Chastity-Guarding Practices*

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Abstract

Across societies and throughout history, concerns over women's chastity have given rise to a wide range of practices that aim to keep women from having extramarital sex – from female genital cutting to restrictions on women's mobility to child marriage to veiling to honor cultures. In this article, we review the state of the literature on these chastity-guarding practices. We organize our discussion around the following questions: Why do concerns about chastity arise and center on women? Which practices count as chastity-guarding and through which mechanisms do they operate? Which costs and benefits are associated with them and who do they accrue to? Why does their presence and intensity vary across societies? What explains their persistence and under which conditions do they change? We also highlight open questions about the origins, impacts, persistence, and malleability of chastity-guarding practices.

JEL Classification Codes: D1; D7; I1; J1; Z1
Keywords: Chastity concerns; gender inequality; marriage markets; social norms; sexual and reproductive health; culture

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1 Introduction

Across the world and throughout history, societies have devised a remarkable variety of practices aimed at guarding women's chastity, i.e., their premarital virginity and marital sexual fidelity. These include practices such as foot-binding, female genital cutting (FGC), veiling, anti-contraception attitudes, honor killings, and guardianship laws. These chastity-guarding practices are asymmetric – regulating women's sexual behavior but not men's. They are costly – with consequences that span women's health, education, and labor force participation, as well as the health and survival of their children. And they are widespread – appearing across regions, religions, and historical periods, even if never universal. Together, these features motivate the questions that organize this review. Why do chastity concerns exist, and why are they centered on women? Which practices count as chastity-guarding, and what are the mechanisms through which they keep women chaste? What are their economic implications? Why do their presence and intensity vary across societies? And what do we know about why they persist and under which conditions they are abandoned?

We begin this article (section 2) by laying out the evolutionary logic for why concerns over chastity center on women. Paternity, unlike maternity, cannot be verified. With requisite male investment in children, selection favored men who cared about their partners' fidelity. However, gains from mating outside the pair bond suggest that women did not evolve to be chaste. While other methods for addressing these concerns exist, chastity-guarding practices are one class of cultural solutions to this conflict, and our review focuses on them.

In section 3 we provide a taxonomy of chastity-guarding practices. We define them as group-level practices, norms, or beliefs whose effect and purpose, at least in part, are to keep women from having sex outside marriage. We illustrate the variety of mechanisms through which they do so, e.g., limiting

women's opportunity to interact with unrelated men, shortening the premarital window, raising the cost of extramarital sex, sanctioning transgressions of chastity norms, or giving parents an economic stake in their daughters' chastity.

Section 4 reviews the literature on the economic implications of chastity-guarding practices. Their costs fall mainly on the girls and women subject to them, through lower labor force participation and schooling, worse health for themselves and their children, and narrower social networks. Their benefits accrue through the marriage market, where perceived chastity commands a better match and a higher bride price, and through the mobility that some practices, such as veiling, permit relative to seclusion.

In section 5, we examine the sources of cross-cultural variation in chastity-guarding practices: women's economic reliance on men, property and lineage customs, and ancestral reliance on pastoralism versus agriculture.

Section 6 turns to why chastity-guarding practices persist and under what conditions they change. Persistence is favored where those who decide whether to continue the practice do not bear the costs, where a practice serves purposes in addition to guarding chastity, and where families comply because they believe others comply. We also review the evidence on how legal bans and other formal institutions affect chastity-guarding practices.

We end this review by outlining open questions about the nature, measurement, malleability and aggregate implications of chastity-guarding practices.

2 Concerns over Women's Chastity: Evolutionary Origins

Human reproduction is heavily asymmetric between men and women, as laid out in the seminal work by Trivers (1972). A woman's ability to reproduce

is limited by the number of pregnancies and postpartum investment periods she can sustain during her lifetime, and each offspring is relatively costly for her. A man's ability to reproduce depends on the number of women he can successfully mate with. Crucially, human reproduction is asymmetric in information. Maternity is certain, but paternity is not, due to internal egg fertilization and concealed ovulation. Since human fathers tend to invest in their children, this information asymmetry likely favored the evolution of jealous male types, i.e., men who care about the sexual fidelity of their partner.[1]

Women's fidelity, however, cannot be presumed. They can gain from mating with outside partners who may provide additional possibilities for reproductive success, resources, protection, and alliances.[2] Women's physiology does not necessarily suggest an interest in chastity either. Their sexual receptivity and experience of sexual pleasure are not limited to their fertile window. Therefore, women appear to have evolved to be interested in sex beyond the pair bond and beyond reproduction (Hrdy, 1981, 1999). Evolutionary reasoning thus predicts competing interests: men evolved to be vigilant about their partner's chastity, but women did not evolve to be chaste.

Human societies have developed a variety of solutions to this conflict. Some solutions aim to reduce what is at stake when paternity is uncertain. For example, matrilineal societies route property and identity through the maternal line (Lowes, 2020; BenYishay et al., 2017). Partible paternity – the belief that more than one man can contribute to the formation of a fetus – turns rivals into co-fathers and therefore co-contributors (Walker et al., 2010), and norms of social fatherhood decouple a father's obligation from

[1]Consistent with this, male sexual jealousy seems to be a ubiquitous motive across cultures in violence between partners and rivals, and male mate-guarding is widely documented (Daly et al., 1982; Buss et al., 1992).

