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A gender-sensitive analysis of policy support for married couples with infertility and measures for improvement

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Korean Women's Development Institute

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support for married couples with
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improvement**

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A gender-sensitive analysis of policy support for married couples with infertility and measures for improvement¹⁾

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I . Research background

The South Korean government introduced policy support for married couples suffering from infertility in 2006 as part of its response to the declining birthrate, and in the years since has expanded the range of qualified beneficiaries and scale of this support. In 2017, infertility treatment was first covered by the National Health Insurance and became a component of the country's universal welfare. Thanks to these efforts, the number of babies born through the government's infertility support program has continued to grow, accounting for over 10% of new births in 2020. Some praise the program for its contribution to raising the odds of a successful pregnancy among people with infertility, thereby

1) This paper is a summary of Dongsik Kim, Jungim Hwang, Cheyon Tong, Haesang Jeon, and Seoyun Bu (2021), *A Gender-sensitive Analysis of Policy Support for Married Couples with Infertility and Measures for Improvement*, Seoul: Korea Women's Development Institute. For details, see the full report.

promoting the reproductive rights of those wishing to have a biological child. Others argue, however, that the treatment process infringes upon infertile women's rights to self-determination, health, and labor.

When the support policy for couples experiencing infertility was introduced, the basic belief underlying the policy was that infertility is a medical condition that can be treated. This policy principle has further solidified the medicalization of infertility. With modern assisted reproductive technologies (ART) applied in medical environments, women's bodies have become subjects for strict control and management. While the causes of infertility vary and can be found in both men and women, greater responsibility and a heavier burden have been placed upon women under traditional norms of sexuality and gender roles, and women are not free from the resulting discrimination and stigma. Existing policy has been focused on quantitative outcomes measured in terms of the number of successful pregnancies relative to the number of treatments, but it is now time to shift the focus toward sexual and reproductive health and rights so that women can make informed decisions and access medical services while exercising full autonomy over their bodies and enjoying respect for their mental and physical well-being.

This research performs a gender-sensitive analysis of the South Korean government's support policy for infertile couples in order to investigate the difficulties that infertile women face, with a particular focus placed on information asymmetry and the medicalized body within the medical context and the discrimination and stigma in the labor environment that result in involuntary career disruptions. In addition, laws and institutions in other countries are examined in order to compare them with those in South Korea in regard to people's right to have a biological child (the

right to access to medical services vs. the right to health). Based on the findings of this analysis, we suggest measures for improvement and future directions for support policies for couples with infertility.

II. Research purpose and methods

The purpose of this research was as follows. First, we looked into South Korea's laws and institutions connected to support for infertile couples, identified problems, and compared them with policies in other countries in order to suggest how to improve the South Korean system. Second, we conducted in-depth interviews with couples with infertility with a goal of understanding the difficulties they experience during the treatment process. Based on the results of the interviews, we carried out a survey of women who have recently received infertility treatment in order to examine the human rights conditions in the medical, labor, and home environments and to identify policy needs for the promotion of their rights, including rights to health, information, service access, and labor. Along with the findings of the survey and the interviews, we assessed the existing policy on support for infertile couples in cooperation with relevant experts in order to identify areas for improvement.

To achieve these research goals, the following methods were used. First, a wide range of literature on policy support for people with infertility was examined with a focus on gender sensitivity and respect for human rights in the pertinent laws and institutions. In terms of the domestic literature, this included bills and laws, frameworks and detailed plans, and policy evaluation reports published at the academic and

governmental levels. As for overseas literature, we collected examples of laws and institutions that could provide inspiration in terms of gender sensitivity and human rights. Second, we conducted in-depth interviews with married couples experiencing infertility and with infertility experts. For the first group, a total of 20 infertile individuals were interviewed, including four men. Interviewees were recruited in eight categories in order to collect diverse experiences faced by infertile individuals in their medical, labor, and home environments and to better understand their characteristics. For the categorization of interviewees, age, area of residence, disability, migration status, and infertility diagnosis of the spouse were used. For the expert interviewees, we asked a total of 15 medical, labor, and policy experts (government officials, medical professionals, counselors, academics, and NGO activists) for their opinions about human rights in infertility policy, including rights to service access, health, self-determination, and information, in addition to the effectiveness and inclusivity of the policy. Last, we conducted a survey of women aged 18-49 with experience of infertility treatment in the past five years. Survey participants were recruited through a survey service provider (420 persons or 64.3%) and the Korea Association of Subfertility Families (233 persons or 35.7%). A total of 653 persons responded to the survey. The survey questions comprised medical, labor, family, and policy areas.

