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Attitude Profiles and Fertility Intentions. Impact of Gender and Family Norms on Childbearing Plans in South Korea.

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EDSD 2023-2024

Introduction

South Korea consistently reports the lowest fertility rates in the world, making fertility studies vital to understand this unprecedented phenomenon. Examining the dynamics of fertility intentions is necessary, since they contribute to predicting fertility trends at a macro level and in exploring the factors that influence whether individuals fulfil their intentions to have children (Philipov, 2012). Furthermore, decisions around childbearing are not merely personal choices; they are shaped by societal and cultural frameworks that reinforce specific gender roles and family expectations. How, then, do these gender norms and family obligations influence fertility intentions?

Previous literature shows that the ways in which gender norms influence fertility intentions are debated (Neyer et al., 2013; Lappegård et al., 2021; Begall and Hiekel, 2024) and the findings vary depending on gender, on which parity is studied, and on the indicator used to qualify gender equality attitudes. However, attitudes toward family obligations are equally important, particularly in East Asian countries where collectivist values and strong family structures prevail. In these contexts, the belief that the responsibility for child and elder care lies with the family—primarily women—rather than the state, is widely held (Cheng, 2020), which complicates the fulfilment of fertility intentions. Nevertheless, in response to persistent declines in fertility, the South Korean government has introduced pronatalist policies, including the "Basic Plans on Low Fertility and Ageing Society," a series of five-year action plans aimed at supporting fertility by improving compatibility between parenthood and paid employment (OECD, 2019).

While gender norms are proven to impact fertility intentions, few studies simultaneously explore the consequences of gender norms but also attitudes towards family support – namely how willing women are to support financially their children and parents – on childbearing plans. Analysing these factors together may provide insights into the contested role of gender norms in shaping fertility intentions. This study, therefore, contributes to the broader discussion on

declining fertility in high-income countries, specifically those with limited institutional support for childbearing and childrearing.

Using the latest wave of the Korean Longitudinal Survey of Women and Families – sampling only married women regarding fertility intentions – this study aims to assess how gender norms and family support norms influence married women's childbearing plans.

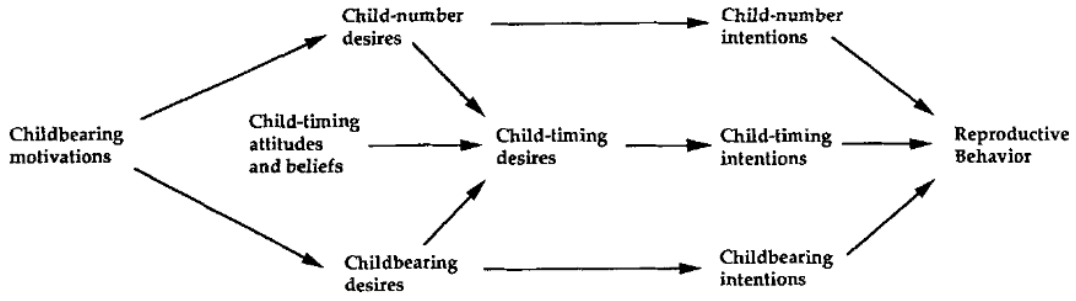
Literature review

Theoretical background

Fertility intentions

Demographers study fertility intentions with two main objectives: to predict fertility outcomes at the macro level by better understanding fertility behaviours, and at the micro level, to comprehend the factors that influence whether fertility intentions are realized (Philipov, 2012). For the latter, it is essential to study factors and relationships that directly pertain to fertility intentions, rather than only those related to childbearing. Although there are similarities, fertility outcomes are influenced by other sets of factors and relationships than the factors influencing fertility intentions. This underscores the importance of understanding the entire childbearing decision-making process (Philipov, 2012) and the classic Traits-Desires-Intentions-Behaviour model by Miller and Pasta (1995) provides a clear framework to better comprehend this process.

Figure 1 "A schematic representation of the pathways through which childbearing motivations, three types of fertility desires, and three corresponding types of fertility intentions affect reproductive behaviour" (Miller and Pasta, 1995, p.533)



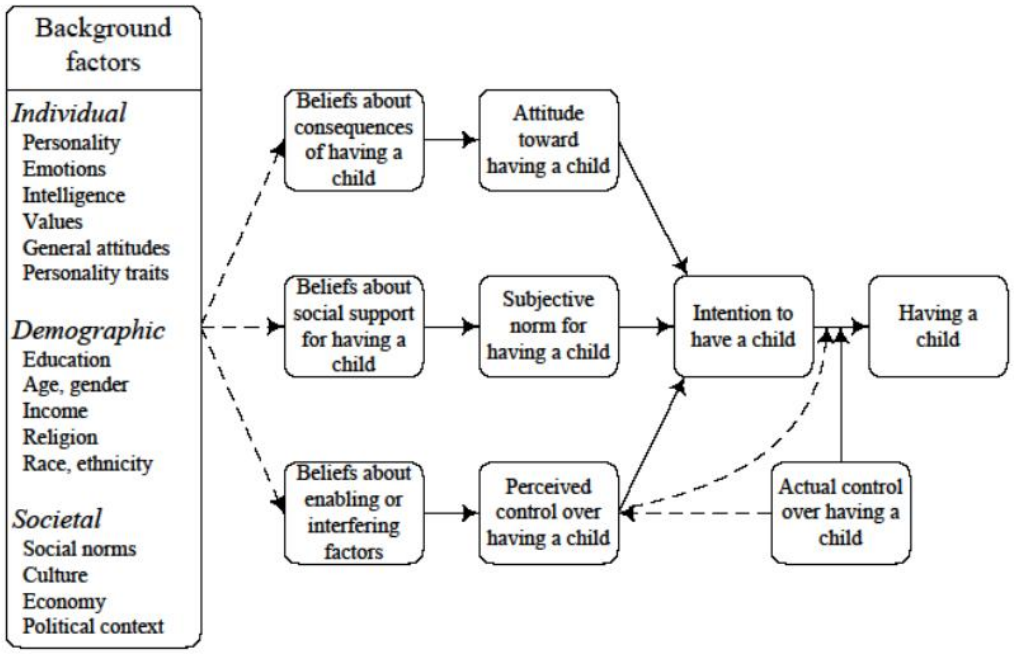
This framework clearly distinguishes between childbearing desires and childbearing intentions, with the former leading to the latter. Desires represent individuals' wishes and do not directly translate into action. According to Miller and Pasta (1995), desires reflect the integration of underlying motivations, attitudes, and beliefs. There are three types of fertility desires: child-number desires (the desire for a certain number of children), childbearing desires (the desire to have a child or another child), and child-timing desires (the desire to have a child at a particular time in the future).

Intentions, on the other hand, incorporate not only antecedent personal desires but also the perceived desires of others and situational constraints, as noted by Miller and Pasta. These additional factors contribute to the translation of desires into actions. Like desires, intentions can be categorized into three types: child-number intentions, childbearing intentions, and child-timing intentions.

While this model emphasizes the importance of distinguishing between intentions and other psychological constructs, such as motivations, attitudes, beliefs, and desires, it does not adequately incorporate the influence of background factors. This integration is more effectively

addressed by the Theory of Planned Behaviour (TPB) that includes in its model the influence of institutional policies, societal values, and personal characteristics.

Figure 2 The theory of planned behaviour applied to fertility decisions



Source: Ajzen and Klobas (2003), p. 206

The TPB not only considers socioeconomic and contextual factors but also places individual subjectivity at the core of its analysis. It breaks down the determinants of an outcome into three key components: attitudes, subjective norms, and perceived behavioural control, all of which serve as antecedents of fertility intentions.

Values, attitudes and norms

The two previous models recognize motivations, attitudes, beliefs, and norms as critical antecedents to fertility intentions. However, the pathways of influence do not stop there, preceding these factors are values, which fundamentally influence them. According to Schwartz (2003), most social scientists regard values as abstract and deeply rooted motivations that shape and legitimize attitudes, norms, opinions and actions (Halman & de Moor, 1994; Schwartz, 1992; Williams, 1968). Schwarts also emphasize the predictive and explanatory power of values on attitudes, opinions and actions. Furthermore, they can also reflect significant social changes within societies and across nations. Distinguishing these subjective factors is crucial for understanding the pathways of influence from values to behaviours.