[2]See Scelza (2013) for a review of multiple mating as a female strategy in humans. For example, among the Himba of Namibia, extra-pair paternity is exceptionally common — 48% of births by genetic estimates — and is associated with higher reproductive success for women (Scelza, 2011; Scelza et al., 2020).

genetic paternity (Scelza et al., 2020). These beliefs and practices lie beyond the scope of this review.

This review focuses on one class of solutions that aim to keep women chaste, which we term chastity-guarding practices. These are group-level practices that include restricting women's freedom to interact with men outside of the family or making extramarital sex costly, e.g., through sanctions. Such practices appear in many societies around the world and, as discussed in section 4, are often very costly for the women subject to them. Nevertheless, they are widespread and have persisted for millennia.

3 A Taxonomy of Chastity-Guarding Practices

We focus on cultural traditions that aim to maintain women's chastity. By this we mean group-level practices, norms, values, or beliefs whose effect, and whose purpose – at least in part – is to keep women from engaging in sex outside marriage – whether before or within it.

These practices vary greatly by their guarding mechanism.[3] Some practices limit women's opportunity to interact with non-kin men, such as female seclusion, and they often involve some form of monitoring, such as chaperoning practices including male guardianship or surveillance, sometimes with the help of modern technology. Monitoring can also require women to signal their fertility: menstrual pollution beliefs oblige women to mark their menstruation publicly, e.g., by withdrawing to a menstrual hut, making their ovulation cycles common knowledge. Hence, guarding can become more focused and illicit pregnancies become harder to hide. Virginity testing can be viewed as a form of alleged monitoring. Even though no test can reliably detect virginity status, virginity testing shows that a girl's or young woman's

[3]Therefore, they also vary greatly by their economic implications, which we discuss in section 4.

sexuality is policed by her parents, kingroup or even the wider community, and it deters from premarital sex by instilling fear that this will be detected and sanctioned. Child marriage shortens the window of time during which a girl can engage in premarital relations. And bride price – conditioned on a bride's appearance of being 'pure' – incentivizes parents to ensure their daughter's chastity. Others make extramarital sex costly for women, for example, infibulation by inflicting pain, or anti-contraception and anti-abortion norms by increasing the likelihood of a pregnancy resulting from extramarital sex. Other practices encourage chastity by imposing sanctions on women for transgressing behavioral chastity norms. These sanctions can be reputational, such as shaming, or severe, including honor killings. Table 1 lists all practices that we count as chastity-guarding and corresponding scholarship.

Many of these practices serve additional purposes beyond chastity-guarding. This functional bundling contributes to the persistence of some of these practices, as we discuss in section 6.2. For example, some forms of female genital cutting also serve as a rite of passage into womanhood (Corno and La Ferrara, 2023; Novak and Bussberg, 2024), and early marriage can serve as informal insurance against income shocks (Corno and Voena, 2023). Similarly, patrilocality serves purposes far removed from chastity. It helps secure old-age support (Bau, 2021) and is typically part of patrilineal kinship, which organizes property inheritance and kinship obligations through men. In the case of patrilocality, one might therefore view restriction on women's contact with non-kin men as merely incidental to a broader kinship system that focuses on the male line. However, Guha (2016) theorizes the centrality of monitoring, and Becker (2025) provides evidence for this by showing how patrilocality varies with ecological factors in the same way that other chastity-guarding practices do, such as infibulation and restrictions on women's mobility. Moreover, Anukriti et al. (2020) document the limiting effects of co-residence with in-laws on daughters-in-law's mobility and social lives. Hence, we count patrilocality as a chastity-guarding practice.

On the other hand, a number of practices are related to chastity concerns but do not qualify as chastity-guarding practices according to our taxonomy. For example, we do not classify mate-guarding behavior, such as frequent intra-marital sex (Becker, 2026b), as a chastity-guarding practice. Even though such behavior aims to deter the (female) partner from sexual infidelity, we view this as an individual-level behavior that is a consequence of the relevant underlying psychology, rather than a separate group-level practice. We also do not classify chaste widowhood as a chastity-guarding practice, as the purpose of this practice is preventing extramarital sex *after* marriage, i.e., after the husband's death. Recent work by Xue (2026) provides evidence that this practice is a response to population pressure. Another example is abduction marriage, the practice of abducting a woman or girl with the goal of marrying her. While chastity concerns are a necessary condition for the existence of this practice (García-Hombrados and Novak, 2026), abduction marriage itself does not guard chastity. Similarly, we do not classify cousin marriage as a chastity-guarding practice. While it has been linked to honor cultures and endorsing honor killings (Campbell et al., 2024), it fundamentally operates to reduce the informational problem about a bride's 'purity' and has been found to substitute for chastity-guarding practices, in particular child marriage (Al-Shafaee et al., 2026).

Having delimited the set of practices, we now turn to their economic implications, the sources of their cross-cultural variation, and the conditions under which they persist or dissolve.

