

松 山 大 学 論 集
第 32 卷 第 3 号 抜 刷
2 0 2 0 年 8 月 発 行

Data analysis of sexless relationships
to determine the effects of factors like relationship
quality and number of vacation days
—— How to restore Japan's declining birth rate,
which has been worsened by the coronavirus ——

Go Igusa

Data analysis of sexless relationships
to determine the effects of factors like relationship
quality and number of vacation days
—— How to restore Japan's declining birth rate,
which has been worsened by the coronavirus ——

Go Igusa

I . Defining the issue

Japan's birth rate is continuing to decline, and this has been worsened further still by the coronavirus pandemic. Several newspaper editorials and economic analysts have expressed concern that the pandemic has taken attention away from the issue of declining birth rates. Various government policies have made people feel nervous about having children in future.

However, even before the coronavirus pandemic, the low birth rates and declining population were getting worse. In 2019, the number of births in Japan fell well below 900,000, and the population has been in decline since 2008. Many are worried about the drastic effects that declining birth rates and population will have on our country, which include the shrinkage of the domestic market and economy due to the decrease in working-age population and consumer demand ; decreased numbers of people to carry out various regional and social activities ; and less people who will be able to support the social security system in the future.

Young people aren't having sex. Even if they get married, it becomes a

sexless marriage. So no matter how much the government encourages people to get married, it won't be able to stop the declining population. If this issue is left unsolved, it will have serious consequences for the country. As you can see from Diagram 1, made with data taken from a study conducted by contraceptive company Durex (2005)¹⁾ Japanese people have the least sex of any country in the world; there is also a high proportion of people who are unsatisfied with their sex life (Diagram 2), higher than any other country (Diagram 3). The Greeks have the most sex, at 138 times a year, followed by the Croatians at 134 times a year; the other European countries, like France, are mostly clustered around 120 times a year. The frequency in Asian countries is low across the board, averaging around 80–90 times per year, but Japan is even lower than other Asian countries, at 45 times, and the proportion of people satisfied with their sex life is also low (the Sagami Rubber Industries study “Sex in Japan 2018” put the number at 25 times a year).

Looking at recent studies, the Japan Sex Survey 2020 conducted by the Japan Family Planning Association found that among married people between 20 and 69 years old, the rate of “sexlessness” (no sex within the past month)²⁾ has been increasing year after year, and while it was 31.9% in 2014 and 41.3% in 2012, it has now climbed to 51.9%, showing that the trend towards more sexless marriages is continuing.

Perhaps the biggest problem with the rising rate of sexlessness among the Japanese is the fact that it cannot be fixed by government policy. Governments can't control things like how satisfied people are with their sex life, which depends on their feelings, mood, and preferences. Realistically, there's already nothing that

1) It is important to keep in mind that since there is no information on the survey methodology and what kind of sampling bias may be present, the scientific value of this survey may be low.

2) The Japan Society of Sexual Science defined sexlessness as when “despite the absence of exceptional circumstances, the couple have not had sex or sexual contact in over a month, and are not likely to in the near future.”

can be done. But why did Japanese people become so uninterested in sex? The cause of the population decline is not just an issue with peoples' sex lives. It is well known that it's caused by a myriad of factors including economic issues, children stuck on nursery school waiting lists, and having to balance child rearing with their career, so it's only natural that people would be apprehensive about having children. On the other hand, many couples consult with a hospital about infertility issues, but when you really listen to what they're saying, a lot of the time this is simply caused by sexlessness. Many people in Japan are worried about the fact that they aren't having children, despite the fact that they aren't even having sex. This means that the government's subsidies for infertility treatment won't be useful.

II. Prior research

The issue of sexlessness is one that has attracted a lot of attention in recent years. In the field of medicine, some studies have focused on female sexuality and reproduction, while there are some studies in the field of psychology that analyzed things like newspaper articles (and many other forms of reporting), but while some have been conducted in recent years, there are barely any sociological studies that focus on sexlessness among married couples.

When analyzing childbirth from a sociological perspective, it is often assumed that people rationally decide to have children. There are several factors that are causing people to be hesitant about making this decision. Therefore, if we can pinpoint these factors and resolve them, more people will make the decision to have children; or so the theory goes. However, Yamada (2016) points out that there is a large component of irrationality involved with having children. It is recognized that children naturally arise as a result of sexual activity, so while people may expect to have children at some point, there are few who actually plan to have

children. Even if the circumstances are right for having children (they are assured that they'll be able to keep their job, etc.), some may not want to have a child with their partner, or are uninterested in sex. On the other hand, even if someone is not in a good position to raise a child, they may get pregnant and have one anyway. Yamada claims that in Japan, while there are many mid-pregnancy weddings, (so-called "shotgun weddings"), there are also many sexless married couples.

