

What do reproductive-age women who undergo oocyte cryopreservation think about the process as a means to preserve fertility?

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Objective: To better understand women's beliefs, priorities, and attitudes toward oocyte cryopreservation, to appreciate the extent of their reproductive education, and to track the reproductive paths of women who chose to undergo oocyte cryopreservation treatment.

Design: An anonymous 30-question survey.

Setting: Not applicable.

Patient(s): From 2005–2011, 478 women completed ≥ 1 oocyte cryopreservation treatment cycle at our center to defer reproduction.

Intervention(s): None.

Main Outcome Measure(s): Demographics, motivations, desires, fertility knowledge, and outcomes related to oocyte cryopreservation.

Result(s): A total of 183 patients (38%) completed the survey with $>80\%$ being aged ≥ 35 years; white; having no partner at time of oocyte cryopreservation; undergoing oocyte cryopreservation after an optimal reproductive age; feeling they had improved their reproductive future after oocyte cryopreservation and being empowered by the process; aware of age-related infertility; sensing popular media falsely portrayed the upper age limit for natural conception; and recorded lack of partner as the primary rationale for not yet starting a family. Nineteen percent of respondents added that workplace inflexibility contributed to their reproductive dilemma. Half stated they learned about oocyte cryopreservation from a friend; others became aware through a medical provider, the media, and the internet. Most patients (93%) have not yet returned to use their frozen oocytes; 11 stated they had. Overall, 20% reported a successful conception after oocyte cryopreservation.

Conclusion(s): Surveying oocyte cryopreservation patients provides a glimpse into the knowledge base and motivations surrounding current female reproductive practices. Oocyte cryopreservation technology may prove to bridge the gap between reproductive prime and when a woman is realistically "ready" to have children. (Fertil Steril® 2013;100:1343–9. ©2013 by American Society for Reproductive Medicine.)

Key Words: Oocyte cryopreservation, fertility preservation, quality of life

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During the past three decades, the industrialized world has witnessed an increase in the age at first birth and the number of women delaying childbearing (1). Commensurate has been a 150% increase in number of women giving

birth between the ages of 35 and 39 years and a steady increase in those aged 40–44 years (2). In the past year alone, the first-birth rate for women aged 40–44 years increased 5%, whereas the average overall first-birth age climbed to 25.4 years (up from

21.4 years in 1970) for all races (3, 4). This later-motherhood trend has been attributed to numerous educational, professional, personal, financial pursuits, and/or circumstances (5, 6) occurring in the background of an unaltered age-related natural fertility decline, forcing a reproductive dilemma for women and society. Further burdening this trend is that pregnancies conceived at an advanced maternal age are more often associated with aneuploidy and spontaneous abortion (7–9).

Procreative delay has led to an evolution in reproductive technologies,

Received May 16, 2013; revised June 19, 2013; accepted July 10, 2013; published online August 13, 2013.

B.H.-W. has nothing to disclose. S.D. has nothing to disclose. M.S. has nothing to disclose. N.N. has nothing to disclose.

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Fertility and Sterility® Vol. 100, No. 5, November 2013 0015-0282/\$36.00
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<http://dx.doi.org/10.1016/j.fertnstert.2013.07.201>

most notably oocyte cryopreservation. Due to improvements in outcome along with its ability to maintain reproductive autonomy, oocyte cryopreservation has recently experienced an exponential surge in usage. Although the first birth from oocyte cryopreservation was published more than 25 years ago (10), this initial success was followed by a dearth of reporting until the early 2000s when larger series of successes began to appear (11–14). The latter data are promising, with some studies demonstrating pregnancy rates similar to those of conventional fresh IVF (13, 15–19). Because of this, oocyte cryopreservation is now being offered to reproductive-age women newly diagnosed with malignancy before gonadotoxic treatments (20, 21). In some centers, oocyte cryopreservation is also made available to women seeking fertility preservation for nonmedical indications. This is in large measure due to rapidly accumulating safety evidence suggesting that oocyte cryopreservation does not pose added risks to conventional IVF (13) and the American Society for Reproductive Medicine's recent decision to remove the technology's experimental designation for medical indications (22). Already in 2010, more than 50% of surveyed US assisted reproductive technology (ART) clinics admitted to offering oocyte cryopreservation as a reproductive service (23). We anticipate a significant increase in the number of women seeking oocyte cryopreservation services in the coming years as this technology continues to improve and offer a potential bridge during the gap between reproductive prime and when a woman is realistically "ready" to have children.

