⁵¹ We also estimated a specification where the drinking behavior of husband's was captured by a series of three dummy variables. These indicated whether a husband drank excessively on a daily basis, several times a week or at social events. The estimates of such a specification are presented in Table A1, spec. 5. As shown in the table, all three variables are statistically significant and are not statistically or substantially different from each other.

and social stresses that a man experiences and not a cause of violence, the strong link between alcohol and violence provides support for the argument often made by rural women/women's groups, that alcohol should be banned in Tamil Nadu. The other notable feature of these three specifications is that regardless of whether the specification includes the drinking habits of the husband or not, the magnitude of the coefficient on dowry, remains in the same range as observed in our baseline specifications (1 and 2 in table 4).

In section 4, we argued that after controlling for household economic resources, caste should have no bearing on domestic violence. To examine this empirically, specification 4 in table 4 includes a set of caste dummies. As is clear from the estimates, inclusion of the caste variables does not exert a large effect on the other coefficients and all the caste variables are individually and jointly statistically insignificant. The final specification in table 4 includes horoscope compatibility as an additional regressor. Once again, the pattern of results remains unchanged and horoscope compatibility has no bearing on domestic violence. Thus, on statistical grounds as well as on the basis of our knowledge of the context, caste and horoscope do not have a bearing on domestic violence.

(e) Simultaneous equation probit estimates

Despite the stability of the effect of dowry on violence it is possible that there are unobserved characteristics that affect both dowry and violence. As pointed out by Zhang and Chan (1999), one such factor may be the unobserved physical attractiveness of the bride.⁵² In such circumstances single equation probit estimates may be misleading. To account for the effect of such unobserved common traits, equation (1) and (2) are estimated simultaneously. Maximum likelihood estimates of the simultaneous equation model are presented in table 5, while two-stage conditional maximum likelihood estimates are presented in appendix A2.

Estimates of the dowry equation (2) are presented in the first column of the table while the remaining columns present marginal effects of the probability of domestic violence. The dowry equation is identified on the basis of the caste and

⁵²Although crude, we did collect information on the looks of the husband and the wife. Respondents were placed in three categories on the basis of the surveyors subjective judgment of whether a woman was good looking, average or homely. At the same time women were asked to categorise their husbands into the same three categories. These variables were included in the domestic violence specification. Results are in Appendix table A1, spec. 6. The inclusion of these variables has no effect on the estimates of the dowry variable.

horoscope variables. On the basis of our knowledge of the context we argued that caste and horoscope should play an important role in determining the amount of dowry but should not have a bearing on domestic violence. The estimates in table 5

Table 5
Dowry and the Probability of Experiencing Violence
Limited Information Maximum Likelihood Estimates
(Absolute value of T-statistic)

Variable	Dowry Spec. 1	Violence Marginal Effects Spec. 1	Dowry Spec. 2	Violence Marginal Effects Spec. 2 ^A
Land owned by household	.	0.011 (0.30)	.	0.004 (0.09)
Husband's education	0.982* (1.94)	-0.018 (1.12)	0.987* (1.94)	-0.017 (1.00)
Husband's age at marriage	0.038 (0.09)	-0.004 (0.41)	0.038 (0.09)	-0.003 (0.31)
Wife's education	1.268* (2.08)	0.034* (2.30)	1.26* (2.05)	0.032* (1.95)
Wife's age at marriage	0.355 (0.39)	0.035* (1.70)	0.354 (0.39)	0.038 (1.93)*
Wife's contribution to household income	.	-0.012 (0.08)	.	-0.020 (0.12)
Amount of dowry in gold <i>pavuns</i>	.	-0.008* (2.09)	.	-0.008* (1.89)
Number of living sons	.	-0.007 (0.11)	.	-0.013 (0.19)
Number of living daughters	.	0.044 (0.76)	.	0.058 (0.91)
Duration of Marriage	.	0.006 (1.23)	.	0.005 (0.97)
Father of wife was self-employed in agri.	6.815 (1.07)	0.123 (1.13)	6.794 (1.07)	0.129 (1.15)
Education of father of wife	1.492 (1.52)	0.004 (0.21)	1.492 (1.51)	0.004 (0.19)
Land owned by household before dowry was given	4.427* (2.67)	.	4.405* (2.65)	.
Horoscope compatibility	-10.19* (2.03)	.	-10.06* (1.95)	.
Caste - Vanniyar = 1	4.359 (0.83)	.	4.813 (0.92)	.
Caste – Pavallam Katti Gounder = 1	26.48* (2.99)	.	26.99* (3.09)	.
Caste – Kongu Vellala Gounder = 1	11.36 (0.98)	.	12.14 (1.04)	.
N	137	137	137	137
Wald exogeneity test on dowry (p-value)	.	0.259	.	0.326