4 Economic Implications

Chastity-guarding practices carry both costs and benefits. They are costly for women as well as others, e.g., family members who invest time monitoring their female relatives, or parents who pay someone to get their daughters cut. We return to the distribution of these costs in section 6 where we discuss

Table 1: Chastity-guarding practices and how they work

Practice	**Guarding mechanism**	**Key references**[a]
Legal restrictions on movement, male guardianship	Bars women from public space, travel, work, transactions w/o male consent	Ortner (1978); Becker (2025)
Female seclusion, sex segregation	Women confined to domestic sphere; public spheres largely segregated by sex	Rajah (2025); Dean and Jayachandran (2019)
Chaperoning, surveillance	Accompaniment/monitoring of movement and communication limits contact with outside men	Rai and Sengupta (2013); Schneider (1971)
Patrilocality	Relocates the wife with or close to the husband's kin network, where co-resident in-laws monitor behavior and social contacts	Anukriti et al. (2020); Guha (2016); Becker (2025)
Menstrual taboos, menstrual huts	Provide signal about fertile window, make it harder to conceal a pregnancy resulting from infidelity	Strassmann (1992)
Footbinding	Immobilizes and confines women to the domestic sphere	Fan and Wu (2023); Mackie (1996)
Female genital cutting, infibulation	Makes sex less pleasurable, painful	Becker (2025); Bellemare et al. (2015); Khalifa (2026); Corno et al. (2025); Novak and Bussberg (2024)
Breast flattening	Delays visible sexual maturation to deter male attention and premarital sex	Corno (2026)
Early marriage	Minimizes the time before marriage to decrease opportunity for premarital relations	Becker (2025)
Veiling	Marks modesty, signals compliance with chastity norms; hides markers of beauty from outside men	Carvalho (2013); Shofia (2025); Corekcioglu (2021); Abdelgadir and Fouka (2020)
Bride price	Conditioned on perceived chastity of bride, incentivizes parents to guard daughter's chastity	Anderson (2007); García-Hombrados and Novak (2026); Khalifa (2026)
Virginity testing	Fear that premarital sex gets detected and sanctioned	Olson and García-Moreno (2017); Khalifa (2026)
Honor cultures, shaming	Sanctions for transgressing chastity norms, from reputational punishment to honor killings	Thrasher and Handfield (2018)
Anti-abortion and anti-contraception norms	Deters by making/keeping extramarital sex costly, makes intramarital sex a more credible signal of fidelity	Becker (2025, 2026b)
Chastity narratives	Instilling chastity norms through folklore, religious themes, or other displays that idolize women's 'purity' or virginity	Strassmann et al. (2012)

[a]By "key references," we mean scholarship that explicitly links the practice to the aim of guarding chastity.

how the cost-benefit incidence helps explain why these practices persist. The benefits of chastity-guarding practices accrue both to women themselves, e.g., through improved marriage prospects, and to their families, e.g., through marriage payments.

4.1 Costs

Chastity-guarding practices are costly for women when they affect their ability to participate in the labor market, their educational attainment, or their health. They often also have negative effects on women's children, or come with side effects that are sometimes hard to quantify, such as women's ability to socialize freely.

Labor Market Participation Chastity-guarding practices are often a barrier to women's labor force participation. In particular, practices that restrict physical mobility make paid work outside of the home difficult or impossible (Jayachandran, 2015). For example, footbinding operated quite starkly: women with bound feet could not work in the fields or otherwise participate in labor outside the home (Mackie, 1996). Clear evidence on the role of mobility restrictions in contemporary women's labor force participation comes from a field experiment implemented after the lifting of Saudi Arabia's driving ban. Women in the treatment group were given access to driving lessons and the opportunity to obtain a driver's license. These women were 41 percent more likely to be employed at endline compared to the women in the control group (Abou Daher et al., 2025). Mobility restrictions need not be formal or physical to bind and affect women's ability to participate in the labor market. Anukriti et al. (2020) show that co-residence with a mother-in-law – patrilocality – limits a daughter-in-law's mobility and her social contacts in India, and Cheema et al. (2026) find that the take-up of a skilling program in Pakistan falls sharply when women must cross village boundaries to reach the training center. The workplace is often relatively

close, and the constraint is on movement, rather than on work itself.

Where the guarding mechanism is segregation rather than confinement, women might be able to work, but only in a narrower set of jobs. For example, in India, women who work alongside men are feared to lose their 'purity' (Dean and Jayachandran, 2019). Rajah (2025) experimentally identifies spousal jealousy as the underlying motive. Married women were notified of an opening in either a mixed or women-only workplace. Those who were randomly notified of openings in women-only workplaces were more likely to apply, and the effects were driven primarily by women with jealous and controlling husbands. His work also demonstrates that the costs are not necessarily or solely exclusion from work, but a compensating differential. In a treatment that randomizes the need to interact with a male versus female peer, women are willing to give up between a fifth and a third of their earnings to avoid working alongside a man.

Moreover, early marriage can affect women's ability to take up employment indirectly, e.g., by moving childbearing into younger years and therefore preventing women from accumulating labor market experiences. In line with this, Wilson (2022) finds that raising the legal age at marriage to 18 across various low- and middle-income countries increased women's subsequent labor market participation.

Finally, not having access to abortion can have financial costs for women that seem to partly run through their reduced ability to earn an income (Angrist and Evans, 1999; Miller et al., 2023).