III. Research findings²⁾

Category		Major findings
Demographics of survey participants		<ul style="list-style-type: none"> • 653 persons total; aged 37.6 years on average (± 4.46; 24–49 years) • Age: those in their 30s at 64.2%; those in their 40s at 32.3%; and those in their 20s at 3.5% <ul style="list-style-type: none"> – These demographics are similar to those of women who received government support for in vitro fertilization (IVF) in 2017 (those in their 30s at 67.8%; those in their 40s and over at 29.6%; and those in their 20s at 2.7%). • Marriage status: those legally married at 89.6%; and those in a de facto marriage at 10.4% • Area of residence: Seoul Metropolitan Area at 62.6%; and other areas at 37.4% • Monthly household income: three million and over to less than five million won at 41.7%; five million and over to less than seven million won at 25.4%; seven million won or more at 17.0%
Diagnosis of infertility and treatment	Diagnosis of infertility	<ul style="list-style-type: none"> • Less than two years of marriage at 50.9% (one year and over to less than two years at 28.5% and less than one year at 22.4%); and five years of marriage or longer at 11.5% • Older individuals, especially those aged 35 years or older, had a greater rate of infertility diagnosis within two years of marriage compared to those younger than 35 years old.
	Treatment	<ul style="list-style-type: none"> • Infertility diagnosed after one year or longer of marriage most often led to infertility treatment, while this tendency was relatively low among those who were diagnosed within one year of marriage. • The rate of those receiving infertility treatment within less than one year of marriage was high among those married at an older age. Especially among those in their 40s, 59.0% received infertility treatment within one year of marriage.
Treatment method and frequency		<ul style="list-style-type: none"> • Treatment type: artificial insemination (AI) at 65.1% and IVF at 70.3% • Average number of treatments: 2.18 times for AI; 3.92 times for fresh embryo transfer; 1.79 times for frozen embryo transfer; and 5.43 times total on average • The older the patient, the greater the number of treatments

2) Due to the limited space here, this paper provides only the key findings of the survey.

Category		Major findings
		they required. Among those in their 40s, in particular, the rate of those who received treatment ten times or more was significantly higher than among their counterparts.
Out-of-pocket expenses related to infertility treatment	Medical expenses	<ul style="list-style-type: none"> • Ten million won or over at 35.9% and 100 million won or over at 1.2% (below one million won at 9.0%; one million won and over to less than three million won at 19.9%; three million won and over to less than five million won at 16.8%; and five million won and over to less than ten million won at 18.4%) • The longer the treatment period, the greater the expenditure on treatment. As for those who received treatment for five years or more, 8.6% of them spent 100 million won or more on treatment and 43.2% spent 20 million won or more but below 50 million won. • The higher the monthly household income, the greater was the out-of-pocket expenditure on infertility treatment.
	Financial burden	<ul style="list-style-type: none"> • The proportion of total expenditures related to fertility treatment (medical costs, transportation and lodging, health management, etc.) relative to monthly household income (the combined income of wage, real estate, financial assets, and other): Less than 10% at 9.0%; 10% and over to less than 30% at 44.5%; 30% and over to less than 50% at 30.2%; and 50% or more at 16.3%. • The proportion of the total expenditure on infertility treatment within the monthly household income was higher when the monthly household income was lower, the treatment period was longer, and the number of treatments and clinic transfers was higher. • As for the financial burden imposed by infertility treatment, 51.3% answered that it was very burdensome. The response “Very burdensome” was 63.3% among those who started infertility treatment before it was covered by the National Health Insurance but 45.1% among those who started the treatment after it was covered by insurance.
Obtaining information about infertility and treatment	Choosing a clinic/doctor and information source	<ul style="list-style-type: none"> • Over 80% chose their first clinic/doctor based on information obtained from blogs, community sites, or YouTube channels (32.0%); friends, coworkers, and acquaintances (29.4%); and internet sites (25.4%).
	Important considerations in choosing	<ul style="list-style-type: none"> • As their top priority when choosing a clinic, 41.7% chose pregnancy success rate; 16.2% the reputation of the doctor; 10.4% distance from home; 6.9% reputation among the

