

Demographics of men receiving vasectomies in Poland 2019–2020

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Introduction The demographics of men undergoing vasectomy in Poland has not been thoroughly evaluated. The objective of the study is to characterise patients who underwent vasectomy in 2019–2020 in terms of their motivation, the level of acceptance of the method, their social and health status and the way religion influenced their choice.

Material and methods This is a prospective observational study based on a survey taken before vasectomy. The surveys attached were collected in 2019–2020. A total number of 253 surveys were collected.

Results A total of 43 men aged between 31 and 40 constituted 56.52% of all patients. Of the patients surveyed, 123 (48.62%) were in their first stable relationship. In total, 230 participants (90.91%) declared no intention of having children. A total of 128 patients surveyed (50.59%) showed no interest in the possibility of adoption, whereas 109 (43.08%) did consider adoption. Most of the patients – 150 (59.29%), had been considering vasectomy for 1–3 years. The most popular contraceptive methods were oral contraception – 68 surveyed (26.88%) and condoms – 66 (26.09%). Vasectomy did not collide with religion in 241 cases (95.26%). Seven patients (2.77%) chose vasectomy due to a genetic defect. A total of 46 out of 243 men (18.18%) chose this contraceptive method due to their partners' health.

Conclusions Vasectomy in Poland has been performed for over 18 years, however, accessibility has been limited. Recently, the procedure has been gaining in popularity. Now the age structure and partnership status correspond with the data from other centres in the world. Our study showed positive trends of co-responsibility of both partners for procreation and family planning.

Key Words: vasectomy ↔ family planning ↔ demographics

INTRODUCTION

Vasectomy is a highly effective and safe contraceptive method available to men [1]. It is performed by cutting vas deferens and thus blocking the natural way the sperm are transported. This results in reversible sterility. Vasectomy is not 100% effective and the risk of pregnancy after a successful vasectomy in men is approximately 0.05% [2]. It is one of the most popular contraceptive methods in the US, Canada, Antipodes and many other, mostly Western-European, countries. Vasectomy has been available in Poland for over 18 years, however the popularity and social acceptance have highly increased in the

last 3 years. Men, as well as their partners have noticed the safety, efficacy and low invasiveness of vasectomy. Considering that vasectomy is a one-time procedure, its price is favourable when compared to other male and female contraceptive methods which require repeating. Despite the fact that the level of acceptance of vasectomy in Polish population is increasing, we have noticed the lack of data describing the procedure in socio-cultural context.

This study aimed to characterize patients who decided to undergo vasectomy in 2019–2020 in terms of their motivation, the level of acceptance of the method, their social, familial and health status and the way in which religion influenced their choice.

MATERIAL AND METHODS

This is a prospective observational study based on a survey that patients take before vasectomy (Figure 1). Participation in the survey and the number of questions that a patient answer is voluntary. A patient takes the survey at any moment after deciding to undergo a vasectomy. It is sent via e-mail or handed out during an appointment qualifying for the procedure. Just before the procedure, a patient signs the survey and an informed consent form. The study has ethics committee approval (Bioethical Commission of Medical University of Warsaw, KB 73/2021, 14 Jun 2021). All methods were performed in accordance with relevant guidelines and regulations. The surveys attached were collected in 2019–2020. A total number of 253 surveys were collected.

Vasectomies were performed in an outpatient clinic Veritamed, 27 Długa Street, Warsaw. Vasectomy is legal in Poland; however, it is not covered by the National Health Fund. The vasectomy in Veritamed is performed under local anaesthesia of 2% lignocaine solution which is deposited near the spermatic cord and skin of the scrotum bilaterally. The surgery usually lasts approximately 30 minutes. A blunt dissection of skin is made to isolate the vasa deferentia (no-scalpel vasectomy – NSV). The skin and subcutaneous tissue of the scrotum are usually dissected or incised medially or bilaterally. A prepared vas deferens is subsequently cut with or without resection of its fragment. There are a few methods of vas occlusion, including fascial interposition, ligation, clipping or mucosal cautery. We use the so-called Canadian technique in which we leave the testicular end

VASECTOMY – PATIENTS' SURVEY

Please answer all the questions in the form. It is important for us to amass the most accurate knowledge about the past, medical history, reproduction history and future plans and expectations in order to serve the Patient in the best way possible.

