

BARRIERS AND ENCOURAGEMENTS OF CHILDLESSNESS IN INDONESIA

(DETERMINAN ATAS HAMBATAN DAN DORONGAN YANG MEMPENGARUHI PILIHAN UNTUK TIDAK MEMILIKI ANAK (CHILDLESSNESS) DI INDONESIA)

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ABSTRAK

Diskursus mengenai tidak memiliki anak (*childlessness*) semakin relevan, tidak hanya di negara maju tetapi juga di negara berkembang. Di Indonesia, sebuah negara yang kuat dengan nilai-nilai budaya tradisional, fenomena tidak memiliki anak secara sukarela—atau menjadi *childfree*—semakin marak. Pilihan ini menantang norma sosial yang selama ini menstigmatisasi ketidakadaan anak, dan justru dipandang sebagai bentuk kebebasan dan otonomi individu. Studi ini mengkaji bagaimana masyarakat Indonesia memaknai dan merespons konsep tidak memiliki anak dengan mengidentifikasi hambatan serta faktor pendorongnya. Data primer diperoleh dari survei terhadap 430 orang dewasa yang tinggal di Jakarta, menggunakan pertanyaan skala Likert untuk mengukur sikap terhadap fenomena *childlessness*. Model regresi logistik multinomial diterapkan untuk menganalisis karakteristik responden yang memilih untuk tidak memiliki anak. Hasil penelitian menunjukkan bahwa tekanan dari keluarga merupakan hambatan utama, sementara paparan terhadap gerakan tidak memiliki anak (*childless*), pengaruh budaya Barat, dan keinginan akan kebebasan pribadi menjadi faktor pendorong yang dominan.

Kata kunci: Childlessness, Childfree, Kebebasan, Stigma, Fertilitas

ABSTRACT

The discourse on childlessness is increasingly relevant, not only in developed countries but also in the developing world. In Indonesia, a country deeply rooted in traditional cultural values, voluntary childlessness—or being *childfree*—is emerging as a growing phenomenon. This choice challenges prevailing societal norms that stigmatize childlessness and instead reframe it as an expression of personal freedom and autonomy. This study explores how Indonesian society interprets and responds to the concept of childlessness by identifying its perceived barriers and encouragements. Using primary data from a survey of 430 adults residing in Jakarta, we employed Likert-scale questions to capture attitudes toward childlessness and applied a multinomial logistic regression model to analyze the characteristics associated with the choice to remain childless. The findings reveal that family pressure is the most significant barrier, while exposure to the *childfree* movement, Western cultural influences, and the desire for personal freedom are key factors that encourage voluntary childlessness.

Keywords: Childlessness, Childfree, Freedom, Stigma, Fertility

INTRODUCTION

Background of Problems

Fertility behavior is decisions by individuals or couples that consist of the number of births, time of birth, contraceptive choices, and selections of union status (Swicegood and Bean, 2001). From the definition of fertility behavior, this paper focuses on the childlessness discourse. As stated in Harrington's journal (2019), there are three types of reasons for childlessness: voluntary (*childfree*), circumstance (whether the medical condition or other involuntary reasons), and chance (they have wanted to have children but missed the chance because of age, not finding a partner, or pursuing career or education, or both) (Harrington, 2019).

This study focuses on two main lines of discussions on fertility behavior that refer to childlessness: *childfree* and the decision to delay having children. First, the term "childfree" replacing

“childless” was introduced by American feminists Shirley Radl and Ellen Peck since they thought that being childless contained a negative connotation as inferiority people, procreation impossibility, and egoistic individuals who do not want children (Bicharova, Lebedeva and Karabushchenko, 2015). Childfree is a life choice that refers to people who choose not to have children. Previous studies explored how people who chose childfree as their life choice can cope with themselves and choose the path to cast off the pronatalist discourse (Morison et al., 2016).

Childfree is initiated by Western women, while women in other parts of the world cannot access the technologies that support reproductive freedom (Gillespie, 2003). European countries experienced an increasing trend of being childfree as a life choice since the 1970s, mostly caused by women postponing their procreation, infertility condition, and the beginning of society’s acceptance of people’s choice of having no children (Fiori, Rinesi, and Graham, 2017). The data in Britain and Italy proved the trend that had the highest number of childfree individuals among other European countries and later affected the population growth (Tanturri and Mencarini, 2008). Gouni et al. (2022) also supported this fact by stating the reduction in the birth rate in Greece, Turkey, Malta, Finland, and Lithuania since the 1950s. Their studies showed that being childfree in those countries was becoming favorable in society.

Second, another fertility behavior discussion is postponing childbearing or taking chances for other essential things in life that lead to timing discussion of having children. This decision intertwined with female emancipation during the childbearing period was in consort with the introduction of contraceptive methods in the 1960s (Mills et al., 2011). Educational attainment, employment, and career opportunity often influence people to postpone having children. With the expansion of this emancipation, women could have the opportunity to choose between motherhood and other accessions such as career and education, which later on will change the temporal pattern of fertility behavior and women’s role in the household (Goldin, 2006; Hook, 2010).

Indonesia is a country where cultures promote stigmas, especially regarding gender equality, which often hinders humanity and the opportunity to be productive as human beings. Being a mother becomes an obligation in Indonesia since motherhood is considered an accomplishment for women, and the other way around is rated as a fiasco. This reflection pressures couples, especially women, to have children so that they will be less judged by society (Yasnur, 2018).

In the meantime, the trend of childlessness is increasing in Indonesia. It takes many forms that can be found in social media, activist movements, and discussions. This awareness is often related to environmental, financial, and sometimes psychological concerns, such as the fear of having a child in a dangerous world (Saroh and Santosa, 2021). Furthermore, the tendency of people to delay procreation also aligns with the condition in Indonesia, whereby the mean age of childbearing has been stagnant at 28 years since 2005 and is projected to rise to almost 30 in 2100 (United Nations, 2019).