Notes: The t-statistics are based on heteroscedasticity consistent standard errors. * indicates, statistically significant at, at least the 10 percent level.

^A Specification 2 includes all the variables in specification 1 and a set of occupational variables indicating whether the husband and wife are self-employed in agriculture, or employed in non-agricultural activities, whether their marriage was a love marriage, an indicator for the type of family (nuclear or joint) and whether a woman is married to a relative.

and appendix A1 display that both caste and dowry have a statistically significant and large effect on dowry. Horoscope compatibility is a key factor in determining marriages and appears to be associated with a ‘dowry-discount’.⁵³ On the other hand, the caste variables support the idea that higher castes pay a higher dowry. As the estimates show, the instruments are highly correlated with dowry. Additionally, tests suggested by Bound et al. (1995) to check the performance of the instruments indicate the high quality of the instruments. The adjusted R^2 on the dowry equation is 0.44. An F -test for excluding the instruments recorded a p -value of 0.0022 and the inclusion of the instruments in the dowry equation raised the adjusted R^2 from 0.39 to 0.44.⁵⁴ Additionally, there is no support for the inclusion of the caste and horoscope variables in the domestic violence equation. An F -test for excluding the instruments recorded a p -value of 0.83 and the inclusion of these variables in the domestic violence equation does not lead to substantial changes in the estimates (see table 4, specifications 4 and 5).

We now turn to the domestic violence equation. First, it should be noted that statistical tests are unable to reject the null hypothesis of exogeneity of the dowry variable (see table 5 and table A2). Thus, in principle, we could rely on the single-equation probit estimates. Nevertheless, the two domestic violence specifications presented in table 5 may be compared with the specifications reported in table 4, specifications 1 and 2. The overall story emerging from the simultaneous equation estimates is not very different from the single-equation estimates. The land owned by the household appears to have no bearing on the incidence of violence. Husband’s education works towards reducing violence but it is no longer precisely estimated. The effect of wife’s education is positive, statistically significant and is in the same range as discussed earlier. The effect of dowry is negative and statistically significant but it is much larger as compared to the single equation estimates. These estimates indicate that a ten *pavun* (1/3 of a standard deviation) increase in the amount of dowry

⁵³ The following case is illustrative. A well-off KV Gounder married his second daughter with absolutely no dowry, and with the groom’s family taking care of all marriage expenses. One of the reported reasons for this was that the groom had a ‘problem’ horoscope. The groom’s family had looked for a bride for a long time and when they finally found the ‘right’ bride, they insisted on an early marriage, with no demand for dowry. The groom offered to deposit Rs.100,000 in the bank necessary for their old age, which he and his daughter turned down.

⁵⁴ As an additional check on the quality of our instruments we used a linear probability model for the domestic violence equation and carried out a test for overidentifying restrictions. The test statistics recorded a p -value of 0.882, that is, we are unable to reject the null hypothesis of no correlation between some of the instruments and the error term in the domestic violence equation.

is associated with an eight percentage point reduction in violence. In other words, at the mean, a ten *pavun* increase in dowry would reduce violence by about 17-18 percent.