Education As with women's labor force participation, chastity-guarding practices often bar women from attaining education. Where the guarding mechanism is a restriction on mobility, families commonly cite the commute as a reason not to enroll daughters (Jayachandran, 2015). Burde and Linden (2013) provide evidence for this by studying the expansion of village schools in Afghanistan. This brought schools closer to children's homes and increased

enrollment and test scores for all children. However, the enrollment gain was nearly 20 percentage points larger for girls than for boys. As in the labor market, the relevant distance from the educational institution is often small, but it binds well beyond childhood. Cheema et al. (2026) find that take-up of a skill training program for adult women in Pakistan falls sharply when participants must cross village boundaries to reach the training center. This is hard to reconcile with a pure safety story: the chastity interpretation is that the constraint tightens at the village boundary, i.e., at the edge of the community within which a woman's conduct is observable by people who know her.

Where the mechanism is sex segregation, girls can attend school, but only schools of a particular kind. Karim (2025) studies a school reform in Pakistan that merged several thousand primary schools, converting many from single-sex to co-educational. He finds that this transition from single-sex to co-ed status strongly negatively affected girls', but not boys', enrollment.

Patrilocality constrains education through a different channel than it constrains employment. In the labor market, it binds by restricting a woman's movement (Anukriti et al., 2020). In education, it binds before marriage, by shaping what parents expect to recover from investing in a daughter. Because sons remain in the parental household while daughters leave at the time of marriage, imperfectly altruistic parents anticipate capturing returns to a son's human capital but not a daughter's. Bau (2021) shows how the gender gap in education can be understood as a consequence of patri- versus matrilocal postmarital residence by studying the consequences of introducing formal pension systems on children's educational attainment in patri- versus matrilocal societies.

Next, practices that minimize the premarital window curtail girls' schooling directly by ending it. Field and Ambrus (2008) find that in Bangladesh each additional year of delayed marriage is associated with an average of 0.22 additional years of schooling. Anti-abortion norms affect schooling by

raising the likelihood that premarital sex results in a birth and make schooling largely contingent on premarital abstinence. Angrist and Evans (1999) and Molland (2016) find that expanded abortion access raised educational attainment among young women in the United States and Norway, respectively.

Health and Healthcare The most direct health costs of chastity-guarding practices come from those that operate on the body. Female genital cutting, for example, is associated with increased prevalence of sexually transmitted infections (Wagner, 2015). A large WHO-led study of over 28,000 women in six African countries documents an association of being cut with obstetric complications, such as the need for a C-section, postpartum haemorrhage, or incidence of infant resuscitation (Banks et al., 2006). Breast flattening causes acute pain and psychological distress and has been linked to difficulties with breastfeeding, cyst formation, and risk of infection (Robinson, 2019; Corno, 2026).

Early marriage, i.e., minimizing the premarital time window to guard chastity, imposes health costs by advancing the timing of childbearing. Girls married early are more likely to experience intimate partner violence (Roychowdhury and Dhamija, 2021), and they report worse mental health (Jayawardana, 2022; Burgess et al., 2022). Because age at marriage is closely tied to age at first birth, early marriage also increases the risks associated with adolescent pregnancy, such as higher maternal mortality, obstetric fistula, obstructed labor, and hypertensive disorders (Nove et al., 2014).[4]

Health costs also arise from practices that impact choices related to fertility. For example, Becker (2026b) shows that women from cultures with more pronounced chastity concerns are less likely to use contraception, consistent with the idea that abstinence from contraception deters women from having extramarital sex and makes intramarital sex a costlier and hence more

[4]We return to the consequences for these women's children later in this section.

credible signal of sexual fidelity. Consequently, these women have shorter inter-birth intervals and more children overall, a pattern of child bearing that is associated with higher rates of maternal anemia. Restrictions on abortion affect women's health through the same mechanism: Clarke and Mühlrad (2021) find that access to abortion reduces maternal morbidity from early-pregnancy hemorrhage. The effects of access to abortion extend to the next generation. Pop-Eleches (2006) studies the 1966 abortion ban in Romania and finds that children born after the ban had worse educational and labor market outcomes. Gruber et al. (1999) show that abortion legalization in the United States improved the circumstances into which children were born, reducing the shares living in poverty, dying in infancy, and living in single-parent families. Ananat et al. (2009) follow these cohorts into adulthood: abortion legalization raised college graduation and lowered welfare receipt and single parenthood, which they attribute to selection into birth rather than to changes in how a given set of children was raised.

Similarly to how mobility restrictions affect women's ability to participate in the labor market or attain education, they also constrain their access to health care (Khan, 1999).

Finally, for practices that guard women's chastity by imposing sanctions for norm violations, the health costs *are* the sanctions. These range from physical punishment to honor killings (Campbell et al., 2024).

Social Networks Beyond their effects on employment, schooling, and health, chastity-guarding practices restrict whom women can interact with. They do so through two channels: (i) external constraints, such as physical confinement, monitoring by relatives, or sanctioning norm violations; (ii) internalized norms, under which women themselves avoid contact with unrelated men or limit their movement outside the house. Both potentially curtail their ability to socialize with family, friends, and peers. Isolation is costly through its negative effects on mental health, but also through infor-

mation and knowledge that flows through networks that are inaccessible to women subject to such chastity-guarding practices.

Patrilocality, which relocates a bride away from her natal family into a household where her behavior and social contacts are monitored, is a prime example for this. Anukriti et al. (2020) show that Indian women who co-reside with a mother-in-law have fewer close peer contacts outside the household and are less likely to have someone in their social network with whom they discuss reproductive health. In turn, they are less likely to use family planning and reproductive health services.