Regarding reproductive education, reports have shown that college-aged women are relatively unaware of the natural and profound fertility decline that occurs in the years before the onset of complete reproductive failure (i.e., menopause) (6, 24). Alternatively, women seeking oocyte cryopreservation are acutely aware of this phenomenon, which ultimately serves as the force in their pursuit of fertility-preserving technologies. Thus, the objective of our study was threefold: [1] to better understand and characterize women's beliefs, desires, priorities, and attitudes toward oocyte cryopreservation; [2] to appreciate the extent of and source of their reproductive education; and [3] to track the reproductive paths of women who chose to undergo oocyte cryopreservation treatment.

MATERIALS AND METHODS

From 2005 to 2011, 478 women (mean age 38 ± 2.7 years; range 23–46 years) underwent one or more oocyte cryopreservation treatment cycles at our center for nonmedical reasons. Before treatment, all women had been counseled regarding the experimental nature of oocyte cryopreservation according to the American Society for Reproductive Medicine Practice Committee Opinion. A questionnaire (30 multiple choice questions) was constructed with the goal to assess the demographics, fertility knowledge, motivation, attitudes, and reproductive outcomes of these women after oocyte cryopreservation completion. Inclusion criteria included age ≥ 21 years at time of cryopreservation and completion of one or more oocyte cryopreservation cycle with the purpose of deferred reproduction. Surveys were not sent to women

who had undergone oocyte cryopreservation for medical indications before exposure to gonadotoxic treatment or oophorectomy. Surveys were also not sent to those who underwent oocyte cryopreservation purely for the purpose of oocyte donation. The survey was reviewed and approved by the New York University School of Medicine Institutional Review Board and then administered to the selected patient population using SurveyMonkey and/or US postal mail (Supplemental Appendix, available online). An internet link to the survey site (www.surveymonkey.com) along with an accompanying survey announcement/invitation was sent to all patients who had undergone oocyte cryopreservation and provided an e-mail address at the time of treatment ($n = 269$; 55% of patients). Alternatively, if an e-mail was returned undeliverable ($n = 13$) or the patient had not provided internet contact information, a nonidentified printed copy of the anonymous survey was sent to the patient's postal mailing address ($n = 222$). Each mailed survey was accompanied by a self-addressed, stamped envelope and a cover letter explaining the objectives of the study. The investigators were blinded as to which treated patients did or did not participate in the survey.

The survey completion time was designed to be <10 minutes. Multiple questions were intended to elicit more than one response and allowed for comments by the patients. To increase response rate, a requirement was not imposed to answer every questions. Collected demographics included age at time of oocyte cryopreservation treatment, total number of oocytes cryopreserved, race/ethnicity, religion, marital status, relationship status at time of oocyte cryopreservation, and having received a diagnosis of infertility before or after oocyte cryopreservation was completed.

Knowledge of age-related fertility was determined by the following two multiple choice questions: "At what age does the average woman start experiencing a decline in fertility?" and "At what age is the average woman most fertile?" Patients were also asked what they believed to be the ideal age at which to complete oocyte cryopreservation.

To assess motivation and knowledge surrounding oocyte cryopreservation, surveyed patients were asked how they learned about oocyte cryopreservation technology, whether they believed that they were sufficiently educated regarding natural age-related decline in fertility before their oocyte cryopreservation consultation, and whether they wished they had undergone oocyte cryopreservation at an earlier age. Patients were also asked why they believed childbearing had not been an option at the time of oocyte cryopreservation. Choices included professional, financial, and personal reasons.

