

Dowry and Women's Status in Rural Pakistan[†]

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Abstract

Dowry is a common custom observed in South Asian countries. It has been a target of an opposition movement as if it was a root cause of women's mistreatment, for example, sex-selective abortion, girls' malnutrition, female infanticide, and domestic homicide often called "dowry murder." Despite its alleged evil consequences and its legal ban or restriction, the custom has been extended, and recently, the amount of dowry seems to be increasing. However, there is little empirical evidence of the effects of dowry, and no consensus has been reached on whether dowry should be banned. This study empirically investigates the effects of dowry on women's status in rural Pakistan. Results show that a higher dowry amount enhances women's decision-making power and decreases the likelihood of women's exposure to fatal domestic violence in the marital household. This implies that a universal ban on dowries does not necessarily improve women's welfare.

Keywords: Dowry, Marriage, Intrahousehold decision making, Pakistan

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1 Introduction

Dowry, usually described as a transfer from the bride's parents to the groom and his parents at the time of marriage,¹ is a common practice in South Asian countries. In the Indian subcontinent, dowry had been traditionally practiced only by Hindu higher castes in northern India. Traditional dowry has been interpreted as *stridhan* (i.e., the gifts given to a woman by her parents). In a patrilineal society like India, women are excluded from directly inheriting parental property. In Hindu communities, even after the amendment of the Hindu Succession Act in 2005, which gives sons and daughters equal rights in inheriting agricultural land, actual implementation is known to be limited because of social and cultural norms (UN Women and Landesa 2012).² Thus, dowry plays the role of a pre-mortem inheritance, transferring a woman's share of parental property to her marital family. As long as the dowry consists of voluntary gifts from the bride's parents, dowry itself may serve to protect the bride, rather than become the evil as is often assumed to be.

Nowadays, dowry is observed among those who have previously been unfamiliar with the practice and even among those who have traditionally practiced bride prices (the transfer from the groom's parents to the bride's parents at the time of marriage), including lower castes, those in the eastern tribal area, and non-Hindus (see for example, Palriwala 2009, p. 153). It is said, however, that the modern dowry now prevalent in South Asian countries should not be regarded the same as a traditional dowry (Srinivas 1994). Modern dowries are more lavish than the original modest form and may be expected or even demanded by the groom and his family, often removing the practice from pre-mortem inheritance. Billig (1992) argues that modern dowry should be called "groom price" rather than "dowry." Technically, however, distinguishing groom price from traditional dowry is often difficult because even though all these gifts are initially given to the bride, she brings them to the groom's place in patrilocal society. If property rights are not sufficiently protected in practice, the actual ownership of these gifts is unclear and may depend on the family. Thus, in this study, the term dowry is used to describe modern as well as traditional dowry, as commonly used by NGOs, activists, the media, and researchers. Dowry thus includes gifts and valuable assets both to the bride and to the groom and his parents. A comprehensive use of dowry allows its changing natures, which this study assumes.

In India, dowry is often sensationally reported by media and is argued or suggested by academics as a cause of domestic violence and homicide called "dowry murder" (Stone and James 1995; Rudd

¹Dowry has been defined in various ways in the literature, depending on how one interprets the nature of dowry. The two main interpretations of dowry are (1) the property taken by the bride to her new home or given to her during the marriage rituals and (2) the property expected or even demanded by the husband and his family. The latter is what the anti-dowry movement addresses and Indian anti-dowry law prohibits (Menski 1998a, pp. 41–42).

²Similarly in Muslim communities, although the Qur'an and its codification, the Muslim Personal Law Application Act of 1937, laid down that women inherit half the share of their brothers, in practice, women are either denied or renounce such share (Menski 1998b, p.226).

2001; Bloch and Rao 2002).³ It is also considered the root cause of unequal treatment of girls within the family, represented by sex-selective abortion, female infanticide, malnutrition of girls, under-education of girls, and so on. The notable phenomenon of "missing women," referring to the artificially low female-to-male ratios in South Asia, can be associated with the practice of dowry (Sen 1990; Croll 2000; Anderson and Ray 2010). Based on the belief that dowry is an evil custom, the anti-dowry movement began at the end of the 1970s, led by female activists and NGOs. How to deal with dowry issues has also become politically important.⁴ Dowry has been labeled as an anti-social practice and is banned or restricted by laws: the Dowry Prohibition Act of 1961 and its amendments in India; the Dowry Prohibition Act of 1980 and its amendments in Bangladesh; the Dowry and Bridal Gifts (Restriction) Act of 1976 and the Marriages (Prohibition of Wasteful Expenses) Act of 1997 in Pakistan. Nevertheless, no legal, political, or social action seems effective in discouraging the practice of dowry; in fact, the practice recently seems to have further intensified and extended.

Although dowry is claimed to be an abominable practice, its real effects are not well known. There are a massive amount of case studies on dowry, but many seem little more than a set of anecdotes and narratives, often focusing on the negative aspects of dowry, including worst cases such as dowry murder. Dowry may potentially lead to maltreatment of women and eventually to dowry murder, but such cases can be exceptional. There is an argument that most deaths recorded as dowry murder in India were unrelated to dowry (Kishwar 1988, 1989; Narayan 1997; Leslie 1998; Oldenburg 2002). Furthermore, no data exist on general murder cases from domestic violence, while dowry murder is surprisingly visible, with tabulated data assembled by the National Crimes Bureau of the Government of India. Any kind of domestic homicide may simply be recorded as dowry murder. When a woman dies unnaturally, her father or brother usually drafts the complaint and narrates it to the authorities. The family members tend to highlight dowry demands and understate other problems because the anti-dowry movement is now so popular in India, and dowry demands will be unequivocally condemned by the public, including the police (Kishwar 1989). The amendment of the Dowry Prohibition Act in 1985 places the burden of proof on the husband's side, and it strategically makes sense for the parents of abused or dead wives to file a dowry retrieval claim. In the Indian judicial system, domestic violence is recognized only if it is linked to dowry harassment (Oldenburg 2002). In sum, there is little rigorous empirical evidence on

³"Dowry murder" is officially defined as "any instance where the death of a woman is caused by any burns or bodily injury or occurs otherwise than under normal circumstances within 7 years of her marriage, and it is shown that soon before her death she was subjected to cruelty or harassment by her husband or any relative of her husband for, or in connection with, any demand for dowry" (Narayan 1997, p. 98). "Dowry murder" or "dowry deaths" occur predominantly among the urban middle class in the Hindu community in Northwest India (Stone and James 1995). Some criticize the terminology "dowry murder" because it is likely to include any kind of homicide presumably not related to dowry (see Narayan 1997).