Patient's name and surname _____

Patient's date of birth _____ Age ____

Type and number of identity document _____

Marriage/stable relationship (please mark appropriate answer) 0 / 1 / 2 / 3 / >3

Marriage/relationship length _____months/ _____years

Do you want to have children in the future? yes no I don't know

Would you consider adoption if you were interested in having children? yes no

For how long have you been considering vasectomy? _____months/ _____years

Please mark your current contraceptive method

Abstinence None Condoms Oral contraception Intrauterine membrane

Intrauterine device Contraceptive patches Contraceptive injections Implants

Other (incl. interrupted intercourse) _____

Does vasectomy collide with your religion? yes no

Did you choose vasectomy due to a genetic defect? yes no

Did you choose vasectomy with regard to health?

self partners'/wives' both not with regard to health

Warsaw, date _____

_____ (legible signature of the Patient)

Figure 1. Questionnaire: Vasectomy – patients' survey.

of the vas unoccluded and thus enable the outflow of sperm into the scrotum and their absorption. The abdominal end is then occluded using mucosal cautery. The testicular end is additionally fixed externally to the tunica vaginalis surrounding the spermatic cord. Such an action minimises the possibility of recanalization, which would lead to failure of the procedure and return of fertility. This method has the lowest failure rate of 0.0–0.5% [3]. After the procedure, the patient is observed for approximately one hour and is then discharged with recommendations to avoid intense labour, intense marching and sports for about a week. Patient should not engage in sexual intercourses during the same period. A urological follow-up visit is not routinely required. The patient can interpret the semen analysis individually. The patient with azoospermia is considered sterile. The presence of rare non-motile sperm (RNMS) is also considered a successful vasectomy.

RESULTS

The survey was taken by 253 men out of a total 360 of all men vasectomized in a defined period. Some participants did not answer every question. The age of patients who underwent vasectomy ranged from 19 to 68. The youngest patient was 19 years old, and he was the only one in the group under 20, representing 0.40% of all men. Two patients (0.79%) were over 60 years old. The most numerous group consisted of 143 men aged between 31 and 40; which constituted 56.52% of all patients having undergone the procedure (Figure 2). A total of 123 participants (48.62%) were in their first stable relationship or marriage. Seventeen men (6.72%) in their second, 1 man (0.40%) in the third and 1 (0.40%) in the fourth relationship. Twelve participants (4.74%) were not involved in any stable relationship. Ultimately, 99 men (39.13%) refused to answer the question about their relationship status (Figure 3).

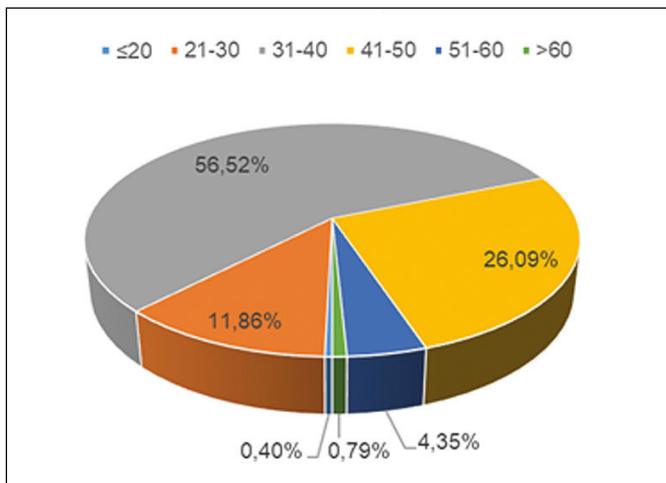


Figure 2. Age.