The core of the Second Demographic Transition (SDT) theory revolves around this idea: the change in value orientations of individuals have led to changes in demographic behaviours. This relationship between changing ideals and demographic behaviours (in terms of partnership behaviour, fertility, and family formation) has first been theorized by Lesthaeghe and van de Kaa (1986) to explain the new behaviours observed in Western and Northern Europe during the

1960s. The Second Demographic Transition (SDT) theory – developed and revised throughout the years (Zaidi and Morgan, 2017) – illustrate ideational and cultural shifts as key determinants to this demographic shift, giving importance to nonconformism, individualism, self-actualization, and egalitarianism.

However, the empirical evidence of the impact of ideational change (postmaterialism) on fertility decline is lacking contrary to fertility postponement (Lesthaeghe, 2010), postponement of marriage (Bystrov, 2014), and nontraditional family norms and attitudes (Gubernskaya, 2010). SDT failed to predict the variation in fertility rates among economically developed countries (those with TFRs closer to replacement levels and those below 1.5) (Lesthaeghe, 2010).

Therefore, another approach to better understand the decline in fertility is needed, which may involve examining gender norms—a topic that the Second Demographic Transition (SDT) theory has not thoroughly explored or emphasized in its analysis (Bernhardt, 2004). Nevertheless, it addresses the gender equality-fertility nexus and argues that shifts in societal values toward postmaterialism promoted greater egalitarianism and individualism. These changes have contributed to a redefinition of priorities, where individuals increasingly pursue a variety of life goals that compete with "traditional" family life, ultimately leading to a trend of "less family", of lower childbearing plans. This trend needs to be further examined as the SDT does not adequately explain why fertility remains very low in certain countries, such as those in Southern Europe and East Asia, despite these regions maintaining more traditional family structures such as low cohabitation, divorce and nonmarital fertility (Dominguez-Folgueras & Castro-Martin, 2013) and more positive attitudes towards family support (Yoon, 2016). This contrasts with Western and Northern countries, where family formation evolved concurrently with a shift toward postmaterialist values.

In the context of low fertility, an increasing body of literature highlights the critical role of gender in explaining fertility reversals, where some countries have experienced rising rates. This trend is supported by state policies aimed at reducing parents' work-family conflict (McDonald, 2003).Theories of fertility-equality reversal argues that inn societies where women are increasingly accepted and encouraged to take on public roles equivalent to men — such as pursuing higher education and participating in the labour force — but still face persistent gender inequality in the private sphere, the opportunity costs of fertility become gendered. This creates a role conflict for women, where the responsibilities of childbearing and rearing disproportionately affect their ability to achieve other life goals.

Paradoxically, for women with traditional gender role attitudes, this leads to a lower realization of second births in South Korea compared to women with a more egalitarian gender role attitude. The former face higher levels of role conflict due to the belief that responsibilities of childbearing and childrearing should fall primarily on women, with no or little support from husbands and institutions (Yoon, 2016). Similar to these findings, in Finland and Sweden, traditional individuals plan to have fewer children despite having high personal fertility ideals (Miettinen, 2011; Bernhardt et al., 2016).

Furthermore, the cultural framework significantly influences the opportunity costs faced by couples in South Korea. Rooted in Confucian culture, the societal structure is deeply hierarchical and patriarchal, emphasizing male dominance, privileging elders over the young, and establishing a clear hierarchy between rulers and subjects. This foundation supports a strong familialist culture where individuals are expected to care for their family members, driven by the belief that the responsibilities of childbearing and childrearing should primarily fall on families, especially women, rather than the state (Cheng, 2020).

Despite an evolution toward more progressive views on women's roles, marriage, and familial responsibilities, the adjustment in family obligations has been slower. This lag reflects the deeply ingrained societal expectations that persist (Cheng, 2020). These attitudes towards family obligations can significantly influence fertility intentions. For stay-at-home mothers, in particular, the psychological value of children, such as providing comfort during old age, is strongly associated with higher intentions to have a second child (Park and Cho, 2011).

Finally, most of the existing literature studies the impact of family support environment on either fertility intentions or behaviours (Harknett et al., 2014; Yoon, 2017; Zhang et al., 2021) but not the attitudes towards family support. In the South Korean case, family still being largely influenced by Confucian culture, these attitudes towards family support should be studied along with attitudes towards gender norms, which strongly influence fertility intentions.

Uncertainty in fertility intentions

The existing literature on fertility intentions often overlooks the responses that reflect uncertainty, focusing primarily on those with clear positive or negative intentions (Miettinen and Paajanen, 2003; Dommermuth et al., 2011; Yoon, 2016; Yoon, 2017; Cheng and Hsu, 2020; Jeon et al., 2021; Kwag et al., 2024). Exceptions to this trend are studies that specifically address uncertainty in fertility intentions (Bhrolcháin and Beaujouan, 2011; Bhrolcháin and Beaujouan, 2015; Kuhnt et al., 2021). Among the former studies, approaches to handling uncertain responses vary: some researchers recode uncertain answers as "no" (Yoon, 2017), others as "yes" (Miettinen and Paajanen, 2003), while some choose not to include them at all (Dommermuth et al., 2011; Yoon, 2016). This variability may stem from a broader tendency in demographic research to treat fertility intentions, expectations, and preferences at face value, often underpinned by the assumption—whether implicit or explicit—that fertility behaviour is driven by rational choice (Bhrolcháin and Beaujouan, 2015).

Bhrolcháin and Beaujouan (2015) argue that fertility preferences are not fixed but rather constructed over time, with uncertainty being a natural part of the process as individuals experience life events that gradually shape and solidify their previously unformed or vague intentions. This process suggests that younger individuals, who are still navigating key life events, tend to exhibit higher levels of uncertainty regarding family formation compared to older individuals. Furthermore, Bhrolcháin and Beaujouan justify that uncertainty in fertility intentions is more prevalent than traditionally recognized. This prevalence is often obscured by

factors such as earlier surveys categorizing uncertainty as non-answers, the social desirability effect encouraging respondents to provide more definitive answers, the overstatement of certainty, and the limited set of response options in surveys that fail to explicitly accommodate uncertainty. They ultimately demonstrate that uncertainty is a rational response in the context of the ongoing development of one's life course.

This reasoning leads to proving that uncertainty in fertility intentions is strongly influenced by age and key demographic life stages—such as partnership status, number of children, and the time since the last birth—while socio-economic factors and calendar time play a relatively minor role. Specifically, women who are not in a union tend to be more uncertain about their fertility intentions compared to those who are partnered, and uncertainty is higher among women with fewer children and those who have recently given birth (Ní Bhrolcháin and Beaujouan, 2011). The authors also point out that similar patterns have been observed in other studies: single women generally exhibit more uncertainty than married women (O'Connell and Rogers, 1983), and uncertainty decreases with advancing age or increasing parity, or both (Morgan, 1982; Berrington, 2004; Sobotka, 2009; Kuhnt et al., 2021).

Research objectives and hypotheses

Research objectives

The TDIB model and the TPB framework are the conceptual foundations of this paper to explore the connections between attitudes, fertility intentions, and behaviors. The SDT and the fertility-equality reversal theories are incorporated as two complementary theoretical perspectives to elucidate the relationship between fertility intentions and gender norms, while also examining attitudes towards family support—an important yet underexplored topic in the literature.

This study makes three key contributions. First by creating composite variables, the paper integrates multiple dimensions of gender norms and attitudes towards family support into two composite variables, offering a more comprehensive and synthetic analysis. Second, the paper offers contextual insights as most of the existing literature focuses on European contexts where gender equality is more institutionalized compared to South Korea. This case study tests the applicability of these findings in a different cultural and institutional setting, either reinforcing or challenging Western-centric results. Finally, this study provides novel insights by addressing the role of family support attitudes alongside gender norms, contributing to a deeper understanding of fertility decision-making processes in South Korea.