⁴For example, the left-wing parties attach political stigma to marriage with dowry (Palriwala 2009).

the effects of dowry, mainly because of the scarce or inadequate data needed to conduct empirical analysis.

It seems that all the blame and movement against dowry practice understate people's incentives. The fact that dowry is widely practiced by people all over South Asia despite its legal prohibition or restriction suggests that there are some actual reasons for people to continue doing so. According to Kishwar, the founding editor (in 1979) of the Indian feminist journal *Manushi*, who previously campaigned for boycotting dowry, but later admitted that boycotting dowry does not benefit women, "most young women ... are not willing to give up dowry" (Kishwar 1988, p. 4). She further states, "many women ... even perceived dowry as being of some limited benefit to them, given their dependent situation, lack of fundamental rights, overall disinheritance, and lack of control over assets" (Kishwar 1989, p. 3). This statement suggests that the seemingly evil practice may not be harmful, but actually even beneficial, given certain circumstances. In these cases, a universal ban on dowry may not enhance women's welfare.

This study's objective is to empirically explore the effects of dowry on women's status in the marital family. The study utilizes the Pakistan Rural Household Survey (PRHS) 2004 undertaken by World Bank/Pakistan Institute of Development Economics (PIDE). While dowry violence is sensationally broadcast in India, little is known about the practice of dowry in Pakistan. In fact, most existing empirical studies on dowry have been conducted in India.⁵ To my knowledge, there is only one empirical study on dowry payments in Pakistan (Anderson 2000, 2004). Since the custom of dowry is not homogeneous and may alter its nature depending on the level of development across time and regions, we must study the effects of dowry in designated areas where the anti-dowry law applies.⁶ Empirical analysis reveals that in rural Pakistan, higher dowry amounts are associated with the increased status of women in the marital family. This implies that dowry potentially increases women's welfare, and that universally prohibiting dowry practice may not be a good policy.

This study contributes to the literature on dowry in two major ways. First, it provides empirical evidence on the effect of dowry, while overall empirical evidence remains scarce in dowry studies. In particular, the effect of dowry in the context of rural Pakistan is yet to be investigated. Second, the study provides a foundation of policy debate concerning the custom of dowry in Pakistan, where dowry is not yet legally banned and is a hot policy topic because of its alleged negative consequences. In order to formulate effective policy for enhancing women's welfare, the effect of dowry should be examined by using the dataset in the policy's designated area. What is observed in India (or different regions of India) may not be applicable in the context of rural Pakistan,

⁵See Esteve-Volart (2004) and Ambrus et al. (2010) for investigations on dowry in Bangladesh.

⁶The unit of designated areas where the specific law applies can be a country or a state/province.

given cultural and socioeconomic differences. The remainder of the paper is constructed as follows. Section 2 reviews the main economic theories of dowry and the limited empirical studies. Section 3 describes the features of the marital practice and dowry observed in rural Pakistan. Section 4 describes the dataset, i.e., PRHS, used in this study. Section 5 describes the empirical strategy, i.e., how to deal with the endogeneity of dowry. Section 6 presents the empirical results. Section 7 concludes the study.

2 Theories of dowry and their empirical evidence

There seem to be two major theories explaining the nature of dowry. One views dowry as the price determined in the marriage market (the price model). According to Becker (1991), the person who gains in the marriage (i.e., one's actual marital income is more than the equilibrium income) pays the price at the time of marriage. The price model is closely related to the explanation that dowry serves as the bride's parents' compensation to the groom and his parents because women usually do not participate in market labor and do not financially contribute to family income in South Asian countries (Boserup 2007). Note that what only matters is people's perception about women's contribution, but not how they actually contribute to the household without remuneration (e.g., household chores, child care). According to this model, a lower quality of the bride (groom) increases (decreases) the amount of dowry. The quality of the bride and the groom can be measured by any attribute considered in the marriage market, for example, age at marriage, income earning ability, education level, physical attractiveness, whether it is her (his) first marriage, and the families' socioeconomic status. The measurement of quality can vary across different marriage markets.⁷ In addition, according to the price model, the competitive situation of the marriage market matters so that the oversupply of brides (grooms) increases (decreases) the amount of dowry. Rao (1993) explains the phenomenon of "dowry inflation" as the "marriage squeeze," in which the supply of women of marriageable age is less than that of men in a society with a rapidly growing population. However, no consensus has been achieved on the theory of the marriage squeeze or on the phenomenon of dowry inflation itself.⁸

⁷It is often observed that the level of education of the bride or her income earning ability is not valued in the marriage market in India, while the income earning ability of the groom does matter in determining the amount of dowry (Billig 1992; Phillips 2003; Srinivasan 2005). On the other hand, some studies show that working women are valued in the marriage market (e.g., the garment sector in Bangladesh (Kabeer 2000), the skilled jobs in Kerala (Kodoth 2008)). Besides, the measure of quality can change across time in the same marriage market. For example, women's ability to produce children was valued in a rural agrarian economy, but is no longer advantageous in the urban settings of modern India (Stone and James 1995).

