Patriarchal norms and the willingness-to-pay for women's freedom of movement: experimental evidence from rural Tanzania

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Abstract

In patriarchal settings, men govern whether their wives travel, making male resource allocation the proximate determinant of female mobility. We ask whether increased awareness of gender-based violence (GBV) risk makes husbands more likely to invest in safe transport or to restrict travel altogether. We study this in rural Tanzania, where boda-boda motorcycle taxis are the primary mode of transport and GBV risk is salient. We formalize the theoretical ambiguity in a structural model that separates a safety preference margin—how much a husband values safe transport conditional on travel, from a mobility support margin—whether he funds the trip at all, and connects each to a distinct empirical estimate. Using a conjoint experiment and an incentivized BDM elicitation embedded in a randomized field experiment with about Nsym1200 people across 34 villages, we find that GBV awareness leaves men's safety preferences unconditionally high while reducing their willingness to fund travel by 20%. Gatekeeping and genuine protective concern are not mutually exclusive.

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1 Introduction

Women in the rural Global South face a distinctive mobility problem: even when safe transport exists and they want to travel, they often cannot go without their husband's permission and financial support. This makes men's resource allocation decisions—not just women's own preferences—the proximate determinant of female mobility. Whether husbands are willing to fund their wife's travel depends, in part, on how dangerous they believe the outside environment to be. Yet the economic consequences of that belief are theoretically ambiguous. A husband who becomes more aware of the risks his wife faces in transit may respond by increasing his demand for safe transport—spending more to protect her—or by restricting her travel entirely, retaining the cost of the trip rather than paying for safety he views as insufficient. Understanding which of these two responses prevails has direct implications for whether safety-improving transport interventions— trusted driver networks, gendered vehicle programs, harassment reporting systems—can effectively expand women's economic and social participation in settings where permission and funding remain in male hands.

The stakes extend well beyond the labor market. In these contexts, political participation takes overwhelmingly informal forms: attending village assemblies—the legally mandated governance body under which land, water, and local resources are managed, raising issues with ward officials, joining advocacy coalitions, and discussing politics with neighbors to build collective pressure on local authorities. These are Hirschman (1972) "voice" strategies in a context where exit is not an option: deliberate efforts by citizens to change objectionable conditions through action outside formal institutional channels. What unites all of these activities is that they are irreducibly *spatial*: they require physical presence in public space, and it is precisely this requirement that makes male gatekeeping over mobility a direct constraint on women's political agency. Political science research has established that men function as gatekeepers of women's access to political participation—from voting in Pakistan (Cheema et al. 2023) to village assembly attendance in India (Prillaman 2023) to community networks across sub-Saharan Africa (Robinson and Gottlieb 2021)—and that the same normative structures governing women's public presence operate across the political and economic domains simultaneously. Whether awareness raising campaigns to the risk faced by women outside of the home empower or constrain women's movement shapes capacity for political engagement—with implications extending to the gender gap in civic voice across patriarchal settings, such as sub-Saharan Africa.

This paper answers the question: does increased awareness of gender-based violence (GBV) risk make men more or less willing to fund their wife's travel? We study this question in the context of rural Tanzania, where boda-boda motorcycle taxis are the primary means of transport and incidents of assault and sexual violence involving boda drivers are widely discussed in communities. To answer it, we exploit experimental variation in GBV-risk perceptions generated by a randomized edutainment trial—a single 90-minute radio drama screening across 34 villages—and measure the causal effect of heightened awareness on two distinct dimensions of men's transport preferences: how much they value safe transport conditional on travel, and how much they are willing to pay to actually fund the trip. The prior literature on information campaigns and backlash documents that interventions raising awareness of violence against women can increase controlling behavior by men (Agüero 2019; Cullen et al. 2024; Sarkar 2024), but this evidence focuses on intimate-partner violence and on attitudes rather than behavior. Whether the same gatekeeping logic extends to transport decisions, and whether men's protective instincts might instead dominate, has not been directly tested.

Our first contribution is to document that GBV awareness triggers gatekeeping rather than protective investment in men's mobility decisions—and that this occurs even among men who genuinely prefer safe transport for their wives. This finding advances the literature on the constraints that male gatekeepers place on women's mobility and political participation (Buchmann et al. 2025; Cassidy et al. 2024; Cheema et al. 2023; Daher et al. 2025; Prillaman 2023). We extend this insight to the domain of transport: rather than framing gatekeeping as purely strategic or normative (Dean and Jayachandran 2019; Dhar et al. 2022), we show that it can arise among men who are genuinely concerned about their wife's safety Buchmann et al. (2025). Treated husbands reduce their willingness to pay for their wife's boda trip by approximately 12.6 percentage points—an almost 20% reduction relative to controls—even though the same men display no reduction in their stated preference for safe transport. Genuine protective concern and material gatekeeping are not mutually exclusive; in this setting, awareness of risk converts into restricted mobility rather than increased investment in safe travel. This restriction carries consequences beyond any single trip: because mobility is the prerequisite for political voice in rural Tanzania, the gatekeeping documented here extends from the transport decision into the civic domain—restricting women's capacity to attend village assemblies, contact local officials, and participate in the informal political processes through which resource allocation and community norms are contested.

Our second contribution is a structural model of men's gatekeeping choices that formalizes this two-margin distinction and connects the empirical design and its estimates to underlying preferences. We model the husband's decision as depending on two structurally distinct parameters: $\beta(\pi_h)$, the marginal utility of transport safety conditional on travel, and $\gamma(\pi_h)$, the cost salience parameter that deflates the entire value of the trip as perceived risk rises. The model separates a *safety preference margin*—how much a husband values safe transport conditional on the trip occurring—from a *mobility support margin*—whether he is willing to fund travel at all. It shows that a positive treatment effect on the safety premium is fully consistent with a negative treatment effect on overall WTP whenever the cost salience channel dominates. This decomposition has direct policy implications: it determines whether providing safer transport options is sufficient to expand women's mobility, or whether gatekeeping operates on the travel decision itself. The distinction between willingness to pay for transport attributes and willingness to pay for actual access to travel parallels recent work on compensating differentials and workplace amenities (Anelli and Koenig 2021; Maestas et al. 2023; Wiswall and Zafar 2018), where stated preferences for amenities do not always translate into willingness to absorb compensating wage differentials.

Our third contribution is to reveal a measurement gap at the heart of the nascent transport-and-gender literature and to show that filling it changes the welfare implications of safety interventions. Building on work by Muralidharan and Prakash (2017) showing that bicycle access raises girls' school enrollment and empowerment, a wave of experimental and quasi-experimental work in the last few years has established that reducing women's safety costs expands their mobility: women-only transit options more than double job application rates (Garlick et al. 2025), safe-commute subsidies increase women's labor force participation (Kondylis et al. 2025), and gender-sensitive bus network design substantially expands women's access to employment (Aguilar et al. 2021; Borker 2024). This literature shares a common empirical assumption: that the binding constraint on women's mobility is their own demand for safe travel, and that reducing safety costs on the supply side unambiguously expands actual trips. Our paper reveals that this assumption breaks down in households where men control the travel decision, because supply-side improvements operate on the safety preference margin while gatekeeping operates on the mobility support margin—and these two margins respond in opposite directions to GBV awareness. In our case, the within-couple divergence we document makes this concrete. GBV awareness simultaneously increases treated women's demand for safe transport by 30% and reduces treated men's willingness to fund travel by 20%. The same information that activates women's aspirations for safer mobility activates their husbands' gatekeeping over the mobility decision itself. Studies that measure only actual trips after a safety intervention conflate these two effects: a reduction in observed travel may reflect reduced demand (woman does not want to go) or tightened gatekeeping (husband will not fund the trip), even though the policy implications of the two are entirely different. Our two-instrument design—a conjoint that fixes the travel decision and elicits safety preferences, and a BDM in which the husband's bid determines whether the trip occurs—is specifically constructed to separate these objects. The result establishes that the gatekeeper's WTP, not the beneficiary's demand, can be the binding constraint on actual mobility, and that GBV awareness may widen the gap between the two. This measurement architecture offers a template for the transport-and-gender literature to incorporate male gatekeepers into the evaluation of safety interventions in settings where female mobility remains a male-governed decision.

These findings carry immediate implications for the design of entertainment-education interventions, which are among the most prominent tools for shifting risk awareness and social norms in low-income settings. The implicit assumption driving this literature—that awareness is straightforwardly beneficial—is precisely what our results call into question. When GBV awareness reaches husbands who simultaneously care for their wives and govern their movement, heightened concern can manifest as restricted mobility rather than increased investment in safe travel. Campaigns that raise awareness of risk without also shifting norms around women's right to move freely or providing mechanisms for safe travel may inadvertently empower gatekeeping even when they successfully shift attitudes.

We identify the causal effect of GBV-risk awareness on men's transport preferences using two complementary instruments, both administered as follow-up modules to a pre-existing RCT across 34 villages in Tanzania's Tanga region. The parent RCT assigned villages to screening the radio drama *Boda Bora*, shifting GBV-risk perceptions by approximately 6.2 percentage points relative to a high control baseline (Montano et al. 2025). Our first instrument is a conjoint experiment (N $\approx$ 600 men and N $\approx$ 1000 women) in which respondents choose between two transport options for a trip assumed to take place, varying the safety and cost of each option. By conditioning on travel, the conjoint isolates safety preferences from the mobility decision and identifies the structural parameters governing men's valuation of safe transport conditional on their wife going. Our second instrument is an incentivized Becker-DeGroot-Marschak (BDM) elicitation (N = 236 married men), in which husbands bid—using a cash endowment we provide—for a boda-boda ride that would allow their wife to travel to town and collect a mobile money transfer deposited directly into her account. In the BDM, unlike the conjoint, the husband's bid determines whether the trip happens at all. Together, the two instruments trace the full path from men's transport safety preferences to their revealed willingness to actually fund their wife's travel.

The conjoint reveals that men strongly prefer safe transport for their wives—but their preferences are completely inelastic to cost. The coefficient on safety in the conjoint is 0.365 ($p < 0.001$), a 36.5-percentage-point increase in the probability of choosing the safe option. Critically, cost is statistically irrelevant to men's choices: the cost coefficient is 0.012 and insignificant ($p = 0.328$), and this cost-insensitivity is stable across all specifications and subsamples. Men choose safe transport regardless of the price premium it commands. The GBV awareness treatment does not change this, consistent with a ceiling effect in which men's baseline unconditional preference for safety leaves no room for further upward movement. For women, by contrast, the treatment significantly increases the probability of choosing the safe option by 7.1 percentage points ($p = 0.008$, a 30% increase over the control mean), consistent with rational Bayesian updating of risk perceptions. Women also weight cost against safety, with a cost coefficient of -0.073 ($p < 0.001$), allowing us to recover a well-defined WTP for safety of approximately 7,000 TZSh for treated women. The within-couple divergence is striking: GBV awareness simultaneously increases wives' demand for safe transport and leaves husbands' safety preferences unconditionally high—yet, as the BDM reveals, it reduces husbands' willingness to fund travel at all. Women's aspirations are updating upward; the household resource constraint on realizing those aspirations is tightening.

The BDM delivers a picture of men's behavior. Treatment reduces men's WTP for their wife's transport by 12.6 percentage points of the endowment ($p < 0.001$), against a control mean of 72.5%—a reduction of almost 20%. In absolute terms, treated husbands are willing to pay approximately 2,800 TZSh less for their wife's boda ride relative to controls, who bid an amount nearly identical to the 15,000 TZSh mobile money transfer the wife would receive upon arrival. The contrast with the conjoint is the central empirical finding of the paper: the same men who chose safe transport unconditionally when the trip was assumed to occur, now bid significantly less to enable the trip when doing so requires spending their own resources. Men's revealed preference for women's safety does not extend to their revealed willingness to fund women's mobility—gatekeeping operates precisely on the margin the conjoint holds fixed.

The paper proceeds as follows. Section 2 describes the Tanzanian setting and provides a conceptual framework for the gatekeeping-versus-protective-investment distinction. Section 2.3 develops a simple model of men's gatekeeping choices that formalizes the two margins and characterizes the conditions under which each prediction prevails. Section 3 describes the research design, including the parent RCT that provides exogenous variation in risk perceptions, the conjoint experiment, and the BDM elicitation. Section 4 presents the conjoint results on safety preferences and WTP conditional on travel. Section 5 presents the BDM results on men's willingness to fund their wife's mobility. Section 6 concludes.

2 Conceptual Framework

2.1 Women's Mobility and Gender-Based Violence in rural Tanzania

Rural Tanzania provides a compelling setting in which to study how men's risk perceptions shape women's mobility. Customary norms assign to men the role of household head and primary decision-maker, and these norms govern not only financial decisions but also the physical movement of women within and beyond the village. In our own surveys in rural villages in the region of Tanga, 88% of women report that their husband would not allow them to travel overnight without his permission, a figure that 91% of men themselves confirm. Permission-seeking is universal: every woman in our pilot sample reports asking her husband before traveling. The consequences for economic activity are stark. No woman in the sample travels to work outside the village, compared to 16% of men; 42% of men report meeting friends or colleagues in the village center, while the corresponding figure for women is zero. These mobility restrictions are not purely externally imposed: they are partly internalized by women themselves. In our sample, 57% of women agree that income-generating work outside the home is the domain of men, a figure that exceeds the 37% of men who hold the same view. This pattern is consistent with the broader literature documenting how gender norms in developing countries restrict women's economic participation (Ferrara and Yanagizawa-Drott 2026; Field et al. 2026; Jayachandran 2015, 2021), and with qualitative evidence from Sub-Saharan Africa showing that women's freedom of movement is among the most tightly regulated dimensions of gender inequality (Munoz Boudet et al. 2013). The economic costs of these norms are well-documented in an extremely recent series of works from other contexts: restricted mobility limits women's access to markets, training, and employment opportunities (Cheema et al. 2025; Field et al. 2010, 2016, 2021), and transport provision that reduces the time and safety costs of travel can substantially expand women's participation in education and the labor market (Garlick et al. 2025; Muralidharan and Prakash 2017).

Gender-based violence is a pervasive and salient feature of this environment, and its consequences extend well beyond the household. Tanzania ranks among the countries with the highest documented rates of violence against women in Sub-Saharan Africa—a region where, according to global estimates, approximately one in three women aged 15–49 has experienced intimate partner violence in her lifetime (WHO 2021). This violence affects women across all life stages: the National Survey on Violence Against Children finds that more than a quarter of girls experience sexual violence before reaching age 18 (United Nations Children's Fund 2011). Compounding this crisis is the prevalence of victim-blaming attitudes. These figures likely undercount the true prevalence—household survey evidence from Dar es Salaam suggests that roughly 20% of adult Tanzanian women have been raped, yet only 10% of those assaults were ever reported to police (Muganyizi et al. 2004), as victims frequently avoid disclosure to escape shame or unwanted publicity. Abeid et al. (2015) documents that paternalistic discourse surrounds sexual violence in rural Tanzania, with more than half of both men and women attributing sexual assault to women's own behavior—such as walking alone at night or working in environments deemed morally questionable.

These risks are neither abstract nor unfamiliar to the communities we study. Boda-boda motorcycle taxis are the primary means of transport between villages and town, and incidents of assault, robbery, and sexual violence involving boda drivers are regularly reported in local media and discussed within communities. In the same villages from which the present study draws, Montano et al. (2025) document that over 80% of respondents perceive leaving the village alone as risky for women, and approximately two-thirds perceive riding a boda-boda unaccompanied as dangerous (82.5% of men and 88.3% of women for the former; 66.6% and 67.6% respectively for the latter). Crucially, GBV risk perceptions in this sample operate independently of general crime risk, suggesting that gender-based violence is conceptualized as a distinct category of threat rather than a subset of overall insecurity. Yet despite this awareness of risk, community members do not treat it as a political priority commensurate with its prevalence: absent any intervention, rural Tanzanians in this sample rank reducing sexual violence roughly on a par with access to clean water, road conditions, and alcoholism (Montano et al. 2025), consistent with the broader pattern whereby widespread private concern about GBV fails to translate into collective political mobilization (Agüero 2019; Sarkar 2024).

A large literature establishes that the *threat* of violence, not only its occurrence, constrains women's behavior: fear of crime has long been documented as a mechanism of social control that leads women to self-impose restrictions on their movement (Riger and Gordon 1981), and this behavioral response extends across contexts from labor markets (Chakraborty and Lohawala 2026; Chakraborty et al. 2018; Folke and Rickne 2022; Siddique 2022) to education (Borker Forthcoming). Interventions that directly address safety in public spaces can partially restore women's mobility and economic engagement (Amaral et al. 2025; Sharma 2024), and the design of transport systems plays a central role in mediating this relationship (Aguilar et al. 2021; Borker 2024). But the effectiveness of safety-improving interventions depends critically on who controls whether women travel in the first place. This makes our setting well-suited to study how GBV awareness affects the behavior of both women, but also of the men who control their movement.

2.2 Men's Role and GBV-Risk Awareness

Men as protectors and gatekeepers. In settings where women require male permission to travel, a woman's mobility depends not only on her own risk-benefit calculation but on her husband's. Men who occupy the role of household guardian are responsible for managing their wife's exposure to external threats (Blaydes et al. 2025; Bloch and Rao 2002; Guiso and Zaccaria 2023), and this role generates a direct cost to the husband when harm befalls his wife: reputational damage, social sanction, and personal distress. Gatekeeping behavior by men is therefore not exclusively a strategic or normative response to female empowerment—it is also a predictable output of the guardian role itself. This has been documented across a range of domains: men act as gatekeepers of women's political participation (Cheema et al. 2023), of their access to training and economic opportunities (Buchmann et al. 2025; Cheema et al. 2025), and of their freedom of movement more broadly (Cassidy et al. 2024; Daher et al. 2025). A defining feature of gatekeeping in patriarchal settings is that it is not only externally imposed but is also anticipated and partially accepted by women themselves, consistent with the high rates of internalized norms documented in our sample (Dean and Jayachandran 2019; Dhar et al. 2022).