Hypotheses

Women with more traditional, non-egalitarian views may have higher expectations about their roles in family life. They may anticipate having to manage both employment and childrearing with little support from their husbands, which can increase the perceived burden and lower their desire to have children. However, non-egalitarian attitudes may contribute to higher fertility

intentions as women with these views are often more family-oriented and may prioritize childbearing and childrearing over career ambitions. As a result, they may have higher fertility intentions than egalitarian women, who are more likely to prioritize maintaining their jobs. For egalitarians, the higher opportunity costs associated with childbearing—due to limited institutional support for balancing work and family life—could reduce their plans to have children, leading to two competing hypotheses.

Hypothesis 1a. Non-egalitarian attitudes lead to lower fertility intentions compared to egalitarian attitudes.

Hypothesis 1b. Non-egalitarian attitudes lead to higher fertility intentions compared to egalitarian attitudes.

Literature on the influence of family support on fertility intentions is very few. Based on Park and Cho's study, stay-at-home mothers valuing children highly have higher fertility intentions. However, based on the reason of lower intentions of childbearing among non-egalitarian women, it will be logical to think that a higher belief in family support will contribute to higher pressure due to the belief that responsibilities of taking care of the family should primarily fall on the women, leading to a higher level of role conflict, causing low fertility intentions. This leads to two competing hypotheses:

Hypothesis 2a. Belief in high family support will contribute to higher fertility intentions compared to women with lower belief in family support.

Hypothesis 2b. Belief in low family support will contribute to higher fertility intentions compared to women with higher belief in family support.

This paper will test these two sets of competing hypotheses regarding the influence of multidimensional gender norms and family support on fertility intentions. The objective is to find out the how the abovementioned attitudes impact women's childbearing plans in a positive, negative or in an uncertain way.

Methodology

Data

The Korean Longitudinal Survey of Women and Families (KLoWF) is a panel survey of 9,997 women aged 19 to 64, initiated in 2007 by the Korean Women's Development Institute and including nine rounds of interviews up to 2022.

This survey gathers individual, household, and employment data to trace the life trajectories of Korean women, focusing on fertility intentions, behaviours, and family-related values such as attitudes towards marriage, non-marital cohabitation, gender roles, and family support. It also collects retrospective data like age at first marriage, age at childbirth, and socioeconomic indicators such as education, income, occupational status, housing type, work hours, and domestic work hours.

This survey is excellent for analysing how gender roles and family support attitudes impact fertility intentions, as it includes a comprehensive range of questions addressing them. This study will conduct a cross-sectional analysis of the latest survey wave (2022), encompassing 1,728 married women aged 23 to 49, to provide an overview of fertility intentions and attitudes and to update the findings with the most recent data.

Measures

The question for fertility intention is asked as follows: "Do you plan to have any child?" and the possible answers are "Yes", "No" and "Don't know".

The KLoWF includes eight questions regarding gender roles (defined as roles in the family in the questionnaire) and four questions about family support. Respondents are asked to indicate their level of agreement with statements using the following options: "Strongly agree," "Somewhat agree," "Somewhat disagree," and "Strongly disagree."

Important covariates are included in the analysis based on the literature such as the number of children, age, duration of marriage, education and employment of respondent, employment of husband, the number of siblings and satisfaction with husband's housework and childcare.

To ensure robust data analysis, some variables have been recoded to avoid the issue of small minority groups of responses. This step is particularly crucial for value-related variables, as it allows for the application of a specific method (namely the multiple correspondence analysis) to aggregate and create two composite variables: one for gender norms and another for family support. The details of this method will be provided in the following section.

Table 1 Sociodemographic characteristics of married Korean women

Variable	Percent	Median (IQR)
Fertility intentions		
Yes	5.2	
No	84	
Unsure	11	
No. of children		
Childless	12	
At least 1 child	88	
Age groups		
Below 35	14	
[35,50)	86	
Education respondent		
High School or below	25	
2-3 year College	27	
4 year University or more	48	
Employment respondent		
Employed	60	
Unemployed or inactive	40	
Area of residence		
Large city	42	
Small city or rural area	58	
Egalitarians vs Non-egalitarians		-0.05 (-0.43, 0.33)
Gender non-essentialists vs Gender essentialists		0.02 (-0.34, 0.35)
Financial independence vs Generational support		0.02 (-0.34, 0.42)
Strong support in childhood vs Moderate support overall		0.03 (-0.24, 0.47)

Study population: married Korean women aged 23 to 49
Source: KLoWF, wave 9, 2022 (N = 1,728)

Table 2 Attitudes towards family formation of married Korean women

Variable	Percent
Traditional role	
Agree	33
Disagree	67
Woman should work	
Agree	55
Disagree	45
Preschool child - woman shouldn't work	
Agree	51
Disagree	49
Split housework equally	
Strongly agree	28
Somewhat agree	57
Disagree	15
Manage income separately	
Agree	46
Disagree	54
Residence - both names	
Strongly agree	21
Somewhat agree	51
Disagree	29
Father has same responsibility as mother	
Strongly agree	43
Somewhat agree	48
Disagree	9.5
Mother has same responsbility as father	
Strongly agree	40
Somewhat agree	49
Disagree	11
Parents should afford children's college tuition	
Strongly agree	37
Somewhat agree	57
Disagree	6.3
Parents should provide for children's marriage	
Agree	60
Disagree	40
Parents should help children when financial difficulty	
Agree	68
Disagree	32
Children should live with old parents	
Agree	20
Somewhat disagree	62
Strongly disagree	19

Study population: married Korean women aged 23 to 49
Source: KLoWF, wave 9, 2022 (N = 1,728)

Methods

Creating composite variables

Objective

One of the main objectives of this paper is to create two composite variables that aggregate the key information from eight gender norms variables and four family support variables. This is achieved using multiple correspondence analysis (MCA), "a descriptive and inductive method for exploring relationships of categorical variables and representing them graphically in a low-dimensional Euclidean space in which closeness of locations indicates similarity of categories and individuals" (Purhonen and Wright, 2013, p. 258).

MCA summarizes the relationships between categorized variables and allows the re-categorization of individuals into new groups. Creating composite variables offers three main advantages:

- **Dimensionality reduction**: by combining multiple variables into one, the complexity of the dataset is reduced, making analysis and interpretation easier.
- **Enhanced interpretability**: composite variables provide a more comprehensive measure of a concept than individual variables. In this case, the composite gender norms variable offers a better overall picture of respondents' positions.
- **Aggregation of information**: composite variables aggregate information from multiple variables into a single metric, which simplifies manipulation and integration into other statistical analyses.

Values studies typically employ a wide range of value orientations to explain outcomes. However, this paper focuses specifically on examining the effect of gender norms and family support attitudes on fertility intentions. The aim is not to conduct an exhaustive analysis encompassing all possible values, but rather to pinpoint the impact of these specific variables on fertility intentions.

Steps

The first step in conducting MCA, as previously mentioned, is to recode the value variables to avoid small minority responses. It is crucial to ensure that the distribution of answers is as balanced as possible as MCA is highly sensitive to small sample sizes, which can lead to disproportionate weighting of these responses. Therefore, these minority answers must be grouped with the closest relevant category.

Second, collinearity test must be conducted in each variable groups as they can lead to a skewed MCA (all the variables are indicated in Appendix A). Among the variables in gender norms, "Father has same responsibility as mother" and "Mother have the same responsibility as father" are multicollinear. These variables are therefore dropped from the MCA. In contrast, there are no such issues in the group of variables of family support.

Third, the first two axes of the MCA are analysed, as they have the highest inertia percentages. Inertia is a measure of how much information or variability is captured by that axis, compared to the total variability in the dataset. In the MCA, the axes are ranked in decreasing order of importance. In the case of gender norms, the first axis contributes to 19.17% of the total variance observed (Figure 3). The higher the value, the more important the dimension is in explaining the structure of the data. The second axis of gender norms contributes to 18.34% of the total variance (Figure 4). Their inertia percentages are very similar, meaning that they explain an almost equal amount of variance in the data. As there is a larger drop in percentages for the third dimension (14.1%), only the first two dimensions are kept for further analysis.