⁸Anderson (2003, 2007b) casts doubt on the "marriage squeeze" model in the dynamic setting. She proposes an alternative model to explain dowry inflation (Anderson 2003, 2007a). According to her model, the amount of dowries may be an increasing trend if relatively homogeneous brides (e.g., housewives) compete for grooms who have more diversified income earning opportunities than before, as modernization occurs. In this case, it will be

Another view of dowry is as a pre-mortem bequest transferred from the bride's parents to the bride (the bequest model). According to this model, the common definition of dowry itself should be modified because it is not a transfer from the bride's parents to the groom and his parents. According to Becker (1991), daughters who have no property rights and do not inherit their parents' assets can be given dowries at the time of marriage. The key to understanding the bequest model is patrilocality and poor property rights (Botticini and Siow 2003; Arunachalam and Logan 2006). South Asian countries are mostly characterized by patrilineal and patrilocal society. According to the Hindu Succession Act amended in 2005, daughters have the right to inherit their parents' land equal to that of their brothers. In Muslim communities, daughters have inheritance rights of at least half of their brothers' rights. In practice, however, they do not claim and inherit their fathers' lands despite those legal provisions. Thus, parents provide their daughters with dowry so that after marriage, they can maintain the same standard of living as in their natal family.

These two theories are not exclusive to each other. Originally, dowry was practiced only by the Hindu higher caste in northern India, and was interpreted as a bequest from the bride's parents to their daughter. Tambiah (1973) stated, "dowry (in India) connotes female property or female right to property which is transferred at a woman's marriage as a sort of pre-mortem inheritance" (p. 64). It was practiced by wealthier families who could afford to do so. Nowadays, the practice has become prevalent all over South Asia, not only in the Hindu community, but in Muslim, Christian, and tribal communities. Although dowry originally had an explicit bequest nature, another part of its nature also inherently contained a price competitively determined in the marriage market. Dowry was closely related to the practice of hypergamy in north India; this indicates that the bride marries into a family with higher status than her natal family (Srinivas 1994). Hypergamy may intrinsically lead to competition among brides in the marriage market because every bride looking for a groom in a higher-status family than her own necessarily generates an undersupply of grooms in families with acceptable status. With the modernization that accelerates nuclear families and weakens the bonds between two families upon marriage, the competition among brides to look for a groom in a higher-status family may be replaced by competition to look for a better quality groom. The latter competition may be more intense because modernization increases the heterogeneity among grooms in terms of their income earning ability, while brides are more or less homogeneous because they usually stay at home in South Asia (Anderson 2003, 2007a).

The actual effects of dowry on women's welfare may be closely related to which nature of dowry—price or bequest—is manifested strongly. If the nature of price is more strongly manifested, dowry may have negative effects on women's welfare. Daughters become no more than a burden

the groom's attributes rather than the bride's attributes that determine the dowry amount. As for evidence against dowry inflation, see Edlund (2000) and Arunachalam and Logan (2008).

for the family, while sons, especially higher quality sons, can be assets for the family. This leads to intensified parental son preference and incentive for human capital investment in sons. The possible consequences may be female infanticide, girls' malnutrition, and in the extreme case, dowry murder by a groom and his parents dissatisfied with the price brought by the bride. On the other hand, if the nature of bequest is more strongly manifested, dowry is not necessarily harmful to women and even increases women's welfare in the marital family by, say, enhancing women's bargaining position. In a society where women do not inherit parental land in practice, dowry may be the only asset that women can take into marriage and the only source of protection for them after marriage. If dowry in fact increases women's welfare, policies should not universally ban the practice of dowry without any actual improvement of women's inheritance rights.

Dowry theoretically has two (or potentially more) non-exclusive natures, and which nature more strongly manifests is an empirical question. This may depend on the level of development and can differ across regions in South Asia. There is, however, little empirical evidence on both the natures and effects of dowry. One difficulty is the lack of or poor quality of data on dowries. Dowry usually consists of jewelry, clothing, furniture, household items, livestock, cash, and so on; thus, assessing the dowry value at the time of marriage is very difficult. Besides, dowry is an illegal social practice in India and Bangladesh; therefore, it is often reported that people are unwilling to reveal the correct dowry amount. Another difficulty in conducting empirical studies on dowry is the endogeneity problem. The amount of dowries may affect the variables that are expected to affect the amount of dowries in the future. For example, according to the price model, the groom's higher education level increases the amount of dowry. However, the groom's parents may increase human capital investment in their son to increase the future amount of dowry they receive, similar to the endogeneity argument in the relationship between the level of education and labor market outcomes. Behrman et al. (1999) and Mbiti (2008) are among the few studies that support the price model, while Behrman et al. (1995) and Deolalikar and Rao (1998) could not find any evidence for the price model.⁹ On the other hand, a few empirical studies have provided some evidence of the bequest model (Zhand and Chan 1999; Brown 2009) by showing a positive relationship between the amount of dowry and women's bargaining position within the household.¹⁰

⁹Although both Behrman et al. (1999) and Mbiti (2008) empirically support the price model, the evidence seems very weak. The evidence shown by Behrman et al. (1999) was based on approximately 250 households in only 9 districts, and above all, their study did not consider reverse causality. Mbiti (2008) dealt with the problem of reverse causality, but the impacts on dowries are barely significant at the 10% level. Though Behrman et al. (1995) showed that men's unobserved human capital results in greater dowries, supporting the price model, their results are based on a small number of observations (less than 100) and are mixed.

¹⁰Neither Zhang and Chan (1999) nor Brown (2009) used South Asian data. Although endogeneity was not treated, Jejeebhoy (2000) showed that the size of dowries positively affects the women's decision-making power in the northern part of India (but not in the southern). Bloch and Rao (2002) and Srinivasan and Bedi (2007) showed that women with higher dowries are less likely to suffer from domestic violence by their husbands. Their results imply that a higher dowry amount increases women's bargaining position in the conjugal family.