GBV-risk awareness GBV awareness information adds a layer of complexity to this gatekeeping decision. Prior work on information campaigns and backlash documents that interventions which raise awareness of violence against women can, in some contexts, worsen outcomes: Agüero (2019) shows that domestic violence awareness campaigns in Peru led to more violence, with increased controlling behavior by husbands identified as a mechanism. Cullen et al. (2024) finds that female empowerment interventions in India trigger male backlash. Sarkar (2024) documents that higher local crime rates against women increase the likelihood of early marriage of girls, particularly in households with stronger patriarchal norms. These findings point to a recurring pattern: information that highlights risks facing women can reinforce rather than relax male control over their behavior.

Two conceptually distinct margins. Understanding *why* GBV awareness sometimes restricts women's mobility requires distinguishing between two margins that are conflated in most existing work. The first is the *safety preference margin*: how much a man values safe transport for his wife, conditional on her traveling. This margin is governed by the premium he places on a trusted driver over an unknown one, and reflects both his caring about her welfare and his guardian role. Existing evidence suggests that this premium is substantial: women and their families are willing to pay significantly more for transport with verifiable safety characteristics (Kondylis et al. 2025), and demand for gendered safe spaces in public transport is high and relatively price-inelastic (Aguilar et al. 2021; Borker 2024). When the perceived danger of travel rises, the value of safe transport should rise with it—an implication of the standard assumption that safety is more valuable in more dangerous environments.

The second is the *mobility support margin*: whether the husband is willing to fund his wife's travel at all. This margin is governed by his overall assessment of the expected benefits and costs of the trip, including its personal return to the household, how much he cares about his wife's preferences, how valuable he finds safe transport, and how sensitive he is to the monetary cost of funding it. It is on this margin that gatekeeping operates: a husband who restricts his wife's mobility is not choosing between safe and unsafe transport, but choosing between travel and no travel. The two margins need not move together: a husband may simultaneously value safe transport more *and* be less willing to fund travel, depending on how his perceived risk affects each component of the decision.

The distinction is consequential for policy. Interventions that improve the safety of transport options—through trusted-driver networks, harassment reporting systems, or gender-segregated vehicles—operate primarily on the safety preference margin. Their effectiveness in expanding women's mobility depends on whether husbands translate a higher valuation of safe transport into greater willingness to fund the trip. If GBV awareness makes husbands more sensitive to the monetary cost of transport, or more heavily discounts the personal return from the trip, safe transport provision may be insufficient to counteract gatekeeping even when it is genuinely valued (Daher et al. 2025). This is why understanding the two margins separately, rather than treating mobility as a single choice, is essential for predicting the effects of GBV information campaigns.

Gatekeeping from a genuinely worried husband. A key conceptual contribution of this paper is to show that gatekeeping and genuine concern for a wife's safety are not mutually exclusive. Prior work on backlash to female empowerment (Agüero 2019; Cullen et al. 2024) and on men's resistance to women's economic participation (Dean and Jayachandran 2019; Dhar et al. 2022) tends to frame male restriction as either strategic—a response to perceived threats to male dominance—or normative—a reflection of traditional gender attitudes. These mechanisms are certainly present in our setting, and the literature on norm change suggests they are persistent (Ferrara and Yanagizawa-Drott 2026; Field et al. 2026). But they are not the only mechanism through which GBV awareness can reduce mobility.

A husband who genuinely internalizes his wife's welfare and places a high value on her safe transport may still restrict her travel when he becomes more aware of the dangers she faces. If his subjective sensitivity to the cost of funding transport rises with perceived risk—because the potential loss from a bad outcome becomes more salient—the monetary value he assigns to the return from the trip is deflated, and he may rationally choose to forbid travel despite simultaneously valuing safe transport more. In this account, gatekeeping is not a failure of caring but a consequence of it: the husband restricts mobility *because* he is worried, not in spite of it. The pattern documented by Sarkar (2024)—that higher local crime increases early marriage precisely in conservative households where protective norms are strongest—is consistent with this mechanism: it is the men who care most about their wives and daughters who respond most strongly to perceived danger by restricting their movement. Whether this mechanism or the protective investment mechanism dominates is an empirical question — one that cannot be answered by observing men's stated safety preferences alone, but requires also measuring their revealed willingness to fund travel. The model in the following section formalizes this logic and derives the two quantities that the research design is built to identify.

2.3 A simple model of men's gatekeeping choices

Suppose a husband decides whether to allow his wife's trip from the village to town.[1] How does his decision depend on his perception of the risks his wife is subject to while taking this trip? He allows the trip if his expected utility from her traveling exceeds his expected utility from her staying:

$$E\big[u_h(t)\big] \;\geq\; E\big[u_h(\neg t)\big] \tag{1}$$

where expected utility from the trip is:

$$E\big[u_h(t)\big] \;=\; \frac{R_h}{\pi_h} \;+\; \alpha\, U_w^* \;+\; \beta(\pi_h)\text{Safety} \;-\; \gamma(\pi_h)\text{Cost} \tag{2}$$

and expected utility from the trip not occurring is:

$$E\big[u_h(\neg t)\big] \;=\; -\,\alpha\, U_w^* \tag{3}$$

Note first that the model treats π_h as a generic belief parameter and is agnostic about its source and the comparative statics derived here apply to any shock that raises perceived risk—in the empirical application, π_h is shifted exogenously by a randomized intervention.

The four components of (2) each have a clear interpretation. R_h/π_h is the husband's personal return from the trip, discounted by his posterior belief $\pi_h \in (0, 1]$ that the trip is unsafe: higher perceived risk reduces the expected value of sending his wife. $\alpha\, U_w^*$ is his caring share of the wife's equilibrium utility from traveling, where $\alpha \in [0, 1]$ parameterizes how much he internalizes her pref-

[1] The framework describes husbands and wives for ease of exposition, but applies to any man who holds gatekeeping power over a woman's mobility. A complete step-by-step derivation is provided in Appendix A.

erences and $U_w^* > 0$ reflects her net gain from the trip. $\beta(\pi_h)\, S$ is his direct utility from the safety attribute $S \in \{0,1\}$ of the chosen transport option, where $S = 1$ denotes a trusted driver and $S = 0$ the neutral alternative: the safety preference parameter $\beta(\pi_h) > 0$ is increasing in π_h, capturing the natural assumption that the premium placed on a trusted driver rises when the environment is perceived as more dangerous. Finally, $\gamma(\pi_h) \cdot \text{Cost}$ is the subjective cost of funding transport: Cost is a fixed market price taken as given by the husband—determined by factors outside his control such as distance to town and local boda availability— while $\gamma(\pi_h) > 0$ is the cost salience parameter, increasing in π_h. What varies with perceived risk is therefore not the objective price of transport but how heavily the husband weighs that price in his decision. When the trip does not occur, the husband avoids the cost and forgoes the return and safety benefit, but bears $-\alpha\, U_w^*$ as the disutility of denying his wife a trip she values.

Rearranging condition (1) yields the *reservation return*—the minimum personal return that makes the husband willing to allow the trip:

$$R_h \;\geq\; R_h^*(\pi_h,\, S) \;\equiv\; \pi_h\, \gamma(\pi_h)\, C \;-\; 2\alpha\, U_w^*\, \pi_h \;-\; \beta(\pi_h)\, S\, \pi_h \tag{4}$$

The trip is allowed when $R_h \geq R_h^*$; a higher reservation return means the wife is less likely to be permitted to travel. Three comparative statics in non-π_h parameters hold unambiguously: the trip is more likely to be allowed the more the husband cares about his wife ($\partial R_h^*/\partial\alpha < 0$), the more valuable the trip is to her ($\partial R_h^*/\partial U_w^* \leq 0$), and the cheaper or safer the available transport options ($\partial R_h^*/\partial\text{Cost} > 0$, $\partial R_h^*/\partial S < 0$). When differentiating 4 with respect to π_h and expressing each pair of terms using the point elasticities $\varepsilon_\gamma \equiv \pi_h\, \gamma'(\pi_h)/\gamma(\pi_h)$ and $\varepsilon_\beta \equiv \pi_h\, \beta'(\pi_h)/\beta(\pi_h)$ we obtain:

$$\frac{\partial R_h^*}{\partial \pi_h} \;=\; \underbrace{C\gamma(\pi_h)\,(1+\varepsilon_\gamma)}_{\text{cost salience channel }(+)} \;-\; \underbrace{2\alpha\, U_w^*}_{\text{caring channel }(-)} \;-\; \underbrace{\beta(\pi_h)\, S\,(1+\varepsilon_\beta)}_{\text{safety channel }(-)} \tag{5}$$

Therefore, the sign of how the reservation return changes with increased GBV-risk awareness is *ambiguous*. The cost salience channel is unambiguously positive: higher perceived risk makes the husband more sensitive to the cost of transport, raising the reservation return and making travel less likely. The caring and safety channels work in the opposite direction: a husband who internalizes his wife's preferences and values safe transport has a lower effective reservation return, counteracting the cost salience effect. The **gatekeeping prediction**—that GBV awareness reduces mobility—prevails when the cost salience channel dominates; the **protective investment prediction** prevails when the caring and safety channels dominate together. The reservation return in (4) serves an additional specific theoretical purpose beyond establishing the ambiguity of $\partial R_h^*/\partial \pi_h$: it isolates $\beta(\pi_h)$ as the parameter governing the value of safety *conditional on travel*. The comparative static $\partial R_h^*/\partial S = -\beta(\pi_h)\pi_h < 0$ says that safe transport lowers the threshold for allowing the trip, and the magnitude of that effect is governed entirely by $\beta(\pi_h)$. This is a conceptually distinct quantity from the full mobility decision: it is the husband's valuation of safety holding constant whether the trip happens at all.

The central question this paper aims to answer is which prediction prevails. To understand whether gatekeeping or protective investment prevails, we need the treatment effect on the husband's overall demand for his wife's mobility. This requires moving beyond the reservation return, since whether any individual husband allows the trip depends on where his personal return R_h falls relative to the threshold R_h^*, and R_h together with U_w^* are unobservable. The natural object is therefore the husband's willingness to pay for the trip, which aggregates over these unobservable components into a single quantity. The husband's willingness to pay is the maximum Cost he would accept such that allowing the trip remains weakly preferred to forbidding it:

$$\text{WTP} \;=\; \max_{\text{Cost}} \text{ s.t. } E\big[u_h(t)\big] \;\geq\; E\big[u_h(\neg t)\big] \tag{6}$$

Substituting (2) and (3) and solving the constraint with equality:

$$\frac{R_h}{\pi_h} + \alpha\, U_w^* + \beta(\pi_h)\, S - \gamma(\pi_h)\cdot \text{WTP} \;=\; -\,\alpha\, U_w^*$$

$$\text{WTP} \;=\; \frac{R_h/\pi_h \;+\; 2\alpha\, U_w^* \;+\; \beta(\pi_h)\, S}{\gamma(\pi_h)} \tag{7}$$

where $\gamma(\pi_h)$ acts as a deflator of the entire numerator: higher cost salience uniformly shrinks the husband's demand for mobility, compressing the monetary value he assigns to the personal return, the caring term, and the safety premium alike. Differentiating (7) with respect to π_h yields:

$$\frac{\partial \text{WTP}}{\partial \pi_h} \;=\; \frac{1}{\gamma(\pi_h)}\left[\underbrace{-\frac{R_h}{\pi_h^2}}_{\text{return discount } (-)} \;+\; \underbrace{\beta'(\pi_h)\, S}_{\text{safety value } (+)}\right] \;-\; \underbrace{\frac{\gamma'(\pi_h)}{\gamma(\pi_h)}\cdot \text{WTP}}_{\text{cost salience deflation } (-)} \tag{8}$$

Once again, the sign is ex-ante ambiguous and depends on which forces dominate: empirically measuring the treatment effect on husband's WTP directly answers whether gatekeeping or protective investment prevails. If increased awareness raises WTP, the safety value term dominates and the protective investment prediction prevails: treated husbands are willing to spend more to enable their wife's travel precisely because they perceive the environment as more dangerous. If increased awareness lowers WTP, the return discount and the cost salience deflation together dominate the safety value term and the gatekeeping prediction prevails: higher perceived risk makes husbands less willing to fund the trip. However, observing a negative treatment effect on WTP is not fully informative on its own: it is consistent with two structurally different stories. Either $\beta(\pi_h)$ is weak or absent and the negative channels dominate by default, or $\beta(\pi_h)$ rises with treatment but is nonetheless overwhelmed by the cost salience deflation and return discount. Distinguishing between these two stories requires identifying $\beta(\pi_h)$ separately—the parameter previously isolated by the reservation return in (4).

These stories have different policy implications. In the first, making safe transport available would do little to counteract gatekeeping, because men do not value safety enough for it to shift their mobility decisions. In the second, safe transport is genuinely valued but insufficient on its own to overcome the cost salience and return discount channels, suggesting that complementary interventions targeting those channels may be needed.

3 Research design

The model yields a clear empirical agenda but no unambiguous prediction. The sign of $\partial \text{WTP}/\partial \pi_h$ in (8) is theoretically ambiguous: whether increased GBV awareness increases or decreases husbands' willingness to fund their wife's trip depends on which forces dominate—the return discount and cost salience deflation on one side, the safety value channel on the other. Directly measuring the treatment effect of increasing risk awareness on WTP answers the central question of whether gatekeeping or protective investment prevails. But a negative treatment effect on WTP is not, on its own, fully informative as explained above: it is consistent with two different stories. Either the safety channel is weak or absent—and the return discount and cost salience deflation dominate by default, or men genuinely value safe transport more when the environment is more dangerous—but is nonetheless overwhelmed by the other two forces. Distinguishing between these two stories requires identifying $\beta(\pi_h)$ separately—the parameter governing the value of safety *conditional on travel* that was isolated by the reservation return in (4).

The research design therefore provides two instruments motivated by precisely this requirement. The first identifies $\beta(\pi_h)$ by holding the mobility decision fixed; the second elicits husband's WTP directly to reveal the net outcome of all channels together. Used jointly, the two instruments trace a progression from the husband's *preference* for safety when the trip is assumed to occur, to his revealed willingness to actually *fund* it when the mobility decision is in his hands. Both instruments are administered as a follow-up to a pre-existing randomized edutainment trial (Montano et al. 2025) that provides the exogenous variation in π_h needed to identify treatment effects on both objects. Section 3 describes this parent RCT and its first-stage effects on risk perceptions; here we focus on the design of the two instruments and their connection to the model.

Concretely, our first instrument—a conjoint experiment presented to all male and female participants from the original RCT—holds the mobility decision fixed by design. Respondents choose between two transport options for a trip that is assumed to take place, rather than whether the trip should happen at all. By conditioning on travel, the conjoint isolates safety preferences from gatekeeping behavior: the question is not whether she goes, but which ride she takes. Under the model, this design identifies $\beta(\pi_h)$ and $\gamma(\pi_h)$ as the marginal utilities of safety and cost respectively, and their ratio recovers the willingness-to-pay for safety conditional on travel—as described in more detail below.

Our second instrument examines precisely the margin the conjoint forecloses: whether men's safety preferences translate into actual willingness to fund their wife's travel. We elicit husbands' revealed preferences through an incentivized Becker-DeGroot-Marschak (BDM) procedure, in which men bid for a boda-boda ride that would allow their wife to travel to town and collect a cash transfer deposited directly into her mobile money account. Here, unlike the conjoint, the husband's bid determines whether the trip happens at all, rather than its characteristics—shifting the question from *which ride she takes* to *how much of his own resources he commits to sending her.* Under the model, the bid directly measures WTP as defined in (7), whose treatment effect aggregates all three channels from (8) into a single quantity whose sign answers the gatekeeping-versus-protective-investment question.

Together, the two instruments provide complementary identification. If the BDM treatment effect is positive, the safety value channel dominates and protective investment prevails: treated husbands are willing to spend more to enable their wife's travel precisely because they perceive the environment as more dangerous, and the conjoint result on $\hat{\beta}$ will just confirm their high preferences for safety. If the BDM treatment effect is negative, the return discount and cost salience deflation together dominate, and gatekeeping prevails—but the conjoint is needed to determine which of the two gatekeeping stories is at work. If the conjoint shows that treatment raises $\hat{\beta}$ without raising $\hat{\gamma}$, we can conclude that the safety channel is active but insufficient: men's valuation of safe transport genuinely increases with awareness, yet is overwhelmed by the other two forces. If instead the conjoint shows no movement in $\hat{\beta}$, the safety channel is simply absent, and the negative BDM result requires no further decomposition—restricting mobility and neglecting safe transport are two faces of the same gatekeeping response. Without both instruments, the two gatekeeping stories would be observationally equivalent.

Women. The conjoint experiment was administered to women as well as men, which serves a distinct theoretical purpose. Women are not gatekeepers—they do not decide whether the trip occurs, and asking them to bid for their own transport in an incentivized BDM would conflate their preferences with the husband's permission constraint. The conjoint sidesteps this problem by conditioning on travel: by presenting women with a choice between two transport options for a trip that is assumed to take place, it elicits their safety preferences at the only margin they realistically control. Two quantities are of interest. First, women's $\hat{\beta}$ provides a benchmark for how much safety is valued by the person whose welfare is directly at stake—and comparing it to husbands' $\hat{\beta}$ reveals whether the two spouses' stated preferences for safety are aligned or divergent when the mobility decision is held fixed. Second, the treatment effect on women's $\text{WTP}_{\text{conjoint}}$ tests whether women who have been exposed to GBV awareness content update their own demand for safe transport, independently of whether their husbands allow them to act on that demand. A divergence between the treatment effects on women's safety demand and husbands' mobility investment would reveal a gap between women's aspirations and the household resource allocation that determines whether those aspirations can be realized.