Opinions were also garnered concerning perceived social stigma surrounding oocyte cryopreservation, the media's attention to motherhood at an older age, and the perceived appropriate upper age limit for attempting pregnancy. Patients were also asked to rank life priorities (career, health, quality of life, future fertility), as well as desired methods to have a child (natural conception, assisted reproduction with their own oocytes, donor oocytes, adoption) or not having children. Questions regarding the importance of fertility, reproductive security before and after oocyte cryopreservation treatment and whether undergoing oocyte

cryopreservation had caused a sense of empowerment or anxiety were queried. Opinions were also solicited as to whether oocyte cryopreservation served as a means to defer natural reproduction or a backup if natural pregnancy were not possible at a later age, or both. Last, patients were questioned about their attitude toward oocyte cryopreservation and child-bearing after completing their oocyte cryopreservation treatment cycle. If patients had not yet thawed their oocytes at the time of survey, there were inquiries regarding future plans for thawing or discarding oocytes.

All data were analyzed using Survey Monkey's Program Statistics, Microsoft Excel, and SPSS software.

RESULTS

A total of 478 surveys were sent. Ten of the postal-mailed surveys were returned undeliverable. One hundred eighty-three patients (38.0%) responded: 76 electronically and 107 by postal mail. On average, 178 patients (range 160–183 patients) answered each question. One hundred thirty-six of the 178 patients answering the survey completed each question. The demographics of the respondents are shown in Table 1. Overall, 84% of respondents were more than age 35 years at the time of oocyte cryopreservation. All patients who were ≤ 35 years and 90% of those >35 years at time of retrieval had at least 6–10 eggs harvested; the other 10% of women aged >35 years had only 1–5 oocytes retrieved in total. Overall, 14% of responding patients reported they had been informed of impaired fertility at some point. Nine percent reported they had been told before, whereas 5% had been told after their oocyte cryopreservation treatment cycle. Eighty-one percent of these patients were >35 years at the time of treatment. Pertinent results are summarized and shown in Figures 1–3.

Knowledge and Oocyte Cryopreservation Awareness

When asked at what age does a woman's fertility decline, the majority (83%) of patients responded that it was in the decade spanning from 28–38 years (43% thought it was between 28 and 34 years and 40% between ages 35 and 38 years). Ten percent answered that the decline starts after the age of 38 years. Ninety-five percent of patients responded they thought women were most fertile between 18 and 28 years. When asked their opinion as to the ideal age at which women should undergo oocyte cryopreservation, 55% answered between the ages of 29 and 34 years and 15% between ages 35 and 38 years. Thirty percent thought 18–28 years was the most ideal time. No one answered that oocyte cryopreservation was ideal after the age of 38 years.

When asked if they felt adequately educated on the natural decline in a woman's fertility before their first oocyte cryopreservation consultation, 25% responded no. Of the 75% who believed that they were adequately educated, 37% reported their knowledge base was derived from previous formal and/or personal education, 29% from their obstetric/gynecologist practitioner, 14% from the media, and 14% from other resources (e.g., friends and family).

TABLE 1

Demographics of respondents.

Demographic	% (n)
Age (y) at time of EOC (n = 183)	
<33	3 (5)
33–35	13 (24)
36–38	42 (77)
39–41	39 (71)
>42	3 (5)
Total numbers of oocytes frozen (n = 183)	
1–5	8 (15)
5–10	28 (52)
11–20	41 (75)
>20	22 (40)
Unsure	<1 (1)
Race, ethnicity (n = 183)	
White	80 (147)
Asian	11 (21)
Hispanic	4 (8)
African American	4 (7)
American Indian/Alaska Native	1 (2)
Middle Eastern	1 (2)
Prefer not to answer	1 (2)
Other	<1 (1)
Religion (n = 182)	
Christianity	36 (65)
Judaism	32 (59)
Atheism	13 (23)
Spiritual	10 (19)
Other	9 (16)
Marital status (n = 183)	
Never married	77 (141)
Married	12 (23)
Separated	2 (3)
Divorced	9 (16)
In a relationship at time of EOC	
No	84 (153)
Yes	16 (30)
Told they had impaired fertility (n = 182)	
No	86 (156)
Yes before EOC	9 (16)
Yes after EOC	5 (10)

Note: EOC = elective oocyte cryopreservation.