Modern families generally go from sex, to love, to marriage, and it was assumed that the bride and groom would continue to love each other after getting married. The way that the husband and wife in these families would continue to love each other after getting married is seen as desirable, and remaining close to one another creates stability for the couple (Tanimoto & Watanabe, 2016). In the field of sociology of the family, love and marriage were seen as commitments. These commitments are made up of the fulfillment expected from the relationship, and the amount of time invested into it. The greater this fulfillment and time investment are, the stronger the commitment towards the marriage. It has been shown that if the level of satisfaction and amount of time invested in a marriage become greater, the couple will be less likely to cheat on each other, and one could also imagine that they would have sex more frequently.³⁾ Natsuno Kikuchi also draws a connection between sex and feminist arguments about housework. For women, marriage represents social approval and financial support; the woman, owned by her husband, has a duty to provide him with sex, and in return, the husband provides her with financial and social stability. If this is the case, one could suppose that couples where the husband has a higher income than the wife will have more sex.

In this paper, I will study whether this sociological commitment demonstrates a

3) However, according to Igarashi (2018), the couple's level of closeness (conversation frequency) has no effect on whether or not cheating occurs.

good relationship between husband and wife, and whether the economic/sociological framework of marriage used up until now applies to sex frequency research in Japan, by creating variables to quantify these concepts, and analyzing the results along with those of past research.

III. Data and variables/analysis

In this paper, I will analyze data collected by the AERA editing department in their “Work and Sex Survey”.⁴⁾ This survey (30 Dec 2005–4 Jan 2006) was conducted online, and randomly sampled testers from their contractor Infoplant between 20 and 59 years old who are either married or living with their partner. The survey was sent to 2,620 people, and 800 responses were used for analysis (400 men and 400 women, divided into 100 people of each age group (20s, 30s, 40s, and 50s). For this paper, I have only analyzed data from the main subjects of this research, which is married people in their 20s, 30s, and 40s (586 people). In this paper, I will test this theory by running a censored regression analysis, with the frequency of sex as a dependent variable. The highest value for sex frequency will be “more than 3 times a week,” and I will convert the data into units of “times per year” and analyse it as a continuous variable.⁵⁾

The marital relationship will be defined as follows, and used as an independent variable. Investment (commitment) to the marriage with questions on “frequency of conversation” and “presence or absence of cheating.” To study the financial reward of sex for the wife, a question on the “difference in income between the

4) The data for this secondary analysis, Survey on Work and Sex, 2005, AERA, The Asahi Shinbun Company, was provided by the Social Science Japan Data Archive, Center for Social Research and Data Archives, Institute of Social Science, The University of Tokyo.

5) In this paper, I draw a comparison with Akira Igarashi’s (2018) “Who commits infidelity,” a secondary product of analyzing the “Work and Sex Survey,” so I tried to treat the variables the same as much as possible.

couple⁶⁾” (As a supplement to commitment, we have also analyzed the time couples spent on sex and their satisfaction levels with sex (Equation 2). Couples who have sex fewer than once a year have been omitted.)⁷⁾

As a control variable, I will input a variable related to working style, including type of work and number of days off. Figure 1 shows the descriptive statistics

Table 1 : Descriptive statistics

Variable name		Average	Standard deviation	Maximum value	Minimum value
Frequency of sex		27.94	34.12	156.00	0.00
Age		35.05	8.17	45.00	25.00
Gender	Male*	0.49	0.50	1	0
Education	Junior high school graduate*	0.02	0.12	1	0
	High school graduate*	0.26	0.44	1	0
	Junior College/vocational school graduate*	0.27	0.44	1	0
	University/Graduate School graduate*	0.45	0.50	1	0
Number of children		1.20	1.03	4	0
Annual income (log)		5.73	0.72	7.31	4.61
Number of working hours per week		40.53	12.75	61	20
Number of prescribed holidays per week		1.85	0.70	3	0
Husband has a higher income*		0.64	0.48	1	0
Commitment	Frequency of conversation a day	2.17	1.46	8	0
	Presence of cheating*	0.07	0.25	1	0
	Satisfaction with sexual intercourse*	0.69	0.46	1	0
	Hours of sex	40.47	25.07	120	10

Note (1) : The sample size is 586 (Gray part : 495).