Each axis is defined by the variables that contribute the most to its structure. These contributions help determine the "direction" of the axis, meaning that the variables with the highest contributions are the most influential in shaping how the data is organized along that axis. Interpreting an axis involves identifying similarities among the elements on either side of the origin and succinctly capturing the contrast or opposition between these two extremes (Benzécri, 1992).

Figure 3 First dimension of gender norms

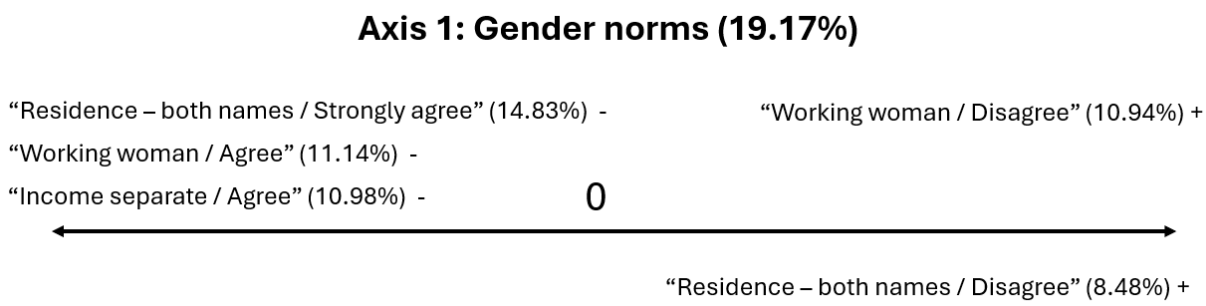


Figure 4 Second dimension of gender norms

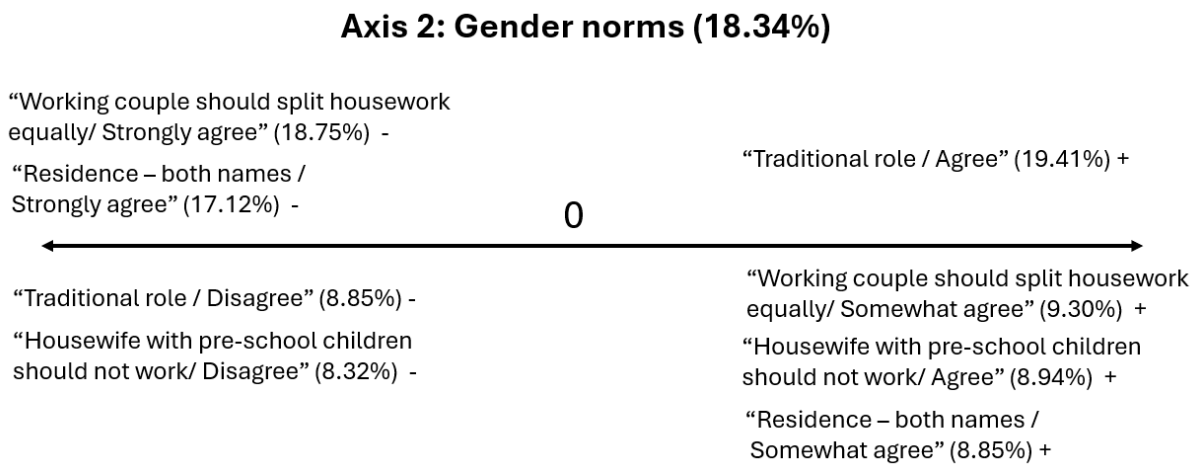


Figure 5 First dimension of family norms

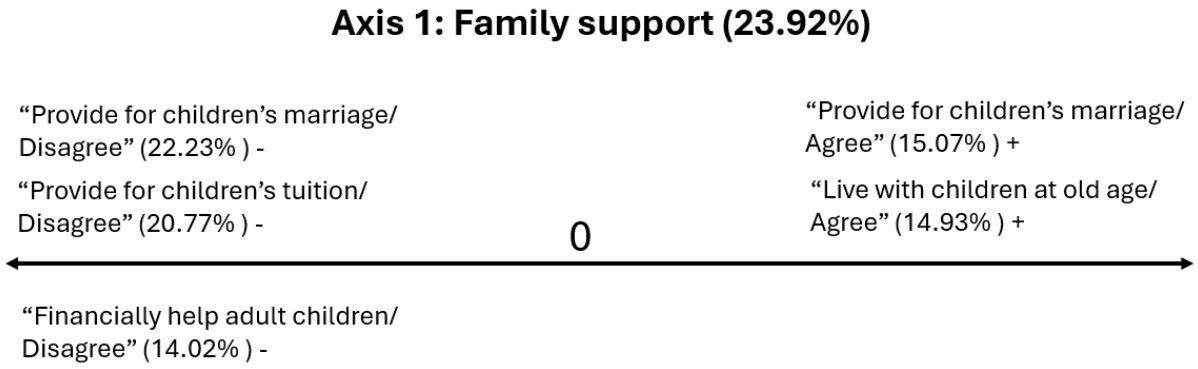
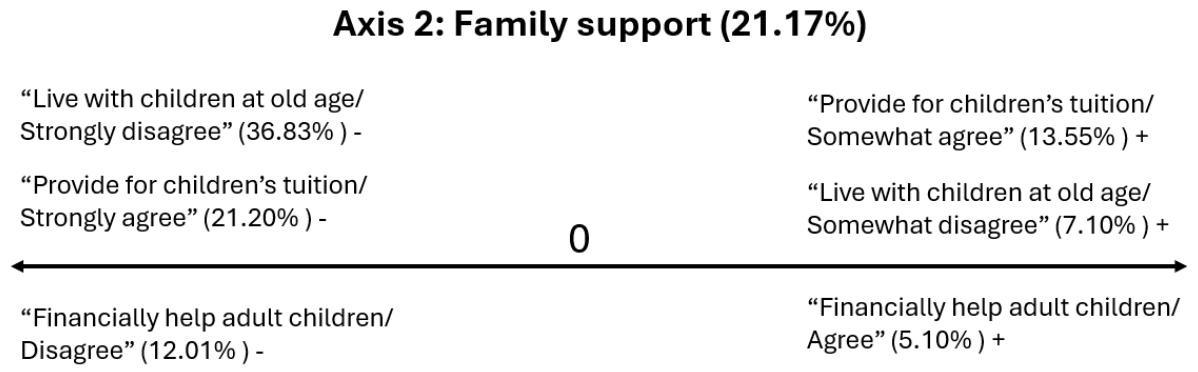


Figure 6 Second dimension of family norms



By examining the coordinates of these variables (ranging from negative to positive values) and referencing existing literature, respondents are categorized into two categories for each axis. The first axis of gender norms: egalitarian and non-egalitarian concerning either the public or private sphere (Figure 3) , and the second axis comprises of an opposition between gender essentialists and non-essentialists, whether gender is restricted to either one of the spheres or not (Figure 4).

Regarding family support axes, the first axis opposes those who value financial independence of their children and those who value generational support (Figure 5). The second axis has on on one hand those who strongly believe in investing in the education of their children but values independence in adulthood and old age, and on the other hand those who believe in limited support for the education of their children and somewhat valuing independence at old age. The factorial plans in two dimensions for both attitudes can be found in Appendix B.

Fourth, these value orientations axes are treated as continuous variables in the multinomial logistic regressions and interactions have been conducted to estimate the conjunctural effect of two value axes on fertility intentions.

Multinomial logistic regression models

A primary model (Figure 7) is created using the entire population, incorporating most of the independent variables and covariates previously mentioned. Subsequent models are analysed based on different categorisations of parity: childless married women, women with one child, and women with two or more children; childless and with at least 1 child. However, as parity increases, the sample size of women intending to have another child decreases significantly, complicating the analysis. Due to this, very few variables pass the multicollinearity test, rendering the analysis for married women with a child ineffective.