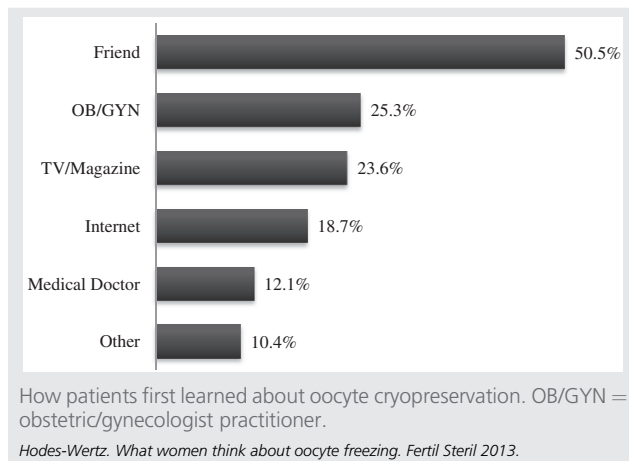
Hodes-Wertz. What women think about oocyte freezing. *Fertil Steril* 2013.

The ways patients reported becoming aware of the oocyte cryopreservation process are shown in Figure 1. In addition to what is graphed, the following means were cited: family members encouraging them to undergo oocyte cryopreservation (6), personal research (3), unsure (3), a religious organization (2), a reproductive specialist (2), urogynecologist (1), a *Single Mothers by Choice* meeting (1), and a therapist (1). Several respondents reported that they themselves were in the health care field or had a family or friend that was a health care professional and had educated them regarding the technology. One patient reported that her gynecologist encouraged her not to undergo oocyte cryopreservation.

Timing of Oocyte Cryopreservation

Most (79%) of the women reported that they wished they had undergone oocyte cryopreservation at an earlier age. The most common reason for not pursuing oocyte cryopreservation at a younger age was the feeling that the technology was not readily available or they had been unaware of the

FIGURE 1



technology (63%), followed by not being ready (16%), not being concerned about their reproductive future (15%), and not being able to afford it (14%). Four respondents reported they believed they had been misinformed about oocyte cryopreservation technology and natural fertility decline. Almost one-third (32%) of patients believed there was a social stigma surrounding oocyte cryopreservation.

Priorities

Fertility was ranked important by 93% of the respondents and somewhat important by 6%. One patient (age at oocyte cryopreservation: 39–41 years) reported that infertility was not important. Most patients ranked health as their first life priority (60%), followed by quality of life as second (46%), then future fertility (40%), and career last (59%) with this trend consistent for all age groups. Only 13% ranked future fertility as their first life priority. The five respondents that placed career as their top priority were aged 36–41 years at time of oocyte cryopreservation. For those that ranked future fertility first (22), 77% were >35 years at time of oocyte cryopreservation.