Chastity concerns affect not only the size of women's networks but also their composition. In recent work in progress, Becker (2026a) finds that women from cultures with more pronounced chastity concerns have fewer male, relative to female, friends on Facebook.

Field et al. (2016) demonstrate the value of peer connections for women subject to restrictive social norms. They invited women to participate in a business training offered by a bank, and some were randomly asked to bring a friend to the training session. Women who participated with a friend were more likely to take out a business loan, expand or start a business. Participating in the training with a friend also increased women's reported income. Notably, the effects were strongest among women who are restricted in their freedom of mobility.

4.2 Benefits

Chastity-guarding practices also provide benefits. Some benefits accrue to the women subject to them, e.g., through improved marriage market prospects. Some benefits accrue to their families, e.g., through the marriage-related transfers that are conditional on the perceived chastity of the bride. Some practices, e.g., veiling, generate benefits to women by substituting for seclusion and allowing them to participate in life outside of the house.

Marriage Market A main benefit of adhering to chastity-guarding practices comes from the marriage market. If prospective husbands and their families value chastity, a bride who is perceived to be chaste has a stronger position in a competitive marriage market. Fan and Wu (2023) provide a model of footbinding built on this idea. Footbinding is a costly investment, both because of the pain it inflicts and because a daughter with bound feet forgoes work outside the home, but it secures a higher quality husband. This idea is also reflected in the beliefs people hold. For example, survey data from the Demographic and Health Surveys across 24 African countries shows that about 30 percent of women report that female genital cutting improves a girl's marriage prospects and 20 percent believe it preserves virginity (Novak and Bussberg, 2024). Direct evidence on the value of (perceived) chastity for the marriage market comes from Khalifa (2026), who studies the effects of quasi-random exposure of families to an anti-FGC campaign in Egypt. The campaign reduced the incidence of cutting and the average bride price, consistent with FGC being a signal of (valuable) chastity. In a similar vein, García-Hombrados and Novak (2026) study abduction marriage in Ethiopia. Because an abducted bride's virginity can no longer be presumed, abduction reduces the price the groom's family pays to hers. Since marriage transfers can be large relative to household wealth (Anderson, 2007; Ashraf et al., 2020), the stake a family holds in its daughter's perceived chastity is correspondingly large.

Mobility Outside the Home Taking chastity concerns and the 'need' for a chastity-guarding practice as given, a number of practices confer the benefit of allowing women to be (somewhat) mobile outside their homes.

Veiling is the prime example and by far the best studied. Carvalho (2013) formalizes the idea: the veil is a device that allows a woman from a community with strict norms about her chastity to enter public economic life while visibly signaling – and enforcing on herself – continued adherence to

those norms. This implies that veiling should rise as economic opportunities for women rise, and that bans on veiling, say, in schools or workplaces, should reduce women's ability to participate in them. Both implications are supported by evidence. Shofia (2025) uses variation in exposure to rising labor market opportunities for women across Indonesian districts and finds that veiling increases where labor market opportunities rise. In analogy, where veiling is prohibited, women often have to forgo the opportunity to participate in certain public spheres: France's 2004 headscarf ban reduced secondary school completion among Muslim girls, with downstream effects on labor market participation (Abdelgadir and Fouka, 2020), while Turkey's lifting of its headscarf ban raised labor force participation among religious women and made religious employers more likely to hire them (Corekcioglu, 2021). All of this is consistent with the idea that veiling is a cultural technology that allows women to participate in life outside the home without violating chastity norms.

Gender segregation can play the same enabling role. In section 4.1 we interpreted Rajah (2025) as evidence of a cost, since women-only workplaces narrow the set of jobs open to women. Against the counterfactual of not working at all, the same result reads differently: married women whose husbands hold strong concerns over their chastity are substantially more likely to apply for an opening when the workplace is gender segregated, so segregation is what makes their employment possible in the first place.

Whether other chastity-guarding practices enable mobility in the same or similar way is a somewhat open question. In theory, the logic extends to other practices. Practices that raise the cost of violating chastity norms, such as infibulation, and practices that sanction transgression after the fact, such as honor codes, all guard chastity without confining women. Therefore, they might also be mobility-enabling.

5 Determinants of the Cross-Cultural Variation

In response to chastity concerns, humans have invented a diverse set of practices to deter women from extramarital sex. Both the intensity of these concerns and the practices that follow from them vary substantially across groups. This section synthesizes work that explains this variation.

Women's Economic Dependence Most, if not all, chastity-guarding practices are costly for women. Although some costs also fall on the family or husband, women typically bear the largest portion, as is the case with female genital cutting or restrictions on their mobility. Whether such practices can take hold in a culture should therefore depend on how dependent women are on men for their livelihoods. One measure of this is the relative strength of women's economic position – both in adult women's options outside of marriage and in the returns a family expects from a daughter's future earnings, which determine what it forgoes by imposing a practice on her. For example, Baumeister and Vohs (2004) argue that greater female economic productivity—and thus autonomy—weakens the incentives to conform to strict chastity norms. Consistent with this, Schlegel and Barry III (1986) show that norms about women's premarital sex are more permissive in societies in which women's economic reliance on men is smaller, measured by their contribution to household subsistence. Thus, the degree of women's economic reliance on men helps explain whether costly chastity-guarding practices emerge and how intense they are.