It is not surprising to have mixed empirical results, given the non-exclusive natures of the two models. Because dowry can change across time and regions, it seems logical that no consensus exists on the nature of dowry on the basis of case studies that usually focus on a few specific villages or female narratives. Consistent with the theoretical implications, the bequest nature of dowry seems stronger in rural areas where income-earning opportunities are limited to agriculture, but the price nature is stronger in urban areas where income-earning opportunities are diverse (Anderson 2004; Arunachalam and Logan 2006). Therefore, one should be careful in reaching any policy implications based on evidence in regions/countries that differ culturally, socially, and economically. To obtain policy implications in a specific country or state/province, it seems important to empirically analyze the nature and the actual effects of dowry using a dataset that covers the policy's designated area.

3 Features of dowry and marriage practice in rural Pakistan

To underscore the importance of investigating dowry practice in rural Pakistan, this section describes features of marital practice, as distinguished from those in India where the related study is concentrated and may possibly alter the dowry effect. Before addressing features in detail, note that love marriage is quite unimaginable, and arranged marriage is the norm in rural Pakistan. The following marital practices, except for the Muslim marriage contract itself, may all disappear without the main premise of arranged marriage.

Indian Muslims, including Pakistanis of whom 97% are Muslims, commonly use the Arabic word *jahez* for dowry. According to the Islamists, *jahez* can be classified into two categories: one comprises some essential items such as clothing and utensils for the bride to begin marital life; the other comprises lavish goods, cash, and ceremonies (Waheed 2009). One can argue that the former can be considered pre-mortem inheritance, and the latter equivalent to modern dowry, but the distinction is often unclear as many people interchangeably use the two. It is often said that, in the Indian subcontinent, dowry narrowly described as a transfer from the bride's family to the groom and his family was not traditionally observed among Muslims. The argument can be applied to Pathans and Balochis who reside in two (out of four) less populous provinces in Pakistan, namely Khyber Pakhtunkhwa and Balochistan, where the practice of bride price is the norm. However, this may not be precisely the case with the two populous provinces in eastern Pakistan, namely Sindh and Punjab. This is because the practice of *jahez* is old, and the distinction between the trousseau and the gifts to the groom and his family is often difficult, given that the trousseau is eventually brought to the groom's place in patrilocal society and commonly used by both bride and groom. In these provinces, at least in Punjab, the practice of dowry has been similarly common among rich families as in Indian Punjab, since the late 19th and early 20th centuries (Waheed

2009).

For Muslims, marriage is a contract, and a marriage is not officially complete without a contract. On the day of marriage (*barat*) or on a separate day, both marital parties sign the marriage contract issued by the union council. *Jahez* is not required to conclude the marriage contract, while *mehr* (bride price) is required. *Mehr* consists of two parts: one is *moajel*, the immediate transfer at the time of marriage from the groom's to the bride's side; the other is *non-moajel*, a deferred transfer promised for payment at the time of divorce, and thus for most cases, never paid. For most Pakistanis observing the practice of dowry, especially for Punjabis, *mehr* nowadays becomes merely symbolic in establishing the marriage. Thus, a negligible amount for *mehr* is written into the marriage contract. The major reason for this transformation seems to be shame felt about the perception of *mehr*, which implies the sale of a daughter by a father to a husband and evokes an image of human trafficking.¹¹

The endogamous marriage is very common among rural Pakistanis. The most preferred pattern of marriage is between first cousins. Other than marriage with close blood relatives, village endogamy, in which the bride and groom are from the same natal village and they have known each other since childhood, is also common. Endogamy is common in southern India, but is very rare among northern Indian people, to whom Pakistanis are socio-culturally closer. Endogamy may seem a practice of backward societies, depriving sons and daughters of choice in their marriage partner. At the same time, it does not isolate women from their natal families after marriage in a patrilocal society. The close tie between the marital and natal families is likely to protect women from mistreatment and even to enhance their status in the marital household.¹²

Another marital practice closely related to endogamy and distinct in Pakistan is the practice of *watta satta* (bride exchange, or literally, "give-take"). Non-Muslim Punjabis and other northern Indians avoid exchange marriages (Oldenburg 2002). *Watta satta* usually involves a joint marriage in which a brother and a sister of one family marry a sister and a brother of another family. The composition of groom and bride from one family is not necessarily a brother-sister pair, but sometimes an uncle-niece pair. *Watta satta* may be more frequently observed among relatively poor families because bride exchange can be a way to find a groom without net marital expense (Eglar 1960). *Watta satta* also seems an outdated practice and has even become a target of an opposition campaign, as in the case of dowry. According to the anti-*watta satta* campaign, the practice usurps women's opinion in the choice of a marriage partner. *Watta satta*, however, can be beneficial to women in certain contexts. It has been empirically shown that the likelihood of marital

¹¹Such perception is confirmed by the author's field interviews in the Punjabi villages. A similar perception is also pointed out by Eglar (1960) and more recently by Oldenburg (2002).

¹²There seems to be no consensus on the positive relationship between higher women's status and endogamy with mixed evidence (see Dyson and Moore 1983; Jejeebhoy and Sathar 2001; Rahman and Rao 2004).

discord (i.e., marital estrangement, domestic abuse, and major depressive episodes) is substantially lower in *watta satta* marriages because *watta satta* is accompanied by mutual retaliatory threats between two families (Jacoby and Mansuri 2010).

4 Data

The present study utilizes the PRHS 2004, which was undertaken by the World Bank and the PIDE. The PRHS was conducted in two rounds, in 2001 and in 2004. The first round collected only limited information concerning dowry, such as whether dowry was practiced. Therefore, only the second round, i.e., the PRHS 2004, is used in this study. For empirically studying dowry payments, a panel dataset is not useful because dowry is paid only once for any individual who marries once; at least logically, there should not be any variation in the amount of dowry across rounds. The households are randomly sampled from 94 villages in the two most populous provinces in Pakistan, namely Punjab and Sindh. The sample does not cover the other two provinces, Khyber Pakhtunkhwa and Balochistan, but these two provinces observe bride price rather than dowry.¹³ Therefore, the sample can be safely regarded as representative of the provinces that practice dowry in rural Pakistan.