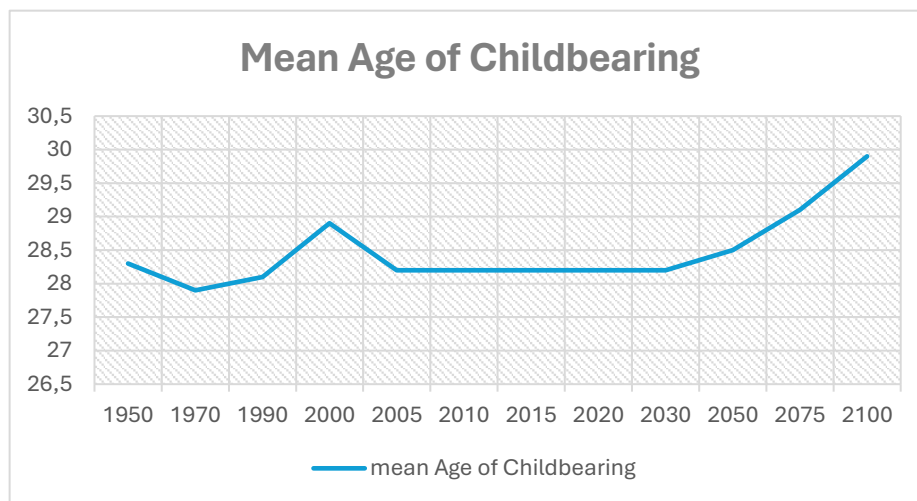


Chart 1. The Mean Age of Childbearing 1950-2100 in Indonesia
Source: United Nations, 2019

Many studies in the literature examine the cause of fertility change; the degeneration in fertility rate was sponsored by the government family planning program by the National Population and Family Planning (BKKBN) to aim the specific target of replacement level fertility of 2.1 in 2010 (Hull, 2016). Fertility is closely connected with living standards that involve comparing the cost and benefit of children in households (Mattei, Mealli, and Pudney, 2009). Other studies discuss the climate shocks (Sellers and Gray, 2019), the influence of electrification on economic development (Grimm, Sparrow, and Tasciotti, 2015), and the correlation with leverage of women empowerment (Cleland et al., 2006) as several causes that affect fertility in Indonesia.

Recent data indicates a significant shift in household socioeconomic status in Indonesia over the past decade. The proportion of female-headed households increased by 1.65% in 2020 compared to 2009. Notably, the share of female household heads with higher education rose from 24.51% in 2009 to 34.61% in 2020. Female-headed households also reported higher average monthly per capita expenditure with 224,440 Indonesian Rupiah compared to only 15,982 Indonesian Rupiah in male-headed households (National Socio-Economic Survey, SUSENAS, 2020). Moreover, nearly 10% of women aged 15 and above hold a university degree, slightly surpassing the 9% of men. These trends suggest growing access to education and economic opportunities for women in Indonesia, especially among those heading households.

Another survey from Demographics and Health Survey (DHS) clarified that even though there was a 0.5 percentage points decline in childlessness between 2012 and 2017 among couples in Indonesia. There was an increase in accumulation in all women with zero children ever born (including married and single women aged 15-49) for one percentage point higher from 27.9% to 28.9% in 2017 compared with 2012 (Statistics Indonesia, National Population and Family Planning Board and Ministry of Health, 2014, 2018). This number showed the evolution of childless women in Indonesia. However, this data does not include men who opt to be childless. With the proliferation of information technology in line with the evolution of the feminist movement, the childfree movement and the postponing procreation among adults are growing in Indonesia.

The current study aims to explore the determinants of childlessness. By delving deep into the childlessness phenomenon that is currently happening in Indonesia, the research will explore the reasons behind people choosing childlessness as their life choice by considering the patriarchal system that is still very strong in Indonesia and the encouragements that promote procreation choices. Most importantly, the research aims to bring insight and indications for further research.

Problem Statement

This study examines the reasons behind adult fertility behavior, particularly in Jakarta, Indonesia. Since the barriers from stigmas, systems, and pressures restrain people from choosing the childlessness pathway, we also aim to explore the encouragements that lead to these choices. As childlessness becomes increasingly widespread in Indonesia, as shown above with the DHS data, this current study aims to explore the determinants of choosing childlessness that can be divided into childfree (voluntarily not wanting children) and unconvinced childfree (delaying procreation). However, the culture and system of the common still discourage this life path. As such, this study aims to examine the barriers to people not choosing to have children by investigating Indonesia's social norms and culture and comparing those with the encouragements that can offset or minimize the effects of the barriers.

The objectives of this research are, first, to find out how childlessness has become an option in a patriarchal society like Indonesia. Second, to analyze why people opt to be childless, and lastly, to fill the gap in the literature on childlessness that is still limited in developing countries, particularly in Indonesia. More specifically, the research tries to answer the following questions (1) What are the barriers to choosing childlessness? (2) What are the encouragements that could mitigate these barriers? And (3) What factors determine people choosing childlessness when viewed from its barriers and encouragements in Indonesia?

By referring to the objectives of this research, we aim to scientifically demonstrate whether the discourses about childlessness align with the result of the survey analysis conducted in this study.

Conceptual Framework

We aim to provide a comparison in the literature and offer a better understanding of childlessness discourse from different perspectives. As mentioned in the previous chapter, we focus on familiarising the barriers and encouragements of childlessness as a life choice in Indonesia. The preceding literature provided comprehensive explanations of the encouragement of childlessness that we divide into three sub-sections: influences from others, freedom, and psychological factors. Meanwhile, studies focusing on barriers related to childlessness are still limited. These studies often only focus on finding out why people choose childlessness rather than discussing things that barricade them into this life choice. Despite the evolution of childlessness in developed countries, some barriers come from diverse contextual factors in developing countries, which we divide into pressures, stigmas, and systems in Indonesia.