The Role of Property and Lineage Both descent lines and property ownership matter for how strongly a society cares about chastity. Transferable property allows for inherited wealth, which helps the children it passes to. Thus, passing wealth to the 'wrong' children is costly if men want to

provide for their biological offspring and avoid providing for other men's offspring. Descent determines which offspring property is passed to. Under patrilineal descent, property passes to a man's presumed sons. Consequently, a woman's sexual fidelity is of value to her husband's whole lineage. Van Den Berghe and Barash (1977) develop this argument from an inclusive fitness perspective and derive the prediction that patrilineal societies will restrict female sexuality more than matrilineal ones.[5] The cross-cultural record supports this prediction. Martin and Voorhies (1975) and Whiting et al. (1986) both find that restrictions on premarital sex are more prevalent in societies with patrilineal descent. Similarly, Šaffa et al. (2022), using a sample of 128 pre-industrial societies from the Standard Cross-Cultural Sample (Murdock and White, 1969) and controlling for phylogenetic relatedness, find that female premarital sex is more restricted where men transmit property to their children.

Where children of both sexes inherit – what Goody (1976) calls 'divergent devolution' – a daughter carries property from her natal family into marriage, typically through dowry. With the marriage, the husband typically administers the wealth, and it is ultimately passed on to their children. The wife's chastity is therefore of concern not only to her husband, but also to her natal family. Having transferred property to their daughter, they have reason to ensure it passes to descendants they recognize as legitimate. Bahrami-Rad (2021) provides evidence for Goody's hypothesis. Exploiting an Indian reform that granted daughters equal inheritance rights, he shows that women exposed to it became more likely to marry paternal cousins, consistent with families tightening control over daughters' marriages once property began to pass through them.

[5]In the latter, a man invests in his sister's children, whose genetic relatedness to him is certain, albeit potentially smaller.

Ancestral Reliance on Pastoralism versus Agriculture Chastity concerns generate demand for guarding practices because women's behavior typically cannot be observed perfectly. Were it perfectly observable, sanctions alone would suffice. Consequently, chastity-guarding practices have emerged in environments in which monitoring women's behavior is particularly difficult. Becker (2025) develops this argument for pastoralism, a pre-industrial subsistence based on herding animals. Herding requires men to be away from the household frequently and often for extended periods, leaving women unobserved. She shows that, historically, societies that relied more on pastoralism placed greater value on premarital chastity and were more likely to be patrilocal, allowing the husband's family to monitor the wife. Moreover, using contemporary survey data from more than 100 countries, she finds that descendants of groups that historically relied more on pastoralism are more likely to adhere to chastity-guarding practices, including infibulation, restrictions on women's freedom of mobility, and anti-abortion norms. The same ecology has been linked to cultures of honor, i.e., cultures marked by a strong (male) willingness to engage in revenge and punishment, including violent retaliation. Nisbett and Cohen (1996) argue that herding gave rise to honor cultures because herds could be stolen and states were typically absent, so a man's economic security depended on a reputation for retaliation. Grosjean (2014) and Cao et al. (2026) document the persistence of such norms among descendants of herders. The monitoring problem inherent in pre-industrial pastoralism may explain why honor cultures are marked not only by heightened male violence toward outsiders but also by intense concern with the conduct of women and correspondingly strong sanctions for transgressions.

Monitoring is not the only feature of pastoralism that favors chastity guarding. Pastoralist societies are overwhelmingly patrilineal: livestock is heritable wealth controlled by men, and the adoption of cattle has been shown to drive the replacement of matrilineal descent with patrilineal descent (Aberle, 1961; Holden and Mace, 2003). As argued above, patriliny raises

the stakes in a woman's sexual conduct for the husband's whole lineage. Where patriliny sits in the causal chain is unclear, since it is itself a cultural response to pastoralism, but its presence would reinforce the demand for guarding either way.

Other forms of subsistence do not pose the same monitoring problem as pastoralism. Plow agriculture is a case in point. Men work in fields near the household, and women's work also centers on the household. This proximity should not increase the demand for monitoring. Consistent with this, ancestral use of the plow in agriculture is unrelated to chastity concerns (Becker, 2025). This is consistent with earlier findings of Alesina et al. (2013), who show that the plow, because it required significant upper-body strength, drew men rather than women into fieldwork and created norms that confine women to housework. Those norms might restrict women's ability to participate in the labor market, but they arise from the division of labor rather than from a need to guard chastity – if women are at home, additional guarding practices are unnecessary.

6 Persistence and Malleability

Why do chastity-guarding practices persist in some settings and weaken or disappear in others? We argue that the persistence and malleability of these practices rest on who bears the costs of a practice relative to who makes the decisions, on the other functions a practice serves beyond guarding chastity, and on beliefs – sometimes mistaken – about what other families in the community do. Formal institutions, such as legal bans, interact with each of these mechanisms in ways that shape whether they succeed.

