

## Personality Traits and Sperm Donor Related Attitudes of Potential Sperm Donors in the Novi Pazar Region of Serbia

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**Abstract:** *The paper explores motives for being sperm donor, and relevant attitudes of potential sperm donors in Novi Pazar region of Serbia: anonymity and relations with offspring resulting from their donation and relation of these attitudes with personality traits of potential sperm donors. Our results show that the strongest motive to donate is to help a childless couple. Intensity of motive - "to help childless couple" was higher in participants who had higher score on Consciousness (C). Participants with higher scores on Agreeableness (A) prefer to donate to a married couple. Most of the potential sperm donors would inform best friends, and their partners and families about being sperm donor and are interested in the outcome of their donation but would prefer to remain anonymous. Opinions about paternal disclosure are not unanimous.*

**Key words:** *potential sperm donors, personality traits, sperm donors' related attitudes, Novi Pazar.*

### INTRODUCTION

In the contest for curing infertility, sperm donors and their donations are important source of benefits for the society. Donors' rights (regulated by law) towards offspring resulting from their donation, their motives for donating, anonymity, attitudes about categories of people they want to donate sperm, are of great importance for clinicians, social workers and well-being of the child [13,15]. With open systems of donation [9,10,22], attitudes of sperm donors relation with offspring and their anonymity become more important. [3,4,5,6, 10].

#### Motives and anonymity

The wish to help others is the main reported sperm donation motive [3,4,5,6,21,22].

Sperm donor privacy protection regulations vary from country to country. In some countries, anonymity of the sperm donor is mandatory (Denmark, Israel), in others anonymous donation is illegal (including Sweden, Norway, the Netherlands, Britain, Switzerland and Australia, or Italy, where it is illegal to use donor sperm). Sperm Cryobank in Denmark cannot export sperm to countries where anonymous donation is illegal. In Canada law guarantees donor anonymity. (House of Commons of Canada, 2004 by [21]. In 1995, in one of the first surveys on semen donor attitudes (24), 89% of potential donors required confidentiality and guaranteed anonymity. Reproductive politics all around the world had changed since 1997. [15] But maintaining anonymity is still important for the vast majority of the donors in Denmark. [14]. Changes in anonymity influenced changes in the profile of sperm donors [16,21,13] and reproduction travelling [7]. Hedrih and Hedrih [12] reported relation between personality trait and anonymity of potential sperm donors in Serbia: people who are more open to experience are more ready to inform their closest relatives, while people who are prepared to inform their family tend to be somewhat more agreeable than those who are not [13].

#### Relation with offspring

A number of previous studies have reported that most sperm donors are interested in knowing the outcome of their donation [2,3,4]. Most men who register to donate sperm through the Australian Sperm Donor Registry are open to identity disclosure, but gay/bisexual donors are being significantly more likely to desire contact with children born of their donations than heterosexual donors [17]. Sperm donors from the UK (study from 1997) reported a lower level of readiness to share personal information and meet future offspring [2]. In a survey from 2006 in Germany, 43% of sperm donors were willing to meet offspring, 22% uncertain and 35% opposed [21]. This could point to certain variability in attitudes across countries, but could also be explained by the fact that the assisted reproduction through the use of sperm donations is still a relatively novel thing in Serbia, hence the large number of undecided participants. On a Serbian sample of potential sperm

donors [10] 57,5% of participants has reported interest in the outcome of their donation and 26,4% reported a neutral opinion.

### **Paternal disclosure and its importance.**

41,1% of potential sperm donors in Serbia think that parents who got child by sperm donation should have to explain to the child the way it was conceived, 29,2% are against and 29,6% are undecided [12]. Similar results were obtain in survey in Germany [21] (37% for disclose, 34% were uncertain and 29% opposed), and Western Australia (48, 9 % for disclose, 42,2%, were uncertain) [9], although many surveys confirm that couples, receiving sperm donation still don't think of a donor as a person [11,10,6]. Attitudes about paternal disclosure were in correlation with education level [9]. Jadva, Freeman, Kramer, and Golombok, [8] report that offspring of single mothers and lesbian couples learnt of their donor origins earlier than offspring of heterosexual couples and that age of disclosure is important in determining donor offspring's feelings about their donor conception.

The goal of our study was to explore relevant sperm donation related attitudes: motives for being sperm donor, anonymity and relation with potential offspring in the Novi Pazar region - a multiconfessional region of Serbia and their relations with basic personality traits operationalized by the Big Five. The results may provide data that can be used for the creation of more effective donor recruitment strategies and law regulative between sperm donors, receivers and child born as a result of their donation.