6 CONCLUDING REMARKS

On the basis of a micro-level study, this paper explored the link between dowry and inter-spousal violence. While there are several negative effects attributed to the practice of dowry, this paper highlighted one of the reasons why a large proportion of women remain in favour of dowry, namely, the role of dowry in producing security and status for them in the marital household. Our study showed that dowry is negatively linked to the level of inter-spousal violence experienced by women. We argued that in the study area larger dowries reduce marital violence through their effect on increasing the economic resources of the marital household, enhancing the social status of the groom and his family, and serving as a source of household wealth over which a woman enjoys relatively more control. In contrast to the effect of dowry, women's education tends to be associated with an increase in the level of violence. While dowry-obtained wealth confirms male image, it seems that an increase in women's income and educational prospects challenges a husband's authority, threatens prevailing gender norms and manifests itself in increased violence.

While the study focused on a single village it is likely that the findings are relevant to other parts of the district and possibly elsewhere in Tamil Nadu that have similar kinship arrangements including marriage and dowry practices. In particular, it may not be dowry *per se* that affords protection but the extent to which a woman owns and controls dowry as 'her' asset that has a bearing on her security. Hence, it is unlikely that a larger dowry will afford protection to women if women have little or no control over their dowries.

More broadly, the results presented in this paper suggest that policies which ensure equal inheritance and property rights for women and programs that help women build and retain control over assets may be necessary in order to reduce their vulnerability to violence. However, any strategy to enhance women's ownership and control over assets, whether through dowry, inheritance and/or employment will also

have to confront existing notions of masculinities and femininities that for instance require men to be violent and women to be subservient.

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APPENDICES

Table A1
Probability of Experiencing Violence – Probit Estimates
Additional Sensitivity Analysis
(Absolute value of T-statistic)

Variable	Marginal Effects Spec. 1 ^A	Marginal Effects Spec. 2	Marginal Effects Spec. 3	Marginal Effects Spec. 4	Marginal Effects Spec. 5	Marginal Effects Spec. 6
Land owned by household	-0.011 (0.41)	-0.011 (0.39)	-0.007 (0.25)	-0.010 (0.37)	-0.015 (0.51)	-0.015 (0.56)
Husband's education	-0.032* (1.86)	-0.032* (1.87)	-0.028 (1.63)	-0.033* (1.91)	-0.030* (1.70)	-0.035* (2.04)
Husband's age at marriage	-0.003 (0.28)	-0.003 (0.28)	-0.002 (0.23)	-0.004 (0.36)	-0.003 (0.29)	-0.001 (0.10)
Wife's education	0.031* (1.89)	0.031* (1.89)	0.032* (1.93)	0.032* (1.93)	0.032* (1.88)	0.034* (2.03)
Wife's age at marriage	0.042* (2.14)	0.042* (2.19)	0.042* (2.14)	0.040* (2.07)	0.038* (2.04)	0.038* (1.86)
Wife's contribution to household income	-0.045 (0.25)	-0.043 (0.23)	.	-0.052 (0.29)	-0.026 (0.14)	-0.024 (0.12)
Income of wife*100	.	.	-0.001 (0.07)	.	.	.
Income of rest of family*100	.	.	-0.002 (0.73)	.	.	.
Amount of dowry in gold <i>pavuns</i>	-0.004* (1.77)	-0.004* (1.76)	-0.004* (1.69)	-0.004* (1.77)	-0.004* (1.75)	-0.004* (1.81)
Number of living sons	-0.030 (0.40)	-0.028 (0.38)	-0.022 (0.29)	-0.032 (0.43)	-0.012 (0.16)	0.001 (0.02)
Number of living daughters	0.031 (0.42)	0.033 (0.45)	0.031 (0.41)	0.023 (0.32)	0.033 (0.45)	0.053 (0.75)
Duration of Marriage	0.005 (0.88)	0.005 (0.89)	0.005 (0.92)	0.005 (0.91)	0.004 (0.70)	0.004 (0.69)
Father of wife was self-employed in agri.	0.095 (0.87)	0.098 (0.89)	0.123 (1.08)	0.091 (0.82)	0.065 (0.57)	0.122 (1.11)
Education of father of wife	-0.004 (0.24)	-0.004 (0.27)	-0.002 (0.11)	-0.004 (0.26)	-0.005 (0.36)	-0.004 (0.30)
Husband drinks	0.394* (3.37)	0.392* (3.36)	0.388* (3.26)	0.384* (3.32)	.	0.394* (3.33)
Land owned by a woman	.	-0.072 (0.33)	.	.	.	-0.087 (0.42)
Additional "dowry-like demands" after marriage	.	.	.	0.091 (0.56)	0.066 (0.40)	.
Husband drinks excessively – every day	.	.	.	.	0.358* (1.72)	.
Husband drinks excessively – every week	.	.	.	.	0.407* (2.70)	.
Husband drinks excessively – social events	.	.	.	.	0.371* (2.37)	.
Husband is good looking	.	.	.	.	.	-0.278* (2.70)
Wife is good looking	.	.	.	.	.	0.145 (1.44)
<i>N</i>	138	138	138	138	138	138
Pseudo R ²	0.175	0.176	0.177	0.177	0.180	0.216