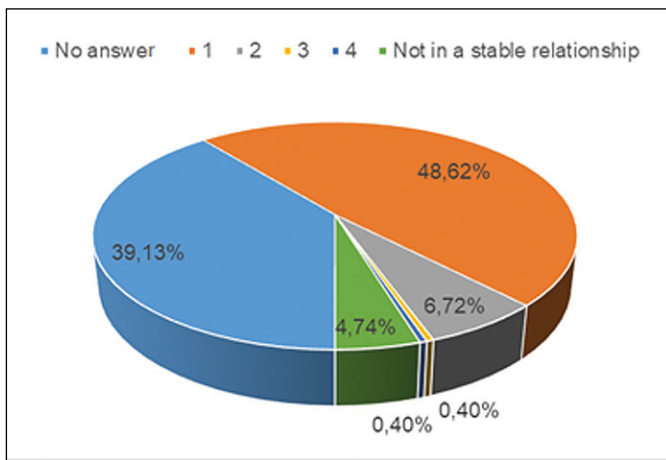


Figure 3. Number of stable relationship(s).

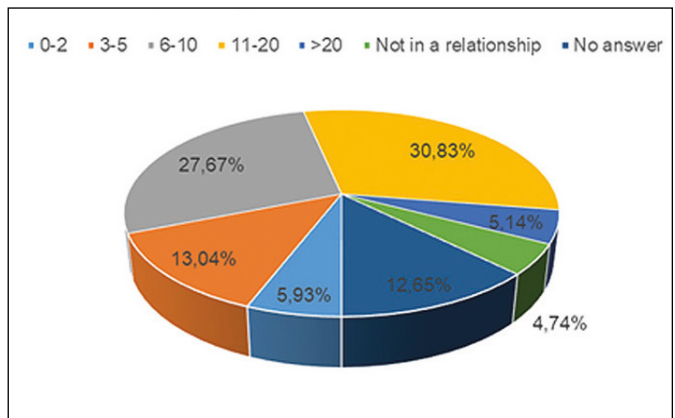


Figure 4. Duration of relationship(s) in years.

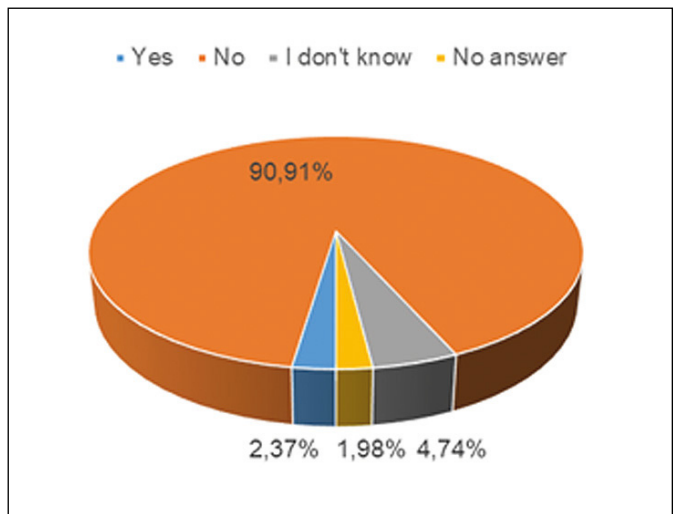


Figure 5. Do you want to have children in the future?

The most numerous group consisted of men who were in a stable relationship or marriage for 11–20 years (30.83%), followed by the couples with 6–10 years into their relationships (27.67%) (Figure 4). 230 participants (90.91%) declared no intention of having children in the future. Six participants (2.37%) declared they planned to have children, while 12 (4.74%) had no opinion in this matter. Five men (1.98%) refused to answer this question (Figure 5). Of the patients surveyed, 128 (50.59%) showed no interest in the possibility of adoption in the future, whereas not many less – 109 (43.08%), considered that possibility (Figure 6). Most of the patients – 150 (59.29%), had been considering vasectomy for 1–3 years, 74 participants (29.25%) for 1 year, whilst 21 (8.30%) for over 3 years (Figure 7). The most popular contraceptive methods used by the participants or their partners were:

- a) oral contraception – 68 surveyed (26.88%),
- b) condoms – 66 (26.09%),
- c) intrauterine devices – 25 (9.88%),
- d) intrauterine membranes – 21 (8.30%),
- e) abstinence – 12 (4.74%),
- f) contraceptive patch – 7 (2.77%),
- g) other (including interrupted intercourse) – 6 (2.37%),
- h) injections – 1 (0.40%).