Pilot. Designing both instruments required prior knowledge that could not be just be assumed. To construct scenarios that would be understood as genuinely safe or at least somewhat risky by respondents, we first needed to understand how safety is locally perceived—which modes of transport are considered trustworthy, which activities justify a woman's trip to town in the eyes of her husband, and what prices for transport are locally plausible. To ensure the experimental stimuli were grounded in this local reality, we conducted focus groups in March 2023 separately with men and women in the Pangani District of Tanga, in which we discussed safety in the area as a broad topic. We then piloted two conjoint experiments with 15 respondents to assess the face validity of the attributes, the feasibility of the elicitation procedure, and the plausibility of the price ranges—both for the conjoint transport cost and the BDM price support. Appendix B describes this pilot in detail.

Edutainment RCT experimentally raises GBV-risk awareness To identify the causal effect of risk perceptions on safety preferences and mobility choices, we exploit exogenous variation in π_h generated by a pre-existing randomized controlled trial described in Montano et al. (2025). That study recruited a random sample of approximately 1,250 villagers across 34 villages in the Tanga region of rural Tanzania, interviewed them at baseline, randomized villages into treatment and control at the ward level using a pair-randomized design, and re-interviewed participants approximately fourteen months later. The intervention consisted of a single 90-minute screening of *Boda Bora*, a radio drama that portrays the range of gender-based violence risks women face in public settings—including harassment, sexual assault, and violence during transit. The screening was designed to raise awareness of GBV risks outside the household rather than to change attitudes toward gender equality more broadly.

The intervention succeeded in shifting risk perceptions: treated villagers were approximately 6.2 percentage points more likely to report concern about women's safety across two distinct scenarios fourteen months after exposure, relative to the control group. Critically, this effect was comparable in magnitude for men and women, establishing that the treatment moves π_h for husbands as well as for the women whose travel decisions they govern. Baseline rates of concern were already high—approximately 80% of control respondents believed it was risky for a girl to travel to town alone, and 65% believed it was risky for a woman to ride a boda-boda unaccompanied—so the treatment represents a meaningful shift on an already elevated baseline.

The two instruments described below were administered as a follow-up to this parent RCT, in the same villages and with overlapping samples. The conjoint experiment was administered to all RCT participants for whom follow-up was successful (N $\approx$ 647 men, N $\approx$ 661 women); the BDM elicitation was restricted to married or cohabiting men among this group (N = 236).

4 Safety preferences

4.1 Design: conjoint experiment

One popular way in quantitative social sciences to elicit preferences for different attributes of a choice and the willingness to pay for such attributes is through hypothetical choice experiments (See Breidert et al. (2006) for a review of WTP elicitation methods, and **?** for a review of the use of conjoints in political science specifically). We leverage this same method to estimate individuals' preferences for safe transport options, as well as the willingness to pay of husbands for their wife's safety and the willingness to pay of women for their own safety.

Men are instructed to

> "*Imagine that, an organization that works for the community wants to invite their wife/partner to town for a day. Unfortunately, they cannot attend as this is an invitation-only for some of the women in this village and they cannot accompany her, so she will have to go alone. Once in town, she will be given 15,000 TZShelling for herself. When she goes, they will deposit this money in her Mpesa account. There are two options that she can go by. Let me tell you about each one and you can tell me which one you would pay for.*"

While **women** are instructed to

> "*imagine that, an organization who works for the community wants to invite you to town for a day. Unfortunately your husband/partner cannot attend as this is an invitation only for some of the women in this village and he cannot accompany you. Once in town, you will be given 15,000 TZShelling for yourself. When you go, they will deposit this money on your Mpesa account. There are two options that you can go by. Let me tell you about each one and you can tell me which you would pay for.*"

Both are then presented the two options, which randomize two feature: safety and cost.

> *Option 1:* In the first option a boda from town [randomize:*whom we know and trust* / –] is going to pick her up and bring her back for [random: *X,000*] TZShellings.
>
> *Option 2:* In the first option a boda from town [randomize: *whom we know and trust* / –] is going to pick her up and bring her back for [random: *X,000*] TZShellings.

The safety feature is made salient by the attribute used to describe the transport as "a boda from town whom we know and trust" (safe option) or simply "a boda from town" (control option). The options for the cost attribute take one of nine discrete levels drawn from a scale ranging from 0 up to a village-specific ceiling[2] between 15,000TZSHellings and 35,000TZSHellings, generating substantial variation in the cost trade-offs respondents face.

The distribution of attributes across the two profiles allows the identification of the average marginal component effect (AMCE) of each attribute (Bansak et al. 2023; Hainmueller et al. 2014, 2015). Because the randomization filters at the profile level—requiring that the two options within a question are not identical, but allowing them to share one attribute while differing on the other—the resulting set of profiles includes three analytically useful types of variation: cases where both safety and cost differ across options, cases where only cost differs (safety held constant), and cases where only safety differs (cost held constant). The latter two types are particularly valuable for AMCE estimation, as they isolate the causal effect of each attribute free from confounding variation in the other. With two safety levels, approximately half of all profile pairs hold safety constant; similarly, roughly one in eighteen pairs hold cost constant.[3] Had the design instead forced both attributes to always differ, every choice would reflect a bundled trade-off between safety and cost, and estimation would rely entirely on across-profile comparisons rather than benefiting from within-attribute variation. The design as implemented thus preserves attribute orthogonality while maximizing the informativeness of each profile pair for estimating component effects.

Moreover, the orthogonal and continuous variation in both safety and cost is particularly well-suited for estimating willingness to pay (WTP) for the safety feature (Mas and Pallais 2017; **?**). Because cost varies independently of safety across a wide range of values, the design traces out how respondents trade off safety against cost—the core variation needed to identify the marginal rate of substitution between the two attributes.

[2]The village-specific price ceilings were implemented through a preloaded randomization file deployed to survey tablets. Note that these are identical to the corresponding to the four geographic strata ("Area") defined by village distance from town used to determine the price support upper bound for the BDM elicitation assigned to each village. Four scales were used: 0–15,000 TZS in increments of approximately 2,000; 0–20,000 in increments of 2,500; 0–30,000 in increments of approximately 4,000; and 0–35,000 in increments of approximately 4,500. Note that small first steps pin down the demand curve near zero, where it matters most for estimating whether WTP is positive.
Due to a configuration error during the initial deployment, some respondents surveyed in the first 27 days of data collection (July 18–August 12, 2023) received prices drawn from the 0–30,000 TZS scale regardless of their village assignment. From August 14 to October 6, all price ceilings were correctly assigned. The conjoint structure — no identical profiles within questions, independent randomization of safety and cost — is preserved for all observations regardless of which price scale was applied, since the error affected only the mapping from randomized cost codes to TZS labels, not the underlying randomization itself. In the analysis, we use the actual prices shown to each respondent.

[3]With two safety levels drawn independently across options, the probability that both options share the same safety level is 1/2. When safety is the same, however, cost must differ — otherwise the two profiles would be identical, which the filter excludes. Cost can therefore match only when safety differs. Conditional on different safety levels, the probability that two independently drawn cost values (each taking one of nine levels) coincide is 1/9. The unconditional probability of matching cost is thus $1/2 \times 1/9 \sim 1/18$, or approximately 5.6%—consistent with the 5.7% observed in the data.

Figure 1: Joint distribution of Safety and Price differences across profiles

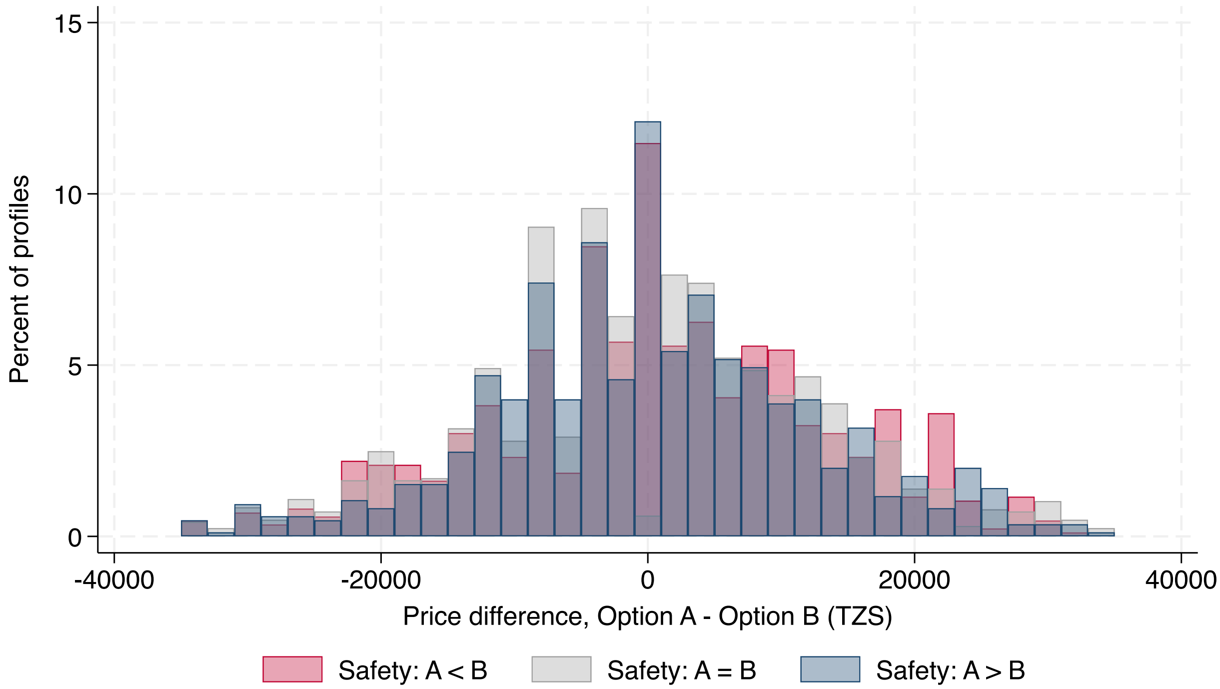


Figure 1 plots the distribution of price differences (Option A minus Option B, in TZSh) separately for each safety difference category: profiles where Option A has lower safety than Option B, profiles where both options share the same safety level, and profiles where Option A has higher safety. The near-identical shape of the cost difference distribution across all three panels confirms that safety and cost vary independently in the realized profiles—the cost trade-off a respondent faces is unrelated to the safety contrast in the same question. This independence is a key requirement for WTP estimation: the presence of questions where cost differences are zero while safety differs identifies the baseline preference for safety in the absence of any cost trade-off, while the full spread of positive and negative cost differences reveals how that preference responds to price—tracing out the demand curve from which willingness to pay is recovered.

4.2 Results

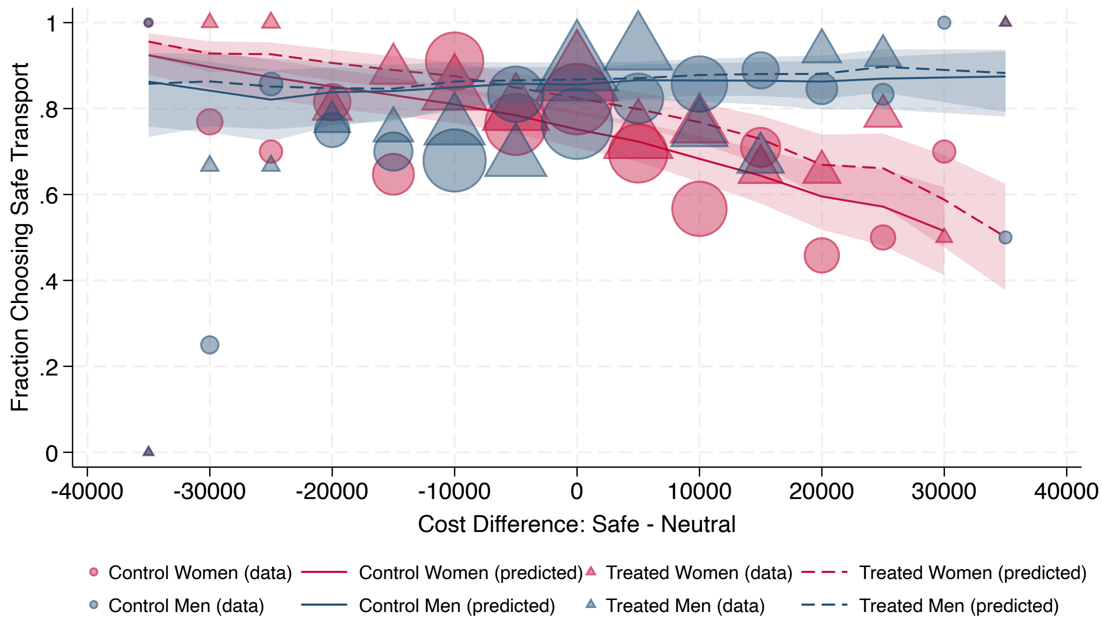
We begin with an illustration of the underlying choice patterns in the data. Restricting *only* for those pairs where one profile had a safe transport option and the other did not, we aggregated the experimental data into bins of equal width based on the cost difference between the safe and neutral transport options within each choice pair in Figure 2a. The horizontal axis plots the cost difference such that *negative* values indicate that the *safe option is cheaper* than the neutral alternative, while *positive* values indicate that the *safe option is more expensive*. The vertical axis plots the fraction of respondents choosing the safe transport option within each cost-difference bin, separately for women and men, and by treatment status.

Figure 2a shows that a substantial fraction of respondents choose the safe transport option even when it is considerably more expensive than the neutral alternative (i.e., positive cost difference on the x-axis), suggesting a non-negligible willingness to pay for transport safety. Specifically, when the safe option costs up to 40,000 TSh more than the neutral option, a nontrivial share of respondents still selects the safe transport. The fraction choosing safe transport rises as the safe option becomes relatively cheaper, as indicated by the upward slope of the preference curves. When the safe option is substantially cheaper than the neutral alternative, the acceptance rate approaches one.

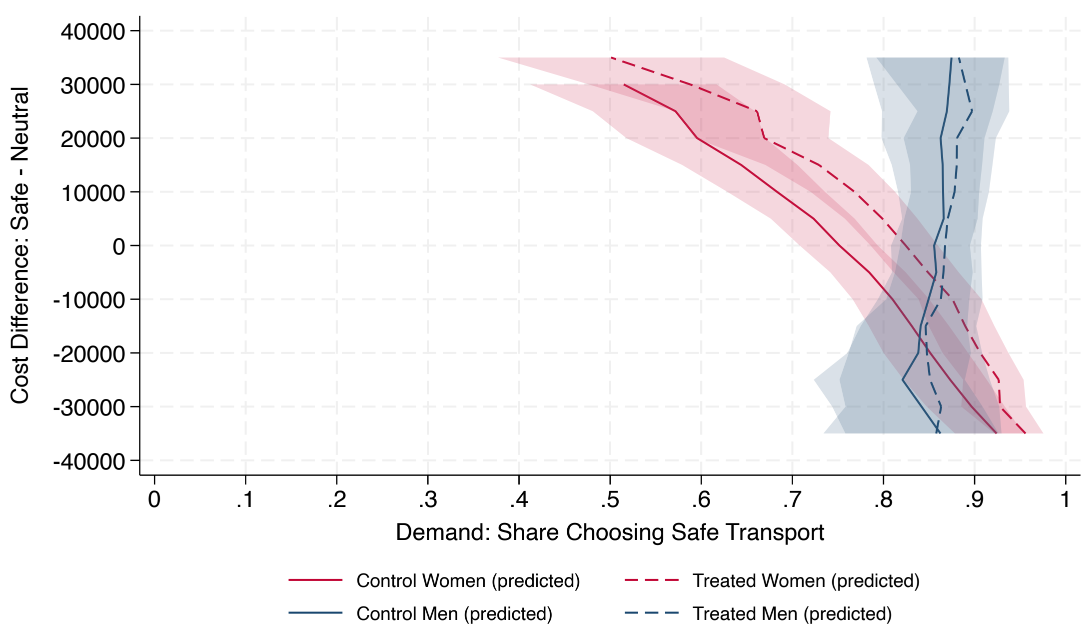
But the figure also points to meaningful heterogeneity across groups. First, women's propensity to choose the safe transport option varies with cost, consistent with women facing a trade-off between safety and cost; men instead prefer safety regardless of the price premium it commands—their demand for safety is completely inelastic to price. This difference is formalized and discussed further in Table 1, where it is indeed highlighted that men do not take cost into consideration when making the choice between the two transport option in the conjoint—notably, this makes the estimation of their willingness-to-pay undefined (see Table 2). Second, treated women—those whose perceptions of risk have been experimentally heightened by the GBV-radio-drama—display a visibly higher demand for safe transport compared to control women across the price distribution. Table 1 shows indeed how treatment significantly increases women's preference for safety, and Table 2 shows that this preference is reflected in a higher willingness-to-pay for safety of almost 7,000TZShillings.

Figure 2: Conjoint

(a) Data



(b) Demand



4.2.1 Estimation: preference for safe transport

The conjoint design identifies the two structural parameters of the model that govern behavior conditional on travel. When the mobility decision is held fixed by design, the husband evaluates transport option j through the indirect utility:

$$V_h(j) \;=\; \theta + \beta(\pi_h)\, S_j - \gamma(\pi_h)\, C_j \tag{9}$$

where $S_j \in \{0, 1\}$ indicates whether option j is safe, C_j is its cost, and the constant θ absorbs all terms that do not vary across options within a choice question by design $(R_h/\pi_h + \alpha U_w^*)$. Crucially, the cost sensitivity parameter $\gamma(\pi_h)$ in (9) is precisely the same structural parameter that governs the cost salience channel in the mobility decision: identification of $\gamma(\pi_h)$ from the conjoint therefore directly informs the denominator of WTP_{BDM} in (7).