The PRHS 2004 contains detailed information related to dowry, such as the value of cash, gold/silver, livestock, and other goods paid by the bride's parents at the time of marriage. Similarly, it includes information on *bari*, the gifts (typically jewelry and clothing) offered by the groom's family to the bride and her family in the wedding ceremony; for this study, we can consider *bari* as bride price. Detailed information on other marital practices—women's status in the marital household as well as general socioeconomic conditions—is also available. The sample in this study consists of 1,206 married women, aged 15–40 years, who provided information on both amounts of dowry and *bari*. Table 1 presents summary statistics of the sample. The average age of the women is 28, and that of the men is 34.5. The average schooling for women is 1 year and for men is 4 years. Women's age at marriage is 17.5. The average size of land held by the women's natal family is 5.6 acres, and that of their husbands' family is 4.5 acres. Approximately half the women are in *watta satta* marriage. *Watta satta* itself is not necessarily associated with either more or less dowry, but it is closely related to dowry in the sense that the levels of dowry are usually equivalent in two families because of the reciprocal nature of *watta satta*. The average value of dowry measured in 2004 Pakistan Rupees is Rs. 49,178, and that of *bari* (bride price) is Rs. 26,494.

¹³Practically, it is difficult to conduct any survey in these provinces, Khyber Pakhtunkhwa and Balochistan, because of current insecure law and order conditions. It would be an interesting topic to study marital transfer in these provinces in the future.

The outcome variables to measure women's welfare in this paper are (1) decision-making power and (2) domestic violence. Decision-making modules of the PRHS ask to what extent the woman is involved in household decision making on 12 specific questions (Figure 1). The questions vary from one related to child care (e.g., whether the woman is involved in decision making on children's schooling) to one related to work participation (e.g., whether the woman should work for an income). The extent of involvement in decision making is rated on a scale of 1 (= never being involved in decision making) to 5 (= always). It is plausible that the levels of involvement concerning these 12 decision-making issues are correlated, and a few latent variables may explain women's decision-making power. Factor analysis¹⁴ is pursued to extract these "latent factors" to explain the decision-making power of the woman within the household. The factor analysis generates two factors with eigenvalues higher than one. When allowing the correlation across factors, these two factors are highly correlated with a coefficient of 0.84. Thus, the only factor that best explains women's decision-making power is retained as a measurement variable.¹⁵ Since examining the effect on this factor does not provide the magnitude of decision-making power, another index is based on 12 decision-making variables as follows. First a binary variable is made for each decision-making variable so that each has the value 1 when the woman has been involved in the individual decision-making issue at least to some extent. Second, the index variable is constructed by adding these 12 binary variables. This new index variable is another outcome variable, taking the value 0 (indicating no decision-making power) to 12 (indicating the fullest decision-making power).

Women's health modules include two questions on whether they have suffered from domestic violence: one is whether the woman has ever been pushed, hit, kicked, or slapped by her husband; the other is whether she has ever been choked, burned, or attacked with weapon. The indicator (binary) variables whether the woman responds "yes" to these questions are constructed and included in the analysis.

5 Empirical strategy

One reason the empirical analysis of dowry is difficult is the endogeneity problem. Although a woman's decision-making power is realized after the marriage and, of course, after the marital transfer, her parents may decide the amount of dowry based on the expected treatment of their daughter in the marital household. In this case, there may be reverse causality between dowry

¹⁴Factor analysis is a statistical method that summarizes the covariability among observed measures using low-dimensional latent variables. The method has been often used in psychometrics and accounts for measurement error. (For an example of its application, see Heckman et al. 2013.)

¹⁵Factor analysis not allowing correlations across factors (i.e., factors are orthogonal to each other), as well as the principal component analysis, was also conducted. The use of other decision-making variables generated by these alternative methods does not substantially change the main estimation outcomes.

and women’s status. Besides, unobservable household characteristics that determine the amount of dowry may also affect women’s decision-making power.

The endogeneity problem is really challenging because finding good candidates for instruments of dowry is usually very difficult. This study utilizes “ $-i$ method” to construct an instrument for dowries, after the existing study (Aizer 2010; Vogl 2013), as follows.

$$\overline{D}_{ij} = \frac{1}{n-1} \sum_k D_{k-i},$$

where \overline{D}_{ij} is the average amount of dowry (or bride price) as reported by women in the same village j except for respondent i . By construction, \overline{D}_{ij} is not correlated with the respondent’s individual household’s unobserved characteristics, while it may capture the marriage market situation in the village.

It is usually expected that the amount of dowry brought by the woman tends to be higher when the village-level dowry is higher, reflecting the marriage market situation in the village. The correlation between the individual dowry and the village average dowry, and that between the individual bride price and the village average bride price are 0.42 and 0.35, respectively. When the village fixed effect is not controlled, \overline{D}_{ij} , in fact, has a significantly positive effect on D_{ij} (Table 2). The village characteristics that explain the village-level dowry seem to be mostly captured by the village fixed effect. When the village fixed effect is controlled, \overline{D}_{ij} has a significantly negative effect on D_{ij} as shown in Table 2. This implies that the factors affecting village-level average dowry independent of village characteristics are negatively correlated with the individual amount of dowry D_{ij} . These factors include the fact that a few wealthy women in the village drive up \overline{D}_{ij} . The existence of a few wealthy households implies unequal socioeconomic structure and denial of upward marital mobility within the village, and may lower the amount of dowries in other village households. Thus, it is not surprising to obtain a significantly negative effect of \overline{D}_{ij} on D_{ij} when the village fixed effect is controlled. A similar argument applies to bride price.