## **METHODS AND PARTICIPANTS**

### **Measures**

Measures of personality traits were obtained by using the Big Five Inventory (BFI, John & Srivastava, 1999). This 44-item inventory provides measures on 5 personality traits – Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. The Serbian/Croatian version of the inventory, which was used in this study is the version which was previously used in a number of studies in Serbia [1,18,19,20]. Measures of sperm donation related attitudes were obtained by using, the questionnaire that was based on that used by Thorn et al 2008 [21] and studies in Germany, New Zealand, Australia, UK and Sweden [9, 17, 18, 19,20] but adapted so that it would fit the context in Serbia [12]. The questionnaire consists of 40 questions, of which 15 concern sperm donations related attitudes and motives, and were thus considered, in our analyses. This questionnaire contains demographic data and question about whether a person would be interested in becoming a sperm donor, and a number of questions on attitudes about various aspects of the sperm donation process. We divided these questions into 5 groups: motivation, anonymity, finances, potential receivers of sperm donation and relations with offspring.

The study was conducted on a sample of 116 male participants. Men, aged 18-40 were asked to participate in the study. Participation in the survey was voluntary. The study was conducted in September 2010.

### **Sample characteristics:**

Most participants 69% were born in Novi Pazar, and Sjenica (14,7%), others were born in Tutin (4,3%), Prijepolje (4,3%), Kragujevac, Pančevo, Beograd, and Jagodina. The mean age of participants was 22, 52 years (min 19, max 38, SD 3,98). 92,2 % of was between 19 and 29 years of age. 95 (82,6 %) participants were students, 5(4,3%) were employed, 4(3,5%) were entrepreneurs, 5 (4,3%) unemployed, 3(2,6%) were students and employed at the same time and 3(2,6%) were students and entrepreneurs at the same time. 1 (0,9%) didn't answer this question. In our sample 10(9%) participants were married, 1 (0,9%) were divorced, 26 (23,4%) were in a long-term relationship, 72 (64,9%) were single or in a short-term relationship. 6 examinees didn't answer this question.

**Religion:** one (0,9%) declare as Buddhist, two (1,7%) as Atheist, 13 (11,3%) as Bosniak, 20 (17,45) as Christians, and 79 (68,7%) as Muslims. One participant did not answer this question.

35 (30,2%) participants stated that they would not be willing to be a sperm donor, and they were excluded from analyses relating to potential donors. Only participants who answered yes or maybe on the question about willingness to become a sperm donor were considered potential sperm donors.

## RESULTS

### Motives:

Motives were divided into 5 categories. Participants assessed the intensity of their motives for becoming sperm donors on a five-point self-assessment scale ranging from 1 (not important) to 5 (very important). The most pervasive motive for making a donation in our sample was the wish to help a childless couple. The mean reported intensity of this motive was significantly higher than the same measure of all other motives (Friedman test,  $p < 0,001$ ). The second most intensive motive was the desire to verify one's own fertility, while the mean intensity of the financial compensation motive was much lower, and in line with the mean reported intensity of the curiosity motive (the difference in mean reported intensities was not statistically significant).

### Anonymity:

Assessment of anonymity was done through several questions: about willingness to inform people in their social network about being sperm donor; willingness to know the outcome of the donation and willingness to stay anonymous after knowing the outcome of the donation. Results are shown in Table 1.

**Table 1. Percentage of willingness to informed different category of people about being sperm donor**

Will inform about being sperm donor (%)	Partner	Family	Best friends	Closest relatives
Yes	51,9	44,3	64,6	29,1
Not sure	17,7	26,6	21,5	32,9
No	7,6	27,8	13,9	36,7
Don't have	22,8	1,3		1,3

After being informed of the outcome of their donation 53 (69,7%) prefer to remain anonymous donor, only 6 (7,9%) don't like to remain anonymous, and 17 (22,4%) are not sure about anonymity in this situation.

**Relation with potential offspring** was assessed through willingness to know the outcome of their donation, willingness to meet with offspring conceived as a result of their donation, willingness to meet adult offspring in the future on a their request, should legal parents tell the child that it was conceived through a donation.

23 (31,1%) of potential sperm donors have opinion that legal parents should explain to the child how she/he is conceived; 16(21,6%) are opinion that legal parents should not tell child and 35(47,3%) are not sure should paternal disclosure be done or not by legal parents.