As one of the encouragement's discussions in this study, freedom is supported by a childless lifestyle. With the progression of feminist movements in Western countries, freedom has become the fundamental issue for achieving women's financial independence, social status, and personal fulfillment (Peterson, 2015). Previous studies showed that freedom becomes important for choosing childlessness since it simplifies the person's life purposes (Gillespie, 2003; Avison and Furnham, 2015; Peterson, 2015; Morison et al., 2016; Fiori, Rinesi and Graham, 2017; Harrington, 2019).

Besides the freedom discourse, other factors such as influences, and psychological factors could be taken as encouragements for childlessness. Recent publications stated contradicting relationship between childlessness and influences. Some studies found that childless decisions often occurred to environmental awareness (Helm, Kemper, and White, 2021; Nakkerud, 2021) and social acceptance (Noordhuizen, de Graaf, and Sieben, 2010). Meanwhile, another study by Blackstone and Stewart (2016) offered that childlessness comes from within and cannot be influenced by others. This decision is also obtained from continuous, carefully thought-out incidents, not just because of a singular event (Blackstone and Stewart, 2016).

Moreover, from the psychological factor, traumas and fears could determine the prevalence of childlessness (Bicharova, Lebedeva, and Karabushchenko, 2015; Ilina et al., 2019). However, previous literature mainly describes conditions in developed countries with different contextual

factors. We aim to explore psychological factors and influences on childlessness encouragement in developing countries, particularly in Indonesia.

Despite the evolution of women's empowerment, there are still some barriers for childless people. Motherhood, one of many, still ascertains women's identity and promotes women's value in childbearing. This paradigm creates innumerable stigmas about childlessness (Panggabean, 2014). Specifically, in Indonesia, the patriarchal system is protected by marriage law, driving the distinction in the roles of a husband and a wife (Yasnur, 2018). The law states that a man as a husband is the head of the family that carries the responsibility regarding the household's finance and protecting the family. At the same time, women as a housewife are defined as a husband's support system and take care of household chores (Yasnur, 2018). In addition, religion, culture, and societal pressures give women no choice but to follow the ingrained patriarchal system.

The concept of barriers and encouragements that include the pressures, stigmas, systems, influences, freedom, and psychological factors, which are predicted to be the causes of childlessness in Indonesia which is summarized from various literature can be seen in the following diagram to make it easier for readers to understand the research flow of this paper, such as follows;

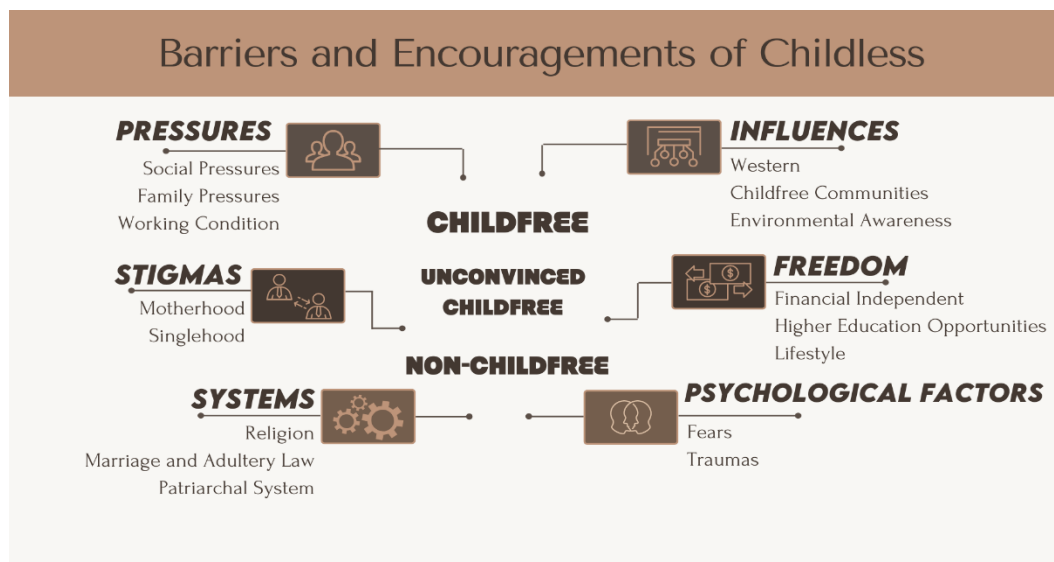


Figure 1. Barriers and Encouragements of Childlessness Prevalence
Source: Adapted by the author from the review of existing literature

METHOD

Data

We use primary data from a survey questionnaire collected from 400 adults living in Jakarta, Indonesia. We adopt Likert scale questions as human attitude measuring variables to answer the research question. A Likert scale is a tool that validly measures subjective preferential thoughts, feelings, and actions obtained from participants' attitudes (Joshi *et al.*, 2015). An attitude is expressed as behavioral preferences of belief and ideas around a concept in particular circumstances through social interactions (Park, 2013, cited in Joshi *et al.*, 2015). For quantitative analysis purposes, we expect that the variable capturing barriers will negatively affect the childfree choice and delay having children. The variables on encouragement will have a positive relationship.

Methods

We employ a purposive sampling method matching the visibility of conducting an online survey. We first compose the questionnaires based on the main concepts from our literature review on childlessness. Second, we construct the Likert questions to determine the barriers and encouragements that may be the rationale for opting for this fertility behavior. We divide each vector (barriers and encouragements) into three more sections with approximately three to five questions

each, which is deliberated in the Multinomial indicators below. Third, we translate the questionnaire from English to Bahasa Indonesia. The translation was not always easy because of the differences in language characteristics. We have to partially or completely change the sentences to maintain the essence of the questions we have made. Fourth, for research ethics, some questions became a concern related to participants' data, including names, telephone numbers, email addresses, and other personal information. We assured our informants that personal information would not be used in any of the research analyses, and we requested consent before we asked the questions on the survey. The participants need to read and accept the consent first before they continue to answer the questionnaire.