6 Estimation results

6.1 The main results

The estimation equation is represented by

$$Y_{ij} = \alpha + \beta_D D_{ij} + \beta_B B_{ij} + \gamma' \mathbf{X}_{ij} + v_j + \epsilon_{ij},$$

where D_{ij} (B_{ij}) is the amount of dowry (bride price) of the woman i in the village j measured in 2004 Pakistan Rupees. \mathbf{X}_{ij} is a set of covariates of the household i , namely woman's age at marriage, the woman and her husband's age and education level, their respective parents' wealth measured by landholdings, and the indicator variable whether the marriage was *watta satta*. The village fixed effects, v_j , are controlled. The outcome variable, Y_{ij} , is either the woman's decision-making power or her exposure to domestic violence in the marital household.

The estimated effects of dowry and bride price on decision making are presented in Table 3. Columns (1) and (2) are the OLS and 2SLS estimates, respectively, with the latent variable generated by factor analysis as a measure of women's decision-making power. Columns (3) and (4) are corresponding estimates with the index variable having the value 0 (never being involved in all 12 decision-making items) to 12 (being involved in all 12 decision-making items). All the estimates show a significantly positive effect of the amount of dowry on women's decision-making power. One standard deviation from the mean of dowry (i.e., 6.84) increases the index by 0.2, which corresponds to increase in the probability of having full decision-making power by 2% points. There is some (although weak) evidence of positive effects of women's education on women's decision-making power, in accordance with our expectation. Some negative effects of being in *watta satta* marriage on women's decision making could also be claimed as expected. It is not difficult to imagine that women in *watta satta* marriage are restricted in their behavior because of its reciprocal or even retaliatory nature.¹⁶ One may argue that the positive effects of dowry simply reflect affluence of households, and women in better-off families are usually better treated and thus have greater decision-making power. If this argument makes sense, however, the effect of *bari* is stronger and significant because it directly reflects the wealth of the groom's, and thus the marital household; on the contrary it turns out to be weaker and insignificant. Overall, a higher amount of dowry seems to enhance women's decision-making power independent of household wealth.

The linear probability model is used to estimate the effects of dowry on the probability of being exposed to domestic violence (Table 4). Columns (1) and (2) are the OLS and 2SLS estimates, respectively, of the effects of the amount of dowry on the probability of experiencing minor domestic violence such as being pushed, hit, kicked, or slapped. Columns (3) and (4) are corresponding estimates of the effects on the probability of suffering fatal domestic violence such as being choked, burned, or attacked with a weapon. Columns (1) and (2) indicate that the incidence of minor domestic violence is likely to occur in accordance with our expectation, i.e., domestic violence is a typical phenomenon in poor, uneducated families. Although women's literacy has an unexpected sign, women and their husbands' education has significantly negative effects on the incidence of

¹⁶Jacoby and Mansuri (2010) focused on the retaliatory nature of *watta satta* arrangement and showed that it averts more marital strife.

domestic violence. Controlling for the husband's age, older women are less likely to be victims of domestic violence. This fits the common belief that a wide age gap between the groom and the bride, or in an extreme case, a child marriage in which an older man marries a very young girl, leads to worse treatment of the bride in the marital family.¹⁷ Moreover, women who were offered a higher amount of *bari* by the groom's family are less likely to receive minor domestic violence by their husbands, and this may also reflect the fact that domestic violence typically occurs in poor families. On the other hand, fatal domestic violence seems to occur via a different mechanism from minor domestic violence. The difference seems understandable since fatal violence is by no means acceptable, while minor violence by husbands seems occasionally accepted in South Asian society.¹⁸ A higher amount of dowry significantly reduces the incidence of fatal domestic violence, but the amount of *bari* does not have any significant effect on it. One standard deviation from the mean of dowry decreases the incidence of fatal domestic violence by 1% point, which should not be neglected, given its severity.

6.2 The alternative explanation

The possibility of an alternative explanation is checked by replacing some of the explanatory variables with alternatives. Because of arranged marriage, the positive assortative mating, especially the similarity of the socioeconomic status between the bride and the groom, is strongly maintained in rural Pakistan. On the other hand, age difference seems not to be a nuisance as long as the groom is older than the bride. It is possible that age, as well as education difference, affects the level of woman's decision making since a greater difference may weaken her status in the marital household. Including age as well as education difference (replacing the husband's age and education) does not substantially affect the main outcomes, and the coefficients of these variables are not significant.

One may argue that years since marriage are important since the effect of dowry may be greater soon after the marriage. Including years since marriage and its interaction term with the amount of dowry (replacing woman's age at marriage) does not alter the main estimation results. Although this inclusion does not add any other significant result, the coefficient of dowry becomes larger and that of the interaction term is negative; this implies that the dowry effect becomes smaller with passage of years since marriage.

Muslim marriage officially requires *mehr* (bride price), but not dowry, and its amount may also affect the women's status in the marital household. Most *mehr* is *non-moajel*, which means

¹⁷For an overview of the association between early female marriage age and poor social and physical outcomes of young women in developing countries, see Jensen and Thornton (2003).

¹⁸Women in South Asia, especially those in northern India, seem to relatively justify the idea that a woman can be beaten by her husband when she does not work properly at home. (For example, see Jejeebhoy and Sathar 2001.)

that its payment is deferred, or never happens unless divorce occurs. Since the amount of *mehr* is written into the marriage contract and is binding, it may enhance women's status in the marital household because their husbands cannot obtain a no-fault divorce without incurring substantial costs corresponding to the amount of *mehr*.¹⁹ As discussed in section 3, however, *mehr* becomes a mere token in rural Pakistan (at least in Punjab and Sindh), and therefore, it may not be a matter of importance in determining women's status. The women that responded a positive amount of *mehr* written in the marriage contract was only 11.8% in the sample. As predicted, inclusion of *mehr* does not affect the main estimation results, and its coefficient shows no statistical significance.²⁰

7 Conclusion

Dowry has been demonized as a root cause of women's unfavorable treatment in South Asian countries and is universally banned or restricted there, despite little empirical evidence of its evil. Although dowry murder is possible, we should not blame dowry alone on the basis of mere anecdotal evidence, as if it was a cause of all domestic homicides in South Asia. The fact that the Dowry Prohibition Act loses substance, because of loopholes across regions, suggests good reasons for continuing the practice of dowry. If dowry has such a negative or even detrimental effect on women's welfare, why would people not relinquish dowry, given that most parents have daughters? It seems more natural to admit that people recognize positive aspects of dowry and so maintain its practice.