Category		Major findings
	a clinic/ doctor	<p>people around them; and 6.7% the reputation of the clinic.</p> <ul style="list-style-type: none"> As one of their first through third priorities, 61.1% chose pregnancy success rate; 48.7% the reputation of the doctor; 35.8% distance from home; 24.5% reputation among people around them; and 10–20% something other.
	Information sources for infertility and treatment	<ul style="list-style-type: none"> Blogs and community sites were the most popular channel to gain information about infertility regardless of the type of information. Clinic websites and websites run by medical professionals were favored for medical information, such as information about treatment and side effects. People also turned to self-help groups, acquaintances, and the Korea Association of Subfertility Families for information on health management, mental health, and homeopathy. As for all types of information, few people used public information portals such as websites provided by the central and local governments and public health clinics.
	Helpfulness of information by information source	<ul style="list-style-type: none"> In terms of “Very helpful” information sources, 54.5% of respondents pointed to blogs and community sites; 43.7% to the Korea Association of Subfertility Families; 42.9% to self-help groups; 19.3% to clinic websites and websites run by medical professionals; and 7.0–17.2% to central and local governments and public health clinics.
When counseling is most needed for infertility		<ul style="list-style-type: none"> For the first choice, 39.7% marked “When the treatment was not successful”; 20.2% “After being diagnosed with infertility”; 19.3% “When treatment failed repeatedly”; 8.7% “When it is difficult to decide whether or not to receive treatment”; and 8.6% “When stressed by the process of treatment”. When the top three choices are combined, “When treatment was unsuccessful” was included most with 71.0%, followed by “When treatment failed repeatedly” with 69.5%; “When stressed out by the process of treatment” with 44.6%; and “After being diagnosed with infertility” with 26.2%. Those who received infertility treatment for a longer period thought that counseling is most needed “When treatment failed repeatedly” and “When the treatment result was unsuccessful”. Among those who received treatment for a shorter period, “When stressed out by the process of treatment” and “After being diagnosed with infertility” were the most common answers.

Category		Major findings
Experience with and reasons for changing clinics; and disproportionate distribution of regional medical infrastructure	Experience with and frequency of changing clinics	<ul style="list-style-type: none"> 65.4% of respondents changed clinics at least once. The rate of those who changed clinics at least once was higher among those who received more treatment and over a longer period of time. Among those who changed clinics at least once, 10.8% changed clinics five times or more.
	Reasons for changing clinics	<ul style="list-style-type: none"> 56.7% pointed to "Because of a failed pregnancy"; 10.8% to "Because of distrust of the competency of the doctor"; 6.8% to "Because of a lack of advanced medical technology and devices at the clinic"; 5.6% to "Because of a lack of sufficient counseling and patient-oriented services"; 5.4% to "Because of a lack of trust in the clinic"; and 5.2% to "Because it was too far from home."
Awareness of assisted reproductive technology (medicalized body)		<ul style="list-style-type: none"> Over 70% believed that infertility can be treated through advanced ART and that the knowledge of medical professionals and that medical technology should be trusted. Respondents thought that it is their responsibility to endure the difficulties experienced during the treatment process; that the knowledge that patients possess about infertility should not be included in the process; and that the treatment recommended by their doctors would be beneficial for them. As such, the perception of a medicalized body was experienced by over 50% of respondents. The greater the acceptance of this, the more depressed the patient was.
Infertility treatment and physical and mental health	Perceived health before and after treatment	<ul style="list-style-type: none"> Many respondents perceived worsened health after treatment. For example, 85.8% of respondents considered themselves healthy before treatment but the number fell to 59.9% after treatment. The rate of those who perceived worse health after treatment significantly went up with a longer period of receiving treatment and more rounds of treatment.
	Pregnancy loss as a result of infertility treatment	<ul style="list-style-type: none"> 42.6% experienced miscarriage/stillbirth; 11.8% multifetal pregnancy; and 5.4% elective abortion. The rate of miscarriage/stillbirth and multifetal pregnancy increased along with older age, longer period of infertility treatment, and more rounds of treatment.
	Experience of physical changes during the	<ul style="list-style-type: none"> 30–50% of respondents experienced frequent or constant chronic fatigue, abdominal pain and distention, weight change, and/or menstrual disorders during the process of treatment.