The husband prefers option A over option B if and only if $\beta(\pi_h)(S_A - S_B) - \gamma(\pi_h)(C_A - C_B) > 0$. This motivates modeling the choice each respondent makes as:

$$y_{ij} = \alpha + \beta\, Safety_j + \gamma\, Price_j + \epsilon_i \tag{10}$$

where y_{ij} is the probability of respondent i of making choice A in repetition $j = 1, 2$ of the experiment, given the attributes of the choice pair (A,B) defined for each repetition j as:

$$Safety_j = \begin{cases} -1 \text{ if } Safety_A < Safety_B \\ 0 \text{ if } Safety_A = Safety_B \\ 1 \text{ if } Safety_A > Safety_B \end{cases}$$

and

$$Price_j = Price_A - Price_B$$

$$\text{which implies} \quad \begin{cases} < 0 \text{ if } Price_A < Price_B \\ 0 \text{ if } Price_A = Price_B \\ > 0 \text{ if } Price_A > Price_B \end{cases}$$

We estimate (10) through OLS[4], with standard errors clustered at the respondent level—as each respondent repeats the choice twice. All coefficients are directly interpretable as changes in the probability of choosing the safe transport option. Because safety and price are independently randomized across profiles, the estimated coefficients $\hat{\beta}$ and $\hat{\gamma}$ identify $\beta(\pi_h)$ and $-\gamma(\pi_h)$ respectively as average marginal component effects (Hainmueller et al. 2014).

[4] Logit estimates, reported in Table A7, yield substantively identical results; note that in conjoints where predicted probabilities cluster around 0.5 (Dep Var means are all ∼0.50), OLS and Logit give nearly identical substantive results.

To test whether these structural parameters respond to the GBV awareness treatment—and thereby determine whether the safety channel is active—we augment (10) with the experimental variation:

$$y_{ij} = \alpha + \beta_1\, Safety_j \times Treat_i + \beta_2\, Safety_j + \beta_3\, Price_j + \epsilon_i \tag{11}$$

where $Treat_i$ is equal to one if the respondent was assigned to the GBV-drama. The interaction effect of perceptions of risk and safety options is causally identified, as both $Treat$ and $Safety$ are randomly assigned. A positive and significant $\hat{\beta}_1$ combined with a stable $\hat{\gamma}$ across treatment arms would indicate that $\varepsilon_\beta > \varepsilon_\gamma$—the elasticity of the safety premium exceeds that of cost salience—and therefore that $\text{WTP}_{\text{conjoint}}$ rises with treatment. Conversely, if $\hat{\beta}_1$ is a precisely estimated zero, the safety channel is absent regardless of the BDM result.

Table 1 shows the average marginal effect of safety, identified by the coefficient β in (10), separately for men and women, and among treated and control. Table 1 also shows how safety preferences change in response to increased risk perceptions through the interaction coefficient β_1 as described by (11).

Table 1: Safety Preferences: Conjoint Estimates (OLS)

	By Gender		**By Gender and Treatment**					
			Men			Women		
	Men (i)	Women (ii)	Treated (iii)	Control (iv)	Both (v)	Treated (vi)	Control (vii)	Both (viii)
Safety	0.365***	0.278***	0.370***	0.358***	0.359***	0.314***	0.243***	0.243***
	(0.015)	(0.013)	(0.022)	(0.021)	(0.021)	(0.018)	(0.020)	(0.020)
Cost (10k TZSh)	0.012	–0.073***	0.016	0.007	0.011	–0.076***	–0.072***	–0.074***
	(0.012)	(0.009)	(0.017)	(0.016)	(0.012)	(0.013)	(0.012)	(0.009)
Treat					–0.000			–0.026
					(0.025)			(0.020)
Treat × Safety					0.012			0.071***
					(0.031)			(0.027)
Constant	0.545***	0.529***	0.545***	0.546***	0.545***	0.516***	0.542***	0.542***
	(0.012)	(0.010)	(0.017)	(0.018)	(0.018)	(0.014)	(0.014)	(0.014)
Observations	1,188	2,007	600	588	1,188	1,010	997	2,007
R^2	0.265	0.199	0.268	0.262	0.265	0.239	0.164	0.202
Dep. Var. Mean	0.536	0.532	0.533	0.539	0.536	0.523	0.541	0.532

Notes: OLS (linear probability model) estimates. Standard errors clustered at the respondent level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is choice of Option A (=1). Safety $\in \{-1, 0, 1\}$ indicates whether Option A has lower, equal, or higher safety than Option B. Cost is the price difference (Option A – Option B) in units of 10,000 TZSh. Treatment is assignment to the GBV radio-drama, pair-randomized at the ward level. Columns (i)–(ii) estimate by gender; (iii)–(iv) and (vi)–(vii) by gender and treatment arm; (v) and (viii) pool within gender and interact safety with treatment assignment. Table A7 shows the same coefficients estimated with a logit regression instead; Table A4 and Table A8 show how the coefficients do not change when accounting for Area or Ward fixed effects: Area fixed effects correspond to the four geographic strata that imply different price labels; Ward fixed effects correspond to the randomization blocks for the drama.

4.2.2 Discussion

Both men and women prefer safety. Table 1 confirms that, conditional on the woman traveling, both men and women are significantly more likely to choose the safe transport option. For men, the coefficient on safety is 0.365 ($p < 0.001$, Column i): a one-unit increase in relative safety—moving from the neutral to the safe option—raises the probability of choosing it by 36.5 percentage points. For women, the corresponding coefficient is 0.278 ($p < 0.001$, Column ii), a 27.8 percentage-point increase. Both genders thus exhibit strong preferences for women's safety.

Cost affects only women's choices, men's choices are inelastic to price. The key gender difference lies not in safety preferences but in responsiveness to cost. Women's cost coefficient is -0.073 and highly significant ($p < 0.001$): a 10,000 TZSh increase in the price of the safe option reduces women's probability of choosing it by 7.3 percentage points. Men's cost coefficient is effectively zero (0.012) and statistically insignificant ($p = 0.328$), both when estimated separately (Column i) and across all robustness specifications (Table A4, Table A7, Table A8). Effectively, men's propensity to choose the safe transport option is inelastic to cost—they prefer safety regardless of the price premium it commands. Conditional on travel occurring, men's evaluation of transport options is dominated entirely by safety: cost does not enter their calculus.

Treatment increases women's demand for safety; men's demand is unaffected. Table 1 introduces the experimental variation. Among women, the GBV-awareness treatment significantly increases the probability of choosing the safe option: the interaction of treatment and safety is 0.071 ($p = 0.008$, Column viii). That is, treated women are 7.1 percentage points more likely than control women to choose the safe option for each unit increase in relative safety. Comparing columns (vi) and (vii) directly, treated women's safety coefficient (0.314) exceeds that of control women (0.243) by roughly 30%. Among men, the same interaction is small and insignificant (0.012, $p = 0.700$, Column v), a null result consistent with a ceiling effect: men's baseline safety preference is already unconditional and cost-insensitive, leaving little room for treatment to increase it further.

Robustness. These results are robust to the inclusion of area fixed effects and ward-level randomization block fixed effects (Table A4), with the treatment–safety interaction for women ranging from 0.071 to 0.072 across specifications ($p < 0.01$ throughout). The corresponding interaction for men is never significant (0.007 to 0.012, $p > 0.70$ in all cases). Moreover, to assess the robustness of these results and explore potential heterogeneity, we implement two additional sets of specifications. First, we apply LASSO to select among 16 candidate respondent-level covariates separately for men and women. LASSO selects a single control for men and no controls for women, leaving both the main safety AMCE and the treatment interaction essentially unchanged (Table A5). The near-absence of LASSO-selected covariates confirms that individual pre-treatment characteristics explain little variation in conjoint safety choices beyond the experimentally randomized attributes themselves. Second, we examine whether the treatment effect on women's safety preferences varies with two theoretically motivated moderators: respondents' own baseline gender equality index and their baseline perceptions of GBV risk in the community. Neither moderator produces meaningful heterogeneity (Table A6). The treatment-induced increase in women's demand for safer transport is uniform across the distribution of pre-existing gender attitudes and baseline risk perceptions, suggesting it reflects a broad-based shift in preferences rather than an effect concentrated among women who were already more aware of or concerned about GBV.

Interpretation. Taken together, these results reveal that — conditional on travel occurring — both men and women prefer safe transport, but only women weigh this preference against cost. Treatment amplifies women's safety demand by 7.1 percentage points, a 30% increase over the control mean, consistent with rational updating of risk perceptions. Men's preferences, already unconditional at baseline, show no room to move. What the conjoint cannot tell us is whether men's safety preferences extend to actually funding safe transport when doing so is costly and the mobility decision is theirs to make.

4.2.3 Estimation: WTP elicitation through conjoint experiment

While (10) and (11) establish whether and how safety preferences respond to treatment, they do not speak to the *intensity* of those preferences. The conjoint design allows us to go further: because cost varies independently of safety across a wide range of values, the data trace out how respondents trade off safety against cost, and the marginal rate of substitution between the two attributes identifies the willingness to pay for safety.

Following Maestas et al. (2023), we derive $\text{WTP}_{\text{conjoint}}$ formally from the indirect utility underlying (10).[5] Consider a respondent who is indifferent between not having safety at a given price, and having safety with a corresponding price increase equal to the willingness-to-pay for safety. Setting the indirect utilities of the safe and unsafe options equal:

$$\begin{aligned} V_h(\text{safe}) &= V_h(\text{not safe}) \\ \theta + \beta(\pi_h)\, S_s - \gamma(\pi_h)\,(C_s + WTP) &= \theta - \gamma(\pi_h)\, C_{\neg s} \\ WTP_i &= -\frac{\beta_i}{\gamma_i} \end{aligned} \tag{12}$$

where β_i and γ_i are respondent i's marginal utilities of safety and cost respectively. The average $\text{WTP}_{\text{conjoint}}$ is therefore recovered directly from the estimated coefficients of (10) as the ratio $-\hat{\beta}/\hat{\gamma}$. Because $\text{WTP}_{\text{conjoint}}$ is a nonlinear function of two estimated coefficients, its standard error must account for the uncertainty in both estimates and their ratio. We use the delta method, which

[5] Note that differently from them we do not look at the logged price, as our design only anchors the price distribution that each respondent sees to their area (i.e., how far their village is from the closest large town, as explained above). If we were worried that the marginal effect of N TZShillings were different across areas, we would still have to log the price; nonetheless when we add area or village level fixed effects to the estimation of the AMCE or the WTP, results remain virtually unchanged (see Table A8)—suggesting we do not need to employ the log given our design.

approximates the variance of a nonlinear function of random variables using a first-order Taylor expansion—accounting for the variance of $\hat{\beta}$, the variance of $\hat{\gamma}$, and—crucially—the covariance between them. Table 2 reports these estimates.

The treatment effect on $\text{WTP}_{\text{conjoint}}$ is theoretically ambiguous. Differentiating $\beta(\pi_h)/\gamma(\pi_h)$ with respect to π_h using the quotient rule yields:

$$\frac{\partial\, \text{WTP}_{\text{conjoint}}}{\partial\, \pi_h} = \frac{\beta(\pi_h)}{\gamma(\pi_h)} \cdot \frac{\varepsilon_\beta - \varepsilon_\gamma}{\pi_h} \tag{13}$$

Since $\gamma(\pi_h) > 0$ and $\pi_h > 0$ by definition, the sign of (13) depends on two things: the sign of $\beta(\pi_h)$—an empirical question directly tested by (10)—and the sign of $\varepsilon_\beta - \varepsilon_\gamma$. Conditional on finding a positive safety preference ($\beta(\pi_h) > 0$), the treatment raises $\text{WTP}_{\text{conjoint}}$ if and only if the elasticity of the safety premium exceeds that of cost salience. This condition is empirically testable: estimating (11) separately for treated and control respondents identifies whether $\hat{\beta}$ and $\hat{\gamma}$ respond differently to heightened risk perception—a positive and significant $\hat{\beta}_1$ combined with a stable $\hat{\gamma}$ across treatment arms indicates $\varepsilon_\beta > \varepsilon_\gamma$ and therefore a positive treatment effect on $\text{WTP}_{\text{conjoint}}$, while an upward shift in $\hat{\gamma}$ would compress the ratio regardless of what happens to $\hat{\beta}$.

Table 2: Willingness to Pay for Safety (OLS, TZSh)

	By Gender		**By Gender and Treatment**			
			Men		Women	
	Men (i)	Women (ii)	Treated (iii)	Control (iv)	Treated (v)	Control (vi)
WTP	–312,572 (318,939)	37,948*** (5,238)	–232,886 (254,360)	–492,971 (1,115,904)	41,256*** (7,695)	33,874*** (6,893)
Difference	–350,520 (318,982) [p = 0.272]		260,085 (1,144,516) [p = 0.820]		7,382 (10,334) [p = 0.475]	

Notes: $\widehat{\text{WTP}} = -\hat{\beta}_{\text{safety}}/\hat{\gamma}$ in TZSh. Standard errors in parentheses, computed using the delta method with full variance-covariance matrix. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Columns (i)–(ii) are from a single OLS pooling men and women with gender-specific safety and cost coefficients. Columns (iii)–(vi) are from a single OLS with four group-specific coefficients. No fixed effects. Difference in columns (i)–(ii) is Men − Women; in columns (iii)–(iv) and (v)–(vi) is Treated − Control within gender. Men's WTP is negative and imprecisely estimated because their cost coefficient is not statistically distinguishable from zero. Table A9 shows the same coefficients estimated with a logit regression instead.

4.2.4 Discussion

Men's WTP is not well identified. The asymmetry in cost sensitivity highlighted in Table 1 between men and women has a direct consequence for willingness-to-pay estimation. Because WTP is defined as the ratio $-\hat{\beta}_{\text{safety}}/\hat{\beta}_{\text{cost}}$, it is well-identified only when the denominator is meaningfully different from zero. Women's WTP for safety is precisely estimated at approximately 38,000 TZSh (Column ii). Men's WTP is undefined in economic terms—not because men do not value safety, but because cost does not enter their decision calculus when choosing between safe and neutral options for their wife[6]. The negative point estimates and enormous standard errors for men (Column i) simply reflect the mechanical consequence of dividing a large, precisely estimated safety coefficient by a cost coefficient that is indistinguishable from zero. Indeed, men who choose safety unconditionally when the trip is given cannot have a well-defined price for it.

For women, safety dominates the monetary value of the trip. The ratio $-\hat{\beta}/\hat{\gamma}$ gives the price premium a respondent would pay to switch from an unsafe to a safe ride—or, equivalently, the price discount needed to make an unsafe ride just as attractive as a safe one. For women, this ratio implies that accepting an unsafe ride would require a compensating discount of approximately 38,000 TZSh—more than 2.5 times the 15,000 TZSh airtime the woman would receive at the destination. Safety is not a marginal consideration for women; it dominates the monetary value of the trip itself.

Treatment raises women's WTP, but the difference is imprecise. Point estimates for women's WTP increase from approximately 33,900 TZSh in the control group to 41,300 TZSh in the treatment group (Columns v—vi), a 22% increase, though this within-gender difference is not statistically significant (7,382 TZSh, [p = 0.475]) Nonetheless, the direction is consistent with the AMCE results: treated women place greater value on safety, and this translates into a higher—if imprecisely estimated—willingness to pay. Men's WTP remains undefined in both treatment arms, with point estimates that are large, negative, and statistically meaningless (Columns iii–iv).

5 Mobility choices

The conjoint established that, conditional on travel, men choose safe transport unconditionally—cost does not enter their evaluation. But the conjoint forecloses the very margin through which more subtle gatekeeping may operate: it assumes the wife is going and asks only which ride she takes. To examine whether men's safety preferences extend to actually enabling travel, we elicit husbands' revealed preferences for their wife's transport to town through an incentivized willingness-to-pay measure. Here, unlike in the conjoint, the husband's bid determines whether the trip happens at all rather than its characteristics. The question shifts from "when she goes, which option is better for her?" to "how much of your own resources do you actually commit to sending her?"

[6]Note that this result holds also when restricting the sample to married men ($N = 903$ choice observations, $p = 0.724$) as well as to the subset of married men who participated in the BDM elicitation the following day ($N = 458$ choice observations): their cost coefficient is virtually zero ($p = 0.925$), confirming that cost insensitivity in the conjoint vis-a-vis significant BDM results is not an artifact of sample composition.

5.1 Design: incentivized BDM

We designed a Willingness-to-Pay elicitation procedure, where the main good being auctioned was a boda-boda ride. Specifically, men were told *"an organization who works for the community wants to invite your wife to town for a day. If you win this game, once in town, she will be given 15,000 TZShelling of airtime for herself. When she goes, they will deposit this money on her Mpesa account. So now you are playing for a boda ride for your wife/partner for her to go"*.

Following **?**, we implemented an elicitation procedure using a Multiple Price List method (MPL). This method follows the standard structure of a Becker-Degroot-Marschak (BDM) (**?**) elicitation mechanism: the respondent begins stating a WTP value w, next the respondent draws a random price p, finally the respondent is able to purchase the good or service being auctioned if $w \geq p$ at price p. If $w < p$ instead, the respondent does not purchase anything and pays nothing. However, while in the classic BDM the respondent states his WTP directly, the MPL method asks for each possible price p in a given support whether the respondent would buy the good or service at that price, in ascending order, until the respondent gives a negative answer. The respondent's WTP, w is then equal to the last price he agreed to pay for the good. While the classic BDM provides richer data and allows for point elicitation, MPL might be easier to comprehend in some contexts.

We wish to draw attention to a few design features. First, we randomly assign respondents to one out of four WTP *price supports*, all with lower bound equal to 0 TZS and with upper bound equal to either 15,000, 20,000, 30,000 or 35,000 TZS. We do this to take into account the actual distance of the village from the town where we invite respondents—otherwise, prices would be either unrealistically low or unrealistically high.