Fifth, we compile and distribute the survey using an online application called the Kobo toolbox. Kobo toolbox is utilized for academic research purposes; this application is easy to understand and has exclusive features for conducting a survey. The survey results can be monitored live at any time and the results obtained can be seen in graphs that are easy to understand. The data can be downloaded with several methods, such as Microsoft Excel, which will make it easier to analyze. The questionnaire distribution took six days, from June 01 to June 06, 2022. During those days, we managed to gather data from 430 participants by distributing them using social media and flyers using barcodes in crowded places such as restaurants, campuses, cafes, and shopping malls.

Lastly, after collecting the data, we calculate the Likert scale referring to (Sugiono, 2008). As mentioned above, there are five Likert scores; strongly disagree, disagree, neutral, agree, and strongly agree, which we formulated into:

$$T \times P_n$$

Where T is the total number of respondents who choose the choices, and P_n is the Likert score (1 to 5). The Likert scale scores include:

Table 1. Likert Score Scale

Answers	Score					Expected relationship	
	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Childfree	Unconvinced childfree
Barriers	1	2	3	4	5	Negative	Negative
Encouragements	1	2	3	4	5	Positive	Positive

After we sum the $T \times P_n$, then we calculate the median to get the interval score. From the measurement of the interpretation of the score above, the results based on the interval are:

1. 0% – 19.99% = Very disagree
2. 20% – 39.99% = Disagree
3. 40% – 59.99% = Neutral
4. 60% – 79.99% = Agree
5. 80% – 100% = Very agree

The next step is to operate the multinomial logit logistic regression model to estimate the characteristics of men and women who choose childless among the participants. We find the result by regressing the marginal effect of the multinomial logit. By looking at the model difference in childless in urban areas, the study runs a logistic using dummy variable with 1=parents, 2=childfree,

3= unconvinced childfree, and 4= non-childfree as the four outcome categories for the dependent variables. The explanation of these dummy variables is; 1) the parents or have children means that the respondents had already become parents by having children during the survey, and we use this as the baseline category, 2) childfree are the respondents that surely do not want to have children in the meantime, and also in the future, 3) unconvinced childfree describes as respondents who want to delay to have children for one or more reasons, and lastly 4) non-childfree defines as respondents who have not children yet, but want to have children without delaying the procreation. They may be waiting to have children, not married yet but in a relationship, or want to adopt children. The model represents with the equation below:

$$y_{ij} = \alpha + \beta X_{ij} + \delta B_{ij} + \phi E_{ij} + \varepsilon_{ij}$$

Where y_{ij} is an indirect utility variable and unobserved. The subscript i refers to the i th individual in the sample. The error terms follow independently and identically an extreme value distribution. X_{ij} is a vector of individual background, including age, gender, marital status, sibling size, education level, income, and job status. B_{ij} is a vector of barriers that includes pressures, stigmas, systems, and E_{ij} is an encouragement vector that includes influences, freedoms, and psychological factors. The subscript j refers to the choice of children prevalence: $j \in \{1, 2, 3, 4\}$. The predicted y_{ij} of the individual i is:

$$y_{ij} = \begin{cases} 1 & \text{if } y_{i1} \geq y_{ij} \text{ for all } i \\ 2 & \text{if } y_{i2} \geq y_{ij} \text{ for all } i \\ 3 & \text{if } y_{i3} \geq y_{ij} \text{ for all } i \\ 4 & \text{if } y_{i4} \geq y_{ij} \text{ for all } i \end{cases}$$

RESULT, ANALYSIS, AND DISCUSSIONS

Descriptive statistic of data collection

We collected data from 430 respondents from an online questionnaire distributed from June 01 to June 06, 2022, in Jakarta, Indonesia. We chose Jakarta because it could represent the diversity of Indonesian citizens and is a city with a wide coverage of the latest information technology. Furthermore, the author is familiar with this city, making data collection easy. During the data cleaning process, we removed 23 respondents from the non-parent category who did not indicate their preference on whether or not they want to have children in the future. The result from the descriptive analysis of data collection are presented in Table 2:

Table 2. Descriptive statistics of data collection

Variables	Female		Male		Diff
	Mean	SD	Mean	SD	
Outcome Variables					
Have Children	.284	.452	.518	.501	-.234***
Childfree	.218	.414	.097	.298	.121***
Unconvinced Childfree	.357	.480	.225	.419	.132**
Non-Childfree	.164	.371	.165	.372	-.001
Barriers					
Social Pressures	3.883	.690	3.864	.735	.018
Family Pressures	3.410	.734	3.509	.725	-.098
Workplace Pressure	2.972	.665	2.911	.663	.060

Variables	Female		Male		Diff
	Mean	SD	Mean	SD	
Motherhood Stigma	2.363	1.014	2.953	1.001	-.589***
Singlehood Stigma	2.616	.729	2.927	.795	-.310***
Religion	3.343	.641	3.563	.750	-.220**
Marriage and Law of Adultery	3.095	.706	3.125	.792	-.030
Patriarchal System	2.805	.584	3.071	.640	-.266***
Encouragements					
Childfree Movement	3.670	.771	3.219	.817	.450***
Western's Influence	3.271	.641	3.186	.630	.085
Environmental Awareness	3.416	.880	3.007	.955	.408***
Career and Education	3.558	.720	3.118	.739	.439***
Freedom	3.734	.680	3.392	.695	.341***
Fears	3.443	.904	2.954	.900	.488***
Traumas	2.725	1.002	2.228	.868	.496***
Control Variable					
Age	28.489	6.879	32.210	7.361	-3.721***
Senior High School	.208	.406	.195	.398	.012
Diploma or Bachelor	.686	.464	.691	.463	-.005
Master	.105	.308	.112	.317	-.006
Currently Working	.733	.442	.857	.351	-.123**
Agriculture	.003	.060	.015	.122	-.011
Manufacturing	.025	.158	.037	.190	-.012
Electricity	.003	.060	.015	.122	-.011
Construction	.014	.120	.022	.149	-.007
Trade	.040	.196	.067	.252	-.027
Transportation	.021	.146	.045	.208	-.023
Finance	.080	.272	.135	.343	-.055
Government	.226	.419	.338	.474	-.112**
Other Services	.259	.438	.172	.379	.086**
Housewife	.051	.220	.007	.086	.043***
Single	.430	.496	.315	.466	.114**
Married/Ever Married	.408	.492	.578	.495	-.170***
In relationship	.142	.350	.082	.276	.122*
No Income	.240	.428	.097	.298	.143***
Income under 60 Mill	.277	.448	.278	.449	-.000
Income between 60-250 Mill	.390	.488	.503	.501	-.113**
Income between 250-500 Mill	.072	.260	.082	.276	-.009
Income Above 500 Mill	.018	.134	.037	.190	-.019
Have Sibling/s	.927	.260	.939	.238	-.012
Total	274		133		

