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Land, informal employment, and fertility preferences in rural southwestern Uganda: A qualitative study

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ABSTRACT

Land and informal work remain central to rural livelihoods in Uganda, yet their role in shaping fertility preferences is not well understood. This qualitative study examined how land ownership and informal livelihoods influence men's and women's fertility decision-making in rural southwestern Uganda. We conducted 15 focus group discussions and 30 in-depth interviews with women (18–49) and men (18–54) of reproductive age in Rubirizi district. Interviews were conducted in the local language, audio-recorded, transcribed, translated into English, and thematically analyzed. Findings show that participants often linked land ownership to men's preferences for large families, grounded in lineage continuity, provision, and social standing, even as land availability declined. Women described limited land rights under customary tenure as constraining their economic security and bargaining space in fertility-related decisions. Informal livelihoods were portrayed as enabling household survival, but were financially unstable, shaping many women's preferences for smaller families, while limiting their ability to act on these preferences. This study highlights how participants described land relations and livelihood insecurity as gendered influences on the formation and negotiation of fertility preferences in agrarian settings.

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1. Introduction

Fertility preferences, defined as the number of children individuals or couples desire, play an important role in shaping population growth, household well-being, and national development. In sub-Saharan Africa (SSA), fertility remains high despite improvements in child survival, education, and access to family planning services (Church et al., 2023). This persistence is partly sustained by pronatalist norms in which children are valued not only for labour and old-age security, but also for social identity, kinship obligations, and lineage continuity (Bongaarts, 2009; Caldwell & Caldwell, 1987; Wildeman et al., 2023). Yet these preferences are also formed within changing livelihood conditions, particularly in rural agrarian settings where access to land, informal work, and household economic security shape how fertility decisions are understood and negotiated.

Fertility preferences reflect the interplay of demographic, cultural, and economic forces. This study draws on Kabeer's empowerment framework, which conceptualises empowerment through the interaction of resources, agency, and achievements (2001; Kabeer, 1999). Within this framework, land access and informal employment are understood not only as economic resources shaping food security and income but also as social resources tied to household status, lineage, and bargaining power within a patrilineal agrarian context. Agency refers to the extent to which individuals participate in fertility-related decisions, including desired family size, contraceptive use, and timing, while achievements capture whether these preferences can be realised in practice. The framework informed the interpretation of findings by focusing attention on how gendered access to resources shaped reproductive decision-making and the ability to act on fertility preferences.

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Existing research shows that education, income, and women's employment can influence reproductive decision-making, often through delayed marriage, improved access to contraception, and greater autonomy (Bongaarts, 2017; Church et al., 2023; Grant, 2015; Kebede et al., 2022). However, much of this evidence is drawn from urban or economically diversified settings where formal employment is more common. In rural sub-Saharan Africa, fertility preferences are often shaped within agrarian livelihood systems where gendered access to land, unequal household power relations, and reliance on informal livelihoods are more central to how reproductive preferences are formed, negotiated, and realised (Azumah et al., 2023; Rodrigues et al., 2022).

Many rural SSA communities, including Uganda, rely heavily on labour-intensive agriculture and informal economic activities such as petty trade and seasonal work (Banbury et al., 2015). In these contexts, land is both a productive resource and a marker of social position, commonly associated with stability and long-term security within the community. Children are also embedded in livelihood systems through their contribution to farm labour, domestic work, and support for older family members, reinforcing pronatalist values that position large families as a form of economic security and social support (Church et al., 2023; Ibrahim, 2020). At the same time, rural livelihoods are shaped by gender inequalities. Women contribute substantially to agricultural and informal labour, yet often face restrictions in access to and control over resources, along with limited decision-making power in households (Nyakato et al., 2020; Tesha et al., 2023). These gendered constraints can limit reproductive autonomy and sustain patriarchal control over fertility decisions.

In Uganda, fertility remains higher in rural areas than the national average, with rural women having an average of 7.2 children compared to 5.2 nationwide (Tumwizere et al., 2024). While research in Uganda has examined demographic factors, education, household income, and contraceptive use in shaping fertility (Kizza & Wasswa, 2024; Matovu et al., 2017), less is known about how rural livelihood structures, particularly land relations and informal work, shape fertility preferences and the capacity to realise them. This study addresses this gap through a qualitative analysis of men's and women's accounts of fertility preferences in rural southwestern Uganda, with specific attention to how land and informal livelihoods shape both reproductive intentions and the feasibility of acting on them.