Notes: The t-statistics are based on heteroscedasticity consistent standard errors. * indicates, statistically significant at, at least the 10 percent level.

^A This is the same specification reported as spec. 3 in table 4. Additional regressors in all the specifications reported above include a set of occupational variables indicating whether the husband and wife are self-employed in agriculture, or employed in non-agricultural activities, whether their marriage was a love marriage, an indicator for the type of family (nuclear or joint) and whether a woman is married to a relative.

Table A2
Dowry and the Probability of Experiencing Violence
Two Stage Conditional Maximum Likelihood Estimates
(Absolute value of T-statistic)

Variable	Dowry	Violence Marginal Effects Spec.1	Violence Marginal Effects Spec.2 ^A
Land owned by household	.	0.007 (0.21)	0.000 (0.00)
Husband's education	1.004* (1.81)	-0.020 (1.33)	-0.018 (1.11)
Husband's age at marriage	0.032 (0.07)	-0.004 (0.40)	-0.003 (0.30)
Wife's education	1.226* (1.72)	0.036* (2.15)	0.033* (1.83)
Wife's age at marriage	0.356 (0.42)	0.038 (1.85)*	0.041 (2.05)*
Wife's contribution to household income	.	-0.014 (0.08)	-0.022 (0.12)
Amount of dowry in gold pavuns	.	-0.008* (1.81)	-0.008* (1.71)
Number of living sons	.	-0.008 (0.10)	-0.015 (0.20)
Number of living daughters	.	0.051 (0.82)	0.063 (0.95)
Duration of marriage	.	0.006 (1.23)	0.005 (0.96)
Father of wife was self- employed in agri.	6.681 (1.26)	0.127 (1.09)	0.132 (1.11)
Education of father of wife	1.469* (1.98)	0.003 (0.20)	0.003 (0.17)
Land owned by household before dowry was given	4.286* (3.79)	.	.
Horoscope compatibility	-9.81* (1.76)	.	.
Caste – Vanniyar = 1	5.723 (0.69)	.	.
Caste – Pavallam Katti Gounder = 1	28.36* (2.94)	.	.
Caste – Kongu Vellala Gounder = 1	15.67 (1.32)	.	.
Residual	.	0.006 (1.14)	0.005 (1.01)
<i>N</i>	137	137	137
Adj. R ² /Pseudo R ²	0.446	0.112	0.121

Notes: The t-statistics are based on heteroscedasticity consistent standard errors. * indicates, statistically significant at, at least the 10 percent level.

^A Specification 2 includes all the variables in specification 1 and a set of occupational variables indicating whether the husband and wife are self-employed in agriculture, or employed in non-agricultural activities, whether their marriage was a love marriage, an indicator for the type of family (nuclear or joint) and whether a woman is married to a relative.