*= $p < .10$; ** = $p < .05$; *** = $p < .01$;

Source: Author's calculation of own data

As shown in Table 2, of all respondents, 64% are non-parent, and the rest have children. For non-parent people, 28% chose not to have children, or we concluded as childfree, 46% delay their procreation. 23% want to have children in the future, and the rest, only 3%, want to have children but cannot because of a health problem or biological issue, or we can say as involuntarily childfree. Yet, in the analysis, we merged the involuntarily childfree into the wants to have children category. We did this because the data is very minor (less than one percent), and those respondents also

want to have children, so it was not precisely correct if we isolated them into the new category. We established these categories by the question in the survey that we conducted in Jakarta. The following question was asked whether the respondents have children or not. If they answered they do not have children, then the next question was inquiring whether they want to be (1) childfree, (2) postpone having children, or (3) want to have children right away. These answers defined our outcome variables, with parents or people who already have children as our basis category.

As can be seen from the table, the mean of base category between male and female parents has a significant difference of 23 percentage points higher for male compared to female parents, and the total number of parents is 36% of the total respondents. The rest of 64% of all respondents are distributed into childfree, unconvinced childfree, and non-childfree variables. The survey showed a high variation between males and females in their childlessness prevalence, except for the male parents, by seeing the large differences between the mean and the standard deviation for both genders.

However, the mean difference test for childfree and unconvinced childfree showed a significant difference between men and women. As expected, the number of people who chose childfree was dominated by women compared to men, with a difference of 12 percentage points. Similarly, women outstripped men in postponing children by 36% and 23%, respectively. This data revealed that 46% or almost half of non-parent respondents in both sexes are considering postponing having children, which could transform to be childfree or build a family in the future.

As seen from Table 2, males have higher agreement answers regarding barriers of childlessness prevalence compared to females. These answers are shown by the negative mean difference in six variables; family pressures, motherhood stigma, singlehood stigma, religion, marriage and law of adultery, and patriarchal system. Conversely, women have agreed more to questions on social and workplace pressures as barriers to childlessness decisions than men.

In addition, the result indicates that social pressures, family pressures, and religion have higher agreement answers towards barriers of childlessness prevalence for both genders since the means are greater than 3 (3 is neutral on the Likert scale). These indexes align with the ingrained condition in Indonesia where the pressures from society and family often influence an individual's decision in marriage and having children and their timing. However, our results contradict the findings from Blackstone and Stewart (2016), that stated childless prevalence comes from within without being influenced by social pressures. Religion is also a barrier to childless decisions because people against procreation are often judged as not caring by religious people. Furthermore, the patriarchal system embedded in Indonesian society receives agreement from both men and women.

The encouragement variables used in this study intend to establish why individuals choose to be childfree, delay their procreation, or decide to have children. As discussed earlier, we divided encouragement into three categories: influences, freedom, and psychological factors. Overall, the mean results from encouragement indicators for both genders are roughly equal. Yet, the most agreeable indexes were freedom and childfree movement, while the least influential was the traumas index. Freedom is the most encouragement for both genders to be childless, and it boosted the idea of freedom as an important ground for people choosing childlessness since it simplifies the person's life purposes (Panggabean, 2014; Peterson, 2015; Morison *et al.*, 2016; Fiori, Rinesi and Graham, 2017; Harrington, 2019).

Parallely, women agree more to encouragement indexes than men; the significant and positive sign of the mean difference test shows that. Furthermore, the childfree movement becomes one of the main encouragement for being childfree. It may well be that the evolution of childfree communities in urban areas could affect people's preference to be childless. This result supports the findings from the study by Noordhuizen, de Graaf, and Sieben (2010).

The statistics in Table 2 show that the mean age of respondents for women and men are 28 and 32, respectively, which is in line with what we aimed for concerning the ideal age when people

can determine their fertility behavior. For educational degrees, the survey revealed a similar percentage among the categories; less than one percent of both genders are junior high graduates or have a low level of education, so we decided to merge them with the intermediate level of senior high school. The distribution among educational levels is well-balanced across gender. Around 20%, or 57 women and 26 men, are senior high graduates or at an intermediate level, and almost 70%, or 188 women and 92 men, have either a bachelor's or diploma. The rest, around 10%-11% or 29 women and 15 men, are in the highest education level. Diploma graduates were the majority in this survey because the questionnaire was held in Jakarta, Indonesia, with sufficient educational facilities. Many residents from rural or suburban areas migrated to Jakarta to get a better education, so it is not surprising that most of Jakarta's Population is highly educated.

Moreover, even though respondents have decent educational degrees, the survey showed a significant difference between employment, with 86% of men currently working and only 73% of women having a job. The data also showed a significant difference between allocating the nine job sectors dominated by government and other services. 23% of women and 39% of men work for the government, and 26% of women and 17% of men work in other services job sectors. Jakarta is Indonesia's capital city with many government offices, which explains the high share of respondents working in government offices. In addition, Jakarta is also a metropolitan area with high job opportunities, mostly in services and finance. We can even say Jakarta is the Wall Street of Indonesia, making it the other sector employing a high share of respondents (see Table 2).