1.1. Land ownership and informal employment context in Uganda

In Uganda, land is central to rural livelihoods, cultural identity, and social organisation. Many households depend on land for food security and income generation, making land access a key determinant of welfare (Adem and Namatovu, 2022). Uganda's land tenure is governed by the 1995 Uganda Constitution and the Land Act of 1998, which recognises four tenure systems: customary, mailo, freehold, and leasehold. Customary tenure is the most common, estimated to account for 75-80% of landholdings.

Under customary tenure, land is governed through community norms and is often controlled through extended family or clan structures. In many settings, the male household head allocates land among family members while retaining authority over land use and transfers (Batungi & Rüther, 2008). Inheritance is typically patrilineal, with sons expected to inherit land, while female access is often mediated through relationships with male relatives. Although statutory law recognises women's rights to own and inherit land, the practical realisation of these rights remains constrained by patriarchal power and prevailing gender norms. Despite contributing substantially to agricultural labour, women own a minority of registered land and legally own less than 10% of land (Doss et al., 2014). Women's access to land is mainly contingent on marital status and may be disrupted through marital dissolution, widowhood, or the absence of a male heir (Hirschon, 2023). Women's land use is also often restricted to subsistence production, limiting participation in income-generating and investment opportunities. While statutory reforms promote spousal consent in land transactions and joint titling, tensions between statutory and customary systems continue to create gaps in enforcement and women's realised rights (Blackden & Wodon, 2006).

Informal employment in Uganda is similarly shaped by gender disparities and an agrarian economic structure. Agriculture remains the backbone of the economy and employs a large share of the labour force, especially in rural areas (World Bank, 2018). Even as other sectors expand, informal employment remains the dominant source of livelihood, particularly for women, youth, and people with limited formal education. National estimates indicate that a substantial majority of Uganda's labour is employed in the informal

sector, where work is often characterised by low productivity and low wages, insecurity, and limited access to basic benefits such as healthcare and maternity leave. Women are disproportionately represented in the informal sector (UBOS & 2021, 2021), and this concentration in insecure and underpaid labour has implications for economic vulnerability and for the extent to which income contribution translates into decision-making power. These gendered patterns in land control and informal employment create a socioeconomic environment in which fertility preferences are negotiated under unequal resource access and constrained agency, making rural Uganda a critical setting for examining how livelihood structures shape reproductive decision-making.

2. Methods

2.1. Positionality statement

This paper emerged in the context of a doctoral study on fertility preferences in southwestern Uganda, in the framework of a donor-funded, international, university development project. My research on livelihoods and fertility preferences is influenced by my identity as an educated Mutooro woman, whose socio-economic circumstances differ from those of many participants in the Rubirizi District. Unlike most women under Uganda's customary land system, I inherited land from my grandfather, a rare opportunity that provided me with the economic autonomy that is rarely available to women. This experience heightened my awareness of how land ownership affects women's decision-making power, particularly in terms of fertility. My formal employment and urban residence distinguish me from women in informal work, prompting me to remain mindful of how privilege could shape my perspective during the analysis.

My academic journey between Uganda and Europe has further informed my understanding of gender inequality, positioning me between local and global perspectives. During my fieldwork, I occupied both an outsider and an insider position: shared Bantu culture and gender facilitated rapport, while differences in education, economic status, and non-Bunyaruguru ethnicity set me apart. To strengthen cultural interpretation and reduce the influence of my own assumptions, I worked closely with four local research assistants (two males and two females) during both data collection and analysis. We engaged in iterative discussion of the transcripts, particularly on issues of land inheritance, household authority, and fertility decision-making. These exchanges informed the refinement of codes and theme boundaries and served as an important reflexive check on emerging interpretations. Preliminary insights were also informally discussed with community members, allowing further contextual grounding and consideration of alternative interpretations.