A total of 29 men (11.46%) did not use any contraception and 18 participants (7.11%) refused to answer this question (Figure 8).

Vasectomy did not collide with religion in 241 cases (95.26%). For 5 participants (1.98%) the procedure stood in opposition to their beliefs. Seven men (2.77%) refused to answer that question (Figure 9). Seven patients (2.77%) chose vasectomy due to a genetic defect of the patient or their wife/partner who

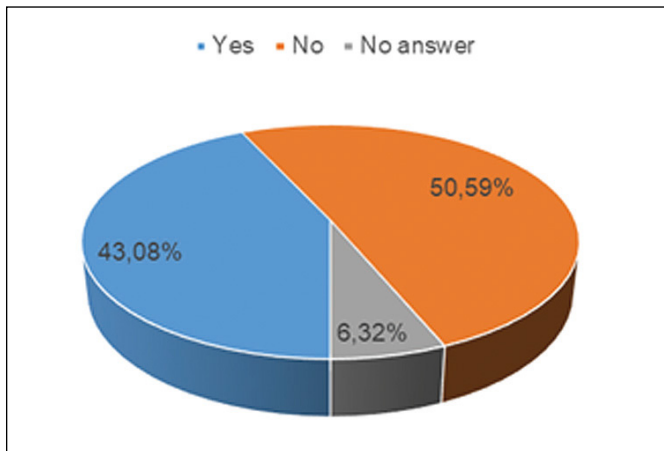


Figure 6. If you would have decided to have children, would you consider adoption?

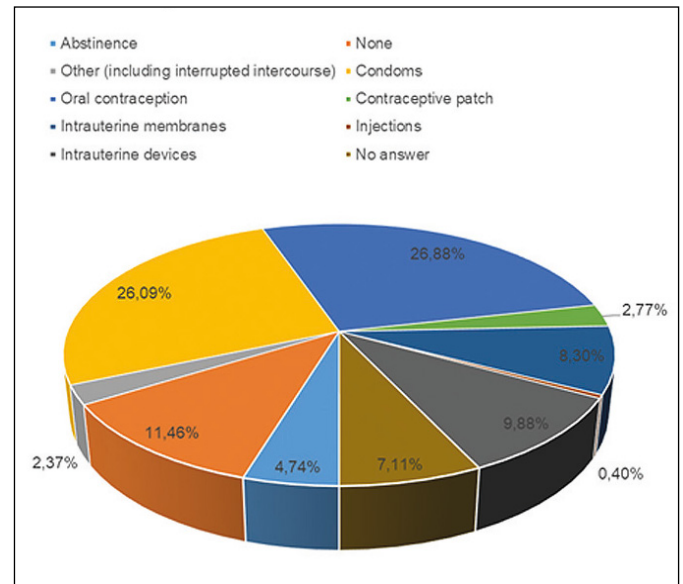


Figure 8. Currently used contraceptive methods.

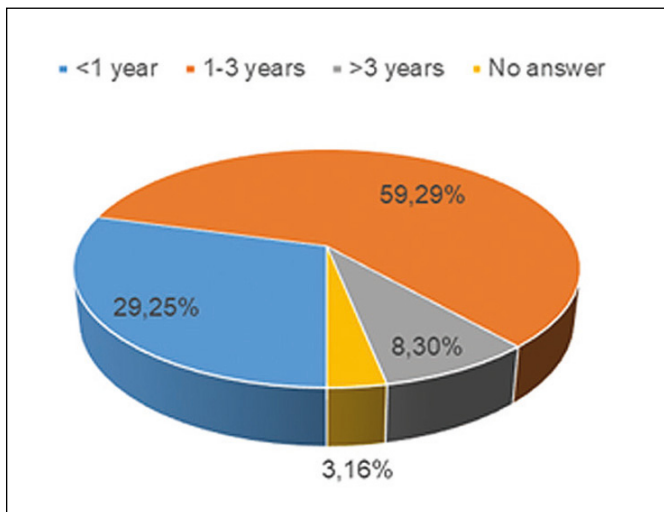


Figure 7. For how long have you been considering vasectomy?