Results

How do gender norms and attitudes towards family support influence married women's decisions about having children?

In this sample of married Korean women, only 5.2% are planning to have a child or another child, while 11% are uncertain. The vast majority, 84%, are not planning to have children. This trend is understandable given that 62% of the respondents already have two or more children, and 82% are over the age of 35 (Table 1).

Characteristics of women with childbearing intentions

This study examines the relationship between fertility intentions, gender norms, and attitudes towards family support among married women.

Women intending to have a child (Table 3)

We begin by examining the demographic and socioeconomic profile of women intending to have a child. The ones intending a child are mostly childless women and among the third that have at least a child, only 4.1% of those have at least 2 children and more desire another child. This aligns with the broader trend of declining second births in South Korea (Yoo & Sobotka, 2018), reflecting shifting fertility patterns in the country. Age distribution reveals that 26% of individuals under 35 plan to have a child. Interestingly, this group also has the highest educational attainment, with 61% holding a four-year university degree or higher—which might suggest a positive educational gradient in fertility.

Regarding marriage patterns, the majority of women (75%) are married before the age of 30, with the 25th and 50th percentiles clustering around 28 and 30 years old, respectively. In South Korea, people get married with the intention of having a child. This is part of the "family package" where family formation is a linear process of ordered events starting from marriage and continuing with childbearing, childrearing, and ending with taking care of the aging parents. Therefore, the age at first child is usually very close to the age at first marriage and in 2022, around 30 years old. However, among recent birth cohorts, women tend to say childless longer after marriage (Lee and Zeman, 2024) and this across all educational level, possibly resulting in an increasing delay in the realization of a positive intention.

Employment status is another factor to be considered. Nearly 80% of those intending to have a child are employed, a stark contrast to women not planning a child or uncertain about their childbearing intention who have lower employment rates. This pattern reflects the well-documented M-shape pattern of female employment in South Korea, where many women exit the workforce after childbirth due to difficulties in balancing work and family responsibilities. Some women return to the workforce after a few years of childrearing, but the labour force participation rates never equal that of women before their 30s, before their first childbearing (KOSIS, 2024). Geographical location seems to play a role: two-thirds of these women reside

in small cities or rural areas, suggesting that family planning behaviours may differ based on urbanization levels.

A closer look at attitudes reveals distinct ideological divides. In terms of value orientation, negative coordinates indicate egalitarian beliefs (Figure 3), gender non-essentialist views (Figure 4), financial independence (Figure 5), and strong support for childhood investment (Figure 6). Conversely, positive coordinates correspond to non-egalitarian perspectives (Figure 3), gender essentialist views (Figure 4), generational financial support (Figure 5), and moderate overall support (Figure 6). A score near zero reflects a neutral stance, indicating ambivalence or a lack of strong opinion.

Among women planning a child, they exhibit a strong tendency toward egalitarian values (-0.40) and a focused approach to financial support for their children. While they strongly support investing in tuition (-0.21), they are less inclined to provide other forms of financial assistance. Their beliefs emphasize equal marital dynamics: they advocate for registering couples' shared residence in both spouses' names, support women's workforce participation to promote equality in marriage and favour separate financial management within couples.

Regarding parental responsibilities, they believe that their financial obligations should end after covering tuition costs as they disagree with financially aiding adult children in difficulty. Unlike traditional Korean familism, which expects parents to provide ongoing financial assistance to adult children in need, these individuals reject long-term financial dependence and this goes both ways. They firmly oppose relying on their children in old age, expressing strong disagreement with co-residing with their children later in life. This stands in sharp contrast to conventional Korean family norms, where intergenerational support is deeply ingrained. Traditionally, parents are expected to assist their children, particularly in times of financial hardship, and in return, children are responsible for caring for their aging parents. This duty, often borne by women, reinforces gendered caregiving roles—an expectation that the women in this study appear to be challenging.

Table 3 Descriptive statistics by fertility intention of married Korean women

Variable	Fertility intentions			p-value
	Intend	Unsure	Don't intend	
No. of children				<0.001
0	66%	33%	5.7%	
1	30%	36%	24%	
2 and more	4.1%	31%	70%	
Age groups				<0.001
Below 35	26%	40%	9.9%	
[35,50)	74%	60%	90%	
Age at marriage[1]	30.0 (28.0, 30.0)	28.0 (25.2, 30.0)	26.0 (24.0, 29.0)	<0.001
Education respondent				0.075
High School or below	19%	7.6%	27%	
2-3 year College	20%	36%	27%	
4 year University or more	61%	56%	46%	
Employment respondent				0.2
Employed	79%	54%	59%	
Unemployed or inactive	21%	46%	41%	
Area of residence				0.6
Large city	38%	36%	44%	
Small city or rural area	62%	64%	56%	
Egalitarians vs Non-egalitarians[1]	-0.40 (-0.69, 0.17)	0.04 (-0.43, 0.43)	-0.05 (-0.43, 0.33)	0.2
Gender non-essentialists vs Gender essentialists[1]	-0.01 (-0.26, 0.47)	-0.13 (-0.19, 0.36)	0.02 (-0.35, 0.35)	0.9
Financial independence vs Generational support[1]	0.02 (-0.71, 0.37)	-0.20 (-0.24, 0.28)	0.02 (-0.34, 0.42)	0.5
Strong support in childhood vs Moderate support overall[1]	-0.21 (-0.72, 0.44)	0.03 (0.00, 0.47)	0.02 (-0.24, 0.47)	0.10

[1] Median (IQR)

Study population: married Korean women aged 23 to 49
Source: KLoWF, wave 9, 2022 (N = 1,728)

Women not intending to have a child (Table 3)

Only 5.7% of women in this group are childless, and just 9.9% are under the age of 35. The vast majority do not wish to have additional children because they already have at least one and are at an age where having another child is physiologically more challenging. Marriage patterns suggest a generational shift. Half of these women married before the age of 26, and a quarter married before 24. Given that fewer than 10% of them are under 35, this trend is likely a reflection of cohort effects. As of 2023, the average age at first marriage for women in South Korea is significantly higher, at 31.5 years (KOSIS, 2024a). Educational attainment further highlights generational differences. A relatively high proportion (27%) of women not planning to have another child have only a high school diploma or less. This discrepancy cannot be attributed to young adults still completing their education, as over 99% of the study population has either graduated or dropped out, the latter constituting less than 1%. Instead, it reflects the broader educational gap between older and younger generations of Korean women, a trend that is particularly pronounced in South Korea. Employment patterns indicate that nearly 60% of these women are currently employed, likely consisting of mothers who re-entered the workforce after childbirth. However, 41% remain unemployed or inactive. Since very few are still in education, this group likely comprises of women actively seeking employment as well as

housewives, a more common status among older cohorts. This conclusion aligns with the lower proportion of full-time employment observed among older generations (KOSIS, 2025). Geographically, 56% of these women reside in small cities or rural areas.

Across all value orientations, the median coordinate is approximately zero, indicating that the population is fairly evenly distributed between positive and negative values.

Examining the 25th and 75th percentiles of the first gender norms axis (Figure 3) reveals that there are fewer egalitarians than non-egalitarians in this group. However, a counterintuitive pattern emerges in the second gender norms axis (Figure 4). Given that women not intending to have children tend to be older and less egalitarian, one might expect them to be more gender essentialist than those planning to have a child. Yet only 25% report a coordinate higher than 0.35 (Q3), compared to 0.47 for those intending to have children. As a reminder, the higher the coordinate, higher coordinates indicate stronger adherence to gender essentialist views.

Regarding generational support, women not planning to have a child express stronger support for intergenerational financial assistance compared to those intending to have children. On the second family support axis, they lean toward a more moderate approach, favouring balanced support for children in various areas. In contrast, those intending to have a child strongly emphasize investment in their children's education while rejecting dependence on their children in old age.