Note (2) : * represents dummy variable.

Note (3) : Data is based on the “Survey on Work and Sex, 2005” by the AERA, The Asahi Shinbun Company.

6) For this, I use a dummy variable (Husband has higher income = 1, husband has lower income = 0).

7) For example, for work time, I use the question “What is the average number of hours you work per week ?” and have six answer categories, ranging from “less than 20” to “more than 61.” For variables like this, I take the median point of each category and analyze the results as a continuous variable. Other variables follow the same pattern.

of variables used in the analysis, and Figure 2 shows the results. We confirmed a correlation with age (negative), infidelity (negative), and conversation time (positive). A correlation with satisfaction levels with sex (positive) was also confirmed with Equation 2.⁸⁾

Table 2 : Influence of the investment (commitment) on sexlessness

		Method : ML-Censored Normal		Method : Least Squares	
		Dependent variable = Frequency of sex		Dependent variable = Frequency of sex	
		Sample size = 586		Sample size = 495	
		Left censored obs = 91		Adjusted R-squared = 0.084	
		Log likelihood = - 2560.346		P value = 0.000	
Name of variable		Coefficient value	P value	Coefficient value	P value
Constant		48.032	0.012	50.301	0.008
Age		-1.354	0.000***	-0.702	0.001**
Gender	Male	-1.249	0.781	-2.523	0.567
Education	Junior high school graduate	-15.123	0.244	-19.648	0.113
	(High school graduate)				
	Junior College/vocational school graduate	-4.062	0.355	-6.590	0.130
	University/Graduate School graduate	-0.253	0.949	-5.914	0.134
Number of children		-0.124	0.942	-1.914	0.254
Annual income (log)		3.398	0.296	0.400	0.902
Number of working hours per week		-0.022	0.909	-0.002	0.993
Number of prescribed holidays per week		-0.966	0.704	-1.611	0.522
Husband has a higher income		1.692	0.631	-0.807	0.816
commitment	Frequency of conversation a day	4.007	0.000***	2.157	0.045*
	Presence of cheating	-12.871	0.046*	-6.005	0.362
	Hours of sex			0.051	0.415
	Satisfaction with sexual intercourse			14.195	0.000***

Note (1) : Based on author's estimation.

Note (2) : * = Significant at 5% for *, 1% for ** and 0.1% for ***.

8) As Equation 1 uses a censored model for the regression analysis of left-truncated data, it is difficult to compare it directly with Equation 2.

IV. Discussion and Suggestions

The purpose of this study was to examine the causes of “sexlessness” in Japan and explore possible solutions to this problem. Previous studies have focused on the “quality of the relationship between couples,” a central topic of research in family sociology, but the results of this study have shown that “commitment towards marital relationships” also has an effect on curbing sexlessness. (Surprisingly, we found that working hours and vacations had no apparent effect on this.) Specifically, when using Equation 1 whose analysis includes couples who do not have sex, we found that couples without infidelity issues and who engage in extensive conversations with each other are unlikely to encounter the problem of “sexlessness.” Likewise, when using Equation 2 which only analyzed couples who have sex, we found that couples who engage in extensive conversations with each other and who are highly satisfied with sex with their partner are unlikely to encounter the problem of “sexlessness.”

We also found that factors such as annual income have no effect on “sexlessness.” As Yamada (2016) points out, we can interpret these results as suggestive of the fact that even though some couples “hope” for the birth of a child at a certain stage of their lives, few people actually make “plans” for it. Based on these results, we would like to offer the following suggestions.

As the COVID-19 pandemic continues to worsen, the current situation revolving around pregnancy and childbirth is deteriorating by the day as the Japan Society for Reproductive Medicine has been recommending the postponement of infertility treatment due to the risk of women contracting COVID-19 during pregnancy. What should we do in this present situation where there are growing concerns about social distancing and the faltering economy? Previous studies have shown that women tend to prefer connecting with others through direct means of communication such as

having conversations. When a woman ceases to have conversations with her husband, she often feels anxious due to the impression that her husband is no longer interested in her or no longer loves her. It is possible for this situation to lead to sexlessness. However, with couples spending more time at home under the current social distancing guidelines, we believe that if couples can engage in activities such as cooking or drinking together, the social distancing mode can be transformed into an “enjoyable space” where they can engage in more conversations. At the same time, with COVID-19 changing the ways people are working and spending their off-days, many products associated with “sex” have seen greater demand. The results of our analysis suggest that the increased desire for greater satisfaction with sex may serve as an effective strategy to counter Japan’s declining birthrate. In addition, the creation of an “enjoyable space” outlined above may be effective in curbing infidelity issues (which lead to sexlessness problems between couples).