FIGURE 2

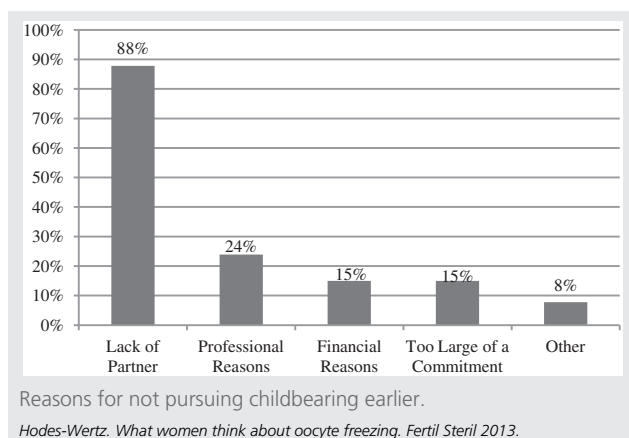
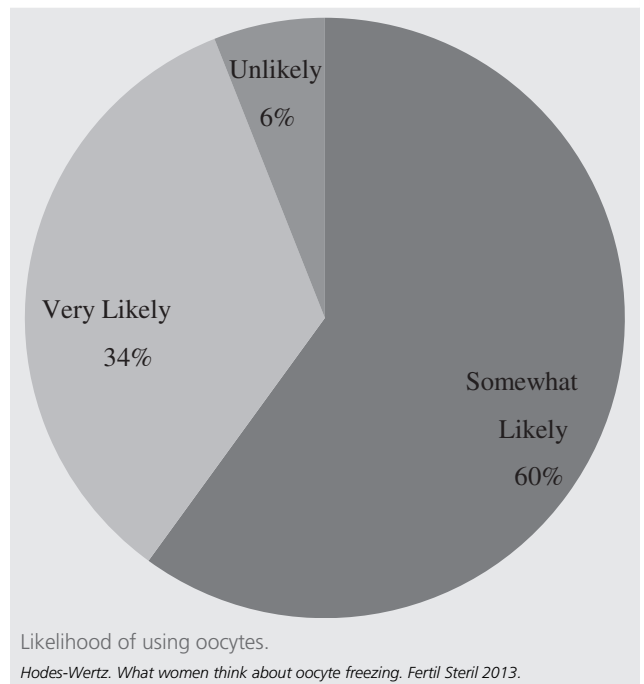


FIGURE 3



Respondents ranked their desired methods of having a child listing natural conception most desirable (96%), followed by assisted reproduction with their own eggs (93%), egg donation (57%), and adoption (48%). Not having children was the fifth choice for 74% of respondents. No one ranked adoption or egg donation as their first choice. Of those who ranked oocyte donation as a choice (n = 143), 39% placed adoption above oocyte donation and 15% reported that they would rather not have a child than undergo oocyte donation. Six patients ranked ART above natural conception. All were aged >35 years at the time of oocyte cryopreservation.

Reasons for Delaying Childbearing

When asked why patients had not had children earlier (Fig. 2), the overwhelming (88%) reason cited was lack of a partner. In the “other” category were 10 respondents who said that they had a partner but it was the wrong partner with whom to have child or that they were experiencing marital/partnership discord and therefore did not want to create embryos with this partner. Nineteen percent of women said earlier childbearing would have been an option if their workplace had been more flexible. Most patients (83%) believed that the media gave them the impression that natural conception and motherhood at an older age was a viable option.

Outcomes and Attitudes after Oocyte Cryopreservation

Since their oocyte cryopreservation treatment, only 6% of respondents (11 patients) admitted to having used their oocytes (all of them ≥ 33 years at the time of oocyte

cryopreservation). Three of these patients disclosed that they had achieved pregnancy from a thaw cycle, five patients did not get pregnant as a result of using their stored oocytes, and three patients failed to report whether a pregnancy was achieved or not from their thawed oocytes. For the three patients achieving pregnancy from thawed oocytes, the age range at time of oocyte cryopreservation was 33–41 years at time of oocyte cryopreservation and number of oocytes retrieved was 6–20. Thirty-seven respondents (20%) reported that they had achieved a pregnancy since their oocyte cryopreservation treatment; 34 disclosed how their pregnancy was achieved (including the three patients from thawed oocytes). Fifty percent were through natural conception (including two patients at age 45 years and one patient at age 47 years) and 40% used IVF with fresh oocytes or from an insemination. Fifteen percent of women reported experiencing a spontaneous abortion (three by natural conception, one after an insemination treatment cycle, and one after a fresh IVF attempt). All miscarriages occurred in women that were >35 years at the time of oocyte cryopreservation.