Women with uncertain childbearing plans (Table 3)

Among this group, 67% already have at least one child, meaning the majority are deliberating whether to expand their families. Additionally, 60% are aged 35 or older, highlighting the significant role age plays in fertility decisions. As women approach the end of their reproductive years, uncertainty about having another child tends to increase. Uncertainty in childbearing intentions can be viewed as a transitional phase between a firm intention to have children and a firm decision not to (Kuhnt et al., 2021). The median age at marriage for this group is 28 years, which is older than that of women not intending to have children but younger than those actively planning to have a child. Educational attainment patterns suggest generational effects. Women in this group have the lowest proportion of individuals with only a high school education or less, likely reflecting the rising expectation for younger generations to pursue higher education. However, contrary to expectations, they do not have the highest proportion of university graduates; instead, this distinction belongs to women planning to have a child. Employment status may also contribute to their uncertainty. This group has the highest percentage of unemployed or inactive women, a factor that could influence their hesitation about having another child. Studies in Western contexts indicate that unemployed women are less likely to plan for a child, suggesting a similar dynamic may be at play here. Geographically, the majority of these women reside in small cities or rural areas.

Regarding value orientations of these women, while leaning toward non-egalitarian views, 25% of these women hold egalitarian beliefs. They are also more likely to agree with gender essentialist views. Uncertain women have a stronger attachment to financial independence than

to intergenerational financial support. Finally, they are slightly inclined toward moderate financial support. They are willing to contribute to their children's tuition if necessary but are not strongly committed to co-residing with their children in old age. At the same time, they remain open to assisting adult children in times of financial difficulty.

Determinants of fertility intentions: gender norms and family support

Women over the age of 35 are less likely to plan for a child or express uncertainty about childbearing, likely because they have already had more children compared to women under 35. This trend is further supported by the parenthood status variable, which indicates that individuals who already have at least one child are less likely to plan for another (Yoon, 2016) or experience uncertainty regarding future childbearing (Kuhnt et al., 2021). The age at marriage also plays a significant role in fertility intentions. Women who marry later are more likely to plan for a child but also report greater uncertainty. A shorter window between marriage and childbearing may drive the increased likelihood of planning a child, yet uncertainty could stem from the biological constraints associated with a shorter reproductive lifespan (Kuhnt et al., 2021).

Higher education appears to be positively associated with childbearing uncertainty. Women with post-secondary education (two- to three-year college programs or four-year university degrees and beyond) exhibit greater uncertainty compared to high school graduates. Similarly, employment status influences childbearing uncertainty. Unemployed or economically inactive women display higher levels of uncertainty compared to their employed counterparts. As shown in Figure 8 where the reference level is “Unsure”, they are less likely to definitively plan or reject the idea of having a child, indicating a heightened state of indecision. Here, employment status does not significantly differentiate between planning and not planning a child; instead, unemployment or economic inactivity is primarily associated with increased uncertainty (Figure 8). Finally, place of residence is another contributing factor. Women residing in small cities or rural areas demonstrate greater uncertainty regarding childbearing compared to those living in urban areas.

Regarding value orientations, gender norms dimensions are not significant when analysed separately but become significant with certain interactions with family support dimensions. Family support dimensions are significant in certain answers with no interactions but not all

(Figure 7). Three significant interactions between normative groups were identified. First between the Egalitarian vs Non-egalitarian axis and Strong support in childhood vs Moderate support for children axis: this group exhibits the lowest levels of uncertainty regarding fertility intentions, with individuals more likely to express either a definite intention to have a child or a clear decision not to. A reanalysis of the model using "uncertain" as the reference category confirms that this group is significantly more likely to respond either "yes" or "no" rather than remaining uncertain (Figure 8).

The second interaction is between the two family support axes: Strong support in childhood vs Moderate support for children axis and the Financial independence vs Generational support axis. Among all groups, the women with moderate support for children and high generational support are the most likely to plan for children. While they do not emphasize high parental investment in children's lives, they strongly support intergenerational aid between parents and children.

Third, the interaction between Gender non-essentialist vs Gender essentialist and Strong support in childhood vs Moderate support for their children shows adherence to gender-essentialist beliefs even when combined with moderate support for children, may discourage active fertility planning.

Figure 7 Determinants of fertility intentions among South Korean married women (ref = No)