2.2. Study area and context

The study was conducted in Rubirizi District, a rural area in southwestern Uganda, characterised by high fertility rates (6.2 children per woman, exceeding the national average of 5.2) and low modern contraceptive use (30.2%), resulting in a 23% unmet need for family planning (Fertility Hotspot Identification_ Report_Final_Final 20112018.pdf, 2018). The district has a population density of 153.5 people/km^2, and an economy mainly based on agriculture, with 89.7% of households relying on subsistence farming as their main source of livelihood. Formal employment opportunities remain limited, with only 15% of households engaged in formal work (Ronalds et al., 2023). Consequently, the majority of the population depends on land and informal labour for economic security.

The customary land tenure system remains dominant, with patrilineal inheritance practices shaping access to and control over land, constraining women's land rights. Access to health services, including family planning services, is limited and mainly concentrated at Rugazi Health Centre IV and a few lower-tier facilities.

2.3. Study design and participant selection

This study adopted a qualitative design using focus group discussions (FGDs) and in-depth interviews (IDIs). A purposive sampling strategy was used to recruit men and women of reproductive age with lived experiences of land access and ownership and informal employment. With support from local leaders

and community mobilisers, the team identified eligible participants. Villages were purposively selected across five subcounties in consultation with local leaders to capture variation in livelihood activities. Within these villages, local leaders and community mobilisers helped identify eligible participants, including men aged 18-54 years and women aged 18-49 years who were either married or cohabiting and had at least one child. This age and marital status were chosen to capture individuals actively making reproductive decisions, as well as those nearing completion of their desired family size (Campbell et al., 2020). This sampling approach prioritised participants who were already engaged in ongoing household and reproductive decision-making. However, by focusing on married or cohabiting individuals with at least one child, the study likely privileged accounts from people whose fertility preferences had already been shaped through union formation, prior childbearing, and household negotiation.

A semi-structured interview guide was used across FGDs and IDIs, covering fertility preferences, contraceptive use, and livelihood experiences. The guide was developed using Kabeer's empowerment framework as a sensitising framework. Questions were designed to elicit experiences related to resources (land access, livelihood opportunities, and household provision), agency (including who makes decisions about family size, contraceptive use, and how disagreements are negotiated), and achievements (the extent to which participants were able to realise their preferred family size or fertility intentions in practice).

2.4. Data collection

Data collection was conducted between May and June 2024 in the Rubirizi district by the principal investigator, supported by four experienced research assistants (two males and two females). A total of 15 FGDs and 30 IDIs were conducted across five sub-counties, with FGDs stratified by sex to encourage open participation. All interviews were conducted in Ruyankole-Rukiga, audio-recorded, and lasted approximately 45-60 minutes. Audio recordings were transcribed verbatim and translated into English by bilingual research assistants. To minimise meaning loss, transcripts were cross-checked against audio recordings by the principal investigator and discussed with the research team, particularly where culturally specific terms or expressions related to land tenure, inheritance, or fertility decision-making.

Data collection continued until thematic saturation was reached. Saturation was assessed through ongoing review of transcripts and memo-writing, and team debriefs focused on whether new interviews generated new insights. After approximately 13 FGDs and 28 IDIs, no new themes were emerging, and saturation was judged to have been reached. To confirm that thematic redundancy was consistent across participant groups, two additional FGDs and IDIs were conducted. These final sessions did not generate substantively new insights and thus confirmed saturation.

All names used in quotations are pseudonyms and do not correspond to participants' real identities.

Ethical approval was obtained from MUST (MUST-2024-1362) and UNCST (SS2907ES), and all participants provided informed consent before participation.

2.5. Data analysis

Data were analysed using thematic analysis through an iterative and interpretive process to examine how land ownership and informal employment shape fertility preferences within gendered livelihood contexts (Braun & Clarke, 2006). Analysis followed a hybrid inductive-theoretically informed approach. Initial coding was primarily inductive, allowing themes to emerge from participants' accounts, while Kabeer's empowerment framework provided an analytical lens for interpreting how livelihood conditions shaped fertility decision-making.