Second, to avoid incurring in the problem of credit constrain – i.e, that our WTP measure would only pick up ability to pay rather than willingness to – we decided to provide every respondent with an *endowment* equal to the maximum of the price support they have been assigned to. Essentially everyone was given a cash transfer, albeit by different amount (everyone got an unexpected windfall of money). Say respondent i was given an amount x_i before the elicitation and is WTP is w_i. He then extracts a random price p_i and he is able to buy the boda-boda trip iff $p_i \leq W_i$ and he doesn't buy anything if $p_i > w_i$. Then he is left with cash-at-hand y_i equal to

$$y_i = \begin{cases} x_i \text{ if } p_i > w_i \\ x_i - p_i \text{ if } p_i \leq w_i \end{cases}$$

Note that x_i always corresponds to the upper bound of p_i's support. We can then leverage this exogenous liquidity shock to study what proportion of it gets allocated to the purchase of the good we are auctioning for.

Third, in each price support, there were *9 possible prices* that could have been drawn in the extraction that followed the MPL elicitation. Prices were assigned to each respondent randomly prior to the elicitation, drawn from a uniform distribution. After they stated their WTP, respondents could reveal the price assigned to them scratching a sticker on a sheet of paper, which covered the randomly assigned price.

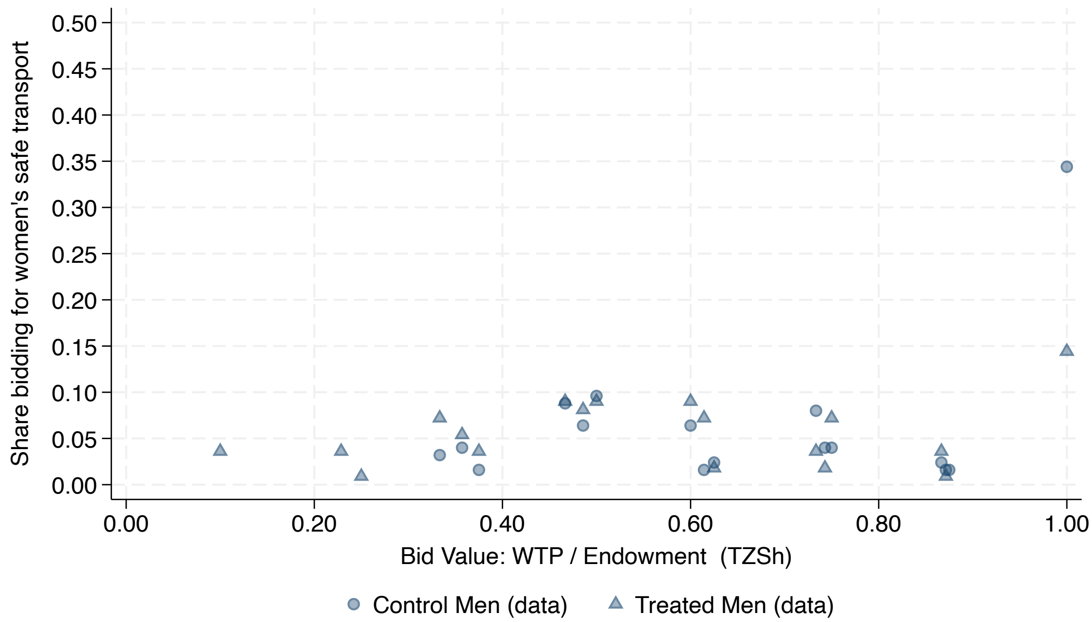
To ensure understanding, before the elicitation round for the boda-boda ride, respondents could *practice* the procedure by bidding for a bottle soda. In addition, we included a battery of comprehension checks to test respondents' comprehension and provide them with real-time feedbacks on the possible outcomes of the elicitation procedure.

5.2 Results

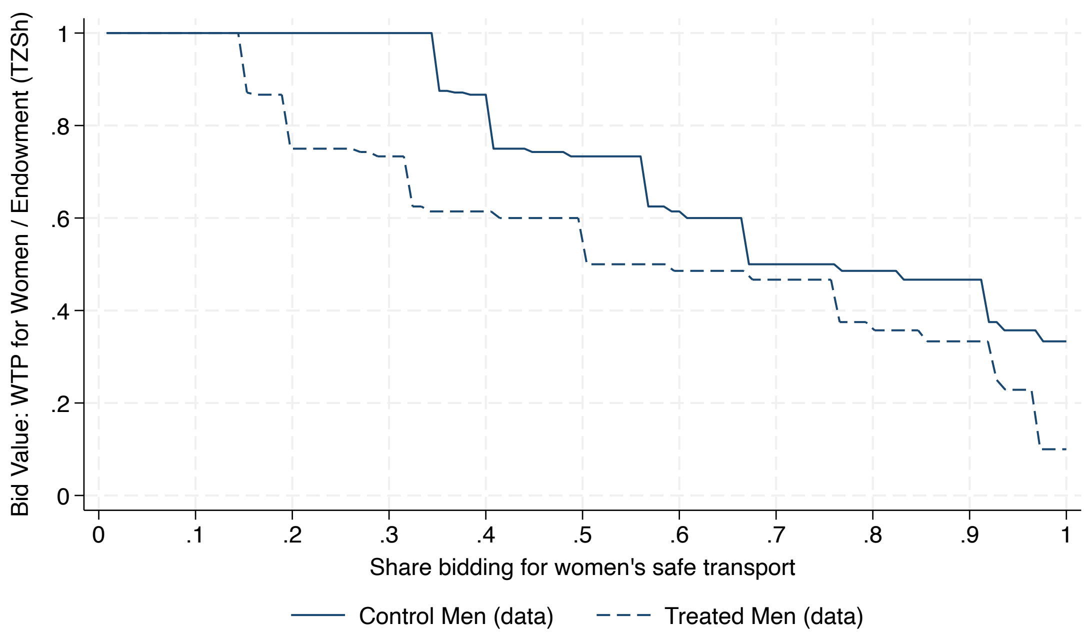
Figure 3a plots the raw BDM data. Each observation represents a unique bid value—expressed as the share of the endowment—on the horizontal axis, and the share of men bidding at that value on the vertical axis, separately for treated (triangles) and control (circles) men. The figure reveals a clear separation between the two groups across the distribution of bids. Control men are more concentrated at higher bid values: approximately 35% of control men bid the full endowment—allocating all of their endowment to the boda-boda trip for their wife—compared to roughly 15% of treated men who do so. More generally, the mass of treated men's bids lies to the left of that of control men, indicating that, across the full support of possible bid values, treated men systematically offer a smaller share of their endowment for safe transport. This pattern is consistent with a treatment-induced downward shift in men's willingness to pay: exposure to the GBV radio-drama does not increase husbands' demand for safe transport for their wives, but instead reduces it.

Figure 3: BDM

(a) Data



(b) Demand



For each possible price, we calculate the share of men who are willing to pay up to that specific price for both the treatment and control group: this generates the demand curves for the two groups implied by the data shown in Figure 3b—again using the ratio between a respondent's WTP to the value of the endowment we provided him before the elicitation. The demand for a boda-boda of men belonging to the treated group always lies below that of men belonging to the control group. This means that, at any given price, treated men demand less of the good we auctioned. Everything else equal, a man who has stronger preferences to buy the boda-boda ride for his wife should allocate a larger share of the endowment he received to it: instead, while 35% of men belonging to the control group allocate the full amount of the cash windfall to the trip for their wives, only about 15% of treated men do so.

5.2.1 Estimation: WTP through incentivized BDM

The BDM elicits a direct revealed-preference measure of WTP_{BDM} as defined in the model. In the BDM, the husband bids for a safe boda ride ($S = 1$) that enables his wife's trip; his maximum willingness to pay is the price at which he is just indifferent between allowing the trip and forbidding it. Solving the indifference condition underlying (7):

$$\text{WTP}_{\text{BDM}} \;=\; \frac{R_h/\pi_h \;+\; 2\alpha\, U_w^* \;+\; \beta(\pi_h)S}{\gamma(\pi_h)} \tag{14}$$

where $\gamma(\pi_h)$ appears in the denominator and acts as a deflator of the entire numerator: higher cost salience uniformly compresses the monetary value the husband assigns to the personal return, the caring term, and the safety premium alike. The treatment effect on WTP_{BDM}—obtained by differentiating (14) with respect to π_h as in (8)—aggregates all three channels into a single quantity whose sign answers the gatekeeping-versus-protective-investment question: a negative treatment effect means the return discount and cost salience deflation together dominate the safety value, and gatekeeping prevails; a positive treatment effect means the safety value dominates, and protective investment prevails.

Note the structural relationship between the two empirical objects. The conjoint estimates $\hat{\beta}$ and $\hat{\gamma}$ from (10) identify $\beta(\pi_h)$ and $\gamma(\pi_h)$ separately, holding the mobility decision fixed. It is $\gamma(\pi_h)$ in the denominator of (14) that connects the two: the same cost salience parameter identified from the conjoint governs how heavily the husband weights expenditure when deciding whether to send his wife at all. A comparison of $\text{WTP}_{\text{conjoint}}$ and WTP_{BDM} therefore provides a within-sample test of whether men's stated preferences for safety conditional on travel are consistent with their revealed willingness to actually fund it.

We estimate the treatment effect on WTP_{BDM} through:

$$WTP_i \;=\; \alpha + \beta\, T + \epsilon_i$$

where WTP_i is the share of the endowment that husband i bids for the boda-boda trip, T is an indicator equal to 1 if the respondent is in a village exposed to treatment, and standard errors are clustered at the ward level, as treatment is pair-randomized at that level. The coefficient of interest

β identifies the treatment effect on WTP_{BDM}, expressed as a share of the endowment to ensure comparability across the four geographic strata with different price supports.[7]

Note that when we use the raw WTP amount as an outcome variable, we need to add indicator variables which control for the upper bound of each of the WTP elicitation random price support, shortened as "Area Fixed Effects" (corresponding to the four geographic strata defined by village distance from town, which determine the price support upper bound assigned to each respondent). This is necessary to avoid that, mechanically, men assigned to an elicitation mechanism with a higher price support upper bound show higher WTP.

Table 3: Mobility Preferences: BDM Estimates (OLS)

	WTP / Endowment			**WTP (10k TZSh)**	
	(i)	(ii)	(iii)	(iv)	(v)
Treatment	−0.126***	−0.115***	−0.125***	−2.797***	−2.445***
	(0.031)	(0.029)	(0.022)	(0.731)	(0.500)
Area FE	No	Yes	No	Yes	Yes
Ward FE	No	No	Yes	No	Yes
Observations	246	246	246	246	246
R^2	0.065	0.194	0.507	0.337	0.694
Control Dep. Var. Mean	0.725	0.725	0.725	16.296	16.296

Notes: OLS estimates. Standard errors clustered at the respondent level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in columns (i)–(iii) is the share of the endowment that the respondend bidded (WTP / endowment)—note that the endowment amount varies across four geographic areas. Columns (iv)–(v) use the raw WTP amount in units of 10,000 TZSh; a no-FE specification is omitted for this outcome as the raw amount is not comparable across areas without area controls. Treatment is assignment to the GBV radio-drama, pair-randomized at the ward level. Area fixed effects correspond to the four geographic strata that imply different endowment amounts; Ward fixed effects correspond to the drama randomization blocks. Table A1 shows the same coefficients estimated in Column (i) when LASSO-selected covariates among baseline characteristics of the respondent and Table A2 among characteristics of the partner of the respondent, and both highlight no changes in the treatment effect nor its significance.

5.2.2 Discussion

Treatment decreases men's demand for women's mobility. The regression results in Table 3 confirm and quantify the patterns visible in Figure 3. Column (i) estimates a treatment effect of 0.126 ($p < 0.001$: treated husbands are willing to allocate 12.6 percentage points less of their

[7]When using the raw WTP amount as an outcome, we add area fixed effects corresponding to the four geographic strata to account for the fact that the endowment—and hence the price support—varies across areas; see columns (iv)–(v) of Table 3.

endowment to the boda-boda trip for their wife relative to a control mean of 72.5%—almost a 20% decrease in willingness-to-pay for their wives' mobility. Adding area fixed effects in column (ii) as well as replacing these with ward-level randomization block fixed effects in column (iii), leaves the estimate and its significance nearly unchanged. The consistency of the coefficient across all three specifications—spanning a range of less than one percentage point—highlights the robustness of the demand curve shift.

Columns (iv) and (v) put this into raw monetary terms. Once accounting for the different endowment levels, men with higher risk perceptions are willing to pay approximately 2,797 TZSh less for their wife's transport ($p < 0.001$), relative to a control group mean of 16,296 TZSh—again, a reduction of almost 20%. To put these magnitudes in context: the activity itself promises the wife 15,000 TZSh of airtime deposited directly on her mobile money account. Strikingly, the control group mean WTP of 16,296 TZSh is nearly identical to the 15,000 TZSh airtime gift, suggesting that untreated husbands are on average willing to spend an amount equivalent to the full value of the benefit to their wife in order to send her. This near-perfect correspondence suggests that untreated husbands internalize the full monetary benefit of the trip to their wife—they are willing to spend, dollar-for-dollar, an amount equivalent to what she would gain, consistently with genuine investment in her economic activity rather than mere tolerance of her mobility. Against this baseline, the treatment effect is all the more striking: treated husbands' spend about 2,500–2,800 TZSh less, which represents roughly one-sixth of the value of the reward the wife would receive upon arrival—men who have been made more aware of the risks their wives face reduce their willingness to pay retaining more of the windfall for themselves, rather than facilitating her access to income. This pattern stands in direct contrast to men's behavior in the conjoint: the same population that chose safe transport unconditionally when the trip was assumed to occur, now bids significantly less for that transport when their own resources determine whether the trip happens. The conjoint captured men's preference for women's safety; the BDM reveals the limit of their willingness to fund it.

Gatekeeping is higher among men in villages where women are more traditional. We explore heterogeneity in the treatment effect along three dimensions in Table A3: the husband's baseline perceptions of GBV risk in the community, his own gender equality attitudes, and the prevailing gender equality norms among women in his village. We uncover a significant and positive interaction with the village-level mean of women's gender equality attitudes ($p = 0.003$): treated husbands living in villages where women hold more egalitarian norms reduce their WTP by less—or equivalently, the treatment-induced decrease in WTP is concentrated among husbands in villages where women's norms are more traditional. This pattern is consistent with village-level gender norms moderating how men respond to GBV awareness. Because this interaction does not survive the inclusion of ward fixed effects, we treat this pattern as exploratory rather than a primary result. One interpretation consistent with this pattern is that, in villages where women's norms are more traditional, restricting a wife's mobility carries positive social value for husbands as a conformity signal—it demonstrates adherence to the expected role of household guardian. The GBV radio-drama may then provide treated husbands in these villages with a socially legitimate justification to do what community norms already prescribe, converting heightened concern about risk into reduced investment in safe transport rather than increased demand for it.

6 Conclusion

This paper studies how increased awareness of gender-based violence risk shapes men's demand for women's mobility in rural Tanzania. Using experimental variation generated by a randomized radio-drama intervention across 116 villages, we elicit causal treatment effects on two distinct objects: husbands' preference for safe transport conditional on their wife traveling, and their willingness to actually fund the trip. The two objects diverge sharply. Conditional on travel, men strongly and unconditionally prefer safe transport—their safety coefficient in the conjoint experiment is large, highly significant, and completely insensitive to cost. Yet the GBV awareness treatment reduces their willingness to fund travel in the incentivized BDM by approximately 20%, against a control baseline in which untreated husbands bid an amount nearly identical to the value of the benefit their wife would receive upon arrival. Men who have been made more aware of the risks their wives face in transit retain more of their endowment rather than allocating it to enabling the trip.

This divergence is the paper's central finding. It establishes that safety preferences and mobility support are empirically distinct, and that the safety channel — while active for women — is insufficient to counteract the cost salience and return discount channels that dominate the mobility decision for men. Gatekeeping and genuine protective concern are not mutually exclusive: men can simultaneously prefer safety for their wives and reduce the resources they commit to her travel. The result provides a clear answer to the theoretical ambiguity formalized in the model: in this setting, increased GBV risk awareness triggers gatekeeping rather than protective investment, because the cost salience deflation channel dominates

These findings carry several implications. First, they suggest a limit to what supply-side transport safety improvements can achieve in settings where men control the travel decision. Trusted-driver networks, gendered vehicles, and other safety-enhancing transport interventions address the safety preference margin—and our evidence confirms that men value those improvements. But if GBV awareness simultaneously reduces men's willingness to fund travel at all, safety improvements alone may not be sufficient to expand women's mobility. The net effect on actual trips depends on whether the reduction in WTP crosses the threshold at which travel no longer occurs, which in turn depends on the distribution of personal returns across households. Our estimates suggest that treated men reduce their WTP by roughly one-sixth of the value of the benefit to their wife—a non-trivial compression that, for households at the margin of funding the trip, may be enough to tip the decision against travel.

Second, the findings point to village-level gender norms as a moderator of how men respond to GBV awareness. The treatment-induced reduction in WTP is concentrated in villages where women hold more traditional norms, consistent with a mechanism in which the GBV drama provides socially legitimate justification for restricting mobility in communities where such restriction already carries positive social value. This pattern suggests that GBV awareness campaigns may interact with local normative environments in ways that produce heterogeneous— and potentially counterproductive— effects on women's autonomy in the most patriarchal settings. Complementary interventions that shift village-level gender norms, or that target the caring and return-value channels of the husband's decision, may therefore be needed to counteract the gatekeeping response.