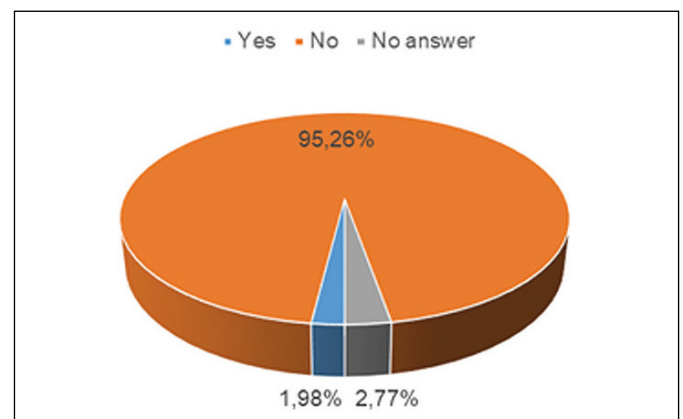


Figure 9. Does vasectomy collide with your religion?

they did not want to pass to their progeny (Figure 10). A total of 46 out of 243 men (18.18%) chose this contraceptive method due to their partners' health, 4 (1.58%) with regard to their and their patients' health and 2 (0.79%) with regard to their own health. Ten patients (3.95%) refused to answer this question (Figure 11).

DISCUSSION

Vasectomy in Poland has been performed for over 18 years, however the accessibility to the procedure was limited since it was offered mostly by one centre that had subsidiary clinics in big cities. Vasectomy was perceived as controversial because it was commonly and falsely believed to be illegal. Other reasons for it not being so popular may be found in the doctrine of the Catholic Church, dominant in Poland, which prohibits the use of pharmacological, mechanical and surgical contraceptive methods. As young generations' mentality has changed towards secularisation, liberality and equality of male and female rights, vasectomy has been gaining in popularity. Many new clinics offering vasectomy have emerged over the last few years in response to growing demand.

To undergo vasectomy, a patient must be of age (18 years old in Poland), capable of taking legal action and declare an informed consent for the procedure with understanding all of its consequences. The youngest patient was 19 years old and the oldest was 68 years old. The most numerous group consisted of men in the age ranging from 31 to 40 (56.52%). This age structure corresponds with the data from other centres in the world. In the oldest study analysed in 1961 in San Diego, which described the group of 48 patients, the average man was 28 years old, married for 4 years and having 3 children. Those patients used other contraceptive methods but were not satisfied with them for various reasons [4]. The average age of 337 married men from India who underwent vasectomy from March to June 1965 was 38.4 years. In the study from 2003 that described 1275 Swiss patients who underwent the procedure over the period of 10 years, the average age was 37.0 ± 5.9 [5]. In the study from 2009 from Nigeria the average age was 36.7 years (± 5.4). The data from 2012 from Ghana shows that among 271 patients who underwent vasectomy in 2000–2009 an average patient was 40.7 years old and had 4 children on average. The study published in 2018 in the US, analysing data from 2007–2015, shows that in 2015 in the US 527476 vasectomies were performed mostly in the age group of 35–44-year-olds, followed by the group of 25–34-year-olds [6].

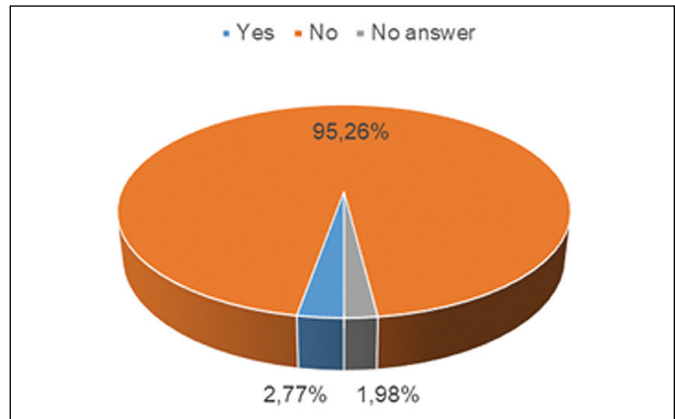


Figure 10. Did you choose vasectomy due to a genetic defect?

