



The perspective of health professionals on the factor of 3rd persons in assisted reproductive techniques

Yesim Aksoy Derya¹, Tuba Ucar¹, Sermin Timur Tashan²

¹ Inonu University Faculty of Health Sciences Department of Midwifery, Malatya, Turkey

² Inonu University Faculty of Health Sciences Department of Nursing, Malatya, Turkey

Received 02 December 2017; Accepted 29 March 2017

Available online 12.04.2017 with doi: 10.5455/medscience.2017.06.8617

Abstract

This study was planned with the aim of determining the perspective of health professionals on the factor of 3rd persons in assisted reproductive therapy techniques. The study, which is cross-sectional and descriptive, was conducted at a university hospital in the province of Malatya between the dates April and June 2016. After a power analysis, the sample size was determined as 405 health professionals. In the statistical analysis of the data, the study used means, standard deviations and percentage distributions. Among the participants with the mean age of 2.77371, 62.7% were women and 83.5% were nurses. 27.2% stated that legal permission should be provided in assisted reproduction for oocyte donation with a 3rd person, surrogacy and sperm banks. On the other hand, 50.4% of the participants stated that they may recommend their patients other countries for operations that concern 3rd persons. It was found that the reason participants did not find these techniques appropriate was morals/ethics for 69.6% and religious reasons for 77.3%. 39.7% of the participants stated that, in a case where the only choice left for having a child is assisted reproductive methods that require a 3rd person, they would accept infertility and do nothing. The ratio of people who stated they would accept treatment was 19%. Among the participants who said they would accept treatment, 83.1% would absolutely choose someone they do not know. Additionally, 52.3% stated that they would not want themselves or their spouses become donors. Consequently, only 27.2% of health professionals stated that assisted reproductive techniques with 3rd persons should be legal. On the other hand, 50.4% stated they may forward their patients to other countries for these methods. It was seen that health professionals experienced a dilemma regarding this subject especially on grounds of morals/ethics and religious concerns.

Keywords: Oocyte donation, health professionals, sperm bank, surrogate motherhood, 3rd persons in assisted reproductive techniques

Introduction

The ever-changing fields of work related to reproductive medicine lead to an emergence of various treatment options regarding assisted reproduction [1,2]. These diverse treatment options remove obstacles between individuals and having children [3]. New developments include surrogacy by a woman or usage of oocytes or sperm by donation for couples who cannot get pregnant with natural methods [1,2].

There are different ways of legislation around the world regarding assisted reproductive techniques with third person. According to the 2013 data of the Center for Disease Control, oocyte donation was used in approximately 10.5% of all assisted reproduction techniques used in the United States of America [4]. Canada does not legally allow oocyte donation, but couples who have IVF are allowed to willingly donate a part of their embryos [5]. While oocyte donation is allowed in Denmark, number of voluntary donors is insufficient [6]. In France, sperm and oocyte donation is seen as donation to the human body, just as blood and organ donations [7]. On the other hand, the United States allows oocyte donation in exchange for a fee [5]. Surrogacy is allowed in the United Kingdom with the condition that it is non-commercial, and the surrogate mother may be the baby's mother genetically, or just gestationally [2]. Other countries where surrogacy is legal are; India, Australia, Greece,

Israel and the United States [8]. In countries where assisted reproductive treatments with 3rd persons are legal, these operations are inspected by comprehensive medical policies. Especially because these methods are highly risky regarding genetically transmitted diseases and contagions, it is compulsory that male and female candidates undergo the required genetic and serologic tests to become donors [9].

Assisted reproductive techniques with a third person were banned for the first time in Turkey with the "Legislation Regarding Assisted Reproduction Treatment Centers" published in 1987 in the Official Gazette issue 19551. In the following years, various regulations were made in the legislation in parallel to the developments in assisted reproduction techniques. Finally, with the "Legislation Regarding Assisted Reproductive Treatment Applications and Assisted Reproduction Treatment Centers" in 2014, it was stated that it is prohibited to use donors, obtain embryos using donors, use embryos obtained using oocyte and sperms taken from candidates on other candidates, or use those taken from non-candidates on candidates. Additionally, in the case of finding a center and/or center personnel that take part in conduct such as patient referral, encouragement and mediation regarding operations with third persons as in violation of the legislation, activities of the center are suspended for three months, and the license/operating permission of the center is canceled in case of repeated violation [10]. Additionally, individuals who want to have children may have children with various methods without complying with legal procedures [3]. This situation with an increasing tendency in the Turkish society is among the most interesting subjects within bioethics [11]. This study was conducted with the aim of finding out the perspective of health professionals on assisted reproductive techniques with third persons.