When asked whether if they had changed their minds about parenting since oocyte cryopreservation, 12% said yes. Fifteen (72%) of those patients reported that since completing their oocyte cryopreservation treatment cycle, they thought more highly of parenthood, had made it more of a priority, and had been made more open to other methods of having children. Six patients (28%) believed that parenthood was now less of a priority or that they had grown too old to use their oocytes. Self-reported likelihood of using oocytes is shown in Figure 3. Sixty-three percent of patients reported that they would be willing to donate their oocytes to research if they did not use them, followed by 18% wanting them discarded. Eleven percent of patients were willing to donate the oocytes to an infertility clinic and 8% said that they would never donate or discard the gametes. In response to asking the age which respondents believed a woman would be too old to consider pregnancy using previously frozen oocytes, the majority (78%) choose the 49- to 58-year range (13% chose >58 years, 9% chose 39–48 years).

More than half of the respondents (59%) viewed their oocyte cryopreservation treatment cycle as a backup plan in case natural pregnancy became impossible. Thirty-eight percent believed that oocyte cryopreservation was both a backup plan as well as a means to defer conventional reproduction. Only 3% believed that oocyte cryopreservation was strictly a means to defer conventional reproduction. Half of the patients (53%) believed that the oocyte cryopreservation experience was empowering, whereas 36% found it empowering as well as anxiety producing; 6% believed that it was purely anxiety producing, and 5% found it neither.

When asked to rate security regarding their reproductive future before and after oocyte cryopreservation, 53% reported an increase in their security (53 from poor to fair, 33 from fair–excellent) and only 3% reported a decrease in security. Of the patients reporting a decrease, most had been told that they had impaired fertility since their oocyte cryopreservation treatment cycle. Some patients had even failed a

subsequent fresh IVF treatment, and two other patients only had one–five oocytes available for cryopreservation.

DISCUSSION

Oocyte cryopreservation, if completed by age 38, may be more cost effective than requiring a patient to undergo IVF at an age when success rates are much lower and the chance for aneuploidy and miscarriage are much higher (25–27). In addition, women <35 years at the time of oocyte cryopreservation have the highest chance of a live birth. In our current survey population, more than 80% of respondents were >35 years at the time of oocyte cryopreservation and the average age of pursuing oocyte cryopreservation treatment was 38 years. This indicates that these women are undergoing fertility preservation at a later-than-intended time thereby limiting their ultimate chances of success. Patients confirmed that they would have preferred to undergo oocyte cryopreservation at an earlier age and chose a younger ideal age than the actual age they were treated. Most patients stated that the reason for delaying their oocyte cryopreservation treatment was that they were unaware of the technology or did not think it was readily available.

As women continue to delay childbearing, it is the responsibility of reproductive health care providers to ensure that they are not becoming involuntarily infertile or childless due to a lack of education or awareness. In one study, almost 90% of undergraduate students reported that they desired to become parents in the future, with only 2% planning to have their first child after the age of 35 years. This represents a major discrepancy between cited parenting intentions and actual societal trends (24).

It has been demonstrated worldwide that women lack awareness regarding their natural decline in fertility (6, 28–30). Our study examined a unique population that was not only aware of the decline but also proactive about attempting to secure their reproductive future. As expected, patients that had undergone oocyte cryopreservation were relatively knowledgeable about when a woman is most fertile and when natural fertility decline occurs, mostly as a result of their own educational or personal research. However, 25% of the treated patients admitted they believed that they had not been adequately educated regarding a woman's reproductive future before their initial oocyte cryopreservation consultation.

Due to recent technological advances in ART, awareness of fertility decline is not the only area that merits education. Women advancing in age who have not yet had or completed their families should be made aware of fertility preserving options such as oocyte cryopreservation. In some clinics, success with this technology has mirrored fresh IVF and thus represents a viable reproductive alternative (19). Only one-third of our patients stated that they had previously discussed oocyte cryopreservation with their treating gynecologist. The annual gynecology visit offers a unique opportunity to assess a woman's overall health including her awareness of fertility trends and individual childbearing plans and desires. At present, we believe that fertility preservation should be included in the discussion where

appropriate. In addition, the stigma associated with oocyte cryopreservation should be minimized, as there should be no shame in having the desire for a family at a time when it is most appropriate.