In our sample, 68,8% of potential sperm donors are interested in the outcome of their donation, 18,2% are not sure, and 13 % are not interested in the outcome of their donation. 37(48,1%) declare that would like to meet offspring conceived as a result of their donation, in the future, 15 (19,5%) declare that would not like to meet the offspring in the future, and 25(32,5%) are not sure. 53(69,7%) declare to be ready to meet adult child resulted from their donation on child's' request in the future, 6(7,9%) declare not to be ready to meet adult child on child's' request in the future, 17(22,4%) are not sure.

The more they are interested in the outcome of their donation, the less they prefer to stay anonymous (Spearman's correlation coefficient  $-0,271;p=0,018$ ), and more they prefer to meet offspring resulting from their donation in the future (Spearman's correlation coefficient  $+0,506;p=0,000$ ), and declare higher readiness to meet adult child on the child's request (Spearman's correlation coefficient  $+0,230;p=0,046$ ). Participants who are more interested in the outcome of sperm donations are more often of the opinion that legal parents should tell the child that it was conceived through a donation (Spearman's correlation coefficient  $+0,260;p=0,026$ ). Examination of the item intercorrelation matrix provided an impression that items about the wish for the donation to remain secret and the donor to remain anonymous may be the manifestations of some more pervasive attitudes, we have conducted a principal components analysis on these items. Three factors fulfilling the Guttman-Kaiser criteria have been extracted and results are presented in the Table 2. First factor explains interest for the outcome of donation and relation with potential offspring and second factor explains donors' willingness to remain anonymous.

Table 2. Eigenvalues and factor loadings of the anonymity related items

		Eigenvalue (variance)	Eigenvalue (percentage of variance)
Eigenvalue of the first factor		2,540	28,218
Eigenvalue of the second factor		1,684	18,711
Eigenvalue of the third factor		1,178	13,088
Item	Correlation with the first factor	Correlation with the second factor	Correlation with the third factor
Inform partner about the donation?	,293	,462	,566
Inform family?	,526	,535	,102
Inform best friends?	,518	,524	-,376
Inform closest relatives?	,514	,497	-,347
Wish to know the outcome of the donation?	,648	-,382	,038
Wish to stay anonymous in that case?	-,387	,248	,570
Wish to meet offspring resulting from donation in the future?	,636	-,532	,131
Should legal parents tell the child that it was conceived through a donation?	,547	-,015	,492
Willing to meet adult offspring resulting from donation at their request?	,610	-,414	-,006

If we look at the structure of these factors we can see that the first factor has highest loadings on items relating to willingness to know the outcome of the donation and establish contact with offspring resulting from the donation. The second factor mainly loads on items about willingness to inform various entities (family, friends...) about the donation, while the third factor seems to represent the extent to which the donor wishes for the donation to remain secret.

**Relation with personality traits:** participants with higher scores on Openness (O) prefer not to stay anonymous after knowing the result of their donation. (Spearman's correlation coefficient  $0,236;p=0,040$ ).

We found correlation between Consciousness and intensity of motive for becoming a sperm donor. Intensity of motive - "to help childless couple" was higher in participants

who had higher score on Consciousness (C) (0,270;  $p=0,020$ ). Among other motives (to explore one fertility, potential financial award, curiosity) there were no correlations with personality traits according to the BFI.

Also, correlations between preferences for various categories of receivers (married couple, heterosexual pair, lesbian pair, widow, single woman, divorced woman) and personality traits of potential donors were found: participants with higher scores on Agreeableness (A) will prefer to donate to the married couple (Spearman's correlation coefficient -0,235;  $p=0,040$ ) and tend to agree that their donation goes to the couple in permanent relationship (Spearman's correlation coefficient -0,291;  $p=0,017$ ).

## CONCLUSIONS

We can conclude that majority of potential sperm donors in our sample would prefer to stay anonymous, but nonetheless like to know the outcome of their donations. Also majority of potential sperm donors declared willingness to meet offspring resulting from their donation in the future. Relative to motives for making a sperm donation, the most pervasive reported motive was the wish to help a childless couple. Also, a number of correlations between sperm donations related attitudes and Big Five personality traits were found, but they were all of low intensity.

**Acknowledgements:** Authors want to thank to P Thorn, K Daniels and T. Katzorke for permission to use questionnaire that was based on studies carried out in Australia, New Zealand, Sweden and the UK. Parts of this research were supported by the Ministry of Sciences and Technology of Republic of Serbia Grant ON17400 and OI179002.

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**Докладът е рецензиран.**