*Corresponding Author: Yeşim Aksoy Derya, Inonu University Faculty of Health Sciences Department of Midwifery, Malatya, Turkey
E-mail: yesim.aksoid@inonu.edu.tr

Material and Method

The study, which is cross-sectional and descriptive, was conducted at a university hospital in the province of Malatya between the dates April and June 2016. The population of the study consisted of all doctors, midwives and nurses employed at the hospital. The total numbers of doctors, midwives and nurses at the hospital were 549, 58 and 772 respectively (N=1379). The power analysis revealed that 352 health professionals would be the minimum number of participants to provide 5% level of significance, 97% confidence interval and a population representation rate of 80%. In order to adjust for potential data loss, the sample size was increased by 15% and 405 health professionals were reached. The health personnel who accepted to take part in the study were selected from among the population by non-probability random sampling. Based on the principle of impartiality, the personnel of the Obstetrics and Gynecology Department, and the In-Vitro Fertilization (IVF) Center, who are obliged to abide by the legislation, was not included.

The survey form developed by the researchers was used as the data collection tool in the study. The survey form consisted of 21 questions regarding the perspectives of health professionals on cases where a third person is included in the treatment process (sperm banks, oocyte donation and surrogacy), in addition to those collecting descriptive information about the personnel (age, sex, occupation, marital status, educational level, economic status and whether they have children) [1,2,5-8,12].

Statistical Analysis

The data were analyzed in the SPSS 16.00 software. In the statistical analysis of the data, means, standard deviations and percentage distributions were used. Level of significance was accepted as $p < 0.05$ [13].

Ethical Regulations

For carrying out the study, ethical approval was received from the Health Sciences Studies Scientific Research and Publications Ethics Board of İnönü University (Decision No:2016/3-13). Written permission was also taken from the hospital in question. Before starting the study, participants were informed about the study, told that their personal information would be protected, and the volunteers were included in the study.

Table 1 shows the distribution of the descriptive characteristics of the participants. Among the participants with the mean age of 28.77 ± 3.71 , 62.7% were women and 83.5% were nurses. 53.6% of the participants worked at internal departments, and 49.6% worked at patient services. Among the participants, 50.6% of whom were married, 82.2% stated that their income is equal to their expenditure, 81.5% said they have nuclear families, and 62% stated to have children.

Table 1. the distribution of the descriptive characteristics of the participants (n=405)

Variable	(Mean \pm SD)	
Age	28.77 \pm 3.71	
	n	%
Gender		
Women	254	62.7
Man	151	37.3
Profession		
Nurses	338	83.5
Assistant physician	54	13.3
Midwife	13	3.2
Working Department		
Internal department	217	53.6
Surgical department	188	46.4
Working Unit		
Polyclinic /Blood collection	82	20.2
Service	201	49.6
Operating room	99	24.5
Emergency	23	5.7
Income Level		
Income less expense	26	6.4
Income equal to expense	333	82.2
Income over expense	46	11.4
Marital Status		
Married	205	50.6
Single	200	49.4
Family structure		
Nuclear	330	81.5
Traditional	55	13.6
Fragmented	20	4.9
Having children status		
Yes	154	38.0
No	251	62.0
Total	405	100.0

Table 2 contains the responses of the participants on general statements regarding the factor of 3rd persons in assistive reproduction techniques. 40% of the participants stated that operations of oocyte donors, surrogacy and sperm banks where 3rd persons are involved should stay prohibited, while 69.6% gave moral/ethical ground and 77.3% gave religious grounds as reasons for opposing these. 50.4% stated that they may recommend other countries for their patients to receive operations with 3rd persons, while 45.9% stated that they would not.