Although the choice to delay childbearing is complex, most of our patients reported that they were unable to pursue family building earlier due to lack of a partner (or less commonly, being with the wrong partner), which is in agreement with previous studies reporting lack of partner as the most common reason for delay (31, 32). This situation is usually not purposeful and mostly unanticipated. Therefore, although many women admit that fertility is important to them with having family desirable, they sometimes find themselves in a social situation not conducive to childbearing. Oocyte cryopreservation affords these women more time to consider their reproductive future without the added stress of worrying about ovarian age. In addition, it is clear that women have a strong desire to bear genetically linked children. Many women admitted that they would choose to forgo carrying or having a child if it was not genetically theirs.

The primary limitations of this study include the anonymity, the small sample size, and those inherent to unvalidated surveys, namely recall and selection bias. We queried our study population anonymously as we believed that it would increase response rate by providing patients with a greater opportunity to respond truthfully to difficult/personal questions. The anonymity reduced our ability to make associations between responses and pertinent history (such as number of oocytes thawed per pregnancy), which would have been helpful to oocyte cryopreservation providers. Our response rate was consistent with online survey response rates but reflects less than 50% of those who underwent oocyte cryopreservation at our center (33). Because this is a select group of women from one center, these opinions certainly do not reflect those of all women delaying childbearing. In addition, the answers to some of the survey questions may have been more interesting and accurate if asked shortly after the procedure was performed. One area of knowledge that could have been addressed in the survey was patient's understanding of risks of pregnancy at advanced maternal age. It is also hard to draw conclusions regarding success or natural conception after oocyte cryopreservation as the number of pregnancies is limited. However, it also may be too early to assess reproductive outcomes after oocyte cryopreservation as many women have not yet returned to use their oocytes.

Women electing oocyte cryopreservation at our center know about age-related infertility, yet continue to delay childbearing. Oocyte cryopreservation popularity appears to be gaining and may soon become one of the mainstream ways to preserve reproductive potential. Furthermore, oocyte cryopreservation may increase a woman's security regarding her ability to bear her own genetic offspring, universally ranked above nonbiologic procreative choices, a testament to genetics being a driving force behind mankind's urge to reproduce.

Acknowledgements: The authors thank the embryology staff, nurses, and physicians at the New York University Fertility Center who have contributed to the care of the

patients and especially to Caroline McCaffrey and Lucy Lu for facilitation of this project.

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SUPPLEMENTAL APPENDIX

ELECTIVE EGG FREEZING: WHO IS DOING IT AND HOW DO THEY FEEL ABOUT IT?