The estimation results in this paper show that a higher amount of dowry increases women's decision-making power in the marital household in rural Pakistan. The effect seems to be robust with respect to measures of women's decision-making power. In addition, women with higher dowries are less likely to fall victim to fatal domestic violence. These results suggest that dowry enhances women's welfare in the marital household in rural Pakistan.

Given this empirical evidence, should we keep the practice of dowry without reservation? Not necessarily. On one hand, it is plausible that banning or restricting dowry may work against women's interest, given the current circumstances that, in actual practice, women do not have inheritance rights. On the other hand, if women are provided property rights equal to those of their brothers, dowry may not only be useless, but also harmful to women—as is now claimed widely. Phenomena concerning dowry practice can manifest a coordination failure in the society as a whole. Since most families are bride givers as well as bride recipients, if there is an effective

¹⁹For the expected function of *mehr* to protect women, see Ambrus et al. (2010).

²⁰The estimation results considering these alternative explanations are available upon request.

commitment device not to give and receive dowry, all families may be better off.

Besides, the nature of dowry and its effects may vary across the regions of South Asia. Although the nature of groom price may be more strongly manifested in urban areas or more modernized societies in South Asia, the nature of bequest may be more pronounced in rural areas. Given the narratives pointing out that modernization has changed the nature of dowry, we cannot deny the possibility that the price nature of dowry may, in the near future, become more strongly manifested in rural Pakistan. The empirical evidence of this study does not claim that dowry is good or evil universally. Given a specific context, dowry may be beneficial or harmful to women. In other words, universally banning or restricting dowry is not a good policy. Thus, this study alerts the danger in reaching any policy measure based on superficial understanding—without investigating causality and considering surrounding environments.

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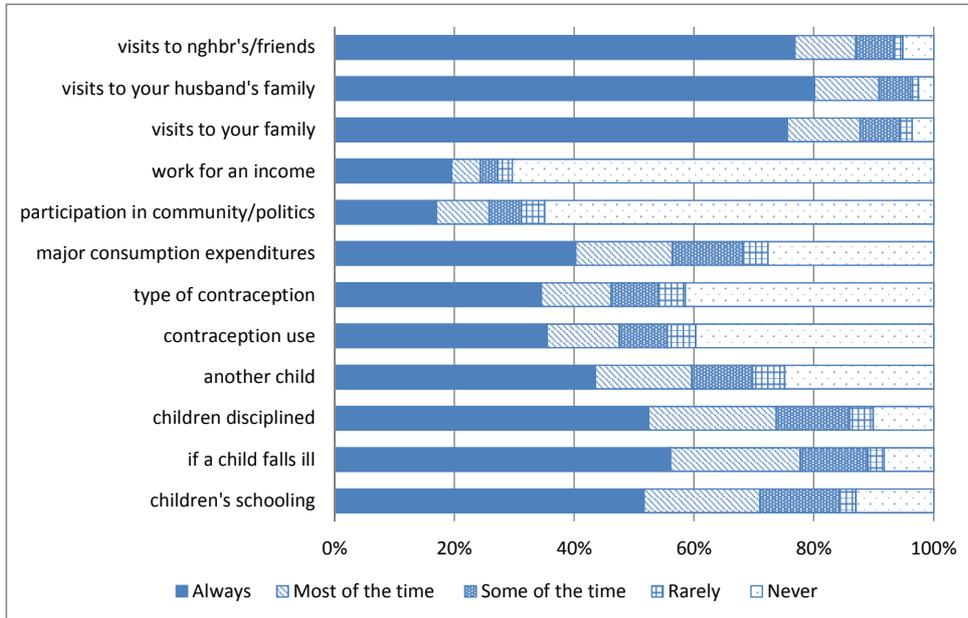


Figure 1: To what extent are women involved in household decision making?

Source: PRHS 2004.

Table 1: Summary Statistics

Variable	Mean
woman's age	28.04 (6.36)
woman's education level	1.03 (2.60)
woman's literacy	0.16 (0.37)
woman's father's own irrigated land at the time of marriage (kanals)	44.64 (311.86)
husband's age	34.46 (9.22)
husband's education level	4.15 (4.40)
husband's literacy	0.46 (0.50)
husband's father's own irrigated land at the time of marriage (kanals)	36.49 (87.29)
woman's age at marriage	17.49 (3.53)
y/n: watta satta	0.50 (0.50)
amount of dowry Rs.(2004 price)	49,178 (68,446)
amount of bari Rs.(2004 price)	26,494 (40,544)

Note: Standard deviations are in parentheses. 1 acre = 8 kanals. The indicator variables for education are constructed as follow: 0=below class 1, 1-12=class 1-12, 13=polytech, 14=BA/BSc, 15=MA/MSc, 16=M.Phil/Ph.D.