Table 2. Distribution of general opinions on the factor of the 3rd person in assistive reproduction techniques

Expression	n	%
Receiving services in Turkey for utilizing 3rd persons in assistive reproduction techniques		
Should be kept prohibited	162	40.0
Undecided	133	32.8
Should be allowed	110	27.2
Utilizing 3rd persons in assistive reproduction techniques, regarding moral/ethical issues		
I condone	123	30.4
I do not condone	282	69.6
Utilizing 3rd persons in assistive reproduction techniques, regarding religious issues		
I condone	92	22.7
I do not condone	313	77.3
Recommending other countries for patients to utilize 3rd persons in assistive reproduction techniques		
I would	204	50.4
I would not	186	45.9
Undecided	15	3.7
Total	405	100.0

Table 3. Distribution of individual preferences regarding the factor of 3rd persons in assistive reproduction techniques

Individual Preference	n	%
Which of the following would you do if the only way for you to have a child is to try sperm banks / oocyte donation / surrogacy? (n= 405)		
I accept infertility and do nothing	161	39.7
I adopt	152	37.6
I accept the treatment	77	19.0
I decide to divorce	15	3.7
Donor preferences of participants who accept the treatment (n= 77)		
Absolutely a stranger	64	83.1
Close relative / friend	7	9.1
Anyone	6	7.8
Case of own self or spouse being a donor (n= 405)		
I do not accept	212	52.3
No response	159	39.3
I accept	22	5.4
I accept only for close relative / friend	12	3.0
Reasons for not accepting own self or spouse being a donor *(n= 212)*		
I do not accept because I do not find it appropriate in a religious sense	118	55.6
I do not accept because I do not find it appropriate in terms of morals/ethics	113	53.3
My spouse/family would not accept	104	49.0
I do not accept because of the risks of transference of genetic traits	85	40.1
I do not accept because I do not want to put myself in risk in terms of health	63	29.7

*Percentages were considered over “n” as the statements were more than one.

Table 3 shows the distribution of individual preferences regarding the factor of 3rd persons in assistive reproduction techniques. 39.7% stated that they would accept infertility and do nothing in the case that the only way they could have a child is to use assistive reproduction techniques with involvement of 3rd persons. On the other hand, 19% said that they would accept treatment. 83.1% of the participants who accepted treatment said the donor must be someone they do not know. It was also found that 52.3% of the participants would not want themselves or their spouse be a donor, and the primary reason for not wanting this was “disapproval based on religious grounds” by 55.6%.

Discussion

Assistive reproduction techniques with the involvement of third persons have become frequently used methods, although they lead the parties to experience a complex process in terms of ethics, genetics, law, economics, societal and psychological issues [1,12]. In this study where opinions of health professionals were analyzed on this matter that is not legally allowed in Turkey, 40% of the participants stated that assisted reproduction techniques which involve 3rd persons should stay prohibited, while 32.8% were undecided. Participants who responded in favor of these techniques being legalized constituted 27.2%. On the other hand, it was a noteworthy finding that almost one out of all two participants 50.4% stated that they would direct their patients to other countries for referral to these methods. This may be interpreted as some ethical dilemmas experienced by health professionals in terms of whether this issue is suitable for Turkish cultural

structure or not. This idea of ours is supported by the result that 69.6% provided moral/ethical reasons and 77.3% provided religious reasons for disapproving these methods. Similarly, Inhorn (2006) also reported that techniques with the involvement of 3rd persons created controversy in terms of religion in Egypt and Lebanon, where Islam is dominant. Inhorn also added that these techniques inspire ethical dilemmas in Muslim individuals such as “How will the moral dimension be affected in terms of my marriage? Do these techniques carry a potential of incest? How will the spiritual dimension be affected in terms of blood relation and family life?” [14]. These dilemmas that create anxiety in terms of Islamic belief may also create similar or different controversies in countries where other beliefs are dominant. For example, in France, it is stated that sperm and oocyte donation, just like blood or organ donation, is a contribution to the human body, and people who donate are altruistic people [7]. On the other hand, it was reported that having a child who does not share biological traits of both parents is a situation that creates the most anxiety in the United States [15]. Similarly, Li (2010) also stated that sperm usage of human-assisted reproduction technologies contributes greatly in social harmony, family happiness and advancement of relevant science and technology; however, this situation leads to a set of ethical issues [16]. Considering this aspect, it may be seen that the religious, moral, ethical and cultural values of one’s society are significant factors influential on the opinions regarding these methods.