We can also observe the diversity in the civil status of the respondents. Female respondents were significantly higher than male respondents, with a mean difference of 11 percentage points. On the other hand, the average size of married men is 17 percentage points higher than average married women. Furthermore, 14% of women are in a relationship compared with only 8% of men. Although the average size of single women was higher than that of men, their share was more or less equal to that of married or ever-married women. The share of women in a relationship was slightly higher than that of men. This condition could indicate the increase in women's reluctance to get married compared to men.

The survey indicated that the middle-income category dominated income distribution for that income between 60 and 250 Million Indonesian rupiahs, around 43% of the respondents. As can be seen from the mean difference of income categories in Table 2, no significant income differences are shown except for the middle-income category. The survey shows that 66 women and 37 men, or around 28% have the lowest income, 19 women and 11 men, or approximately 7% of respondents, have a high income (between 250-500 Million Indonesia Rupiahs) and 2% of women and 4% men have income more than 500 Million Indonesia Rupiahs (see Table 2). However, the test statistics show a 14 percentage points difference between men and women in the no-income category. The higher number of women without income should indicate many housewives in our survey.

Finally, the survey indicates that more than 90% of all respondents have sibling/s. The mean difference test shows no significant difference between the two sexes. This result can also indicate that most respondents came from large families with a fertility rate higher than one, which may later influence the prevalence of childlessness.

Determinants of childlessness decisions: Marginal effects on multinomial logit regressions

In this part, we estimate the marginal effects from a multinomial logit regression on the outcome variable, simultaneously controlling for the variables capturing barriers, encouragements, and additional control variables.

Table 3. Marginal Effect of Multinomial Logit Regression Result

Variables	Have Children	Childfree	Unconvinced Childfree	Non Childfree
Barriers				
Social Pressures	-0.040	-0.005	0.015	0.031
Family Pressures	-0.012	-0.055**	0.043	0.023
Workplace Pressure	-0.025	-0.016	0.034	0.008
Motherhood Stigma	0.027*	0.009	-0.043*	0.007
Singlehood Stigma	-0.021	0.020	-0.018	0.019
Religion	-0.007	-0.056*	0.029	0.034
Marriage and Law of Adultery	0.021	-0.016	0.031	-0.035
Patriarchal System	0.022	0.002	0.019	-0.043
Encouragements				
Childfree Movement	0.031	0.085***	-0.100***	-0.016
Western's Influence	-0.075**	0.070***	-0.045	0.051*
Environmental Awareness	0.051**	-0.001	0.009	-0.062***
Career and Education	0.007	0.054**	-0.018	-0.043
Freedom	-0.020	0.117***	-0.043	-0.055*
Fears	-0.008	-0.020	0.049	-0.021
Traumas	-0.013	0.012	-0.031	0.032
Age	0.014***	-0.001	-0.016***	-0.000
Gender (Ref. Women)				
Men	0.052	0.051	-0.046	-0.044
Last Education (Ref. Master Degree)				
Senior High School	-0.191**	1.141***	-0.871***	-0.078
Diploma or Bachelor	-0.233***	1.113***	-0.853***	0.027
Job Status (Ref. Not working)				
Currently Working	0.048	-0.024	0.198	-0.222**
Job Sector (Ref. Agriculture)				
Manufacturing	-0.038	0.000	-0.233	0.271**
Electricity	0.158	0.162	-1.271***	0.951***
Construction	0.069	-1.283***	0.677**	0.537**
Trade	-0.301**	0.085	-0.144	0.360***
Transportation	-0.145	0.092	-0.258*	0.311***
Finance	-0.161	0.050	-0.099	0.310***
Government	-0.103	-0.123	0.021	-0.206**
Other Services	-0.195*	0.018	-0.143	0.320***
Housewife	0.259*	-1.110***	0.499**	0.352**
Civil Status (Ref. Single)				
Married/Ever Married	0.233***	0.063	-0.215***	-0.080**
In relationship	-0.034	-0.022	-0.129**	-0.073
Income (Ref. No Income)				
Income under 60 Mill	0.024	-0.014	-0.009	-0.001
Income between 60-250 Mill	0.076	0.030	-0.135*	0.029

Variables	Have Children	Childfree	Unconvinced Childfree	Non Childfree
Income between 250-500 Mill	0.181**	0.055	-0.241	0.006
Income Above 500 Mill	0.079	-0.100	0.169	-0.147
Siblings (Ref. No Sibling)				
Have Sibling/s	0.066	-0.024	0.042	-0.084

*= $p \leq .10$; ** = $p \leq .05$; *** = $p \leq .01$;

Source: Author's calculation of own data

Looking at the results presented in Table 3, the barriers to children prevalence, as was predicted, family pressure reduces the likelihood of choosing to be childfree by 5.5 percentage points. As discussed by Gedvilaitė-Kordušienė, Tretjakova, and Krzyżowski (2020), family plays an important role in people's attitudes toward fertility behavior. In an interview with Lithuanian and Polish women, they confessed that their closest relatives, especially their parents, are the most family member who signifies a negative attitude toward their decisions toward childlessness. Gedvilaitė-Kordušienė, Tretjakova, and Krzyżowski (2020) also said that the pressure comes from aggressive judgments without reciprocal discussions from family members. Thus, the pressure from closest relatives profoundly impacted people's emotional well-being. This situation often happens in Indonesia, which is also shown in our results, where conservative families could upsurge pressure and be a significant barrier to the prevalence of childlessness.

Besides, everything being equal, the result shows an increase in the probability of choosing an unconvinced childfree by 4.3 percentage points associated with motherhood stigma. This result supported the discourse of the hegemonic ideal of motherhood by Gillespie (2003) and women's identity by Nahar and van der Geest (2014) stated that women who choose to be childless are identical to escaping from motherhood, a failure, selfish, and wasting their body. Looking at this result, we can argue that the motherhood stigma still exists in Indonesia, and women are still trapped in this negative view of childlessness.