Third, the result for women offers a more optimistic counterpoint. Treated women increase their demand for safe transport by 7.1 percentage points—a 30% increase over the control mean—and the treatment effect is uniform across the distribution of baseline gender attitudes and prior risk perceptions. This broad-based shift suggests that edutainment interventions can meaningfully update women's own preferences for safety, independently of whether husbands allow them to act on those preferences. Closing the gap between women's updated aspirations and the household resource allocation that determines whether those aspirations can be realized may require interventions that operate simultaneously on women's agency and on the constraints imposed by the men who govern their movement.

More broadly, the paper illustrates a general methodological point about the measurement of safety preferences in constrained households. When the person who controls the resource allocation is not the person who bears the risk, standard preference elicitation methods that hold the travel decision fixed will overestimate the demand for safety improvements that can be realized in practice. Recovering the willingness to pay of the gatekeeper—not just the beneficiary—is essential for predicting the effects of transport safety interventions in settings where male permission governs female mobility.

Finally, these findings point to an open agenda on the design of interventions that can break the link between genuine GBV concern and mobility restriction—and on the downstream political consequences of doing so. The gatekeeping documented here is conceptually distinct from the coercive variety studied by Cheema et al. (2023): husbands in our setting are not suppressing wives' political participation to protect male authority, but restricting movement out of what they perceive as protective concern. This distinction matters for policy design. Delegitimization campaigns that target patriarchal attitudes may find limited purchase with men whose behavior is driven by safety worries rather than gender ideology. More promising may be interventions that give worried husbands trusted alternatives—vetted driver networks, community safety escorts, group travel arrangements—that allow them to enable their wives' mobility without assuming the

GBV risk they now associate with independent travel. Whether such supply-side improvements, when combined with male-targeted reassurance rather than challenge, can restore the 20% WTP gap documented here remains an important open question. Equally important is the downstream political question: since physical mobility is the prerequisite for political voice in rural Tanzania—attending village assemblies, contacting ward officials, building advocacy coalitions (Kruks-Wisner 2018; Montano 2026; Prillaman 2023)—the political consequences of mobility constraints imposed by worried husbands may extend far beyond any individual trip. Future work that traces the chain from GBV awareness through gatekeeping to civic participation could substantially enrich our understanding of why gender gaps in political voice persist even where gender gaps in political attitudes have narrowed.

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Appendix

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Contents

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A A simple model of gatekeeping

A.1 Setup

Suppose a wife wants to make a trip from the village to town, and a husband must decide whether to allow her to go.[1] Let:

- $\pi_h \in (0,1]$: the husband's posterior belief that the trip is unsafe, formed from priors π and signals σ he receives, including GBV awareness content. Higher π_h means the husband considers the environment more dangerous.
- $R_h > 0$: the husband's personal return from the trip (financial return, household goods collected, etc.).
- $U_w^* > 0$: the wife's equilibrium utility from making the trip, always positive. Her optimization problem is not modeled here—only her equilibrium utility is taken as given.
- $\alpha \in [0,1]$: the *caring parameter*—the share of his wife's utility the husband internalizes. $\alpha = 0$ represents complete indifference to her preferences; $\alpha = 1$ means he fully internalizes her welfare.
- Safety $\in \{0,1\}$: the safety attribute of the transport option, where $S = 1$ denotes that the boda driver is known and trusted and $S = 0$ is the neutral (unknown) alternative.
- $\beta(\pi_h) \geq 0$: the *safety preference parameter*—the husband's marginal utility of the safe transport attribute S, increasing in perceived risk: $\beta'(\pi_h) > 0$. The more dangerous the husband perceives the environment, the more he values having his wife travel with a trusted driver, conditional on her traveling at all. This reflects the natural assumption that the premium placed on safe transport rises when the outside option (neutral transport) becomes more dangerous.
- Cost > 0: the market price of transport, where the precise monetary amount is determined by factors outside the husband's control and independent on perceived risk (e.g., the distance from the village to town or local boda availability at the time of travel) such that he takes C as given when making his decision.
- $\gamma(\pi_h) > 0$: the *cost salience parameter*— the husband's marginal **dis**utility of monetary expenditure on transport, increasing in perceived risk: $\gamma'(\pi_h) > 0$. Crucially, $\gamma(\pi_h)$ multiplies the fixed market price, so what varies with perceived risk is not the objective price of transport but how heavily the husband weighs that price in his decision. When the environment feels more dangerous, each TZShilling spent on his wife's transport costs him more subjectively, independently of what the market price is.

A.2 The husband's decision

The husband allows the trip if his expected utility from the trip weakly exceeds his expected utility from the trip not occurring:

$$E\big[u_h(t)\big] \;\geq\; E\big[u_h(\neg t)\big] \tag{A.1}$$

[1] The framework is presented for husbands and wives for ease of exposition, but applies to any man who holds gatekeeping power over a woman's mobility.

Utility from the trip occurring:

$$E\big[u_h(t)\big] \;=\; \frac{R_h}{\pi_h} \;+\; \alpha\, U_w^* \;+\; \beta(\pi_h)\text{Safety} \;-\; \gamma(\pi_h)\text{Cost} \tag{A.2}$$

The four components are:

- R_h/π_h: the personal return from the trip, discounted by perceived risk. When π_h is high, the expected return is low because there is a high probability the trip ends badly.
- $\alpha\, U_w^*$: the share of the wife's utility the husband internalizes, representing the altruistic or cooperative component of the husband's decision. This term is independent of π_h: how much the husband cares about his wife's preferences does not change with risk perceptions.
- $\beta(\pi_h)\, S$: the direct utility from the safety attribute of the chosen transport option, increasing in π_h. This is distinct from $\alpha\, U_w^*$: even a husband with $\alpha = 0$ may value safe transport ($\beta > 0$)—for instance because an unsafe trip that results in harm generates reputational costs for him as the household guardian. The dependence of β on π_h captures the fact that the premium placed on a trusted driver rises when the environment is perceived as more dangerous.
- $\gamma(\pi_h)\, C$: the subjective cost of funding transport, equal to the market price—taken as given by the husband—scaled by cost salience $\gamma(\pi_h)$. Since Cost is exogenous to the husband's decision and $\gamma'(\pi_h) > 0$, this term rises with perceived risk not because transport becomes more expensive in the market, but because the husband becomes more sensitive to expenditure as the environment feels more dangerous.

Utility from the trip not occurring:

$$E\big[u_h(\neg t)\big] \;=\; -\,\alpha\, U_w^* \tag{A.3}$$

When the trip does not occur, the husband avoids the subjective cost $\gamma(\pi_h)\, C$ and forgoes R_h/π_h and $\beta(\pi_h)S$, but bears $-\alpha\, U_w^*$ as the disutility from denying his wife a trip she values. A husband with $\alpha > 0$ therefore suffers when he restricts her mobility.

A.3 The reservation return

Substituting (A.2) and (A.3) into condition (A.1) and rearranging:

$$\frac{R_h}{\pi_h} + \alpha\, U_w^* + \beta(\pi_h)\, S - \gamma(\pi_h)\, C \;\geq\; -\,\alpha\, U_w^* \tag{A.4}$$

$$\frac{R_h}{\pi_h} \;\geq\; \gamma(\pi_h)\, C - 2\alpha\, U_w^* - \beta(\pi_h)\, S \tag{A.5}$$

$$R_h \;\geq\; \pi_h\Big[\gamma(\pi_h)\, C - 2\alpha\, U_w^* - \beta(\pi_h)\, S\Big] \tag{A.6}$$

Define the *reservation return* as:

$$R_h^*(\pi_h) \;\equiv\; \pi_h\, \gamma(\pi_h)\, C \;-\; 2\alpha\, U_w^*\, \pi_h \;-\; \pi_h\, \beta(\pi_h)\, S \tag{A.7}$$

The husband allows the trip if and only if $R_h \geq R_h^*$. Three comparative statics in non-π_h parameters hold unambiguously:

- $\dfrac{\partial R_h^*}{\partial \alpha} = -2\,U_w^*\,\pi_h < 0$: the more the husband cares about his wife's preferences, the lower the reservation return and the more likely he is to allow the trip.
- $\dfrac{\partial R_h^*}{\partial U_w^*} = -2\,\alpha\,\pi_h \leq 0$: for a husband with $\alpha > 0$, the higher the wife's utility from the trip, the lower the reservation return and the more likely he is to allow the trip.
- $\dfrac{\partial R_h^*}{\partial S} = -\beta(\pi_h)\,\pi_h < 0$: availability of safe transport strictly lowers the reservation return, making travel more likely. This effect grows stronger as π_h rises, since $\beta(\pi_h)$ is increasing: safe transport is a more powerful enabler of mobility precisely in more dangerous environments.
- $\dfrac{\partial R_h^*}{\partial \text{Cost}} = \pi_h\,\gamma(\pi_h) > 0$: a higher market price of transport raises the reservation return, making travel less likely. This effect is amplified when π_h is high, since cost salience $\gamma(\pi_h)$ rises with perceived risk.

A.4 The key comparative static: effect of GBV awareness

The GBV awareness treatment shifts π_h upward. To understand its net effect on gatekeeping, differentiate (A.7) with respect to π_h:

$$\frac{\partial R_h^*}{\partial \pi_h} = \underbrace{\gamma(\pi_h)\,C + \pi_h\,\gamma'(\pi_h)\,C}_{\text{cost salience channel }(+)} - \underbrace{2\alpha\,U_w^*}_{\text{caring channel }(-)} - \underbrace{\beta(\pi_h)\,S + \pi_h\,\beta'(\pi_h)\,S}_{\text{safety channel }(-)} \tag{A.8}$$

Using the definition of the point elasticities as the ratio of the percentage change in one variable to the percentage change in another ($\varepsilon_\gamma \equiv \pi_h\,\gamma'(\pi_h)/\gamma(\pi_h)$ and $\varepsilon_\beta \equiv \pi_h\,\beta'(\pi_h)/\beta(\pi_h)$) expression (A.8) can be rewritten compactly by factoring each pair of terms. For the cost salience channel:

$$\gamma(\pi_h)\,C + \pi_h\,\gamma'(\pi_h)\,C \;=\; C\gamma(\pi_h)\left(1 + \frac{\pi_h\,\gamma'(\pi_h)}{\gamma(\pi_h)}\right) \;=\; C\gamma(\pi_h)\,(1 + \varepsilon_\gamma)$$

and analogously for the safety channel:

$$\beta(\pi_h)\,S + \pi_h\,\beta'(\pi_h)\,S \;=\; \beta(\pi_h)\,S\left(1 + \frac{\pi_h\,\beta'(\pi_h)}{\beta(\pi_h)}\right) \;=\; \beta(\pi_h)\,S\,(1 + \varepsilon_\beta)$$

Substituting both into (A.8) yields:

$$\frac{\partial R_h^*}{\partial \pi_h} \;=\; C\gamma(\pi_h)\,(1 + \varepsilon_\gamma) \;-\; 2\alpha\,U_w^* \;-\; \beta(\pi_h)\,S\,(1 + \varepsilon_\beta) \tag{A.9}$$

Three distinct forces operate:

- The **cost salience channel** (unambiguously positive): higher perceived risk raises both the current subjective cost of transport $\gamma(\pi_h)\,C$ and its marginal increase $\pi_h\,\gamma'(\pi_h)\,C$. Both terms push R_h^* upward, raising the threshold for allowing the trip. Since it is cost *salience* rather than the market price that changes, this channel operates even when the objective price of a boda ride is unchanged.

- The **caring channel** (unambiguously negative). A husband who internalizes his wife's preferences sets a lower effective reservation return, partially offsetting the cost salience channel. This term does not itself vary with π_h: how much the husband cares does not shift with risk perceptions.

- The **safety channel** (unambiguously negative). First, $\beta(\pi_h)\,S$, reflects the current level of the safety premium: a husband who already strongly values safe transport has a lower effective reservation return; moreover, $\pi_h\,\beta'(\pi_h)\,S$, captures the fact that as the environment becomes more dangerous, safe transport becomes *even more* valuable—which further counteracts the cost salience channel by raising the marginal benefit of allowing the trip. Both parts are positive when $S = 1$ and zero when $S = 0$: the safety channel is active only when a genuinely safe transport option is available.

The sign of (A.9) is *ambiguous* and depends on which force dominates. Gatekeeping *increases* with GBV awareness (cost salience channel dominates) when:

$$C\gamma(\pi_h)\,(1+\varepsilon_\gamma) \;>\; 2\alpha\,U_w^* \;+\; \beta(\pi_h)\,S\,(1+\varepsilon_\beta) \tag{A.10}$$

and gatekeeping *decreases* (protective investment prevails) when the inequality is reversed. Three features of (A.10) are worth noting:

- **Safe transport availability reduces the probability of gatekeeping.** When $S = 1$, the right-hand side of (A.10) is strictly larger than when $S = 0$, making the gatekeeping inequality harder to satisfy. Access to trusted transport options unambiguously reduces the probability that GBV awareness tips husbands toward restriction—an implication with direct policy relevance.

- **The cost salience and safety channels are both self-amplifying.** Since $\gamma'(\pi_h) > 0$ and $\beta'(\pi_h) > 0$, both the cost salience term and the safety term grow larger as π_h increases. The net effect therefore does not converge monotonically: at sufficiently high levels of perceived risk, both forces are large, and the outcome depends on their relative elasticities ε_γ and ε_β.

- **The caring and safety channels are separable.** The term $2\alpha\,U_w^*$ operates regardless of whether safe transport is available, while $\beta(\pi_h)\,S\,(1+\varepsilon_\beta)$ requires $S = 1$. A husband with $\alpha = 0$ but $\beta > 0$ is indifferent to his wife's preferences but still values safe transport; for him, the gatekeeping outcome depends entirely on the race between the cost salience and safety channels.

A.5 Connection to the empirical estimands

Safety preferences (conjoint). When the mobility decision is held fixed by experimental design, the husband evaluates transport option j through the indirect utility:

$$V_h(j) \;=\; \theta \;+\; \beta(\pi_h)\,S_j \;-\; \gamma(\pi_h)\,C_j \tag{A.11}$$

where S_j identifies whether option j is safe or not, and C_j is the cost of option j; the constant θ absorbs all terms that do not vary across options within a choice question by design $(R_h/\pi_h + \alpha U_w^*)$. Note that the cost sensitivity parameter in the conjoint indirect utility is precisely $\gamma(\pi_h)$: the same structural parameter that governs the cost salience channel in the mobility decision. The husband prefers option A over option B iff:

$$\begin{aligned} V_h(A) &> V_h(B) \\ \theta \;+\; \beta(\pi_h)\, S_A - \gamma(\pi_h)\, C_A \;&>\; \theta \;+\; \beta(\pi_h)\, S_B - \gamma(\pi_h)\, C_B \\ \beta(\pi_h)\,(S_A - S_B) \;-\; \gamma(\pi_h)\,(C_A - C_B) \;&>\; 0 \end{aligned} \tag{A.12}$$

In the estimation framework of Equation 10, the linear probability model regresses the probability of individual i of choosing option j (y_{ij}) on $\text{Safety}_j = S_A - S_B \in \{-1, 0, 1\}$ and $\text{Cost}_j = C_A - C_B$. Because safety and price are independently randomized across profiles, the coefficients estimated in Equation 10 $\hat{\beta}$ and $\hat{\gamma}$ identify $\beta(\pi_h)$ and $-\gamma(\pi_h)$ respectively.

We follow Maestas et al. (2023) and formally derive the willingness-to-pay for the safety attribute defined as the price-increase that keeps an individual indifferent between having or not having safety within this indirect utility model[2]. Consider an individual i who is indifferent between not having *safety* at a given price, and having *safety* with a corresponding price-increase equal to the willingness-to-pay for safety. The willingness to pay for safety is then :

$$\begin{aligned} V_h(\text{safe}) &= V_h(\text{not safe}) \\ \theta \;+\; \beta(\pi_h)\, S_s - \gamma(\pi_h)\,(C_s + WTP) \;&=\; \theta - \gamma(\pi_h)\, C_{\neg s} \\ \text{WTP}_{\text{conjoint}} \;&\equiv\; \frac{\beta(\pi_h)}{\gamma(\pi_h)} \;=\; -\frac{\hat{\beta}}{\hat{\gamma}} \end{aligned} \tag{A.13}$$

where β and γ are the estimated marginal utilities respectively of safety and cost. Because $\text{WTP}_{\text{conjoint}}$ is the ratio of two π_h-dependent parameters, the sign of its treatment effect is theoretically ambiguous. Differentiating $\beta(\pi_h)/\gamma(\pi_h)$ with respect to π_h using the quotient rule:

$$\frac{\partial\, \text{WTP}_{\text{conjoint}}}{\partial \pi_h} \;=\; \frac{\beta'(\pi_h)\,\gamma(\pi_h) - \beta(\pi_h)\,\gamma'(\pi_h)}{\gamma(\pi_h)^2} \;=\; \frac{\beta(\pi_h)}{\gamma(\pi_h)}\left(\frac{\beta'(\pi_h)}{\beta(\pi_h)} - \frac{\gamma'(\pi_h)}{\gamma(\pi_h)}\right) \;=\; \frac{\beta(\pi_h)}{\gamma(\pi_h)} \cdot \frac{\varepsilon_\beta - \varepsilon_\gamma}{\pi_h} \tag{A.14}$$

Since $\gamma(\pi_h) > 0$ and $\pi_h > 0$ by definition, the sign of (A.14) depends on two things: the sign of $\beta(\pi_h)$, and the sign of $\varepsilon_\beta - \varepsilon_\gamma$.

The first is an empirical question—it is precisely what Equation 10 tests. Conditional on finding that there is indeed a safety preference (iei, that $\beta(\pi_h) > 0$) and therefore that $\text{WTP}_{\text{conjoint}} > 0$, the sign of (A.14) is determined entirely by $\varepsilon_\beta - \varepsilon_\gamma$. The treatment effect of raised awareness on the WTP for safe transport is positive if and only if the elasticity of the safety preference exceeds the elasticity of cost salience.