Category		Major findings
	process of treatment	<ul style="list-style-type: none"> The longer the period of receiving treatment and the greater the number of rounds of treatment, the higher the rate of experiencing physical changes frequently or always after treatment.
	Experience of emotional changes during the process of treatment	<ul style="list-style-type: none"> Over 50% experienced emotional changes such as anxiety, anger/irritation, depression, helplessness, despair, and sleep disorders during the process of treatment. About 25% of respondents experienced suicidal thoughts. As with the experience of physical changes, those who received more treatment and for a longer period tended to experience emotional distress frequently or always.
Infertility treatment leave and awareness of it as a right	Awareness of infertility treatment leave and experience of taking the leave	<ul style="list-style-type: none"> Of the 653 survey respondents, 562 persons (86.1%) were participating in economic activities before being diagnosed with infertility. Among them, 527 persons (93.8%) were paid employees. Only 21.3% of paid employees had leave for infertility treatment and used it. 21.6% had such leave but did not use it because they did not wish for others to know. 8.9% had it but did not use it because no one around them used it. 35.9% did not have infertility treatment leave. 12.3% were unaware of any such leave. In sum, only 51.8% of paid employees were aware of infertility treatment leave and among them only 41.1% actually used it. The rest did not use it due to the negative perception of infertility.
	Use of infertility treatment leave by employment and job type	<ul style="list-style-type: none"> In terms of employment type, the rate of regular workers who used infertility treatment leave was 24.5%, which is 6.8 times greater than that of irregular workers (3.6%). By job type, the rate of those who used the leave was 43.0% among public employees and teachers; 28.8% among employees at large companies; 11.4% among employees at small and mid-sized companies; and 9.7% among employees at companies with five or fewer employees.
Experience of quitting jobs and reasons	Experience of quitting jobs	<ul style="list-style-type: none"> Among the 527 paid employees, 39.7% (209 persons) quit their jobs during their process of infertility treatment. The rate of irregular workers who quit their jobs was 56.6%, which is significantly greater than that of regular workers (36.5%). The rate of those who quit their jobs was 28.9% among public employees and teachers, 40.2% among employees at small and mid-sized companies, 42.5% among employees at large companies, and 54.2% among

Category		Major findings
		<p>employees at companies with five or fewer employees.</p> <ul style="list-style-type: none"> The rate of those who quit their jobs was clearly proportionate to the length of treatment, frequency of treatment, and frequency of changing clinics.
	Reasons for quitting jobs	<ul style="list-style-type: none"> As for reasons for quitting their jobs, respondents marked "To rest well for a successful pregnancy" (65.6%); "Because it was difficult to take a leave so frequently to receive treatment or there was no leave to take" (59.3%); "Because I felt uncomfortable at work about taking a leave for treatment" (47.8%); and "Because my coworkers kept asking me if I had gotten pregnant" (13.9%). As the period of receiving infertility treatment got longer, women tended to quit their jobs because they felt uncomfortable at work about taking leave so frequently or about coworkers asking them if they had gotten pregnant.

IV. Policy suggestions

1. Clarify standards for "medical judgement" regarding infertility for women who are 45 years old or older

Before July 2019, support for infertility treatment was provided only to women aged 44 years or younger. After the fifth health insurance policy deliberation committee meeting held in April 2019, however, the Ministry of Health and Welfare announced the abolition of the age limit for support for infertility treatment as part of its measures to strengthen the benefits of health insurance. The health ministry's press release stated that women aged 45 years or older may be covered by health insurance for infertility treatment depending on their doctors' medical judgement. As a result of this revision, the previous age limit is only used to determine the type of treatment and maximum benefit per treatment.

Experts who participated in this study argued that the abolition of the

age limit was inappropriate in terms of women's right to health. Fertility is inversely related to age. For example, it is more difficult to harvest eggs from women aged 40 or older than from younger women. Since the quality of the eggs of older women is lower, it requires more attempts to harvest healthy eggs, placing a greater burden on the medical system. Furthermore, this process increases the odds of a complication such as chromosomal aberrations or epithelial ovarian cancer.

In fact, the press release issued after the fifteenth meeting of the health insurance policy deliberation committee held in September 2017 stated that the existing age limit (44 years of age) shall be maintained on the grounds that "there is relatively great concern about the safety of assisted reproductive technology as the odds of pregnancy and live birth falls rapidly and the chance of miscarriage rises with the aging of the patient. Research shows that in the case of IVF among those aged 45 years or older, the rate of live birth is around 1% but the rate of miscarriage is as high as 70%. It is also a general practice in other countries to include an age limit in the provision of benefits for infertility treatment or insurance coverage. Furthermore, it has been argued that the age limit for infertility treatment should be lowered for the safety of the patient." According to the press release, the age limit for infertility treatment support is under 40 years of age in Germany, under 43 years of age in the UK and Japan, and under 45 years of age in France and the Netherlands. All in all, the age limit for infertility treatment for women in industrialized countries ranges from 40 to 45 years of age (44 years of age in South Korea).