Moreover, the religion variable implied the increase of adults choosing childfree by 5.6 percentage points compared to parents. As discussed in the preceding literature by Noordhuizen, de Graaf, and Sieben (2010) and Gedvilaitė-Kordušienė, Tretjakova, and Krzyżowski (2020), religion has an important role in the view of childlessness. People who live in a religious environment tend to get a negative view if they have a different perspective from the religious teachings in that society. In an interview conducted by Gedvilaitė-Kordušienė, Tretjakova, and Krzyżowski (2020), one respondent stated that her religious relatives criticized her for choosing not to have children. Moreover, research by Noordhuizen, de Graaf, and Sieben (2010) also concluded that childfree people get negative views from church members in their community.

From the encouragement variables, the results indicate that the predisposition to childfree movement, Western culture, career attainment, and freedom have a significant effect on the tendency of people to choose childfree, with the highest magnitude shown for freedom with 18 percent points for designating to be childfree. Many works of literature examined the relationship between freedom and childlessness, that stated freedom of living without children could make childless people achieve what they want in their life, such as higher education, traveling, experiences, or hobbies (Letherby, 2002; Gillespie, 2003; Terry and Braun, 2012; Peterson, 2015; Iliina *et al.*, 2019). It turned out that freedom was the biggest encouragement of childless decisions in Indonesia; adults tend to choose to be childfree to attain freedom.

The childfree movements were expanding in Indonesia (Panggabean, 2014; Saroh and Santosa, 2021). This progression was evidenced by the increasing number of childless women in 2017 (Statistics Indonesia, National Population and Family Planning Board, and Ministry of Health, 2018). Especially in urban areas such as Jakarta, the social acceptance of childlessness could arise in parallel with the easiness of information technology. One of the goals of family planning was to avoid unwanted pregnancies and to plan the timing of pregnancy (Karimah, 2016). This movement

established an important phase of the evolution of women's empowerment related to fertility behavior, and our results show a remarkably 8.5 percentage points increase in the likelihood of choosing to be childfree

The Western influence shows a significant seven percentage point increase in the tendency to be childfree. The evolution of childfree in the developed world, in this case, European countries (Noordhuizen, de Graaf and Sieben, 2010; Tanturri *et al.*, 2013; Gouni *et al.*, 2022) with the improvement in information technology was one of the reasons for childlessness evolution in developing countries.

Another significant effect is found in career attainment with an associated 5.4 percentage points increase in the likelihood of choosing childfree. This result is similar to the findings from the previous studies about the relationship between childlessness and the desire to achieve a better career (Keizer, Dykstra, and Jansen, 2008; Budig, 2013; Peterson and Engwall, 2016). Furthermore, the result goes hand-in-hand with what is shown from the trends in Indonesia's household socio-economy data which shows the increase of women as head of household and full-time employment. Our respondents claim improvements in gender equality in the workplace, encouraging women to be more confident to participate in the labor force, especially in Jakarta. Moreover, the motherhood penalty theory is a reason for choosing childfree because mothers in the work environment would receive penalties, namely career inhibition and salary increase restraint. Women preferred not to have children, have a job, and compete with men to build their careers.

As to unconvinced childfree, the encouragements that give significantly less tendency come from the childfree movement with a ten-percentage points reduction in the probability. This result is not surprising. As the childfree movement promoted childfree choices, respondents who were influenced by the childfree movement will not have plans to delay having children.

Somewhat unexpectedly, environmental awareness had a striking 6.2 percentage points reduction in the probability of people choosing non-childfree. This state coincides with the findings of a study by Helm, Kemper, and White (2021), who argued that one motivation for people choosing childfree is a response to climate change. Moreover, Nakkerud's (2021) conclusion also noted that living environmentally childfree is a solution to environmental crises and sustainable development. The result verifies that adults in Indonesia have started to be aware of environmental problems; this could be because they live in Jakarta, which has a concerning level of pollution and overpopulation.

In summary, the results show that family pressure is the strong determinant of barriers to the childfree decision. In all the different models, family pressure shows a significant effect even though there is a change in its magnitude. On the contrary, motherhood stigma and religion, which had a significant relation to childlessness in the earlier models with no control variables, were strongly influenced by the inclusion of control variables that followed in this model. So, these variables could be said to be quite sensitive indicators of barriers to childlessness.

The results in Table 3 also show that the childfree movement, Western influence, and freedom remain strong identifiers of encouragement for a decision not to have children. Childfree movement and freedom constantly show the same positive and significant signs as childfree with a slight difference in magnitude. Similarly, Western influence presents a more significant and positive sign with an increase in magnitude after considering the control variables in our model. Although career attainment offered a positive and significant result toward a childfree decision, it is a relatively weak determinant since the inclusion of control variables influenced it.

As for control variables, the results show that age significantly impacts children's prevalence. The older their age, the less likely people are to be unconvinced childfree, with a 1.6 percentage points magnitude. The result is reasonable if we compare it with people who already have children; this is probably due to the high number of motivational factors, such as the influence of Western lifestyles and the evolution of the childfree movement in Indonesia that is spreading among young people. Furthermore, unconvinced childfree is more likely to be dominated by young people. This

condition is natural because the respondents are still young and unmarried and may want to achieve many things in their lives, such as careers and higher education, so the thought of getting married and having children is not a priority.

On the other hand, the results show that all else being equal, on average, the probability of choosing to be a parent would increase by 22 percentage points for working people compared to those unemployed. For the education level, the estimates show all levels of education are associated with an increase in the probability of choosing to be childfree. Similarly, medium and high education attainment have an 87 percentage points increase in choosing the unconvinced childfree. These outcomes are consistent with previous literature stating that people with higher education opportunities tend to reject having children (Keizer, Dykstra, and Jansen, 2008). However, the probability of choosing to be childfree is higher among individuals with certain education levels when compared to those with the highest level of education. This may be because individuals with a master's degree—who have already attained one of the highest levels of education—are less likely to remain childfree, as they may feel more prepared or inclined to start a family after achieving their academic goals.