Transcripts were read repeatedly for familiarisation, supported by memo-writing. Initial descriptive codes captured experiences of land access and inheritance, livelihood activities, household provision, fertility desires, and contraceptive use. In the second stage, these codes were reviewed through Kabeer's domains of resources, agency, and achievements, not merely to organise them, but to examine how material conditions, decision-making power, and the realisation of fertility preferences were connected within participants' accounts. For example, initial codes relating to household provision, land access, and income for casual work were interpreted as resources and then examined in relation to accounts of authority, negotiation, and the ability to act on preferred family size.

Codes were iteratively refined and grouped into categories and themes through constant comparison across IDIs and FGDs, with major emphasis on gendered power relations. NVivo 12 software was used to support coding and data organisation. Coding decisions and theme definitions were discussed among the research team until consensus was reached. Divergent accounts were examined to test interpretation and avoid overgeneralisation. For example, while many men linked land ownership to a preference for larger families, some younger men and men with limited land expressed more cautious fertility preferences because they lacked sufficient land or income to provide for additional children. These accounts did not change the broader theme that land was central to fertility decision making, but they refined it by showing that pronatalist ideals were mediated by actual land security and economic capacity. Similar attention to variation helped refine theme boundaries around income stability and women's role in household decision-making.

3. Results

The findings are organised around three themes on how land, informal livelihoods, and livelihood insecurity shape fertility preferences and the ability to act on them in rural Rubirizi. Fertility preferences emerged less as individual choices and more as outcomes negotiated within household provision, customary land systems, and gendered authority. Although results are presented by gender because roles and decision-making power are strongly gendered, some variation also emerged by age, land security, and income stability, and these differences are highlighted within the themes.

3.1. Land as a resource shaping family size decisions

In rural Rubirizi district, land was a central reference point through which participants explained both desired family size and expectations of reproductive responsibility. Under customary land tenure, land was tied to lineage continuity, household survival, and social standing, and these meanings shaped fertility decisions differently depending on whether one had secure access to land and on one's position within the household.

Men frequently drew on intergenerational narratives of land abundance to justify large families, framing fertility as a rational and legitimate response to available resources. In these accounts, land symbolised wealth, strength, and the capacity to provide. As one participant explained:

> "In the past, one was not limited to the number of children produced… my grandfather had about 20 children because he had his wealth (land) to support him." (Kayankole, age 34, IDI)

Such a narrative reflects a widely shared understanding in which land abundance historically enabled larger family sizes by guaranteeing food, shelter, and inheritance. Importantly, these ideals continue to shape fertility preferences, particularly among men who currently own land. Land ownership was repeatedly described as evidence of responsibility and social standing, reinforcing expectations of fatherhood even as landholdings have diminished. Musa, a father of eight children, expressed this reasoning clearly:

> "I gave birth depending on how much land I had; a child can survive by eating and education. So, if I can get food and money from harvesting my coffee, why should I not give birth to my children? What matters I can provide for my children which I am, then I will give birth until God stops my wife from producing." (Musa, age 42, FGD)

Musa's reasoning highlights how land ownership operates not only as a productive resource but as a symbolic foundation for masculine identity and reproductive legitimacy. Where land generates food and income, limiting fertility is perceived as unnecessary, and fatherhood is closely tied to the capacity to provide. Fertility preferences are thus justified through claims of productivity and responsibility rather than individual desire. However, this normative expectation did not apply equally across all men. Younger men and those without secure access to land were more likely to express intentions to limit family size, indicating that economic constraints mediate the enactment of pronatalist norms.

While land ownership sustained ideals of large families, participants described how declining land availability limited their ability to act on these expectations. Under customary patrilineal inheritance practices, land subdivision across generations has progressively reduced individual landholdings, creating

economic pressure that directly shaped fertility decisions. For men with small landholdings, the ability to sustain larger families was increasingly questioned. As one participant stated:

> "My father had two acres of land and gave birth to twelve of us, so we shared the land. So, for me, I had half an acre of land and decided to give birth to seven children, five of whom were boys, and each would take a fraction of half an acre. I had to stop giving birth because I don't have more land to give my children, and I also don't have money to buy land somewhere." (John, age 48, FGD)

John's narrative highlights the tension between culturally embedded pronatalist ideals and material constraints as a result of land fragmentation. While he affirms the value of a large family, his decision to limit childbearing reflects an adaptation to reduced land size and limited economic capacity rather than a rejection of pronatalist norms. In this sense, land scarcity did not eliminate fertility ideals but reshaped how they were negotiated and realised in practice.

