

# An analysis of studies related to postpartum employment continuity in Japan and Korea

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**Abstract.** This study clarifies research trends regarding the evolution of postpartum employment continuity in Japan and South Korea through research fields and keyword analyses. Based on the analysis of 135 Japanese and 108 Korean papers, we find that research in Japan was concentrated in the fields of sociology, nursing, medicine, business administration, and economics. In contrast, Korea concentrated on the fields of women's policy studies, women's studies, education, economics, and sociology. Keyword analysis showed that in Japan, postpartum employment continuity was considered important for work-life balance and regarded as an issue that requires social regulation. Additionally, postpartum employment continuity was suggested to be influenced by women's intention to return to the same workplace. Similarly, in South Korea, postpartum employment continuity was also considered part of work-life balance. Furthermore, it was regarded as a women's issue or a policy issue, suggesting that postpartum employment continuity may not necessarily involve returning to the same workplace. Still, it may include changing jobs or temporarily discontinuing one's career.

## 1 Introduction

The availability of female workers is an important issue, particularly in Japan and South Korea, which have the oldest populations and lowest birth rates worldwide as of 2024. In both countries, the number of female workers shaped the M-shape in the 1970s. M-shaped refers to the M-shaped increase or decrease in the female labor force when the number of workers is placed on the vertical axis and the age of female workers is placed on the horizontal axis. This is because the number of female workers increases steadily from their late teens to their late 20s, peaking in their late 20s, and then declines until their mid-40s, after which the number of female workers increases again. This is due to women in their 30s and 40s leaving the workforce due to childbirth and childcare [1, 2].

This not only signifies the absence of women in their 30s to 40s, who are likely to take on central roles in society after gaining experience but also reflects the current state of our society, where no definitive measures have been found to address the needs of women who wish to continue working after childbirth [3].

Solutions to these issues, including national policies, corporate institutions, family situations, women's education level, and even economic situations, have been analyzed and demonstrated in both Japan and Korea [3-8].

While the above factors are important, it has not been clarified what academic fields or perspectives underlie and inform these factors in the research and analysis on "women continuing to work in some form after a period of legal maternity leave, even if not in the same workplace" (hereinafter referred to as "postpartum employment continuity") [6].

To date, the research trends in Japan and Korea have not followed the same areas or paths of development.

In what areas has research progressed in each country, and in what areas has the discussion of postpartum employment continuity reached its current state? What are the possible reasons behind this?

By clarifying these issues, we may provide solutions to the problems of securing female workers and postpartum employment continuity.

Thus, this study aimed to analyze journal articles on postpartum employment continuity published in Japan and Korea.

## 2 Literature review

The trends in postpartum employment continuity exist in Japan and Korea. As Kosaka and Kashiwagi [9] state, institutional factors, family situation, economic status, psychological factors, and generational changes [9, 10] have been

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central factors in influencing postpartum employment continuity in Japan. However, because of the complex and simultaneous or staggered intertwining of these factors, there is no clear distinction as to what factors are more socially influential and at what point in time they affect postpartum employment continuity.

According to [11], who examined research trends related to the postpartum employment continuity of Japanese women, the factors that attracted attention in the 1990s were the childcare leave system [12], husband's income and childcare assistance, and women's educational background and occupation (whether they work in professional occupations or not) [13]. In the 2000s, however, the degree of husbands' assistance in childcare [14], the influence of the changing parental leave system [15], and the availability and accessibility of daycare centers [16] became important factors.

While such discussions exist, [10] showed that generational changes also play a role in determining whether a person continues to work. The authors of the study analyzed women born in the 1960s and considered employment and fertility to be trade-offs [10]. However, this perception tends not to be true for the generations before and after that time.

Furthermore, [17] also reviewed research trends on postpartum employment continuity in Japan from the perspective of regular and irregular employment. In this context, [17] pointed out that the worsening employment environment for young people, including the increase in irregular employment and the widening intra-generational gap, may affect whether they continue to work.

A similar point is made by [6], who examines research trends on the employment continuity of Korean women. Most policies on balancing childcare and work are targeted at large companies and public institutions, and even legislated systems are not properly utilized in small and medium-sized companies, representing more than 90% of Korean companies [18].

Kim and Cho [19], who examined research trends on postpartum employment continuity in Korea, found that age, education [20, 21], presence of childcare support personnel [22], spousal income, the number and age of children [20], policy factors [23], and even internal welfare (e.g., parental leave programs) have been shown to positively affect postpartum employment continuity [24]. Furthermore, the values and related psychological factors of highly educated women [25] have also been demonstrated to positively affect postpartum employment continuity.

Looking back at the factors that make it possible for women to continue working in Japan and Korea, various factors appear to be intertwined in the studies conducted in each country.