39.7% of the participants stated that, in a case where the only choice left for having a child is assisted reproductive methods that require a 3rd person, they would accept

infertility and do nothing. The ratio of people who stated they would accept treatment was 19%. Among the participants who said they would accept treatment, 83.1% would absolutely choose someone they do not know, while 9.1% stated they could want a close relative / friend to be the donor. In the literature, similarly, it is emphasized that donors such as close friend, sibling or parents are preferred significantly less than donors whose identities are not known [5]. Rubin et al., in their study with 22 couples who became parents by oocyte donation, reported that receivers want to know about the donors only with the purpose of having a healthy child and knowing about potential problems that are transmittable via genetics. They also added that further desires to receive information would lead to focusing on donor shortcomings, difficulty in selection and psychological dilemma [17]. Our finding is similar to those in the literature.

In the study, 52.3% of the participants stated that they would not want to be donors themselves or their spouses to be donors, and the primary reason for this was “religious disapproval” by 55.6%. Other given reasons were the following in order; I disapprove based on morals/ethics (53.3%), my spouse/family would not approve (49%), I find it risky regarding transfer of genetic traits (40.1%), and I find it risky in terms of health (29.7%). In addition to disapproval based on religious and moral/ethical reasons, the reasons given on genetic traits and health risks are noteworthy. It may be seen that similar reasons are listed in studies on different countries [4,7,18,19]. Serre stated that sperm and oocyte donation is widely used in France; however, this brings about concerns regarding the possibility that the potential relationship between the offspring of anonymous donors will increase the frequency of cases of biological relations and autosomal recessive diseases. Additionally, they also indicated that inseminations with anonymous donors contribute to 0.46% of births out of consanguineous marriage and 0.01% of recessive diseases in France [7]. In Klitzman’s study, it was stated that potential donors do not have sufficient information regarding medical and genetic issues and therefore informed consent should be taken [4]. In Kenney and McGowam’s study on oocyte donors, it was stated that the awareness of physical and psychological risks before and after operation did not correspond, and thus the operations created more difficult situations [18]. Additionally, it was emphasized that surrogacy affects the health of the mother and the child by eroding the natural bond that may emerge between a mother and a child, and it is a situation that exploits a woman’s labor. Another health risk that causes anxiety is the ideas regarding the possibility of the child’s future prosperity level being affected by the ambiguous behaviors of reproduction in surrogacy cases [19]. Moreover, various psychological health issues may arise out of individuals born out of pregnancies using donors looking to search for information in later parts of their lives and trying to find their biological parents [4,7,19]. In the literature, while it is

stated that having information may be harmful psychologically, it is also emphasized that this information will be advantageous in early diagnosis of various serious cancer and genetic disease cases, and therefore its benefits outweigh the potential risks [4,7]. Accordingly, it is observed that anxiety is experienced in terms of genetic traits and health risks by both the receiver and the donor, as the individual born out of a pregnancy achieved by donation. The finding of the study that health professionals would not want themselves or their spouses to be donors due to genetic traits and health risks is in agreement with the literature.

Conclusion and Recommendations

In the study, 27.2% of the health professionals stated that assistive reproduction techniques with the involvement of 3rd persons should be legalized in Turkey. About three out of all four participants stated that these methods are not compatible with moral/ethical and religious values. The ratio of participants who stated they may recommend different countries for their patients to receive these treatments was 50.4%. Furthermore, 19% stated that they would accept treatment if the only way to have a child is receiving assisted reproduction treatment where a 3rd person is needed. About half of the participants stated they would not want themselves or their spouses become donors. According to these results, it is recommended that;

- Legal feasibility of assisted reproduction techniques where a 3rd person is needed should be evaluated especially in terms of moral/ethical and religious angles and discussed comprehensively,
- Comprehensive society-oriented studies should be conducted regarding potential risks and benefits using the opinions of infertile couples on this issue.