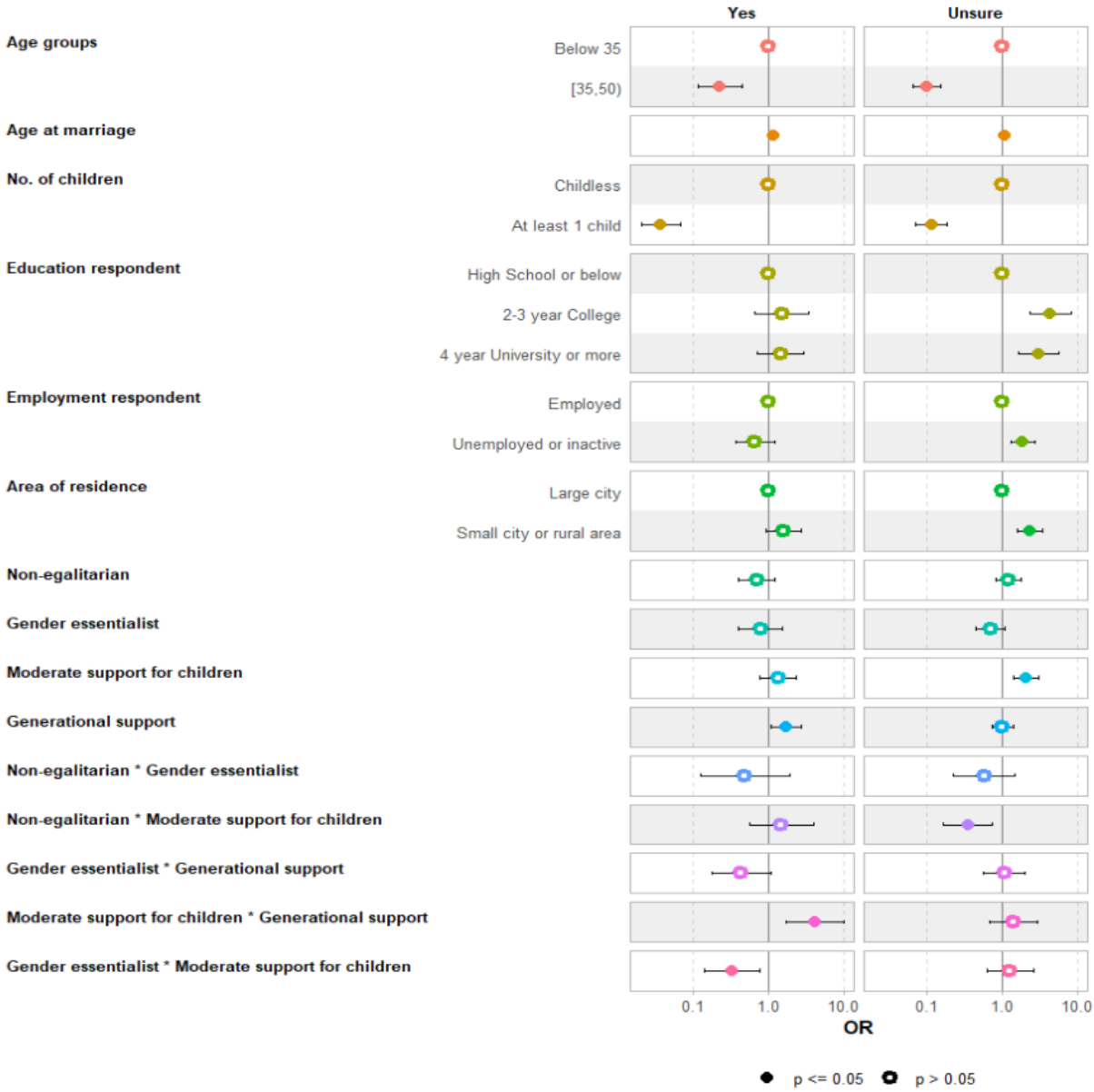
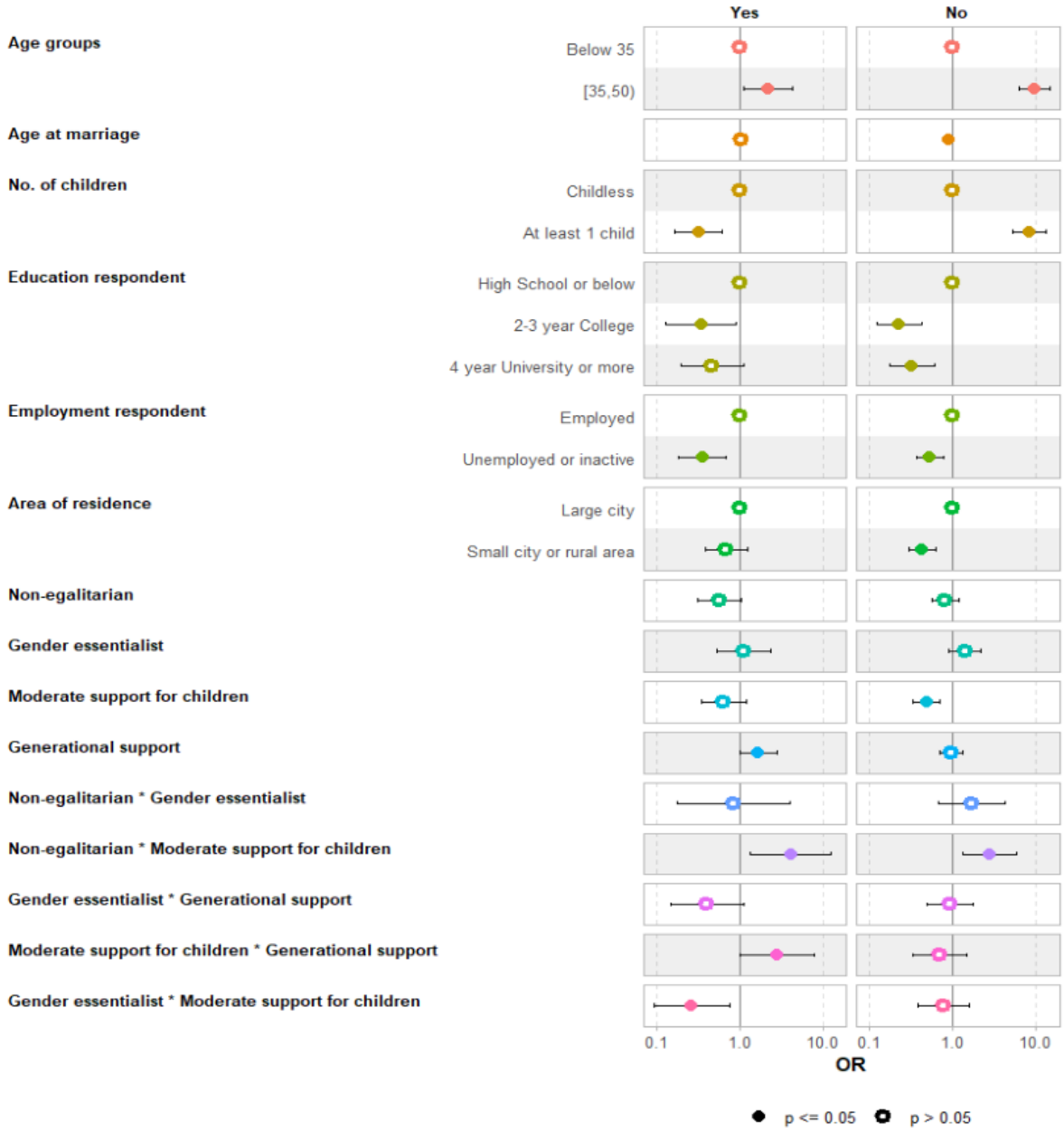


Figure 8 **Determinants of fertility intentions among South Korean married women (ref = Unsure)**



Discussion

The findings of this study provide insights into how demographic factors, socio-economic conditions, and value orientations shape fertility intentions. The results suggest that age, education, employment status, place of residence, and value-based norms all play distinct roles in shaping childbearing plans and uncertainty.

Age and Parenthood Status: Lower Fertility Intentions Among Older Women

Consistent with prior research (Yoon, 2016; Kuhnt et al., 2021), our findings indicate that women over the age of 35 are less likely to plan for a child or experience uncertainty regarding childbearing. This pattern is likely because older women are more likely to have already had children, reducing both their need and intention to expand their families. Parenthood status further reinforces this trend, as individuals who already have at least one child are less likely to express uncertainty or plan for additional children. These findings align with established demographic trends that suggest completed fertility intentions stabilize as individuals age (Kuhnt et al., 2021).

Additionally, age at marriage also plays a role in fertility planning. Women who marry at an older age are more likely to plan for a child but also exhibit greater uncertainty about doing so. One possible explanation is the compressed reproductive window—women who marry later may feel an urgency to have children due to biological constraints (Kuhnt et al., 2021), yet this urgency is accompanied by concerns about fertility, health risks, or career stability.

Education and Fertility Uncertainty: A Diverging Pattern

Higher education appears to be associated with increased uncertainty regarding childbearing. Women with post-secondary education (college and university degrees) are more likely to report indecision compared to high school graduates. A possible explanation is the prolonged transition to adulthood that comes with higher education—delayed entry into stable employment, marriage, and financial independence may contribute to greater uncertainty about childbearing.

This finding contrasts with patterns observed in high-income Western countries, where highly educated individuals often display stronger fertility intentions (De Watcher & Neels, 2011; Testa & Stephany, 2017). In these contexts, a more equitable division of unpaid labor and institutional support for working parents contribute to a "return to more family" (Esping-Andersen & Billari, 2015). Furthermore, highly educated women in Western countries tend to postpone childbearing but ultimately achieve their fertility intentions once they establish stability. In contrast, the Korean case suggests that prolonged education may introduce greater uncertainty rather than simply delaying childbirth, reflecting broader structural and cultural constraints on work-family balance.

Employment and Fertility Intentions: The Role of Economic Security

Employment status is another key determinant of fertility uncertainty. Unemployed or economically inactive women display higher levels of indecision compared to their employed counterparts. As shown in Figure 8, they are less likely to definitively plan or reject the idea of having a child, suggesting that financial instability may contribute to hesitation regarding childbearing.

While existing research generally supports the idea that employment increases the likelihood of positive fertility intentions (Modena & Sabatini, 2012; Dommermuth et al., 2017), also depending on gender and parity, the Korean context presents a different picture. Unlike in Western settings where employment facilitates childbearing through financial security and institutional support, in Korea, employment status does not significantly increase the likelihood of planning a child or not. Instead, the key finding is that economic inactivity is strongly associated with uncertainty. This could be due to structural barriers such as insufficient work-life balance policies (Kan and Hertog, 2017).

Place of Residence: Urban-Rural Divide in Fertility Uncertainty

Women residing in small cities and rural areas exhibit greater uncertainty about childbearing compared to their urban counterparts. This may be linked to employment opportunities, as rural areas typically offer fewer job prospects, making economic stability a greater concern. The findings suggest that regional disparities in labour markets and childcare infrastructure may influence fertility uncertainty. If that is the case, there is a need for policies that address employment and family support services outside major metropolitan areas.

Value Orientations and Fertility Intentions: The Role of Normative Interactions

While gender norms alone were not significant predictors of fertility intentions, their interactions with family support dimensions revealed important patterns.

Egalitarian vs. Non-egalitarian norms and Strong vs. Moderate support for children: the non-egalitarian with moderate support for children exhibited the lowest levels of uncertainty, meaning individuals were more likely to take a clear stance—either planning a child or rejecting the idea altogether.