6.1 Cost-Benefit Incidence

Chastity-guarding practices often persist because the individuals who decide whether to continue them are not the individuals who bear the costs. For example, families usually determine whether their daughter will undergo female genital cutting or be married early, while the daughter bears the costs, e.g., in terms of her health or her ability to attain schooling. Therefore, practices are often sensitive to the *family's* economic position rather than to the girl's own welfare. McGavock and Novak (2023) show this directly: droughts across Africa reduce the prevalence of FGC where local custom requires early cutting, but *increase* it where cutting is a prerequisite for marriage. That is, families forgo the cutting when they can least afford its costs, except where forgoing it would reduce the size of the bride price they cannot afford to lose. Corno et al. (2020) document a similar pattern for child marriage: weather shocks lower average age at marriage in settings where the groom's family pays a bride price, but raise it where the bride's family pays dowry.

Interventions that target the family's payoff, rather than the girl's or the norm itself, are more likely to change outcomes. In Bangladesh, a conditional incentive to families for delaying a daughter's marriage reduced marriage before 18 by 19 percent and marriage before 16 by 18 percent, while a program aimed at empowering the girls themselves had no effect on marriage timing (Buchmann et al., 2023). Subsidized school uniforms in Kenya lowered the family's cost of keeping a daughter in school and delayed marriage in turn (Duflo et al., 2015). Expanding employment opportunities raises the family's opportunity cost of an early marriage, and marriages are delayed accordingly in India (Jensen, 2012) and Bangladesh (Heath and Mobarak, 2015).

The family's return to chastity-guarding is also affected by marriage market conditions, such as the concentration of wealth among husbands. Where wealth is highly concentrated, chastity becomes a dimension on which families compete for husbands. In line with this, Mariani (2012) finds that societies

with greater male wealth inequality have more restrictive norms about premarital sex. Marriage market conditions thus help explain persistence. As long as the premium for chastity is high, families have reason to guard it.

6.2 Functional Bundling

Many chastity-guarding practices serve purposes beyond guarding chastity. Female genital cutting illustrates such functional bundling. Asked why the practice continues, women in the Demographic and Health Surveys cite not only the preservation of virginity and improved marriage prospects, but also social acceptance, religious requirement, and respect for elders (Novak and Bussberg, 2024), and in many communities cutting is part of rites of passage into womanhood. Corno and La Ferrara (2023) show that offering an alternative rite of passage reduces cutting rates and intent to cut younger daughters.

Female genital cutting is not the only practice that has a bundle of functions. Beyond guarding chastity, child marriage offers informal insurance. Where families receive a bride price, marrying a daughter early is a way to cope with adverse income shocks (Corno and Voena, 2023). Similarly, foot-binding has been argued to also serve as a signal of high social status (Blake, 1994; Shepherd, 2018). Patrilocality allows the monitoring of a daughter-in-law but it is also a way to ensure old-age support: sons who remain at home eventually become care-givers and resource-providers for aging parents. Bau (2021) demonstrates this function by showing that the prevalence of the practice declines in Ghana when formal pension systems are put in place, suggesting that the chastity-guarding function alone was no longer sufficient to keep it in place.

The bundling of functions implies that chastity-guarding practices can outlast the chastity concerns that gave rise to them, as long as their other functions remain valuable.

6.3 Social Coordination and Beliefs about Others

One common explanation for the persistence of chastity-guarding practices is that they are social coordination norms. Under this view, practices such as female genital cutting or mobility restrictions continue not because families want them to, but because no single family wants to unilaterally deviate from the norm for fear of social sanctions or reduced success of their daughters on the marriage market (Mackie, 1996). In its simplest form, with households sharing a common threshold, this explanation makes a testable prediction: if persistence is a coordination problem, communities should have tipping points such that the prevalence of a practice clusters at either very high or very low levels, but not at intermediate levels. The evidence is inconsistent with it. Efferson et al. (2015) collect data on the prevalence of female genital cutting in 45 communities in the state of Gezira in Sudan. They show that for almost all communities, estimated cutting rates are neither very high nor very low, with most communities falling between 25 percent and 75 percent cut. Similarly, Bellemare et al. (2015) document substantial variation in cutting rates across communities in West Africa. This speaks against the simplest version of the coordination account.

Novak (2020) reconciles the coordination logic with this evidence by allowing households to differ in the community rate at which they switch from cutting to abstaining. With heterogeneous thresholds, a tipping point may exist but need not, and communities can settle at different intermediate rates, each a stable equilibrium. She constructs a community-level panel dataset on cutting rates spanning almost 50 years in Burkina Faso and finds evidence consistent with her model. Some communities exhibit tipping points, while others have stable internal equilibria in which cutting rates remain at a persistent intermediate level.

Vogt et al. (2016) build an intervention on this within-community heterogeneity in 122 communities in Sudan. They randomly assign residents to

watch a film depicting extended family members disagreeing about whether to continue cutting, varying whether the on-screen disagreement emphasizes the value of tradition, the marriageability of uncut girls, both, or neither (control). The combined-emphasis version produces the largest improvement in attitudes toward uncut girls. The design rests on the premise that disagreement already exists within communities and that making it visible can shift attitudes.

A related but distinct reason that can help explain why chastity-guarding practices persist is 'pluralistic ignorance' (Katz et al., 1931), i.e., individuals underestimate how widely others privately share their own views. This can result in individuals complying with a norm they mistakenly believe is more broadly endorsed than it is. Bursztyn et al. (2020) document this dynamic in Saudi Arabia, where societal support for restrictions on women's mobility and labor force participation is severely misperceived – nearly 90 percent of surveyed men privately support women working outside the home, yet almost all underestimate how many other men share this view. When these misperceptions were corrected, the likelihood that men's wives applied and interviewed for jobs outside the home increased.