These studies on postpartum employment continuity in Japan and Korea are related to women's education and age, husbands' income and help with childcare, national systems, in-house systems, and the existence of daycare centers. At what point in time and in what fields were these factors studied in the first place? Furthermore, it is unclear how they progress over time and which new research fields have had an impact, leading to the current analytical perspective.

Observing the entire picture of postpartum employment continuity over time in Japan and Korea, which cannot be determined by viewing individual studies, has the potential to lead to a solution that not only meets the needs of society as Japan and Korea deal with declining labor forces due to their aging societies and declining birth rates but also satisfies the needs of women who wish to continue working after giving birth.

Therefore, this study uses research fields and keyword analysis to determine what fields and development paths research on postpartum employment continuity in Japan and Korea has followed to the present.

### **3 Materials and methods**

This study investigated and analyzed articles to understand the trends in postpartum employment continuity in Japan and South Korea. For the investigation and analysis, we first examined the Japanese site J-Stage in Japan (J-stage is a "comprehensive system for dissemination and distribution of science and technology information operated by the Japan Science and Technology Agency (JST), and can be accessed via Google Scholar so that it can be accessed worldwide). Second, we examined KCI in Korea. The KCI papers are articles published in journals with a certain reputation, which are selected based on the evaluation of journals by the Korea Research Foundation.

For data collection, we conducted a search using four keywords: "women," "childbirth" (in the case of Japan), "leaving employment" (in the case of Korea), "career breakdown," and "sustained work." "Sustained work" was preferred over "sustained employment" as it was used more often in the literature searched.

Following the search, papers published during the 20 years from 2003 to 2023 were selected. As a result, 136 J-stage papers (Japan) and 110 KCI papers (Korea) were screened for inclusion in the study. During the screening, some papers were removed as they had little relevance to postpartum employment continuity. Finally, 135 papers (Japan) and 108 papers (Korea) were selected for analysis. The papers were divided into four time periods (2003-2009, 2010-2014, 2015-2019, and 2020-2023) and analyzed related research fields. The method chosen for the analysis of the collected data was content analysis, which means "identifying, quantifying, and analyzing of specific words, phrases, concepts or other observable semantic data in a text or body of texts with the aim of uncovering some underlying thematic or rhetorical pattern" [26, p. 14].

The researchers reviewed the keyword texts systematically and iteratively to enhance the reliability of the content analysis. They also cross-checked the results of the keyword extraction to guide the data analysis.

Keyword analysis was performed to explore postpartum employment continuity in Japan and Korea. Keywords were included in the analysis if they were observed in at least two areas, and the top five keywords in each period (2003-2009, 2010-2014, 2015-2019, 2020-2023) were selected. If the same keywords could not be observed due to overlap in two or

more areas, they were omitted. If fewer than five keywords were observed in each period, they were also included in the analysis.

## 4 Results and discussion

### 4.1 Results

#### 4.1.1 Related fields analysis

The analysis of Japanese and Korean papers on postpartum employment continuity showed that the topic had been explored in 17 and 24 research fields in Japan and Korea, respectively.

In Japan, research on postpartum employment continuity is concentrated in sociology, nursing, medicine, business administration, and economics. Whereas research in economics commenced in 2010, studies have been ongoing in other fields since 2003 for the last two decades, as shown in Table 1. Alternatively, in Korea, research is majorly concentrated in the fields of women’s policy studies, women’s studies, education, economics, and sociology, as shown in Table 2.

A common phenomenon observed in the case of both Japan and Korea is that research has been ongoing in existing research fields, where papers have been published, particularly after 2015, and research has simultaneously progressed in several new fields. Papers have not only been published in various fields of postpartum employment continuity, but they have also gained increasing attention as an interdisciplinary research field (Table 1 and Table 2). This suggests that postpartum employment continuity is a complex phenomenon that cannot be explained by a few specific factors. Additionally, lately, the topic has received more attention in psychology and law, as well as in regional revitalization and policy studies.

**Table 1.** Research areas that have published articles on postpartum employment continuity in Japan

Research Areas	2003-2009	2010-2014	2015-2019	2020-2023	SUM
Sociology※	7	11	5	4	27
Nursing※	4	5	6	9	24
Architecture	2	1	2	0	5
Business Management ※	2	5	2	2	11
Medical Science※	2	5	9	5	21
Public Finance	1	0	0	1	2
Policy Studies	1	1	0	0	2
Psychology		3	5	1	9
Economics		3	6	1	10
Area Studies		1	2	1	4
Educational Studies		1	3	2	6
Family Studies			5	0	5
Legal Studies			2	0	2
Health Science			2	0	2
Hygiene			2	0	2
Pharmacy			1	1	2
Geography				1	1
	19	36	52	28	135

Note: The research areas marked with an asterisk are those in which papers were published in all four periods.