For women, customary exclusion from land inheritance not only limited access to property but also weakened their bargaining position within households, including in reproductive decision-making. Women's access to land was typically mediated through male relatives, reinforcing economic dependency and patriarchal authority. As land was widely recognised as the primary household asset, men's control over land translated into direct authority over fertility decisions, including decisions about family size and contraceptive use. One woman described:

> "Women typically do not inherit land from their fathers, as it is traditionally allocated to sons, who are regarded as more important than daughters. I do not own land myself; our land belongs to my husband, who holds the authority to make decisions about the size of our family. I understand that he is likely to pass the land on to our son." (Mary, age 41, IDI)

Mary's reflection illustrates how participants linked male-centred inheritance practices with gendered household authority, including men's greater influence over both land and fertility decisions. Many women explained that their lack of economic dependence limited their ability to negotiate desired family size or access to family planning, even when they personally preferred smaller families.

The desire of male heirs intensified these dynamics. Several women reported continuing to bear children under pressure to produce a son who could inherit land and ensure lineage continuity. Jane, a mother of eight, described this experience:

> "Each time I gave birth, it was a girl, and my husband became increasingly disappointed because he wanted a son…... I kept having more children, hoping to have a boy, and was finally blessed with one during my eighth pregnancy. But when I tried once more, I had another girl." (Jane, age 40, FGD)

Jane's account shows how participants experienced patrilineal inheritance expectations as shaping reproductive pressure, in some cases extending childbearing beyond women's initial preferences. Because land is inherited through sons, the absence of a male child transforms fertility from an individual preference into a marital obligation linked to land, lineage, and social legitimacy, thus compelling women to continue childbearing to secure a legitimate heir. Taken together, these narratives suggest that land was understood by participants not only as a productive resource, but also as a social institution through which expectations of lineage continuity, male inheritance, and women's childbearing obligations were sustained.

3.2. The dual influence of informal employment on fertility preferences and family support systems

Participants described a range of informal activities, including casual agricultural labour, selling farm produce, and domestic work. Although these activities differed in income stability and time demands, women commonly portrayed them as low-paid, irregular, and essential for household survival. Across their accounts, informal work appeared to shape fertility preferences paradoxically: it increased women's economic contribution to the household, yet participants did not describe a corresponding increase in women's authority over fertility decisions.

First, the low and insecure returns from informal work prompted many women to reassess their preferred family size. Women frequently described informal income as essential for meeting everyday

needs such as food, school fees, and healthcare, making the cost of additional children feel more burdensome, both financially and in terms of time and care demands. In this sense, informal employment encouraged preference for smaller families, not because work itself was empowering, but because livelihood insecurity made large families harder to sustain. Kate, a mother of six and the sole breadwinner through casual gardening work, explained:

> "We take on casual jobs, such as digging in people's gardens, to earn some money for household expenses. Many women here handle everything at home: providing food, paying school fees, and finding money while their husbands spend their days at drinking joints. When my husband told me he wanted six children but could not provide for them, I decided to have only three children and focus on taking care of them properly." (Kate, age 46, FGD)

Kate's narrative illustrates how women's income-earning responsibilities, combined with limited spousal support, shaped fertility preferences through a realistic assessment of affordability, caregiving capacity, and personal exhaustion.

Second, women's growing economic contribution occurred alongside men's withdrawal from routine household provision, yet this shift in responsibility did not translate into greater authority over fertility decisions. Participants described household arrangements in which women became primary earners through farming or petty trade while men disengaged from daily financial responsibilities. Musa described this dynamic:

> "Women are supposed to take care of the family and give birth to children. However, women are now forced to work to support their families as men are no longer able to fulfil their responsibilities as heads of the family. Most men in this village do not work; they sit at home, and the women take all the burden." (Musa, age 31, FGD)

Musa's account reflects a pattern described across several narratives: women were increasingly responsible for both income generation and caregiving, while household authority was still portrayed as strongly gendered, even where men contributed less to everyday household provision. At the same time, participants did not describe a corresponding shift in authority over fertility decisions. We interpret these accounts as showing that women's increased economic contribution did not automatically translate into greater reproductive bargaining power because male household headship remained socially recognised even where material provision had weakened.