Understanding which of these mechanisms of persistence sustains a practice determines the type of intervention that might be successful in changing it. For example, where households share a threshold and beliefs about others are accurate, only coordinated abandonment will work. Where thresholds are heterogeneous, some communities can be tipped more easily than others. Where beliefs about others are wrong, correcting them may suffice.

6.4 Formal Institutions

Chastity-guarding practices are often classified as 'harmful traditions' and, as such, frequently subject to legal bans. The evidence on their effectiveness is mixed. In Ethiopia, García-Hombrados (2022) finds that raising the legal marriage age delayed cohabitation and first birth, thereby reducing child

mortality for first-born children. In Mexico, by contrast, Bellés-Obrero and Lombardi (2023) find that raising the legal marriage age reduced registered child marriages but left school attendance and early fertility unchanged, as informal unions likely substituted for formal ones. Using data from 17 low- and middle-income countries, Wilson (2022) shows that early marriage bans raise both age at marriage and age at first birth on average, but with smaller effects in rural areas and among cohorts with shorter exposure to the ban. For bans on female genital cutting, the evidence is similarly mixed. García-Hombrados and Salgado (2023) show that, in Senegal, a ban on female genital cutting reduced its prevalence and increased educational investment in girls, consistent with parents substituting toward education to offset the marriage-market advantage that cutting had conferred. Studying the same ban, however, Camilotti (2016) finds that it lowered the age at which girls were cut, evidence that the practice moved into secrecy and became individualized and de-ritualized rather than abandoned.

Poyker (2023) studies the role of government stability in understanding the effectiveness of such bans, arguing that expected stability of a government makes the law's persistence more credible, since expectations about enforcement shape compliance. Using country-ethnicity-level data from 23 countries spanning more than 40 years, he finds that the (expected) durability of a political regime reduces the prevalence of female genital cutting, conditional on anti-FGC legislation being in place.

Formal institutions, such as laws, can also alter the need for chastity-guarding practices by altering the costs associated with unchastity. Changes in legal access to contraception in the United States provide an example. Goldin and Katz (2002) and Bailey (2006) show that state laws lowering the age at which unmarried women could obtain the contraceptive pill delayed marriage and first birth and raised women's labor force participation. The diffusion of contraception also seems to have weakened the norm against premarital sex: the share of US adults calling premarital sex 'wrong' fell

from 75 percent to 35 percent between the 1960s and 1980s (Harding and Jencks, 2003). Fernández-Villaverde et al. (2014) and Akerlof et al. (1996) attribute this decline to contraception lowering the costs associated with premarital sex.

However, laws can also have unintended consequences, for example on public opinion about chastity-guarding practices. Wheaton (2022) shows that legalizing abortion in the United States *reduced* expressed support for abortion. He attributes this backlash to the law's expressive function – because individuals expect the legal change to shift others' beliefs, opponents respond by voicing stronger anti-abortion attitudes to counteract that anticipated shift, pulling public opinion in the opposite direction of the law itself.

7 Conclusion and Future Research

This review has treated a diverse set of practices – from female genital cutting and footbinding to veiling, child marriage, bride price, and male guardianship – as a single class, defined by the function of keeping women from having sex outside marriage. We have laid out the evolutionary accounts of why chastity concerns exist and give rise to demand for chastity-guarding practices as the cultural solution to them. We have reviewed research on the economic implications of chastity-guarding practices, their cross-cultural variation, and their persistence.

A number of questions around chastity-guarding practices remain open. First, while the literature has advanced our understanding of the costs and benefits of individual practices, we know very little about their aggregate economic consequences, such as their implications for growth. Second, as detailed in section 6, research has provided insights into when and why the prevalence of chastity-guarding practices changes. Most of this research, however, examines changes in the costs attached to a practice on its prevalence.

We know little about whether the underlying chastity concerns change along with the practice, and more generally whether and how these concerns are malleable. This gap is partly due to the lack of a measure for chastity concerns. Such a measure would be valuable to better understand the intensity of the concern itself, but also cultural change in adherence to the practices. Third, we do not understand why societies guard chastity in the way that they do – why some modify women's bodies, through breast flattening or female genital cutting, while others seclude women, and yet others rely on ex-post sanctions. Relatedly, we know little about which practices are substitutes and which are complements, and under what conditions. Exceptions are the work by Khalifa (2026), which shows that virginity testing substitutes for FGC in Egypt, and the work by Shofia (2025), which demonstrates that veiling substitutes for seclusion in Indonesia. Fourth, the internalization of chastity norms is one mechanism in our taxonomy, yet little is known about how norms come to be internalized, and whether and how they relate to our systems of morality. For example, the work by Enke (2019) on communal morality and how it comes with emphasis on loyalty, purity and feelings of shame suggests that concerns over women's chastity might be closely related, but exactly how and why is unclear. Fifth, how does modern technology shape chastity guarding? Hannaford (2015) documents husbands in transnational Senegalese marriages monitoring their wives through mobile phones. When does technology allow women to be more mobile, and when does it restrict them further in their ability to be mobile or socialize?

Given the costs that chastity-guarding practices impose on women and their children, answering these open questions is not only of academic interest but also policy interest.

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