

Exposure to non-partnership and fertility desires among the childless population in Japan

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Introduction

The aim of this paper is to explore how fertility desires change among those who never have children in Japan, and when it is individuals finally “give up” on their fertility desires. We focus on partnership status and duration of non-partnership as explanations for changing fertility desires across an individual’s life-course.

Background

How and why reproductive goals change over the life course

Fertility desires (whether an individual would like to have children in the presence of obstacles) are dynamic over the life course. They can change in both upward and downward directions in response to changing circumstances (Gray et al. 2013; Gemmill 2019; Hayford 2008; Heiland et al. 2008; Iacovou and Tavares 2011; Liefbroer 2009; Mitchell and Gray 2007). In this paper, we specifically focus on both partnership status and duration of non-partnership as a possible explanation for “giving up” and depreciating fertility goals over time among those who never have children.

Why partnership status matters for fertility

Partnership, and particularly stable partnership, is a key determinant of an individual’s likelihood of having biological children (e.g. Kreyenfeld and Konietzka 2017). Studies that test for a relationship between partnership and fertility often classify individuals into three groups: married; nonmarital cohabitation; or single (Gray et al. 2013; Heiland et al. 2008). However, very few studies separate the single population into those with and without a non-resident partner (Iacovou and Tavares 2011; Liefbroer 2009), and explore whether these two groups differ in their fertility decision-making. We make this distinction in this paper.

Why duration of partnerships matters for fertility

Duration of not having a partner matters for fertility desires. For example, Keizer et al. (2008) explore how years without a partner between the ages of 20 and 40 associates with remaining childless in the Netherlands. They found that one extra year of being without partner increases the odds of remaining childless by 15% for women and 17% for men. A possible reason for this is that the longer time individuals live without a romantic partner, the more likely they are to be comfortable with spending time without a partner.

Japanese context

Japanese fertility decline is mainly driven by an increase in the never-married population and a delay of marriage timing (Iwasawa 2002). Japan also has relatively high numbers of its population without partners, who have never been in a relationship, and who have never had sex (National Fertility Survey, 2021). Therefore, the significance of studying the Japanese case lies in the likely powerful explanation of non-partnership for fertility intentions.

Hypotheses

Hypothesis 1 (Static hypotheses): Compared to those who have a partner (having a non-coresident partner, cohabiting, and being married), individuals without any partner are the most likely to give up their fertility desires across panel waves.

Hypothesis 2 (Duration hypotheses): A longer duration of not having a partner will result in fertility desires being revised downwards across panel waves.

Data and methods

Data

We use the Japanese Life-course Panel Survey (JLPS), conducted by the Institute of Social Science at the University of Tokyo, covering 2009 to 2022. The survey respondents were 20 to 40 years of age in 2007 (born in 1966–1986), and the sample was replenished in 2011 to compensate for attrition over time. The sample from the initial survey is reported to be nationally representative (Ishida, 2013; Naka and Miwa, 2020). We used the data from 2009 because fertility desires were first collected in that year.

The analytical sample consists of the person-years observations of individuals who have never had a child. We excluded those aged 35 or older at the time of entry into the survey from the sample, as the duration without having a partner may be more biased for older respondents, which will be discussed later. We excluded those who had periods on non-response and with missing values on key dependent and independent variables. The resultant analytical sample comprised 7,357 person-year observations of 1,332 female respondents and 6,738 person-year observations of 1,135 male respondents.

Variables

The dependent variable is respondents' fertility desire. We use the responses to the question asking whether the respondents want to have a child or not, offering five options: "do not want", "want a boy", "want a girl", "want a child regardless of the sex", and "do not know". To analyse the strength of fertility desires, we coded the first category as 1 ("do not want"), the last category as 2 ("do not know"), and the second to fourth categories as 3 ("want") and treat this as a continuous variable, with the higher values indicating the stronger fertility desire. In the final analysis, we will also treat the variable as a categorical measure to determine whether the partnership status affects the shift from positive ("want") desire from/to uncertain desire ("do not know"), uncertain from/to negative ("do not want") desire, or positive from/to negative desire. The results from this will be ready for presentation at EPC.