This condition is also empirically testable: the conjoint estimation identifies $\hat{\beta}$ and $\hat{\gamma}$ separately for

[2]Note that differently from them we do not look at the logged price, as our design only anchors the price distribution that each respondent sees to their area (i.e., how far their village is from the closest large town, as explained above). If we were worried that the marginal effect of N TZShilling were different across areas, we would still have to log the price, nonetheless when we add area or village level fixed effects to the estimation of the AMCE or the WTP, results remain virtually unchanged (see Table A8 to see why we do not need to employ the log given our design).

treated and control respondents, and the treatment effects on each coefficient test whether $\beta(\pi_h)$ and $\gamma(\pi_h)$ respond differently to increased risk perception. A positive and significant treatment effect on $\hat{\beta}$ combined with a stable $\hat{\gamma}$ across treatment arms would indicate that $\varepsilon_\beta > \varepsilon_\gamma$: the $\text{WTP}_{\text{conjoint}}$ rises with treatment; conversely, if $\hat{\gamma}$ also shifts upward, the net effect on WTP depends on the relative magnitudes of the two elasticities.

Mobility choices (BDM). In the BDM, the husband bids for a safe boda ride ($S = 1$) that enables his wife's trip. His willingness to pay is the maximum price P at which the trip is preferred to no trip:

$$\begin{aligned} \frac{R_h}{\pi_h} + \alpha\, U_w^* + \beta(\pi_h) S - \gamma(\pi_h) \cdot P \ &\geq\ -\alpha\, U_w^* \\ \gamma(\pi_h) \cdot \text{WTP}_{\text{BDM}} \ &\leq\ \frac{R_h}{\pi_h} + 2\alpha\, U_w^* + \beta(\pi_h) S \\ \text{WTP}_{\text{BDM}} \ &=\ \frac{R_h/\pi_h \ +\ 2\alpha\, U_w^* \ +\ \beta(\pi_h) S}{\gamma(\pi_h)} \end{aligned} \tag{A.15}$$

This expression has a natural interpretation: $\gamma(\pi_h)$ sits in the denominator and acts as a deflator of the entire numerator. Higher cost salience uniformly shrinks WTP_{BDM} across all components—the personal return, the caring term, and the safety premium are all worth less in monetary units when the husband weights expenditure more heavily. The treatment effect on WTP_{BDM} is obtained by differentiating (A.15) with respect to π_h:

$$\begin{aligned} \frac{d\,\text{WTP}_{\text{BDM}}}{d\,\pi_h} &= \frac{\left(-\dfrac{R_h}{\pi_h^2} + \beta'(\pi_h)\, S\right)\gamma(\pi_h) \ -\ \left(\dfrac{R_h}{\pi_h} + 2\alpha\, U_w^* + \beta(\pi_h)\, S\right)\gamma'(\pi_h)}{\gamma(\pi_h)^2} \\ &= \frac{-\dfrac{R_h}{\pi_h^2} + \beta'(\pi_h)\, S}{\gamma(\pi_h)} \ -\ \frac{\gamma'(\pi_h)}{\gamma(\pi_h)} \cdot \frac{\dfrac{R_h}{\pi_h} + 2\alpha\, U_w^* + \beta(\pi_h)\, S}{\gamma(\pi_h)} \\ &= \frac{1}{\gamma(\pi_h)} \left[\underbrace{-\frac{R_h}{\pi_h^2}}_{\text{return discount } (-)} \ +\ \underbrace{\beta'(\pi_h)\, S}_{\text{safety value } (+)} \right] \ -\ \underbrace{\frac{\gamma'(\pi_h)}{\gamma(\pi_h)} \cdot \text{WTP}_{\text{BDM}}}_{\text{cost salience deflation } (-)} \end{aligned} \tag{A.16}$$

Three terms operate. The first, $-R_h/\pi_h^2$, is unambiguously negative: higher perceived risk discounts the personal return more heavily. The second, $\beta'(\pi_h)\, S > 0$, works against this: higher perceived risk makes safe transport more valuable, partially counteracting the return discount. Whether these two direct channels together are positive or negative depends on the relative magnitudes of $\beta'(\pi_h)$ and R_h/π_h^2. The third term, $-[\gamma'(\pi_h)/\gamma(\pi_h)] \cdot \text{WTP}_{\text{BDM}}$, is unambiguously negative: it captures the deflation of the entire WTP level by the rise in cost salience. Since $\gamma'(\pi_h) > 0$ and $\text{WTP}_{\text{BDM}} > 0$ for any husband who allows the trip (that is, for whom $R_h \geq R_h^*$), this term reduces WTP proportionally to its current level—a husband who was already willing to pay a lot suffers a larger absolute reduction in WTP when cost salience rises.

The two-instrument logic. The sign of the treatment effect on WTP_{BDM} directly answers whether gatekeeping or protective investment prevails: if it is negative, the cost salience deflation and return discount together dominate the safety value, and gatekeeping prevails; if it is positive, the safety value dominates, and protective investment prevails. The BDM is therefore the primary instrument for testing the model's central prediction. The conjoint is needed for a distinct and complementary purpose: to determine whether the safety channel $\beta(\pi_h)$ is actively working against gatekeeping or is simply absent. A negative treatment effect on WTP_{BDM} is consistent with two structurally different stories. In the first, $\beta(\pi_h)$ does not respond to treatment — the safety channel is weak or absent — and the return discount and cost salience deflation dominate by default. In the second, $\beta(\pi_h)$ rises with treatment — men genuinely value safe transport more in a more dangerous environment — but the return discount and cost salience deflation dominate it anyway. These two stories have different implications: in the first, providing safe transport would not counteract gatekeeping because men do not value it sufficiently; in the second, safe transport is valued but is insufficient to overcome the other forces. The conjoint distinguishes between them by identifying $\hat{\beta}$ and $\hat{\gamma}$ separately for treated and control respondents: if treatment raises $\hat{\beta}_s$ while WTP_{BDM} falls, we are in the second story, and the cost salience deflation and return discount dominate an active safety channel; if $\hat{\beta}_s$ does not rise, the safety channel itself is absent and the negative BDM result requires no further decomposition.

B Pilot Conjoints

What is a trip we could offer that is both safe and sought-after? Through two separate conjoint experiments we identified:

a. Which transport mean is perceived to be the safest mean of transportation (*walk alone with a torch, walk alone with a whistle, walk with four other women from the village, with a bike, with a boda-boda never used before, with a boda-boda used before, with a dalala*) by men and women, assuming the woman has to travel from the village to town

b. Whether the perception of the safety of each mean of transportation changes across day times (*4 pm, 8 pm*)

c. Which activity gives positive utility, if completed, to both men and women *(pick up a gift that will/will not be shared with husband, meet only women/women and men for an activity organized by a group of religious leaders/a group of western NGOs who work on women's equality*)

d. Whether men's choices are different in case the activity has to be performed by their partners or by their daughters

e. What could be plausible prices for a boda-boda ride

We presented each respondent with several hypothetical scenarios where he/she has to choose among two possible options, formed by combining different attributes. We then calculated how much each attribute influenced respondents' choices, ranked them and compareed them across men and women and we defined the final form of the measures presented in the study.

We report next the text for the pilot conjoints presented to men (translated in English for the reader). We presented virtually identical questions to women.

B.1 Conjoint 1

Objective: Understand the features that we need to change in order to make a scenario be interpreted as safe and another scenario be interpreted as unsafe by men.

Text:
Now we are going to present you with some scenarios where we ask that you make a choice between two options.

Note [only show to random half of the respondents]:
We want to share some information with you. 8 out of 10 people in some villages in Tanga District said that it is risky for a girl in their community to travel to town by herself.

Text:
Let's suppose your wife has been invited to a wedding of your family members. Unfortunately it is at a time where you cannot attend so she would have to go without you. There are two options that she can go by. Let me tell you about each one and you can tell me which of the two you think is the safest.

Option 1: She's going [randomize: (1/3) with a boda you know/ (1/3) with a boda you don't know / (1/18) to walk alone / (1/18) to walk alone with a torch /(1/18) to walk alone with a whistle / (1/18) to walk with other 4 women from this village / (1/18) with a bike / (1/18) with the daladala] and she will be back by [randomize: 4pm / 8pm].

Option 2: She's going [randomize: (1/3) with a boda you know/ (1/3) with a boda you don't know / (1/18) to walk alone / (1/18) to walk alone with a torch /(1/18) to walk alone with a whistle / (1/18) to walk with other 4 women from this village / (1/18) with a bike / (1/18) with the daladala] and she will be back by [randomize: 4pm / 8pm].

Question:
Which one do you think is the safest?

Answer options: (1) Option 1, (2) Option 2, (99) I don't know

Question if respondent's daughter being above 14 years old:
You told us you have a daughter. What if instead it was your daughter who was going to the wedding of your family members. Which one would be the safest for her?

Option 1 = to Option 1 above

Option 2 = to Option 2 above

Answer options: (1) Option 1, (2) Option 2, (99) I don't know

Repeat B for 3 times for each person, and ask C for one random combination of B.

B.2 Conjoint 2

Objective: Understand the features that we need to change in order to make a scenario where the willingness to send her is high and one scenario where the willingness to send her is low.

Note:
Let's suppose an organization who works for the community wants to invite your wife to town for a day. Unfortunately you cannot attend as this is an invitation only for some of the women in this village. There are different things that might be happening while she is in town. Let me tell you about each one and you can tell me for which one you'd let her go for.

Randomly assign half B1, half B2.

B1. Benefits woman. Money: gift vs (shameful) job.

Question B1a.

Option 1: She's going to pick up a gift for herself. It is [randomize: ($\frac{1}{2}$) airtime / ($\frac{1}{4}$) a day-job helping to serve food at the tables for an event for the organization / ($\frac{1}{4}$) a day-job helping to cook for an event for the organization]. It is worth [randomize: 5.000 TZShillings / 10.000 TZShillings / 15.000 TZShillings]. [randomize: We will deposit this money on her Mpesa account. / She will have to spend this money in town in a few shops we will tell her about..]

Option 2: She's going to pick up a gift for herself. It is [randomize: ($\frac{1}{2}$) airtime / ($\frac{1}{4}$) a day-job helping to serve food at the tables for an event for the organization / ($\frac{1}{4}$) a day-job helping to cook for an event for the organization]. It is worth [randomize: 5.000 TZShillings / 10.000 TZShillings / 15.000 TZShillings]. [randomize: We will deposit this money on her Mpesa account. / She will have to spend this money in town in a few shops we will tell her about..]

Question:
Which one would you let her go to town for?

Answer options: (1) Option 1, (2) Option 2, (0) Neither of the two (99) I don't know

Question B1.b.
What if she would share the money with you, which one would you let her go to town for?

Option 1 = to Option 1 above

Option 2 = to Option 2 above

Answer options: (1) Option 1, (2) Option 2, (0) Neither of the two, (99) I don't know

B2. Benefits woman. (shameful) activity.

Option 1: She's going to participate in a workshop to discuss about health, where there will be discussions among her and other [randomize: women / women and men]. The workshop will be conducted in the town center and will be led by [randomize: a group of religious leaders / a group of western NGOs who work on women's equality].

Option 2: She's going to participate in a workshop to discuss about health, where there will be discussions among her and other [randomize: women / women and men]. The workshop will be conducted in the town center and will be led by [randomize: a group of religious leaders / a group of western NGOs who work on women's equality].

Question:
Which one would you let her go to town for?

Answer options: (1) Option 1, (2) Option 2, (0) Neither of the two, (99) I don't know

Repeat 2 for 3 times for each person.

C WTP elicitation of Mobility Choices

To thank you for your time in participating in our study last week, we would also like to invite you to participate in a quick game with us. It should last about 20 minutes.

So, we are giving you a bit of money so that maybe you can use it to play this game with us!

C.1 Trial Round

Let me explain to you how this game works first. Think about the following situation: you're going to the shop because you want to buy a soda.
Usually, when you're going to the shop you already know the maximum price you are willing to pay for the soda.
After you get to the shop, you ask them for the price and you decide whether to buy the soda or not. Your decision depends on the shop price of the soda: if the price is higher than the one you had thought about, you will not buy the soda. If instead, the price is equal or lower than what you had thought about, you will buy the soda for the shop price.
Okay, so let's try to simulate what happens in the shop here too. Imagine you want to buy a soda. So just like you would do at home, you will think about the maximum price you would pay for the soda. After you have thought about this price, I will ask you whether you would buy the soda for 6 possible prices.

For example, I will ask you "Would you buy the soda for 1,000 TZShillings?"; "Would you buy the soda for 1,500 TZShillings?"; and so on. Now we will know what your maximum price that you were thinking about is.
But note that, just like in the shop, the price you're answering is not be the price you will pay for the soda. The actual price was determined by the shop price, So here, we will simulate that with a scratch card. The price you scratch is like the price the shopkeeper would tell you.
Your decision depends on the scratched price on the card: if the price is higher than the one you told us, you will not buy the soda.
If instead the price is equal or lower than the one you told us, you will buy the soda for the price scratched.

Okay, let me ask you what price would you buy the soda for.

- Would you buy this soda for 0 Shillings (for free)?
  - Are you sure you don't want to buy this soda even if it for free?
- Would you buy this soda for 500 Shillings ?
  - Are you sure you do not want to buy this soda for 500 TZShillings?
- Would you buy this soda for 1000 Shillings ?
  - Are you sure you do not want to buy this soda for 1000 TZShillings?
- Would you buy this soda for 1500 Shillings ?
  - Are you sure you do not want to buy this soda for 1500 TZShillings?
- Would you buy this soda for 2000 Shillings ?
  - Are you sure you do not want to buy this soda for 2000 TZShillings?

Great. This means that the maximum price you are willing to pay for the soda is [insert answer].

Now we have to see what the actual price of the soda will be.
(present the scratch card and have the respondent pick and scratch a price)

Great. Thank you for scratching the price of the shopkeeper. The price is lower than your willingness to pay for the soda, so you can buy the soda the price is higher, unfortunately, you have not manage to buy the soda .

C.2 Bidding game

Great! We finished our trial round. Now, let's play the real game.

Imagine that an organization who works for the community wants to invite your wife to town for a day. If you win this game, once in town, she will be given 15,000 TZShelling of airtime for herself. When she goes, they will deposit this money on her Mpesa account.

Just to remind you. Now you are playing for a boda ride for your wife because an organization who works for the community has invited your wife to town for a day, and if she goes she can get 15,000 TZShelling of airtime for herself, which will be deposited on her Mpesa account . Now we can play to see if you win the chance to send your wife to go to town for this.

Now I am going to ask you to think about the maximum price you would pay for a boda ride for your wife. This is just like when you thought about the maximum price you would pay for the soda, but now this money would be used for the boda ride for your wife when she goes to town.

If you are ready, I will present you a list of 16 possible prices for the boda ride to take your wife to town and I will ask you whether you would be willing to pay each possible price for it, just like we did before. The prices range from 0 to 15,000 TZShillings and increase by 1,000 TZShillings each time.

Remember that just like before, the price you state will not be the price you will pay for it: the actual price paid will be determined by the scratch card.

- Would you get her a boda for 0 Shillings (for free)?
  - Are you sure you don't want to get her a boda even if it for free?
- Would you get her a boda for 1,000 TZShillings?
  - Are you sure you do not want to get her a boda for 1,000 TZShillings?
- Would you get her a boda for 2,000 TZShillings?
  - Are you sure you do not want to get her a boda for 2,000 TZShillings?
- Would you get her a boda for 3,000 TZShillings?
  - Are you sure you do not want to get her a boda for 3,000 TZShillings?

- ...
- Would you get her a boda for 16,000 TZShillings?
  - Are you sure you do not want to get her a boda for 16,000 TZShillings?

Great. Thank you for answering these questions. This means that the maximum price you are willing to pay for a boda ride for your wife to go to town to attend the event where she will get 15,000 TZShelling of airtime for herself, which will be deposited on her Mpesa account is [insert answer].

Now we have to see what the actual price of the boda will be. Here is the scratch card, which has 16 prices on it. The price may be 0, 1,000, ..., up to 15,000 TZShillings.

Everything is just like in the soda round. The prices are shuffled, so that they are in a random order on the paper. Under each scratch-box there is one price, but it is not possible to know what this price is before scratching and the enumerator does not know the order of the prices on the sheet. You are required to choose only one of these boxes to be scratched.

If the price on the scratch card is higher than the maximum price you told us you would pay, she will not get to go, and you will not have to pay anything.

If the price on the scratch card is equal to or lower than the maximum price you told us you would pay, you will pay for your wife's boda to go get the airtime, and you will only have to pay the scratched price for it.

[present the scratch card and have the respondent pick and scratch a price]

Great. Thank you for scratching the price of the boda ride for your wife. The price is higher [lower] than your willingness to pay, so you have to pay this [scratched price] for the boda for your wife to go pick up the gift.

D WTP elicitation of Safety Preferences Choices

Objective: Elicit safety preferences for both men and women, conditional on going.

Note:
Imagine that an organization who works for the community wants to invite your wife to town for a day. Unfortunately you cannot attend as this is an invitation only for some of the women in this village. Once in town, she will be given 15,000 TZShelling of airtime for herself. When she goes, they will deposit this money on her Mpesa account. There are two options that she can go by. Let me tell you about each one and you can tell me which one you would pay for.

Option 1: In the first option a boda from town [randomize:whom we know and trust / -] is going to pick her up and bring her back for [random: *X,000*] TZShellings.

Option 2: In the first option a boda from town [randomize:whom we know and trust / -] is going to pick her up and bring her back for [random: *X,000*] TZShellings.

Please note that we will cover the return in either case.
Question:
Which one would you pay for?