Thirdly, persistent norms of male headship and marital obedience constrained women's reproductive autonomy regardless of their economic contribution. Several women emphasised that decisions about family size were not linked to their income or workload but remained the right of their husbands. Aine described this as follows:

> "Most of us women engage in farming as our source of income, through which we get money to look after our families. Normally, decisions on how many children I should give birth to are not based on my income. It's my husband who decides, and as his wife, I am supposed to abide by and take care of the family." (Aine, age 29, IDI)

Aine's reflection illustrates how cultural expectations of obedience limit women's ability to translate economic contribution into greater reproductive agency. For many women, acceptance of male authority constrained negotiations over fertility preferences or family planning, sometimes resulting in larger families than they felt able to support. Across participants' narratives, successful renegotiating final decisions about family size in ways that overrode male authority appeared to be rare. Differences in age or type of informal work also did not seem to translate into meaningful variation in reproductive decision-making power.

Across these narratives, a structural bind becomes visible. Informal employment provided women with livelihood resources and was often described as shaping preferences towards smaller families because of the costs and burdens of supporting children under precarious conditions. Yet participants also described low and insecure earnings, intensified care responsibilities, and persistent male authority as limiting the extent to which women's economic contribution translated into greater reproductive agency or the ability to act on their preferred family size. Informal work was therefore experienced not simply as income generation, but as part of a broader livelihood context in which precarious earnings and gendered decision-making power shaped how fertility preferences were formed and negotiated.

3.3. Economic constraints as barriers to acting on fertility preferences

While informal employment featured prominently in participants' livelihoods, this theme focuses on economic constraint more broadly and how it interacted with the local service delivery context to limit the ability to act on fertility preferences, regardless of employment type. Participants consistently described a gap between desired family size and the practical capacity to implement fertility decisions, particularly low and irregular income intersected with limited access to family planning services and difficulties sustaining care over time.

Women frequently explained that limited and irregular income meant that even low-cost contraception competed directly with basic household needs such as food, school fees, and health care. Eva, a casual farm labourer and mother of four, described this tension:

> "Most men in our village dream of having big families, but they just can't afford to take care of all the children. When I got married, my husband wanted seven children, but we [husband and I] did not have the resources to support that many. The little money I earn from working in other people's gardens barely covers our basic needs, so I can't afford family planning to limit the number of children because I have to spend most of it on essentials like food, school fees, and requirements." (Eva, age 31, FGD).

Eva's narrative illustrates how economic insecurity reshapes fertility preferences from culturally valued ideals to realistic compromises. Fertility preferences may shift toward smaller families because of the cost of raising children, yet acting on these preferences is difficult when health-related expenses are weighed against urgent household needs. Importantly, participants framed these constraints in terms of income scarcity rather than employment status alone, suggesting that similar barriers might persist under unstable formal employment. In this setting, poverty emerged as the primary obstacle to translating fertility intentions into practice.

Financial barriers extended beyond the direct cost of contraception to include expenses associated with managing side effects. Some male participants described discouraging contraceptive use when treatment costs became unaffordable. Gerald, a fishmonger, explained:

> "When my wife started using the pill plan, she developed side effects such as prolonged bleeding, constant headaches, and back pain. I found myself spending a lot of money to treat the side effects, yet I don't have a source of income, and I am struggling to provide for my family. Therefore, I told her to stop taking pills." (Gerald, age 41, IDI)

Gerald's experience highlights a practical barrier to continuing family planning that extended beyond the direct cost of contraception itself. In a setting where family planning services were available through a limited number of facilities, side effects could generate additional expense through repeat visits, transport, and the need to seek further care. Participants' narratives suggest that where counselling, follow-up, and method switching were difficult to access consistently, contraception became harder to sustain over time. In such circumstances, the gap between preferred and achieved family size was shaped not only by household poverty but also by the limited continuity of care within the local service environment.