1. How old were you when you froze your eggs?
 - a. Younger than 33 years
 - b. 33–35 years
 - c. 36–38 years
 - d. 39–41 years
 - e. Older than 42 years
2. What was the total number of eggs that you froze?
 - a. 1–5
 - b. 6–10
 - c. 11–20
 - d. More than 20
 - e. I do not know how many eggs I froze
3. With which race or ethnicity do you identify? Please select all answers that apply.
 - a. American Indian or Alaska Native (including all original peoples of the Americas)
 - b. Asian (including Indian subcontinent and Philippines)
 - c. Black or African American
 - d. Hispanic
 - e. Middle Eastern
 - f. Native Hawaiian or Pacific Islander
 - g. White or Caucasian
 - h. I would prefer not to answer this question
 - i. Other (please specify)
4. With which religion do you identify?
 - a. Buddhism
 - b. Catholicism
 - c. Christianity
 - d. Chinese Traditional Religion
 - e. Hinduism
 - f. Islam
 - g. Judaism
 - h. Atheism or agnosticism
 - i. No organized religion, but I am spiritual
 - j. I would prefer not to answer this question
 - k. Other (please specify)
5. What is your marital status?
 - a. Never married
 - b. Married
 - c. Separated
 - d. Divorced
 - e. Widowed
6. At the time of your egg retrieval, were you in a relationship?
 - a. No
 - b. Yes
7. Has a physician ever told you that you may have impaired fertility?
 - a. No
 - b. Yes, before my egg retrieval
 - c. Yes, after my egg retrieval
8. At what age does the average woman start experiencing a decline in fertility?
 - a. 18–28 years
 - b. 28–34 years
 - c. 35–38 years
 - d. At more than 38 years
9. At what age is the average woman most fertile?
 - a. 18–28 years
 - b. 28–34 years
 - c. 35–38 years
 - d. At more than 38 years
10. How did you first learn about elective egg freezing? Please select all answers that apply.
 - a. Friend
 - b. Internet
 - c. TV/magazine
 - d. Obstetric/gynecologist practitioner
 - e. Medical doctor
 - f. Other (please specify)
11. Do you believe that you were sufficiently educated regarding the natural age-related fertility decline before meeting with the physicians at New York University Fertility Center?
 - a. No
 - b. Yes, due to previous education
 - c. Yes, due to the media
 - d. Yes, due to my obstetric/gynecologist practitioner
 - e. Other (please specify)
12. Do you wish that you had undergone elective egg freezing at an earlier age?
 - a. No
 - b. Yes, but I was not aware of the technology or did not think that the technology was readily available
 - c. Yes, but I could not afford the procedure
 - d. Yes, but I was not ready at an earlier age
 - e. Yes, but I was not concerned about my reproductive future
 - f. Other (please specify)
13. In your opinion, what is the ideal age for egg freezing?
 - a. 18–28 years
 - b. 29–34 years
 - c. 35–38 years
 - d. At more than 38 years
14. How important is fertility to you?
 - a. Important
 - b. Somewhat important
 - c. Not important
15. Rank the following items in order of priority for your life (career, health, quality of life, future fertility)
 - a. 1st priority
 - b. 2nd priority
 - c. 3rd priority
 - d. 4th priority
16. Rank the order in which you would use the following methods to have a child (natural conception, assisted reproduction with my eggs, egg donation, adoption, I would rather not have children)
 - a. 1st choice
 - b. 2nd choice
 - c. 3rd choice
 - d. 4th choice
 - e. 5th choice

17. Why have you not pursued having a child earlier? Please select all answers that apply.
- Professional reasons
 - Financial reasons
 - No partner
 - Too large of a commitment
 - Other (please specify)
18. Would childbearing have been an option earlier if your workplace had been more flexible?
- No
 - Yes
19. Do you think that there is a social stigma surrounding elective egg freezing?
- No
 - Yes
20. Does the media give you the impression that motherhood at an older age is a viable option?
- No
 - Yes
21. Have you thawed your eggs?
- No
 - Yes
- If you answered yes, please indicate whether you achieved pregnancy with your thawed eggs.
22. Have you gotten pregnant or had a child since you froze your eggs?
- No
 - Yes
- If you answered yes, please indicate whether you achieved pregnancy or had a child and whether it was through natural conception, assisted reproduction, or adoption.
23. Have you changed your mind about future parenting since freezing your eggs?
- No
 - Yes
- If you answered yes, please indicate your reasons for doing so.
24. If you chose not to use your eggs, given the choice, would you donate them or discard them?
- Donate them to research
 - Donate them to an infertility clinic
 - Discard them
 - I would never donate or discard them
25. Do you consider your frozen eggs to be a means to defer conventional reproduction or a backup plan in case natural pregnancy is not possible?
- A means to defer conventional reproduction
 - A backup plan in case natural pregnancy is not possible
 - Both a means to defer conventional reproduction and a backup plan in case natural pregnancy is not possible
26. At what age do you think a woman is too old to attain pregnancy with frozen eggs?
- 28–38 years
 - 39–48 years
 - 49–58 years
 - At more than 58 years
27. How likely do you think you are to use your frozen eggs?
- Very unlikely
 - Somewhat likely
 - Very likely
28. Did you find the egg freezing process to be more anxiety provoking or empowering?
- Anxiety provoking
 - Empowering
 - Equally anxiety provoking and empowering
 - Neither anxiety provoking nor empowering
29. How would you rate your security regarding your reproductive future before you froze your eggs?
- Poor
 - Fair
 - Excellent
30. How would you rate your security regarding your reproductive future after you froze your eggs?
- Poor
 - Fair
 - Excellent