Our main independent variables are both partnership status and the duration of not having a partner. JLPS asks respondents who are not currently married about their relationship status, "Are you currently in a romantic relationship with anyone?" The response options are "engaged," "romantically involved with someone," and "no involvement." We classified the former two as indicating having a nonmarital partner, while the last option was categorized as not having any partner (non-partnership). Those who have a nonmarital partner were further separated into those having a non-coresident partner (non-coresident partnership) or a cohabiting partner (cohabiting partnership).

Integrating these three groups into those who are currently married, we constructed the four categories: non-partnership, non-coresident partnership, cohabiting partnership, and marital partnership.

Furthermore, we constructed variables to differentiate the non-partnership category by duration. If a respondent changes their partnership status from having a non-coresident or coresident partner to not having a partner during the observation period, the duration is recorded as one (year) and annually increases as long as the person remains without a non-coresident, coresident, or marital partner. If a respondent does not have a partner at the time of the initial entry into the survey and has never had a partner before, we calculate the number of years elapsed since age 20 as the duration without a partner. However, if the respondent has never been in a relationship before, but does not have a partner at the time of the initial survey entry and has had a partner in the past, we assign the value of one if they had a partner up until a year ago. The duration is classified into 1 year without a partner, 2–3 years, 4–6 years, 7–10 years, and 11 years or longer.

We also control for age, age squared, past marital history, dynamic employment status, individual income, area of residence, and educational attainment.

Models

We employ fixed-effects models to predict the effect of partnership status (model 1) and duration of partnerless periods (model 2) on fertility desires.

Preliminary results

Women who are married and cohabit do not statistically differ in their level of fertility desire, but those who are in non-coresident partnerships have a weaker fertility desire compared to married women. Women who do not have a partner are the least likely to want a child. Considering the duration of non-partnership period (in model 2), in general, women who do not have a partner for a longer time are less likely to have a fertility desire. Particularly, the gap between non-partnership for 4-6 years and for 7-10 years is the largest, indicating that women are more likely to give up desiring to have a child after 4-6 years of non-partnership in Japan. The overall trends are similar for men, except that cohabiting men's fertility desire is the lowest in model 1 and is the same as the one of non-partnership for 7-10 years. These findings may suggest that cohabitation serves as, at least for some respondents, as an alternative union. In Japan, because there is strong links between marriage and childbirth, men who do not wish to have a child may choose cohabitation rather than marriage. Interestingly, this trend cannot be found among women who cohabit. Thus, there might be a mismatch between the fertility desires of cohabiting couples, with women more likely to desire parenthood than men. However, the proportion of cohabitation is still small (3.4% for women and 2.4% for men), thus, the results for the cohabitation group should be interpreted with caution. The results support both the static and duration hypothesis.

To partially address concerns about reverse causality (that those with weak fertility desires may not desire a partner), we ran additional analysis using a lagged independent variable (not presented). We found remarkably similar results, providing some support for a causal relationship, indicating that the longer an individual remains without a partner, the lower their inclination to have a child.

Table 1: Fixed-effect models predicting continuous fertility desires by partnership status and duration of non-partnership

	Women		Men	
	Model 1	Model 2	Model 1	Model 2
Partnership status (ref: marital partnership)				
Coresidential partnership	-0.057 (0.038)	-0.053 (0.039)	-0.173* (0.078)	-0.164* (0.078)
Non-coresidential partnership	-0.084** (0.030)	-0.077* (0.031)	-0.080 (0.043)	-0.067 (0.046)
Non-partnership	-0.128*** (0.031)		-0.130** (0.041)	
Non-partnership, 1 year		-0.097* (0.038)		-0.084 (0.052)
Non-partnership, 2–3 year		-0.134*** (0.037)		-0.109* (0.050)
Non-partnership, 4–6 year		-0.106** (0.037)		-0.129** (0.048)
Non-partnership, 7–10 year		-0.171*** (0.044)		-0.164*** (0.047)
Non-partnership, 11+ year		-0.154** (0.051)		-0.156** (0.048)
R^2	0.739	0.740	0.693	0.693
<i>N of individuals</i>	1332	1332	1135	1135
<i>N of person-years</i>	7357	7357	6738	6738

Source. JLPS2009–2022. Note. *** $p < .001$, ** $p < .01$, * $p < .05$ (two-tailed tests). Individual-clustered robust standard errors in parentheses. Control variables are not shown.

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