Beyond household financial constraints, participants also pointed to structural barriers in family planning delivery. Several young men, in particular, criticised irregular outreach initiatives that distribute contraceptives without adequate sensitisation. John, an unemployed participant, noted:

> "Usually, once in a while, a van from a reproductive health organisation comes around distributing condoms to young men, but they don't explain how to use them. The next day, you find the condoms abandoned on the roadside." (John, age 28, FGD)

John's example points to a service-delivery gap that mattered in a setting where access to facility-based guidance was already limited. When outreach is irregular and not accompanied by sensitisation, commodities may be wasted, and young people remain unsupported in using them correctly. For households and youth with limited income to travel for counselling and guidance, weak outreaches reduce the chances of consistent contraceptive use and widen the gap between fertility intentions and actual outcomes.

4. Discussion

Fertility preferences in rural southwestern Uganda emerged in this study as an outcome of gendered livelihood structures rather than individual intentions. Our analysis shows land ownership, informal

employment, and economic insecurity interact with customary norms and unequal power relations to shape both what men and women desire and what they can realistically realise. Land ownership continues to reinforce men's pronatalist ideals and authority, while women's participation in informal work, though economically important, rarely translates into reproductive autonomy.

A central insight from this study is the evolving role of land ownership in shaping fertility preferences in rural southwestern Uganda. Consistent with evidence from Tanzania, where land remains closely tied to subsistence and lineage continuation, our findings suggest that land ownership continues to be associated with preferences for larger families, particularly among men (Herrera-Almanza & McCarthey, 2023). In participants' narratives, land carried a significance: it was valued as an economic asset that could support children materially, but also as a cultural pillar, symbolising social status, masculinity, and intergenerational continuity (Behrman, 2017; Saha et al., 2023). However, our findings also show that this relationship is being shaped by changing economic conditions. Although pronatalist ideals remained important, participants also described how inheritance-driven land fragmentation and economic hardship made large families increasingly difficult to sustain. Similar tensions have been observed in Rwanda, where unemployment and land scarcity have contributed to reconsideration of high fertility in the face of rising childbearing costs (Muhoza et al., 2014). Evidence from Bangladesh and the Philippines further suggests that declining land availability can contribute to fertility decline where households are able to transition into non-farm employment and education-based livelihoods (Caldwell et al., 1999). In contrast, such transitions remain constrained in rural southwestern Uganda because of limited employment diversification, weak infrastructure, and continued reliance on subsistence agriculture under customary land tenure systems. As a result, land scarcity does not weaken pronatalist preferences in the same way observed in more diversified economies, but instead intensifies economic insecurity while leaving fertility norms largely intact.

Building on this, gendered dynamics around land ownership significantly reinforce socioeconomic and reproductive inequalities. In Uganda's patrilineal society, customary inheritance practices prioritise male lineage and routinely exclude women from secure land rights, despite statutory legal protections. (Batungi, 2008; Nyakato et al., 2020). Our findings show that this exclusion creates a paradox: although women constitute the majority of agricultural labourers and are primarily responsible for food production and household welfare, they remain economically dependent on male partners for access to land. Within Kabeer's framework, this dependency constrained women's agency by weakening their bargaining power within households, limiting their ability to influence fertility decisions. This aligns with evidence from Malawi and Tanzania, where male-centred inheritance practices similarly limit women's reproductive autonomy, linking their economic and social value directly to childbearing and larger family sizes (Behrman, 2017; Genicot & Hernandez-de-Benito, 2022). While evidence from Nepal and India indicates that secure land rights can enhance women's reproductive autonomy (Beegle et al., 2001; Chakrabarti, 2018). However, these findings emerge from institutional contexts with more formalised land titling systems and stronger institutional enforcement of women's property rights than is typically available under customary tenure in rural Uganda. In rural Uganda, customary tenure and patrilineal inheritance norms often limit the extent to which statutory protections translate into effective control or bargaining power for women.