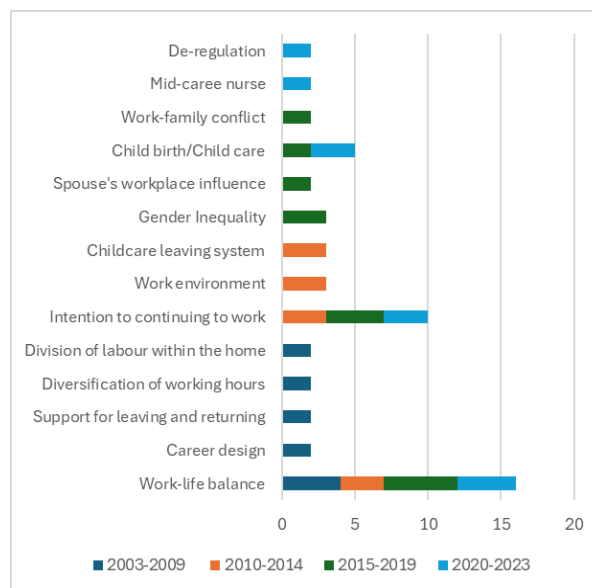
**Table 2.** Research areas that have published articles on postpartum employment continuity in Korea

Research Areas	2003-2009	2010-2014	2015-2019	2020-2023	SUM
Women's Studies※	2	2	5	1	10
Business Management	2	0	1	0	3
Sociology※	2	1	2	2	7
Public Administration	1	1	4	0	6
Educational Studies※	1	1	5	2	9
Women's Policy Studies※	1	4	1	7	13
Economics		3	5	0	8
Policy Studies		1	5	0	6
Legal Studies		1	2	1	4
Family Welfare and Policy		1	0	0	1
Social Science			4	3	7
Social Welfare Studies			4	4	8
Demography			3	0	3
Dentistry			2	0	2
Social Security Studies			2	0	2
International			1	0	1
Interdisciplinary research			1	2	3
Diplomatic Studies			1	0	1
Gender Economics			1	1	2
Applied Psychology			1	0	1
Japanese Studies			1	0	1
Research on professional women			3	0	3
Sociology of Local Community				2	2
Lifelong Learning				5	5
	9	15	54	30	108

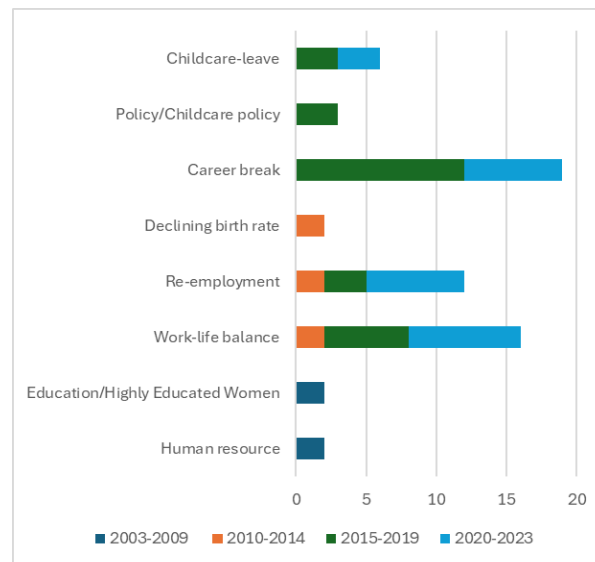
Note: The research areas marked with an asterisk are those in which papers were published in all four periods.

#### 4.1.2 Keyword analysis

Keyword analysis results are presented in Figs. 1 and 2. A common keyword observed in the research papers of both countries was “work-life balance.” This keyword was continuously observed in papers published from 2003 to 2023 and 2010 to 2023 in Japan and Korea, respectively.



**Fig. 1.** Keywords related to postpartum employment continuity in Japanese papers and their number of research fields



**Fig. 2.** Keywords related to postpartum employment continuity in Korean papers and their number of research fields

The keywords “intention to continue to work” and “childbirth/childcare” were observed over multiple periods in the Japanese literature. This suggests the importance of women’s willingness to continue to work to balance work and family life and the significance of a supportive environment for childbirth and subsequent childcare, both of which are related to postpartum employment continuity.

In contrast, the keywords “career breaks,” “childcare leave,” and “re-employment” were observed in Korean literature over multiple periods.

This implies that many Korean women are forced to take career breaks due to childbirth and childcare but with a possibility of returning to their original workplace or re-employment (changing to another workplace).