References

1. Bredenoord AL, Lock MTWT, Broekmans FJM. Ethics of intergenerational (father-to-son) sperm donation. *Hum Reprod.* 2012;27(5):1286-91.
2. Imrie S, Jadva V. The long-term experiences of surrogates: relationships and contact with surrogacy families in genetic and gestational surrogacy arrangements. *Reprod Biomed Online.* 2014;29(4):424-35.
3. Ergüneş S. Yapay Döllenme. *Sağlık Hukuku Makaleleri II.* İstanbul Barosu Yayınları, İstanbul, 2012;167-78.
4. Klitzman R. Buying and selling human eggs: infertility providers’ ethical and other concerns regarding egg donor agencies. *BMC Med Ethics.* 2016;17(1):71-81.
5. Boutelle AL. Donor Motivations, Associated risks and ethical considerations of oocyte donation. *Nurs Womens Health.* 2014;18(2):113-21.
6. Larsen EC, Petersen K, Andersen AN, Ziebe S. Egg-donation in Denmark. *Ugeskr Laeger.* 2009;171(39):2822-5.
7. Serre JL, Leutenegger AL, Bernheim A, Fellous M, Rouen A, Siffroi JP. Does anonymous sperm donation increase the risk for unions

- between relatives and the incidence of autosomal recessive diseases due to consanguinity? Hum Reprod. 2014;29(3):394-9.
8. Kılıç S, Uçar M, Türker T, Koçak N, Aydın G, Günay A, Gençtürk D.GATA Hemşirelik Yüksek Okulu öğrencilerinde taşıyıcı anneliğe yönelik tutumun belirlenmesi. Gülhane Tıp Dergisi. 2009;51:216-9.
 9. Garrido N, Zuzuarregui JL, Simon C, Remohi J, Pellicer A. Sperm and oocyte donor selection and management: experience of a 10 year follow-up of more than 2100 candidates. Hum Reprod. 2002;17(2):3142-8.
 10. Üremeye Yardımcı Tedavi Uygulamaları ve Üremeye Yardımcı Tedavi Merkezleri Hakkında Yönetmelik. Resmi Gazete Tarihi: 30.09.2014, Sayı: 29135.
 11. Ürem M. Kadın Vücudu ve Etik Sorunlar. Sağlık Hukuku Makaleleri II. İstanbul Barosu Yayınları, 2012, ss.79-102.
 12. Sydsjö G, Lampic C, Bladh M, Svanberg AS. Oocyte and sperm donors' opinions on the acceptable number of offspring. Acta Obstet Gynecol Scand. 2014;93(7):634-9.
 13. Büyüköztürk Ş. Sosyal Bilimler için Veri Analizi El Kitabı. Ankara, Pegem A Yayıncılık, 2007.
 14. Inhorn MC. Making muslim babies: ivf and gamete donation in sunni versus shi'a Islam. Cult Med Psychiatry. 2006;30(4):427-50.
 15. Shreffler KM, Johnson DR, Scheuble LK. Ethical problems with infertility treatments: Attitudes and explanations. Soc Sci J. 2010;47(4):731-46.
 16. Li Y, Xu HL. Ethical thinking on sperm use in human assisted reproductive technology. Zhonghua Nan Ke Xue. 2010;16(4):377-80.
 17. Rubin LR, Melo-Martin I, Rosenwaks Z, Cholst IN. Once you're choosing, nobody's perfect: is more information necessarily better in oocyte donor selection? Reprod Biomed Online. 2015;30(3):311-8.
 18. Kenney NJ, McGowam ML. Looking back: egg donors' retrospective evaluations of their motivations, expectations, and experiences during their first donation cycle. Fertil Steril. 2010;93(2):455-66.
 19. Beier K. Surrogate motherhood: a trust-based approach. J Med Philos. 2015;40(6):633-52.