Among the 653 survey respondents in this study, 42 persons (6.4%) were 45 years or older and had received infertility treatment 8.12 times on average (± 5.17). The number of infertility treatments among those

aged 45 years or older is significantly greater than among their younger peers, which is 5.25 times on average (± 4.84). (It is 3.48 times for those younger than 35 years old (± 2.90)). This means that the chance of a failed pregnancy among women aged 45 years or older is greater compared to younger women. In addition, the rate of miscarriage was 50% among those aged 45 years or older while it was 42.1% among those aged younger than 45 years (34.8% among those aged under 34 years). In addition to receiving a higher number of infertility treatments and being at greater chance of miscarriage, women at 45 years of age or older tend to experience more emotional turbulence during the process of treatment. For example, the rate of those frequently or always experiencing depression was 69.0% among those at 45 years of age or older but 59.6% among their younger counterparts. The rate of suicidal ideation was 31.0% among the former and 24.2% among the latter. Although the difference between these two groups is significant, the number for the younger group is high compared to the general population. Still, younger women tended to experience less frequent emotional distress.

There is much discussion over age limits on infertility treatment in other countries. The reason that an age limit of 40-45 years of age is typically set, as discussed above, is to protect women's right to health by ensuring their safe treatment. The national health insurance policy deliberation committee similarly considered maintaining an age limit to be appropriate given the increasing risk to women's safety and health with aging. When it abolished the age limit in 2019, it added the condition of treatment requiring a doctor's judgement. However, it is unclear simply from the press release exactly what this means. It is only presumed that such judgement will be related to women's right to health.

In this regard, there is a need to clarify upon what a doctor's medical judgement should be based.

2. Review the guidelines for the number of embryos transferred for in vitro fertilization

In South Korea, the allowed number of embryos for transfer is contingent upon the woman's age and the number of days of culture. For example, if the woman is 35 years old or older and the embryos are cultured for two to four days, up to three embryos can be transferred. Most industrialized countries, however, are increasingly using age as the sole basis for determination and are shifting toward single-embryo transfer. Countries that recommend single-embryo transfer to women aged under 35 years include Australia, Belgium, Canada, the Netherlands, and Sweden (International Federation of Fertility Societies, 2019: 48). The American Society for Reproductive Medicine recommends single-embryo transfer for those up to 37 years of age (Practice Committee of the American Society for Reproductive Medicine and the Practice Committee for the Society for Assisted Reproductive Technologies, 2021:652).

This growing trend toward reducing the number of embryos for transfer and eventually preferring single-embryo transfer is related to concerns about the safety and health of the mother and the fetus. Multiple-embryo transfer increases the odds of multiple birth and consequently of preterm and underweight birth. According to the 2020 birth statistics from Statistics Korea, the country's birth rate has declined for the past eleven years (2010-2020). While the number of multiple births declined as well over the same period, the proportion of multiple births among all births

increased. For example, multiple births accounted for 2.7% of all births in 2010 but 4.9% in 2020. During the same period, the proportion of preterm births increased from 5.8% to 8.1%. In comparison, the proportion of preterm births among multiple births rose from 53.7% in 2010 to 63.4% in 2020 (Statistics Korea, 2021:14). The proportion of underweight births (below 2.5 kg) also went up from 4.9% to 6.6% and among multiple births it was 54.5% in 2010 and 58.7% in 2020. Meanwhile, the number of women diagnosed with infertility increased from 149,000 persons in 2010 to 160,000 persons in 2018 (from 36,000 to 82,000 persons in the case of men). As for IVF, the number of cases that received financial support for infertility treatment rose from 24,452 in 2010 to 60,471 in 2017 (Hwang Na-mi et al., 2019:5,8). Among babies born following IVF with financial support in 2017, 79.4% were singletons, 20.1% were twins, and 0.5% triplets. Among babies born from AI that received financial support, the numbers were 83.0%, 16.3%, and 0.7%, respectively (Hwang Na-mi et al., 2019:116-117). In regard to babies born through IVF that received financial support in 2018 (treatment received in either 2017 and 2018), the proportion of preterm births was 6.5% among single and 24.2% among multiple births. In terms of AI, the numbers were respectively 5.6% and 25.9% (Hwang Na-mi et al. 2019:119).