Strong vs. Moderate support for children and Financial independence vs. Generational support**:** the women adhering to moderate support for children and strong generational support are the most likely to plan for children. . This suggests that they may have the least "morally demanding" configuration regarding fertility intentions as they do not feel compelled to make disproportionate sacrifices for their children while still expecting to receive care from them in old age.

Gender non-essentialist vs. Gender essentialist and Strong vs. Moderate support for children: this interaction shows adherence to gender-essentialist beliefs even when combined with moderate support for children, may discourage active fertility planning. Women believing in separate spheres may face higher levels of role conflict due to the belief that responsibilities of childbearing and childrearing should fall primarily on women, with no or little support from husbands and institutions (Yoon, 2016). So much so that even if combined with a moderate support for their children, they are less likely to have a positive fertility intention.

These findings contribute to a deeper understanding of fertility uncertainty and planning in the Korean context. The role of education, employment, and normative beliefs suggests that fertility intentions are shaped by both structural and cultural factors.

Conclusion

The findings highlight the necessity of studying value orientations and fertility intentions in conjunction, emphasizing that gender norms alone do not significantly influence childbearing

plans unless examined alongside family support dimensions. While individual gender attitudes may not directly shape fertility decisions, the interaction between different normative frameworks plays an important role in determining levels of certainty and intention regarding childbearing.

The first key interaction—between egalitarian vs. non-egalitarian gender norms and strong vs. moderate support for children—reveals that non-egalitarians with moderate support for children exhibit the lowest levels of uncertainty. They are more likely to clearly express either a positive or negative fertility intention.

The second significant interaction—between two family support dimensions (strong support in childhood vs. moderate support for children and financial independence vs. generational support)—indicates that those who favour moderate parental investment but strongly support intergenerational aid are the most likely to plan for children. This group appears to adopt a pragmatic approach to family life, maintaining expectations of mutual support across generations without feeling compelled to make disproportionate sacrifices for their children.

Finally, the interaction between gender essentialist beliefs and moderate support for children suggests that adherence to traditional gender roles may discourage fertility planning. Women who adhere to gender-essentialist views, particularly in contexts where childrearing is perceived as primarily a female responsibility, are less likely to express a positive fertility intention—even when they hold moderate levels of support for children. This finding emphasizes the potential role conflict experienced by women in societies where rigid gender norms persist, limiting their willingness or ability to actively plan for children.

Overall, these results suggest that fertility intentions are shaped not just by individual characteristics such as age, education, employment, and place of residence, but also by broader ideological frameworks. In particular, interactions between gender norms and family support values reveal important patterns of certainty and indecision in childbearing intentions. Understanding these dynamics is critical for developing policies that address both structural and cultural barriers to fertility planning.

To conclude, this study has several limitations coming from the data structure of the KLoWF. First, the survey is conducted exclusively among women, which is a significant limitation since family formation decisions are not only made by individuals but also as a couple: the opinions, desires, and plans of husbands play an important role in shaping the childbearing intentions of their wives. Second, the small sample size of women intending to have a child made it

challenging to conduct logistic regressions by parity, as these analyses resulted in either very large odds ratios or wide confidence intervals. Finally, further research is needed to address the issue of uncertainty in responses. The uncertain answers in this study may be underestimated due to the aforementioned limitations. Future studies should explore different definitions and measures of uncertainty to assess the extent to which the current definition and measurement may be inadequate.

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Appendix A

Gender norms

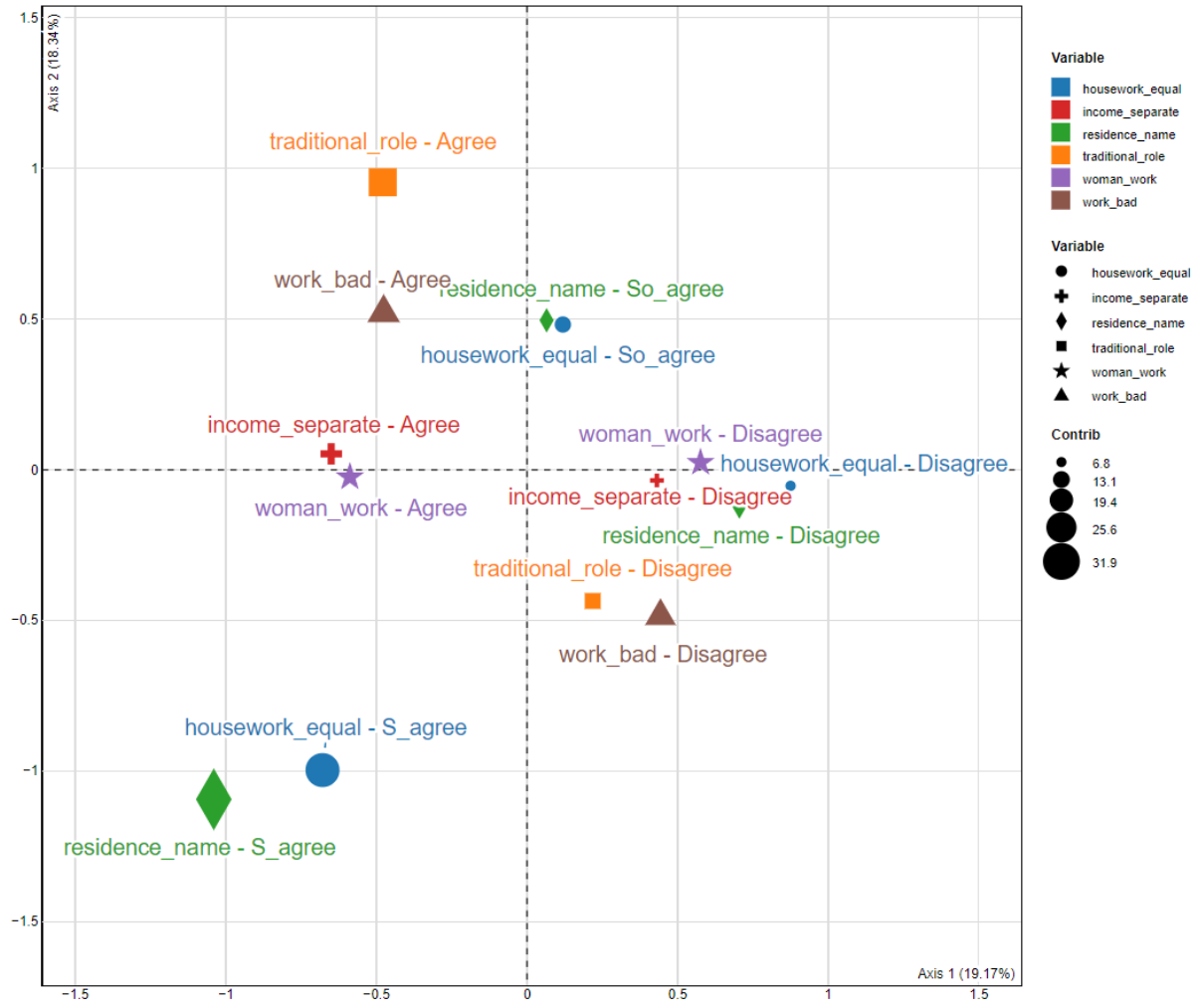
1. It's ideal for man to have a job and for woman to take care of family
2. A woman should work to make the marital relationship equal
3. If a housewife has preschool children, her getting a job would adversely affect children
4. A working couple should split housework equally
5. A couple should manage their own income separately
6. The residence where a couple live together should be registered in both the husband and wife's names
7. Father has the same responsibility for taking care of children as mother
8. Woman has the same responsibility for supporting family as man

Family support

1. Parents should afford college tuition for their children
2. Parents should provide funds for children's marriage
3. Parents should help adult children when they are financially in need
4. Children should live with parents when they get old

Appendix B

MCA factorial plan of gender norms variables



Note: the highest contributions of answers are taken into account concerning the interpretation of the newly created composite variable.

MCA factorial plan of family support variables

Note: the highest contributions of answers are taken into account concerning the interpretation of the newly created composite variable.