Answer options: (1) Option 1, (2) Option 2, (0) Neither of the two, (99) I don't know

Repeat 3 for 3 times for each person.

E Additional Results: BDM

Table A1: Effect of GBV Radio-Drama on WTP / Endowment: LASSO Specification

	WTP / Endowment
Treat	−0.207**
	(0.084)
Age	0.209
	(0.159)
Muslim	0.062
	(0.080)
Tribe	0.062
	(0.102)
Gender Equality Index	0.013
	(0.132)
HH: Number of Kids	−0.089
	(0.144)
HH: Head-of-Household	−0.170
	(0.141)
Completed elementary school	−0.281
	(0.284)
Main language Swahili	0.124*
	(0.068)
People known in the village	−0.039
	(0.133)
Visited town in the last year	0.156
	(0.169)
Feels more TZ than tribe	−0.361**
	(0.145)
Listened to radio (last month)	0.074
	(0.192)
HH owns Radio	−0.107
	(0.137)
HH owns Cellphone	−0.058
	(0.177)
HH Roof Material (low=best)	−0.249**
	(0.090)
Constant	0.854***
	(0.129)
Area FE	No
Ward FE	No
Observations	246
R^2	0.376
Control Dep. Var. Mean	0.725

Notes: OLS estimates. The dependent variable is the share of the endowment bid (WTP / endowment). Treatment is assignment to a GBV radio-drama, randomized at the ward level. 15 controls are selected by LASSO from a candidate set of 16 respondent-level characteristics. All control variables are standardized at the village level; missing values are imputed with the village-gender mean. Standard errors clustered at the village level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A2: Effect of GBV Radio-Drama on WTP / Endowment:
LASSO Specification (Partner Covariates)

	WTP / Endowment
Treat	−0.196***
	(0.042)
Age	0.145
	(0.106)
Muslim	0.054
	(0.060)
Tribe	0.381***
	(0.103)
Gender Equality Index	−0.291***
	(0.085)
HH: Number of Kids	−0.067
	(0.123)
HH: Head-of-Household	−0.171
	(0.138)
Completed elementary school	0.034
	(0.089)
Main language Swahili	0.223***
	(0.051)
People known in the village	0.523***
	(0.089)
Visited town in the last year	0.156**
	(0.074)
Feels more TZ than tribe	0.516***
	(0.084)
Political participation index	0.321***
	(0.100)
Listened to radio (last month)	0.324***
	(0.112)
HH owns Radio	−0.575***
	(0.079)
HH owns Cellphone	0.263***
	(0.083)
HH Roof Material (low=best)	−0.086
	(0.075)
Constant	0.694***
	(0.071)
Area FE	No
Ward FE	No
Observations	211
R^2	0.525
Control Dep. Var. Mean	0.725

Notes: OLS estimates. The dependent variable is the share of the endowment bid (WTP / endowment). Treatment is assignment to a GBV radio-drama, randomized at the ward level. All 16 controls are selected by LASSO from a candidate set of 16 respondent's *partner's* characteristics. All control variables are standardized at the village level; missing values are imputed with the village-gender mean. The sample is restricted to married (or cohabiting) couples for whom partner covariates are available (N = 211). Standard errors clustered at the village level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A3: Mobility Preferences: Heterogeneity Analysis (OLS)

	WTP / Endowment		
	(a) Baseline GBV Risk	(b) Husband GE Index	(c) Women GE Index
Treatment	−0.197***	−0.099**	−0.178***
	(0.047)	(0.039)	(0.039)
Moderator	−0.164***	−0.015	−0.114*
	(0.051)	(0.064)	(0.063)
Treatment × Moderator	0.130*	0.105	0.366***
	(0.072)	(0.092)	(0.123)
Area FE	No	No	No
Ward FE	No	No	No
Observations	246	246	211
R^2	0.101	0.073	0.091
Control Dep. Var. Mean	0.725	0.725	0.725

Notes: OLS estimates. Standard errors clustered at the respondent level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is the share of the endowment bid (WTP / endowment). Treatment is assignment to the GBV radio-drama, pair-randomized at the ward level. Each column interacts treatment with a different moderator, listed in the column header. The moderator in column (a) is the respondent's baseline index of perceived GBV risk in the community. The moderator in column (b) is the respondent's own gender equality index, measured at baseline. The moderator in column (c) is the village-level mean of the gender equality index among women in the husband's village (not the wife's individual index); the sample is restricted to married couples ($N = 211$). All moderators are standardized at the village level; missing values are imputed with the village-gender mean.

F Additional Results: Conjoint

Table A4: Safety Preferences: Conjoint Estimates with Fixed Effects (OLS)

	By Gender		**By Gender and Treatment**					
			Men			Women		
	Men (i)	Women (ii)	Treated (iii)	Control (iv)	Both (v)	Treated (vi)	Control (vii)	Both (viii)
Panel A: ***Area Fixed Effects***								
Safety	0.364***	0.278***	0.371***	0.361***	0.360***	0.313***	0.243***	0.242***
	(0.015)	(0.013)	(0.022)	(0.022)	(0.021)	(0.018)	(0.020)	(0.020)
Cost (10,000 TZSh)	0.011	–0.073***	0.015	0.006	0.011	–0.075***	–0.072***	–0.074***
	(0.012)	(0.009)	(0.017)	(0.017)	(0.012)	(0.013)	(0.013)	(0.009)
Treat					–0.001			–0.024
					(0.025)			(0.020)
Treat × Safety					0.010			0.072***
					(0.031)			(0.027)
Observations	1,188	2,007	600	588	1,188	1,010	997	2,007
R^2	0.266	0.200	0.273	0.266	0.266	0.243	0.165	0.204
Dep. Var. Mean	0.536	0.532	0.533	0.539	0.536	0.523	0.541	0.532
Panel B: ***Ward Fixed Effects***								
Safety	0.362***	0.280***	0.365***	0.358***	0.358***	0.316***	0.243***	0.244***
	(0.016)	(0.013)	(0.023)	(0.022)	(0.022)	(0.017)	(0.020)	(0.020)
Cost (10,000 TZSh)	0.011	–0.074***	0.011	0.006	0.010	–0.075***	–0.073***	–0.074***
	(0.012)	(0.009)	(0.017)	(0.017)	(0.012)	(0.013)	(0.013)	(0.009)
Treat					0.002			–0.026
					(0.025)			(0.020)
Treat × Safety					0.007			0.072***
					(0.031)			(0.027)
Observations	1,188	2,007	600	588	1,188	1,010	997	2,007
R^2	0.272	0.204	0.289	0.281	0.272	0.257	0.171	0.207
Dep. Var. Mean	0.536	0.532	0.533	0.539	0.536	0.523	0.541	0.532

Notes: OLS (linear probability model) estimates. Standard errors clustered at the respondent level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is choice of Option A (=1). Safety $\in \{-1, 0, 1\}$ indicates whether Option A has lower, equal, or higher safety than Option B. Cost is the price difference (Option A – Option B) in units of 10,000 TZSh. Panel A includes area (price-label distributions) fixed effects; Panel B includes ward (randomization block) fixed effects. Columns (i)–(ii) estimate by gender; (iii)–(iv) and (vi)–(vii) by gender and treatment arm; (v) and (viii) pool within gender and interact safety with treatment assignment.

Table A5: Safety Preferences: Conjoint Estimates with LASSO Controls (OLS)

	By Gender	
	Men	Women
Safety	0.358***	0.243***
	(0.021)	(0.020)
Treatment	0.005	−0.026
	(0.025)	(0.020)
Treatment × Safety	0.011	0.071***
	(0.031)	(0.027)
Cost (10k TZSh)	0.011	−0.074***
	(0.012)	(0.009)
HH owns Cellphone	0.148**	—
	(0.063)	
Area FE	No	No
Ward FE	No	No
LASSO controls selected	1 / 16	0 / 16
Observations	1,188	2,007
R^2	0.268	0.202
Dep. Var. Mean	0.536	0.532

Notes: OLS (linear probability model) estimates. Standard errors clustered at the respondent level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is choice of Option A (=1). Safety $\in \{-1, 0, 1\}$ indicates whether Option A has lower, equal, or higher safety than Option B. Cost is the price difference (Option A − Option B) in units of 10,000 TZSh. Treatment is assignment to the GBV radio-drama, pair-randomized at the ward level. For each gender, LASSO selects from 16 candidate respondent-level covariates standardized at the village level; missing values are imputed at the village-gender mean. LASSO selected 1 control for men (HH owns Cellphone) and 0 controls for women. The women's column therefore reports the baseline conjoint specification without additional controls.

Table A6: Safety Preferences: Heterogeneity Analysis (OLS)

	By Gender			
	Men		Women	
	(a) GE Index	(b) Baseline GBV Risk	(c) GE Index	(d) Baseline GBV Risk
Safety	0.368***	0.390***	0.244***	0.206***
	(0.023)	(0.031)	(0.022)	(0.064)
Treatment	0.000	0.011	−0.027	0.006
	(0.028)	(0.039)	(0.022)	(0.061)
Treatment × Safety	0.003	0.009	0.066**	0.143*
	(0.034)	(0.045)	(0.029)	(0.080)
Moderator	−0.087	0.034	−0.013	0.061
	(0.073)	(0.045)	(0.036)	(0.067)
Safety × Moderator	0.079	−0.056	−0.004	0.025
	(0.077)	(0.046)	(0.049)	(0.097)
Treatment × Moderator	0.047	−0.019	−0.007	−0.095
	(0.086)	(0.063)	(0.080)	(0.090)
Treatment × Safety × Moderator	−0.089	−0.007	0.039	−0.074
	(0.094)	(0.075)	(0.095)	(0.119)
Cost (10k TZSh)	0.011	0.012	−0.074***	−0.074***
	(0.012)	(0.012)	(0.009)	(0.011)
Area FE	No	No	No	No
Ward FE	No	No	No	No
Observations	1,188	1,188	2,007	1,301
R^2	0.267	0.267	0.202	0.200
Dep. Var. Mean	0.536	0.536	0.532	0.532

Notes: OLS (linear probability model) estimates. Standard errors clustered at the respondent level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is choice of Option A (=1). Safety $\in \{-1, 0, 1\}$ indicates whether Option A has lower, equal, or higher safety than Option B. Cost is the price difference (Option A − Option B) in units of 10,000 TZSh. Treatment is assignment to the GBV radio-drama, pair-randomized at the ward level. Each column interacts all conjoint terms with a different moderator, listed in the column header. The moderator in columns (a) and (c) is the respondent's own gender equality index, standardized at the village level. The moderator in columns (b) and (d) is the respondent's baseline index of perceived GBV risk in the community; the sample is smaller for women because this variable left missing for those women who were not part of the baseline survey.

F.1 Logit Specifications.

AMCE Logit coefficients (Table A7, and Table A8) are expressed in log-odds and are therefore not directly comparable in magnitude to the OLS percentage-point estimates, but converting to approximate average marginal effects (by multiplying each coefficient by $\bar{p}(1-\bar{p}) \approx 0.25$) yields qualitatively identical results: the treatment–safety interaction for women implies an AMCE of roughly 10 percentage points (0.408×0.25), compared to 7.1 percentage points in the linear model, while the interaction for men remains small and insignificant across both estimators. The percentage increase in women's safety responsiveness due to treatment is also similar: approximately 36% under logit (0.408/1.124) versus 29% under OLS (0.071/0.243).

Table A7: Safety Preferences: Conjoint Estimates (Logit)

	By Gender		**By Gender and Treatment**					
			Men			Women		
	Men (i)	Women (ii)	Treated (iii)	Control (iv)	Both (v)	Treated (vi)	Control (vii)	Both (viii)
Safety	1.872***	1.315***	1.923***	1.821***	1.824***	1.539***	1.120***	1.124***
	(0.131)	(0.082)	(0.197)	(0.176)	(0.176)	(0.123)	(0.111)	(0.111)
Cost (10,000 TZSh)	0.063	–0.362***	0.082	0.042	0.062	–0.387***	–0.345***	–0.365***
	(0.063)	(0.048)	(0.092)	(0.086)	(0.063)	(0.072)	(0.065)	(0.048)
Treat					–0.003			–0.127
					(0.136)			(0.101)
Treat × Safety					0.100			0.408**
					(0.265)			(0.163)
Constant	0.248***	0.143***	0.246***	0.250**	0.250**	0.074	0.201***	0.201***
	(0.068)	(0.050)	(0.094)	(0.099)	(0.099)	(0.074)	(0.069)	(0.069)
Observations	1,188	2,007	600	588	1,188	1,010	997	2,007
Pseudo R^2	0.215	0.156	0.218	0.212	0.215	0.191	0.127	0.159
Dep. Var. Mean	0.536	0.532	0.533	0.539	0.536	0.523	0.541	0.532

Notes: Logit estimates; coefficients are in log-odds. Standard errors clustered at the respondent level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is choice of Option A (=1). Safety $\in \{-1, 0, 1\}$ indicates whether Option A has lower, equal, or higher safety than Option B. Cost is the price difference (Option A – Option B) in units of 10,000 TZSh. Columns (i)–(ii) estimate by gender; (iii)–(iv) and (vi)–(vii) by gender and treatment arm; (v) and (viii) pool within gender and interact safety with treatment assignment.

Table A8: Safety Preferences: Conjoint Estimates with Fixed Effects (Logit)

	By Gender		By Gender and Treatment					
			Men			Women		
	Men (i)	Women (ii)	Treated (iii)	Control (iv)	Both (v)	Treated (vi)	Control (vii)	Both (viii)
Panel A: ***Area Fixed Effects***								
Safety	1.873***	1.315***	1.947***	1.852***	1.831***	1.544***	1.121***	1.121***
	(0.131)	(0.082)	(0.198)	(0.180)	(0.177)	(0.124)	(0.112)	(0.111)
Cost	0.000	–0.000***	0.000	0.000	0.000	–0.000***	–0.000***	–0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Treat					–0.008			–0.114
					(0.138)			(0.102)
Treat × Safety					0.086			0.414**
					(0.265)			(0.163)
Observations	1,188	2,007	600	588	1,188	1,010	997	2,007
Pseudo R^2	0.216	0.157	0.224	0.216	0.216	0.195	0.128	0.161
Dep. Var. Mean	0.536	0.532	0.533	0.539	0.536	0.523	0.541	0.532
Panel B: ***Ward Fixed Effects***								
Safety	1.874***	1.333***	1.959***	1.876***	1.839***	1.587***	1.129***	1.137***
	(0.132)	(0.082)	(0.202)	(0.183)	(0.179)	(0.124)	(0.114)	(0.112)
Cost	0.000	–0.000***	0.000	0.000	0.000	–0.000***	–0.000***	–0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Treat					0.000			–0.124
					(0.137)			(0.101)
Treat × Safety					0.072			0.417**
					(0.267)			(0.163)
Observations	1,188	2,007	600	588	1,188	1,010	997	2,007
Pseudo R^2	0.221	0.160	0.239	0.231	0.221	0.207	0.134	0.164
Dep. Var. Mean	0.536	0.532	0.533	0.539	0.536	0.523	0.541	0.532

Notes: Logit estimates. Standard errors clustered at the respondent level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is choice of Option A (=1). Safety $\in \{-1, 0, 1\}$ indicates whether Option A has lower, equal, or higher safety than Option B. Cost is the price difference (Option A – Option B) in units of 10,000 TZSh. Panel A includes area (price-label distributions) fixed effects; Panel B includes ward (randomization block) fixed effects. Columns (i)–(ii) estimate by gender; (iii)–(iv) and (vi)–(vii) by gender and treatment arm; (v) and (viii) pool within gender and interact safety with treatment assignment.

WTP Willingness to pay is defined as the ratio WTP $= -\hat{\beta}_{\text{safety}}/\hat{\beta}_{\text{cost}}$. Although logit coefficients are expressed in log-odds while OLS coefficients represent linear probability changes, WTP depends only on the *ratio* of two coefficients estimated within the same model. The scaling factor that distinguishes logit from OLS—approximately $1/[\bar{p}(1-\bar{p})]$—enters both the numerator and denominator and therefore cancels. In a standard random utility framework, both estimators recover the same underlying preference ratio $(\partial U/\partial \text{safety})/(\partial U/\partial \text{cost})$, so WTP is invariant to the choice of link function.

Consistent with this, the estimates are nearly identical across both estimators: women's pooled WTP is 37,948 TZSh under OLS (Table 2) and 36,309 TZSh under logit (Table A9); the treated–control difference for women is 7,382 TZSh (OLS, $p = 0.475$) and 7,264 TZSh (logit, $p = 0.459$). The small discrepancies reflect differences in how OLS and logit weight observations—logit assigns relatively more weight to observations near the decision boundary where $p \approx 0.5$—but the substantive conclusions are identical across both specifications.

Table A9: Willingness to Pay for Safety (Logit, TZSh)

	By Gender		**By Gender and Treatment**			
			Men		Women	
	Men (i)	Women (ii)	Treated (iii)	Control (iv)	Treated (v)	Control (vi)
WTP	–295,307	36,309***	–231,686	–428,087	39,696***	32,433***
	(295,587)	(4,956)	(259,996)	(877,693)	(7,339)	(6,500)
Difference	–331,616		196,401		7,264	
	(295,628)		(915,420)		(9,806)	

Notes: $\widehat{\text{WTP}} = -\hat{\beta}_{\text{safety}}/\hat{\gamma}$ in TZSh. Standard errors from `nlcom` (delta method with full variance-covariance matrix) in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Columns (i)–(ii) are from a single logit pooling men and women with gender-specific safety and cost coefficients. Columns (iii)–(vi) are from a single logit with four group-specific coefficients. No fixed effects. Difference in columns (i)–(ii) is Men − Women; in columns (iii)–(iv) and (v)–(vi) is Treated − Control within gender. Men's WTP is imprecisely estimated because their cost coefficient is not statistically distinguishable from zero.