In sum, cases of infertility diagnosis and treatment have continued to rise along with the proportion of multiple births and that of preterm births among multiple births. The proportion of preterm births among multiple births is significantly greater compared to singlets. Although the treatment guidelines were revised in 2015 with a focus on reducing the number of embryos for transfer, the proportions of multiple, preterm, and underweight births have increased, and this increase is related to the

number of embryos for transfer. As mentioned in the policy analysis above (and also to be discussed later in the evaluation of fertility clinics), the existing evaluation index, which discourages triplets but maintains support for twins, is arguably a contributing factor to the rising number of multiple births. It may also promote selective fetal reduction, which can threaten the safety and health of the mother and the fetus.

Although the guidelines on the number of embryos for transfer were revised in 2015, the proportions of multiple births and consequently of preterm and underweight births are on the rise. While the percentage of triplets is very low, more stringent efforts are needed in order to reduce the rate to zero. Discussion is needed on the acceptability of maintaining the current proportion of twins. In the survey conducted as part of this research, 76.7% of respondents agreed to the statement “The current standard on embryo transfer, which allows for multifetal pregnancy, should be revised for the health and safety of women.” Almost half of all respondents marked “Strongly agree.” In this regard, it is necessary to conduct an evidence-based review of whether the existing guidelines are appropriate, especially since the age limit for infertility treatment has been abolished.

3. Require counseling for couples on their first visit for infertility treatment

Couples often receive counseling on infertility on their first visit to a fertility clinic. Typically, however, the counseling provided at fertility clinics is focused on medical procedures and provides insufficient information on infertility, including health management. The women who participated in our interviews were unanimous in expressing that they

were rarely able to communicate with their doctors due to the brief amount of time scheduled for their visits. Depending on the clinic, patients saw their doctors for only three to five minutes. According to the interviewees, that time was just enough to schedule the next visit but not for asking questions or obtaining detailed information about the treatment. In a survey question asking how long they saw their doctors when they visited clinics, five minutes or more to less than ten minutes was most common with 33.5%, followed by three minutes or more to less than five minutes with 24.3%, ten minutes or more to less than 15 minutes with 17.6%, less than three minutes with 9.6%, 20 minutes or longer with 7.8%, and 15 minutes or more to less than 20 minutes with 7.0%. In other words, 33.9% of survey respondents saw their doctors for less than five minutes and 67.4% for less than ten minutes. Given that it was their first visit to a fertility clinic, this is clearly insufficient. In fact, the longer patients saw their doctors on their first visits, the significantly greater was their general understanding of infertility and the related procedures. One of the interviewees who was able to see her doctor for about 30 minutes said that she was very satisfied with the level of communication.

While providing detailed information about treatment procedures is important, it is necessary to mandate clinics provide sufficient and customized counseling about pregnancy and health management in general based on the conditions of the patient. In our survey, 93% of the respondents agreed with the statement “Sufficient counseling and information should be provided to couples on their first visits to fertility clinics.” Counseling is needed not only on the first visit, but at all stages of treatment, but at least counseling before the beginning of the treatment should be made mandatory and be focused on providing comprehensive

information related to infertility.

In order for counseling on the first visit to be effectively implemented, discussion with the medical community is needed on ways to secure the required costs for clinics so that standardized guidelines on counseling can be established and eventually the quality of counseling can be ensured. One way to encourage clinics to provide sufficient counseling is linking counseling with the infertility treatment benefits system. For example, couples may be required to submit proof of counseling from a fertility clinic when they apply for infertility treatment benefits. All in all, a wide range of measures should be considered in order to guarantee that quality counseling is received by infertile couples and to help them make informed decisions and receive services that meet their needs.

4. Provide counseling customized to different stages of treatment

The previous section discussed the need for counseling for couples on their initial visits to clinics so that they can develop a general awareness of infertility and the related procedures. This does not mean that counseling is no longer needed once treatment begins. In fact, counseling is required for different needs as treatment proceeds. For example, a general explanation about the overall stages of treatment including egg-harvesting and embryo transfer is only needed at the beginning of treatment. If pregnancy fails for the fifth time, different counseling is required compared to when it fails for the first time. As the period of treatment gets longer, support for mental distress becomes needed.