The nature and quality of employment mediate how women's labour market participation translates into fertility preferences and reproductive outcomes. Prior research shows that employment can contribute to fertility limitation through increased access to contraceptives, enhanced bargaining power, and greater autonomy (Upadhyay & Karasek, 2012; Upadhyay et al., 2014; Van den Broeck & Maertens, 2015). In rural Uganda, however, informal employment predominates and is characterised by low wages, income insecurity, and limited access to social protections, conditions under which women's economic contribution rarely translates into empowerment (Shema & Mutarindwa, 2017). Consistent with evidence from Albania, women engaged in insecure work expressed preferences for smaller families due to economic pressures (Cinque et al., 2022), although the Ugandan context differs substantially in terms of agrarian dependence, customary land relations, and the persistence of patriarchal household authority. Within Kabeer's framework, informal work provided limited resources but did not substantially expand women's agency in fertility decision-making, contributing to a gap between fertility preferences and achievements. Rather than renegotiating fertility decisions directly, many women exercised constrained agency by adjusting their own preferences and prioritising household stability. In contrast, formal and salaried employment has been

linked to fertility limitation due to enhanced access to economic resources and greater negotiating power over reproductive decisions (Behrman, 2017; Blackstone, 2017), though reproductive autonomy depends not only on income but also on whether employment enables women to challenge male authority (Anderson & Eswaran, 2009; Maligalig et al., 2019). Therefore, while informal employment may encourage preference for smaller families, it rarely provides the conditions necessary for women to realise these preferences in practice.

Several limitations should be acknowledged. First, the study focused on a rural agrarian context, which limits the generalisability of the findings to urban areas or settings with more diversified livelihoods. Second, because the study focused on married or cohabiting individuals with at least one child, the findings are most reflective of established fertility trajectories and may underestimate variation in fertility preferences that could be observed among unmarried or childless individuals, whose preferences may be more anticipatory or less shaped by prior childbearing and household negotiation. Third, the absence of female landowners limited insights into how secure ownership might reshape women's bargaining power and reproductive decision-making, potentially underrepresenting circumstances in which women exercise greater autonomy. Fourth, we did not sample for variation in negotiation experiences (or by employment type/income), which limited our ability to assess heterogeneity in reproductive bargaining. Finally, social desirability bias may have influenced participants to emphasise economic hardship to present themselves as responsible providers. While this was mitigated through triangulation across interviews, future research should include more diverse marital and socioeconomic groups and adopt longitudinal approaches to examine how fertility preferences change over time.

5. Conclusion

This study advances understanding of fertility preferences in rural Uganda by showing how land, informal livelihoods, and gendered authority interact to sustain high fertility ideals even despite rising economic pressures. Land remains both a productive asset and a source of social legitimacy, anchoring men's pronatalist preferences and authority within fertility decisions. Women's informal work, although essential for household survival, rarely translates into reproductive autonomy. These findings suggest that improving livelihoods alone may not shift fertility outcomes unless women's economic contribution is accompanied by greater decision-making power within the household. Policy and programmes must therefore move beyond expanding informal employment to strengthening women's bargaining position through joint spousal land titling, protection of women's land use rights and inheritance rights, and livelihood interventions that increase women's control over income and household resources. Family planning initiatives should also engage men as main actors in reproductive decision-making while improving counselling and support around contraceptive side effects, which participants identified as a barrier to sustained contraceptive use.

Author contributions

CRediT: **Catherine Atahigwa:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Resources, Writing – original draft, Writing – review & editing; **Gily Coene:** Conceptualization, Supervision, Writing – original draft, Writing – review & editing; **Clementia Neema Murembe:** Conceptualization, Supervision, Writing – original draft, Writing – review & editing; **Dirk Lafaut:** Conceptualization, Formal analysis, Methodology, Supervision, Writing – original draft, Writing – review & editing.

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Data availability statement

The data supporting the findings of this study are not publicly available because the ethics consent form states that participant data will not be shared outside the research team. This study is based on extensive identifiable data from interviews and focus group discussions. This data contains information that could compromise the trust, confidentiality, and privacy of research participants and will therefore not be made publicly available.

Ethical considerations

Ethical approval for this study was obtained from the Institutional Review Board of Mbarara University of Science and Technology (MUST-2024-1362) and the Uganda National Council for Science and Technology (SS2907ES). All participants provided informed written consent before participation in the study.

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