As to job sectors, compared with the agricultural sector, the table showed that respondents who worked in all sectors are remarkably more likely to want to have children, with a remarkably lower chance in the electricity sector to delay procreation. Even people who work in construction have a different tendency to choose childfree or un-convinced childfree. Still, the magnitude is much bigger in not choosing childfree rather than choosing to be unconvinced childfree. Compared with the agriculture sector, homemakers are assuredly less likely to be childfree but surprisingly more likely to postpone having children.

As expected, civil status has a major impact on the prevalence of childlessness. We might argue that from the results, compared with singles, ever-married people are 22 percentage points significantly less likely to be unconvinced childfree. In addition, ever-married people are more likely not to choose to be unconvinced childfree. Nonetheless, people in a relationship tend to delay being parents by 13 percentage points compared to single people.

Compared to no income, respondents between 60 and 250 million are 14 percentage points less likely to be unconvinced childfree, and everything held constant. This result is unexpected since people in the middle-income category tend to postpone having children rather than people with higher incomes. It may imply that adults in Indonesia still worry about the financial implications of childrearing and have fears about their children's future.

We identified a potential endogeneity concern caused by a causality relationship between the childlessness decisions and income and between the childlessness decisions and education. To solve this issue, we aimed to use an instrumental variable approach by finding an instrument that could only affect the endogenous variables but does not directly affect our outcome variable, i.e., the decision to be childless.

CONCLUSION

This study is motivated by identifying the determinants of choosing childless as a life choice that was divided into childfree (voluntarily not wanting children), unconvinced childfree (delaying procreation), and non-childfree (wanting and not delaying having children). Various individual characteristics, such as education level, job status, job sector, civil status, income, and the number of siblings, characterized the discussion. Moreover, we considered indicators of barriers and encouragements as common determinants of people's preference to be childless as part of the originality of the research.

For the data collection, we distributed online questionnaires in an urban setting, specifically in Jakarta, Indonesia, and adopted the Likert scale questions as a human attitude measure of the variables. The expected respondents were 400 people, and we successfully collected data from 430

participants from June 01 to June 06, 2022. In the end, we used data from 407 respondents after eliminating data from 23 people from the non-parent category who did not answer whether or not they want to have children in the future. We used descriptive statistics to explain the Likert calculation and deciphered the marginal effects of multinomial logit regression estimations.

The results responded to the research questions regarding the barriers and encouragements of childlessness in Jakarta, Indonesia. As expected, the results showed that family pressure was a pivotal and strong determinant of barriers to childfree decisions. In addition, the childfree movement, Western influence, and freedom were prominent and strong identifiers of encouragement in the decision to be childfree.

The results showed the significant determinants as barriers to childlessness decisions are motherhood stigma and religion. However, after combining with control variables, the significance of these variables has changed. Hence, we conclude that motherhood stigma and religion were sensitive determinants of childlessness prevalence. Similarly, the variable capturing fears is also a sensitive determinant of encouraging childlessness.

Moreover, the study analysed the socioeconomic determinants of childlessness that summarized age, gender, educational level, job status, job sector, civil status, and income as crucial determinants of children's prevalence. Accordingly, it is shown that the older the participant, the less likely to postpone their procreation. Men tend to be childfree compared to women, and employees have a tendency not to have children in the future compared to non-employees. As to job sectors, compared with the agriculture sector, respondents who worked in all sectors are remarkably more likely to want to have children. Moreover, homemakers are less likely to be childfree, more likely to be unconvinced childfree and to have children with a small magnitude in effect. For the highest education level, the medium and high degrees provide a significantly higher probability of people choosing childfree, thus having remarkably less likely to postpone having children (unconvinced childfree).

Furthermore, similar to the findings from previous studies (Mencarini and Tanturri, 2006; Tanturri and Mencarini, 2008; Tanturri *et al.*, 2013), civil status is identified as a principal determinant of childless preferences. Ever-married people are less likely to be unconvinced childfree and non-childfree, with a greater magnitude in unconvinced childfree. In contrast, people in a relationship tend to delay having children. In addition, people with an income between 60 and 250 million rupiahs are less likely to be unconvinced childfree. It can be concluded that adults in Indonesia are still worried about the cost of raising their children.

The analysis carried out in this study has enabled us to answer the study's research objectives. First, the patriarchal system seems to fade in urban areas, leading to social openness to the prevalence of childlessness. The insignificant effect of social pressure on childlessness decisions showed this social acceptance. Second, we successfully examined why adults in Jakarta opt to be childless by analyzing the determinants of childlessness. Finally, we contributed to the discussion in development studies focusing on childlessness, which is still scarce and does not receive the deserved attention in developing countries and Indonesia in particular. Nonetheless, we hope this research will encourage a discussion and awareness of childlessness in Indonesia

Despite its contribution, the research has some limitations—the current study. First, due to time and money, data collection was limited to Jakarta, one of Indonesia's urban areas. It may well be that the tolerance and acceptance of childlessness are more apparent in Jakarta compared to other urban and rural areas in the country. Second, owing to the same reasons of time and money, we collected data only from a small segment of the adult population, which might not serve the purpose of representing the entire Population. Lastly, Indonesia has many cultures and customs like the Indonesian consuetudes, childhood conditions, the birth of origin, personality traits, political orientation, or sexual preferences, which we lack to include in our survey but could determine childless prevalence.

Childlessness discourse is interesting and important to be discussed since it has become a phenomenon, not only in developed countries but also in the developing world. This research provides insights into the Indonesian community that childless preferences are natural and not an indifferent life choice. The issue may differ in different regions; for example, not having children will be detrimental in some countries. For example, in developed countries, the evolution of childlessness reduces the Population. It may cause a lack of labor force supply and impact a country's economy. Meanwhile, in developing countries, the issue of childlessness may be beneficial because it can help overcome the problems of overpopulation and environmental pollution. Hence, we hope the next research would broaden the scope, cover more coherent aspects and determinants, and offer more diverse and comprehensive outcomes.

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