The Counselling Special Interest Group in Canada (2009:5-8), which was discussed as an overseas policy model in this study, provides

standardized guidelines for counselors at each stage of infertility treatment by identifying the characteristics and specific needs of couples at different stages. The stages of infertility treatment include pre-treatment, treatment choice, treatment preparation, treatment, and post-treatment. The Australian and New Zealand Infertility Counsellors Association (2018: 6-9) provides various services, including counseling on decision-making, risk management such as mental health and family conflict, and treatment, depending on the outcomes of treatment (e.g. failed pregnancy, miscarriage, and multifetal pregnancy).

In conclusion, counseling customized to the treatment method, stage, and outcome should be provided in consideration of the age and the level of mental and physical well-being of patients.

5. Publish the results of evaluations of infertility clinics

The results of the evaluation of infertility clinics need to be published in support of not only people's right to health, but also their right to information. The results of the first evaluation of infertility clinics were released on the Health Insurance Review and Assessment Service website along with an evaluation report. However, clinics are simply labeled as Level 1 or Level 2 along with the statement "Level 1 clinics received higher scores than Level 2 clinics in this evaluation." The website also provides information on each clinic regarding the status of its medical professionals, facilities, and equipment (including the national average), number of treatment cases (including the national average and the average by treatment type), and age data. It shows if a clinic received a higher score than the national average in terms of medical professionals/facilities/equipment; how many cases it treated in 2018;

how the number of treatment cases compares to the national average and the average by treatment type; and the distribution of the ages of patients. As shown in the first evaluation index, however, information related to the safety of the procedures and patient health, such as the rate of triplets or more, compliance with the guidelines on embryo transfer, and provision of counseling and education on treatment, is not provided.

The Human Fertilisation and Embryology Authority (HFEA), the UK fertility regulator, enables visitors to its website to choose from categories such as heterosexual couple, homosexual couple, single woman, or woman aged 38 or older so that they can be provided with information customized to their needs. The information provided on the website includes insurance coverage, treatment details, the gender of the doctor, HFEA evaluation results, client evaluation results, and IVF success rate. The results of HFEA evaluation include the data obtained in the on-site inspection of clinics, which is conducted every four years. The items on client evaluation, which is performed by the actual clients of a clinic, consists of the general level of satisfaction with services, respect for privacy, provision of appropriate information, respect for the right to make decisions, and cost appropriateness. The website also offers detailed search functions so that people can easily find a clinic that suits their needs. For example, people can find clinics in their area or within a certain distance from their home and choose the type of treatment they prefer, online counseling, or counseling designated for their particular treatment. As shown by this example, it is critical to publish information in the fertility clinic evaluation index about safety and health that is needed by couples when making decisions. In addition, gender-sensitive and rights-based criteria, such as the gender of the doctor, level of satisfaction with services among actual clients, respect for client privacy,

and the right to make decisions, may need to be considered in a future evaluation index.

6. Reduce the spread of misinformation by improving public information portals

When they feel unsatisfied with the information provided by clinics about the causes of infertility and related treatment methods, couples tend to turn to blogs and online community sites where anonymous stories of successes and failures of infertility treatment are shared. While the information provided by these sites may not be necessarily wrong, some people self-diagnose based on such stories and request a specific treatment that they believe would work for them. A medical professional who participated in our interviews indicated concern that these sites are typically operated by laypeople who lack professional knowledge of medicine and that the information shared on these sites can be considerably biased, and that it is inappropriate to request doctors for certain medicine or procedures based on the information obtained on those sites. According to our survey, 48.9% of respondents agreed to the statement “I have requested a specific treatment from a doctor.”

Part of the reason that this happens can be attributed to lack of sufficient information provided by clinics and lack of standardized treatment protocols. In this study, 65.4% of the 653 survey respondents have changed clinics at least once. While the most common reason was a failed pregnancy, another important reason was that they believed their clinics did not provide sufficient treatment or information. One of the interviewees, a medical professional, pointed out that lack of basic data that can be provided as information to patients is another an obstacle

in meeting people's right to know. In other words, information on risks is underrated but information on effects is overrated because accurate information on infertility treatment is not being produced and shared. In addition, doctors do not have sufficient information to share with their patients, which this again feeds into the lack of understanding and acceptance of treatment among couples.