Table 2: First Stage Regression

Variables	(1) dowry/10000	(2) bari/10000	(1) dowry/10000	(2) bari/10000
- i average(dowry/10000)	0.628*** (0.0641)		-11.42*** (1.088)	
- i average(bari/10000)		0.530*** (0.0561)		-13.27*** (1.312)
female age	0.297*** (0.0400)	0.139*** (0.0297)	0.0905*** (0.0206)	0.0403*** (0.0108)
husband's age	-0.0157 (0.0247)	0.0169 (0.0165)	-0.0156* (0.0079)	-0.0053 (0.0063)
female age at marriage	-0.0907 (0.0584)	-0.107*** (0.0294)	-0.0319 (0.0324)	0.0019 (0.0156)
female literacy	-0.560 (0.867)	-0.0249 (0.563)	-0.302 (0.312)	0.0396 (0.215)
female education	0.508*** (0.150)	0.313*** (0.0864)	0.142*** (0.0533)	0.0376 (0.0306)
husband's literacy	-0.130 (0.504)	0.426 (0.452)	0.231 (0.249)	0.383 (0.283)
husband's education	0.204*** (0.0618)	0.0699 (0.0563)	0.0031 (0.0229)	-0.0349 (0.0338)
natal family's irrigated land	0.0025** (0.0011)	-0.0000 (0.0007)	0.0005 (0.0006)	-0.0002 (0.0004)
marital family's irrigated land	0.0124*** (0.0043)	0.0094*** (0.0032)	0.0040** (0.0018)	0.0013 (0.0016)
watta satta	-0.503 (0.345)	-0.392* (0.204)	-0.446** (0.200)	-0.130 (0.102)
constant	-6.033*** (1.223)	-2.333*** (0.729)	136.7*** (12.45)	57.19*** (5.423)
village fixed effect	No	No	Yes	Yes
Observations	1,180	1,180	1,180	1,180
R-squared	0.315	0.260	0.895	0.841

Note: Cluster(village)-robust standard errors in parentheses. *** significant at 1% level, ** at 5% level, * at 10% level.

Table 3: Effects of Dowry on Women's Decision-Making Power

Variables	OLS	2SLS	OLS	2SLS
	(1)	(2)	(3)	(4)
	decd_fa	decd_fa	decd_12	decd_12
dowry/10000	0.0193*** (0.0061)	0.0194*** (0.0065)	0.0337*** (0.0107)	0.0301** (0.0129)
bari/10000	0.0113 (0.0072)	0.0135 (0.0089)	0.0236 (0.0170)	0.0253 (0.0197)
female age	-0.0141 (0.0087)	-0.0144* (0.0080)	-0.0120 (0.0173)	-0.0112 (0.0162)
husband's age	-0.0021 (0.0054)	-0.0022 (0.0050)	0.0053 (0.0126)	0.0052 (0.0120)
female age at marriage	0.0011 (0.0121)	0.0013 (0.0113)	0.0349 (0.0232)	0.0345 (0.0221)
female literacy	-0.140 (0.143)	-0.140 (0.133)	-0.126 (0.317)	-0.129 (0.303)
female education	0.0288 (0.0197)	0.0282 (0.0184)	0.0717* (0.0412)	0.0730* (0.0397)
husband's literacy	-0.0742 (0.112)	-0.0766 (0.104)	0.0656 (0.232)	0.0642 (0.221)
husband's education	0.0020 (0.0135)	0.0019 (0.0125)	-0.0381 (0.0253)	-0.0375 (0.0238)
natal family's irrigated land	-0.0001 (0.0002)	-0.0001 (0.0002)	-0.0004 (0.0002)	-0.0004* (0.0002)
marital family's irrigated land	0.0001 (0.0004)	0.0001 (0.0004)	0.0002 (0.0007)	0.0002 (0.0007)
watta satta	-0.0968 (0.0714)	-0.0963 (0.0660)	-0.271* (0.146)	-0.272* (0.139)
constant	-1.219*** (0.364)	-1.219*** (0.337)	9.335*** (0.676)	9.345*** (0.643)
Observations	780	780	1,180	1,180
R-squared	0.325	0.325	0.225	0.225

Note: Cluster (village)-robust standard errors in parentheses. *** significant at 1% level, ** at 5% level, * at 10% level. The village fixed effects are controlled.

Table 4: Effects of Dowry on Domestic Violence

Variables	OLS	2SLS	OLS	2SLS
	(1) dv_minor	(2) dv_minor	(3) dv_fatal	(4) dv_fatal
dowry/10000	0.0001 (0.0022)	0.0009 (0.0028)	-0.0013** (0.0005)	-0.0015*** (0.0006)
bari/10000	-0.0081** (0.0036)	-0.0099** (0.0044)	0.0004 (0.0010)	0.0001 (0.0010)
female age	0.0070** (0.0028)	0.0070** (0.0027)	0.0003 (0.0013)	0.0003 (0.0013)
husband's age	-0.0011 (0.0021)	-0.001 (0.0020)	0.0002 (0.0006)	0.0002 (0.0005)
female age at marriage	-0.0034 (0.0038)	-0.0035 (0.0036)	0.0007 (0.0021)	0.0007 (0.0020)
female literacy	0.132** (0.0613)	0.133** (0.0585)	0.0050 (0.0208)	0.0050 (0.0197)
female education	-0.0137* (0.0074)	-0.0136* (0.0071)	-0.0015 (0.0029)	-0.0014 (0.0027)
husband's literacy	0.0226 (0.0405)	0.0235 (0.0384)	-0.0204 (0.0130)	-0.0203* (0.0122)
husband's education	-0.0064 (0.0041)	-0.0065* (0.0039)	0.0021 (0.0016)	0.0022 (0.0015)
natal family's irrigated land	-0.0001 (0.0001)	-0.0001 (0.0001)	0.0000 (0.0000)	0.0000 (0.0000)
marital family's irrigated land	-0.0002 (0.0002)	-0.0002 (0.0002)	-0.0001* (0.0000)	-0.0001* (0.0000)
watta satta	0.0323 (0.0341)	0.0322 (0.0324)	0.0006 (0.0065)	0.0005 (0.0062)
constant	0.199* (0.112)	0.198* (0.107)	-0.0125 (0.0381)	-0.0120 (0.0362)
Observations	1,179	1,179	1,180	1,180
R-squared	0.139	0.139	0.113	0.113

Note: Cluster (village)-robust standard errors in parentheses. *** significant at 1% level, ** at 5% level, * at 10% level. The village fixed effects are controlled.