The “Outline of Countermeasures against a Society with a Declining Birthrate” was passed by the Cabinet at the end of May, and it will serve as the set of guidelines for countermeasures against Japan’s declining birthrate until 2025. Although this set of guidelines points the way towards an expansion of childcare leave benefits and childcare allowances as well as providing support for infertility treatment, there is little mention of the funding that will be allocated for these goals or any other concrete plans. It remains the case that no action is being taken to address Japan’s small budget in this area. It may be possible that there is no residual funding due to existing measures against COVID-19. With Japan on the brink as far as our problem of declining birthrate is concerned, there is an urgent need to take serious action on the ground to address the important issues. What we must do currently is to start taking firm action such as the suggestions we have proposed above despite the lack of national budget allocated on this front in the midst of the COVID-19 pandemic.

References

- Akira, Igarashi 2018 “Who Cheats ?,” *Japanese Journal of Family Sociology*, 30(2) : 185-196.
- Durex 2005 “2005 global sex survey report”.
- Japan Family Planning Association 2020 “JEX JAPAN SEX SURVEY”.
- Naho, Tanimoto and Daisuke, Watanabe 2016 “Reconsidering the Ideology of Romantic Love :
From a Perspective of Studies on Love,” *Sociological Theory and Methods*, 31(1) : 55-69.
- Sagami Rubber Industries 2018 “Nippon sex 2018 edition”.
- Yamada, Masahiro 2016 “Comments from Family Sociology and Sociology of Emotion,”
Sociological Theory and Methods, 31(1) : 94-98.

*This work was supported by 2018 Matsuyama University Special Research Grant.

Figure 1 : Frequency of sex



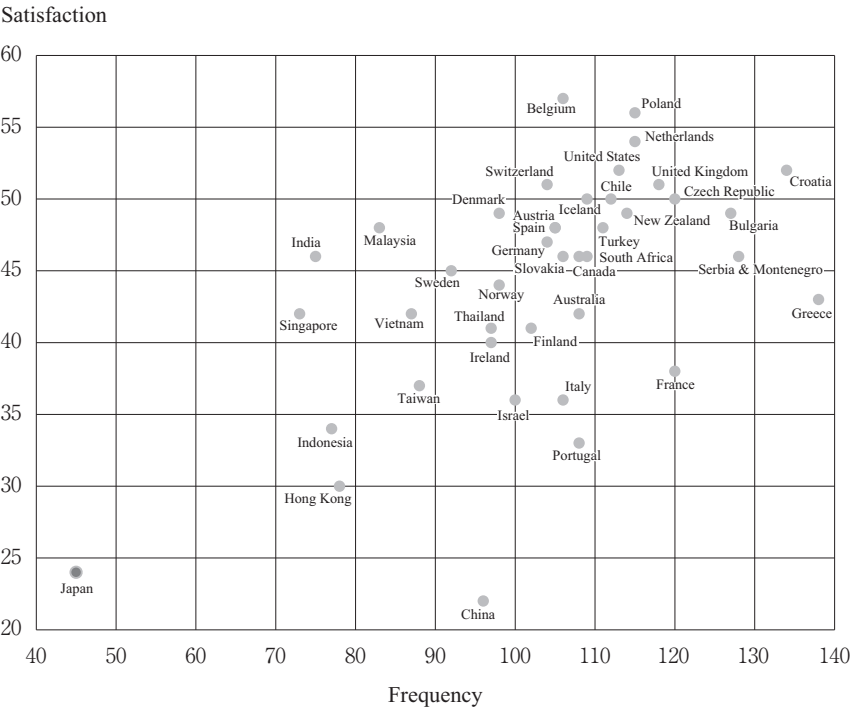
Note (1) : Data is based on the “2005 global sex survey report” by the Durex.

Figure 2 : I'm happy with my sex life(%)



Note (1) : Same as the figure1.

Figure 3 : Satisfaction and frequency



Note (1) : Same as the figure1.