## 4.2 Discussion

This study conducted a comparative analysis of papers on postpartum employment continuity in Japan and Korea. To accomplish this, a research area and keyword analysis of the relevant literature were performed. We found that in Japan, research on postpartum employment continuity commenced in the 1990s, and from 2003 to 2023, the published papers were concentrated in the areas of sociology, nursing, and medical science. Moreover, keywords concentrated not only on “work-life balance” but also on “intention to continue to work” and “childbirth/childcare” in Japan. Alternatively, in Korea, research papers in this field were first published in the 2000s. In addition, papers were published in women’s policy studies, women’s studies, and education fields. Other related keywords focused on “career breaks,” “childcare leave,” and “re-employment.”

Further, whereas in Japan, various keywords suggested a return to the same workplace, in Korea, many keywords suggested job continuity, including re-employment at a different workplace after resignation. This may be attributed to different laws, timing of economic development, and social movements in both countries. First, this paper examines the impact of legal development and economic growth on keywords observed in research papers in both countries.

For example, in Japan, the Act on Equal Opportunity and Treatment between Men and Women in Employment was enacted in 1985 [27] based on economic development and the increase in women who continued to work after marriage and Japan’s ‘Mother’s Hello Work Program supporting re-employment started earlier, in April 2007 [28]. Furthermore, in Japan, between 1985 and 2004, the postpartum employment continuity rate for women increased at a rate of 52.4% and 18.1% for those in full-time employment and part-time or temporary employment, respectively, based on data from 2000 to 2004. Moreover, it reached 83.4% and 40.3 % during the period of 2015-2019 for full-time employment and part-time or temporary employment, respectively [29]. Thus, this may be the reason why the keyword “re-employment” does not appear in Japanese papers.

In South Korea, the Act on Equal Opportunity and Treatment between Men and Women in Employment was enacted in 1987 and retained through 2007. The name of the law changed to the Act on Equal Employment and Support for Work-Family Reconciliation in 2007 [30]. Further, in Korea, the government opened a support center for the re-employment of displaced women in 2007 [6]. The reality is that, although women may want to work full-time, there is a lack of corporate culture that supports working women while raising children, as well as a shortage of childcare facilities. Consequently, as of 2019, only 43.2% of women were able to return to work after childbirth, regardless of whether they were full-time employees or not, [31] even though the Act on Equal Opportunity and Treatment between Men and Women in Employment was enacted in 2007. Therefore, keywords such as “career breaks,” “childcare leave,” and “re-employment” were observed more in Korea’s academic papers.

Second, this paper examined the possibility that fields focused on postpartum employment continuity are influenced by legal development and social movement.

In 2004, Japan's Worker Dispatch Law was amended, allowing dispatched workers to work in the manufacturing industry in addition to 26 other types of work, which has already been amended by Japan's Worker Dispatch Law. Further, in 2006, worker dispatch was permitted for workers on maternity, childcare, or nursing care leave for medical work, as well as for medical work in remote areas [32]. This may be the reason behind the absence of keywords related to mother's re-employment (since there are sufficient opportunities for re-employment in dispatch or part-time jobs) and abundant literature that emphasizes nursing and medical science areas in Japan.

In Korea, between 2003 and 2023, the highest number of papers, totaling 13, were published in the field of women's policy studies, followed by 10 papers in women's studies by specific research institutes. While all papers related to women's policy studies were published by the Korean Women's Development Institute under the Office for Government Policy Coordination, in women's studies, three papers were published by The Women's Studies Center at Silla University, four by The Research Institution of Asia Women under Sookmyung Women's University, and three by the Korea Association of Women's Studies. All these institutions and centers promote gender equality in society, representing Korea's current state, where research on postpartum employment continuity is actively promoted by government-led initiatives and specific research institutes under the universities or academic institutions, reflecting the ongoing social movement.

Previous literature [2-7] has identified various factors influencing postpartum employment continuity, including women's education, age, husband's income, national policies, and the use of childcare facilities such as daycare centers. Furthermore, in recent years, there have been a few studies showing that there is a probability that the rate of parental leave taken by male spouses affects the rate of women staying in the workforce [33-35]. However, the phenomena behind these factors have not been discussed so far. Therefore, we conducted a research areas analysis and keywords analysis of 135 Japanese and 108 Korean research papers, and the results suggest that the factors influencing postpartum employment continuity in both countries may be affected by legal development, economic development, and social movements. This study's keyword analysis is evident in how postpartum employment continuity research is influenced by legal development, economic development, and social movement in Japan and Korea, which is our paper's significant contribution.

However, it is unclear how legal development, economic development, and social movements influence each other and how these factors impact research fields over time. These remain issues that will be addressed in future studies.

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