There is currently a need to compile information on infertility not only by treatment, but also by patient type and context based on in-depth research. This data should be organized in a more client-oriented manner and provided on public information portals. In this study, 91.1% of respondents agreed that information on infertility examinations, treatments, and procedures should be provided in detail on public information portals. Information on infertility is currently provided on the i-sarang site, the government's online information portal on pregnancy and childcare. However, while the information there is mainly very general and descriptive, some is too academic. Furthermore, it is mainly about pregnancy and childcare. Infertility is a highly specialized area and therefore information should be organized in a way that is easy for laypeople to understand but be detailed enough to meet the needs for information among infertile individuals. As presented in the overview of overseas policies performed in this study, some countries, including the UK and Australia, operate public portal sites designed solely for infertility. In addition to information, they provide offline and online consultations by medical professionals and counselors in order to ensure that accurate information is offered based on the needs of different individuals. Modeled on successful practices in other countries, a public information portal on infertility should be created that is customized to the South Korean context. The sharing on the portal of quality

information compiled by private organizations, such as the Korea Association of Subfertility Families, may also be considered. For this process, a public-private partnership may be created in order to compile information that is relevant to the needs of contemporary patients.

7. Investigate the status of the implementation of infertility treatment leave across all industries and strengthen inspections

Only 21.3% of the 562 paid employees who participated in our survey were aware of and took advantage of infertility treatment leave. The rate of those taking this leave was greater among regular workers compared to irregular workers. In terms of job type, it was greatest among public employees and teachers, followed by workers at large companies, workers at small and mid-sized companies, and workers at companies with fewer than five employees. In particular, 39.7% of paid workers quit their jobs over the process of treatment, and 59.3% of them did so because they could no longer take leave or there was no leave system in place.

Since companies are responsible for wages during infertility treatment leave, the government has been unable to identify how many people are actually making use of infertility treatment leave. Hence, it is necessary to investigate its use across all industries and identify any differences by labor characteristics such as industry, employment, or job type. It is also advised that infertility treatment leave be included as a category for labor inspection on maternity protection, which is currently focused purely on childbirth and childcare leave, in order to promote workers' access to infertility treatment leave. Workers should be able to use

infertility treatment leave whenever necessary and employers should be discouraged from disadvantaging those who take the leave.

8. Promote awareness of infertility in the labor environment

As discussed above, 21.6% of paid employees in our survey were aware of infertility treatment leave but did not use it because they did not wish for others to learn about their infertility, while 8.9% did not use it because nobody around them was using it. Among those who quit their jobs during the process of infertility treatment, 47.8% said that they quit their jobs because they felt uncomfortable at work about taking a leave for treatment, and 13.9% said it was because their coworkers kept asking them if they had gotten pregnant. In the survey, 273 respondents who had an infertility treatment leave system at work were asked about the difficulties they faced when they were using the leave or when they were considering using it: 86.1% said that they did not like that they had to report it to their boss whenever they needed to take infertility treatment leave; 82.1% did not like it when their bosses and coworkers asked them about the results of the treatment; and 70% did not like their coworkers knowing about their infertility. However, 65.2% agreed to the statement “I should be able to use infertility treatment leave because I have been diagnosed with infertility.” These findings show the existence of the prejudices and stigmas surrounding infertility in the labor environment and the need for the related ministries, including the Ministry of Employment and Labor, to engage in active campaigns to reduce it.

9. Introduce long-term infertility leave

While there are several points for improvement to allow the existing infertility treatment leave system to better reflect the realities of the situation, introducing long-term infertility leave may cause controversy among stakeholders. Instead of establishing a separate system for this, therefore, it may be more appropriate to include infertility as part of long-term sick leave as is done for public officials.

In accordance with Article 71-1-1 (When long-term leave is necessary due to physical and/or mental disabilities) of the State Public Officials Act, state public officials who are diagnosed with infertility may take partially paid long-term sick leave for up to two years (at 70% of regular wages when the leave is one year or less and 50% when it is over one year but one year or less). (See Article 71-1-1 of the State Public Officials Act and Articles 28-1-1 and 28-1-2 of the Public Officials Remuneration Regulations at the Korean Law Information Center website). Expanding the existing systems to include infertility may be easier than creating a new system for long-term infertility leave. If infertility comes to be included as a reason for long-term sick leave, a person who seeks such leave may be required to submit proof issued by a doctor showing that she requires a long-term leave for her physical and mental well-being due to repeated failed pregnancies.

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