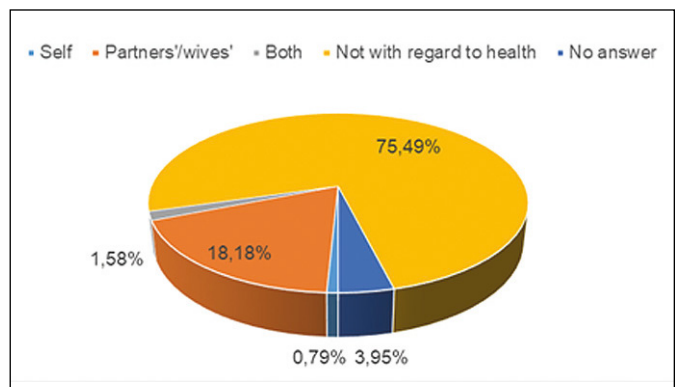


Figure 11. Did you choose vasectomy for health reasons?

Noticeably, the age range of patients in Poland in 2019–2020 is like the one from Western Europe and the US from the end of the 20th and the beginning of the 21st century.

The majority of the patients who underwent vasectomy in the clinic had been in a stable relationship or marriage, mostly for 11–20 years. Those couples usually raised children, theirs or one of the spouses', and had no intention of having more progeny. In the US vasectomy is performed almost only in married men [7]. Studies on this subject mention numerous reasons. People in their middle age want to remain sexually active, whereas the contraceptive methods that they used did not meet their expectations. With age, health status changes and contraindications for the use of hormonal contraceptives or pregnancy emerge. That induces couples to search for more effective and reliable methods. The dissatisfaction with a contraceptive method used is a frequent reason why men or couples choose vasectomy [4]. According to the survey, the most common contraceptive method was oral contraception. A long-term use of hormonal oral contraception by a woman may have a negative impact on her health, e.g., increased

risk of thromboembolism, heart attack, stroke, cervical, breast and liver cancer. Skin problems, mood swings, weight gain or decrease in libido may arise. Men who are in a stable relationship take responsibility for their spouses' health more frequently and decide to intervene within their own organism by undergoing vasectomy. Vasectomy may be treated as taking responsibility for the contraception within the dyad, releasing a female from using contraception with regard to her health and comfort. In our study, 46 patients (18.18%) decided to undergo vasectomy for their partners' health and 4 (1.58%) with regard to the health of both partners. Studies from other centres show similar results. Partners should take responsibility for the health of a woman and be equally responsible for making the decision on the contraceptive method. That attitude allows both to enjoy the intimate relationship without fear of pregnancy or health problems. Men surveyed say: „(...) now it's my time" [8]. The sense of responsibility may be seen in the decision of undergoing vasectomy in 7 cases (2.77%) for fear of passing a genetic disorder of self, partner or both. Most of the men with such an attitude were in a stable relationship. Surprisingly, 6 participants (2.37%) declare the intention of having children in the future. Even more numerous group of 109 men (43.08%) does not exclude the possibility of adopting a child in the future. The study from the US from 2013 shows that 19.6% of vasectomized patients desire to have future children. Religious men were more likely to desire children after vasectomy than atheists [9]. Our study showed that religion had no influence on the desire to have children in the future. A total of 1.98% of participants declared that the procedure stood in opposition to their belief. Interestingly, none of the men from that group declared the desire

to have either biological or adopted children in the future.

The decision to undergo vasectomy was made by majority of patients (59.29%) after 1–3 years of consideration. It has also been the time of increasing interest in vasectomy in Poland. It is possible that besides social and religious transformation this interest results from growing awareness. That awareness is followed by an increased supply of the procedure and real possibilities connected with undergoing it. It took between several months and a year to make a decision about having vasectomy for 29.25% patients.

CONCLUSIONS

The popularity of vasectomy in Poland will probably increase and more men will decide on this contraceptive method. Mostly men in a stable relationship, having satisfactory number of progenies decide to get vasectomized. Partners' health is one of the reasons men decide to take the responsibility for the fertility and thus the family, its form and status. Surprisingly, a number of the patients declare the desire to have biological or adopted children. The most common contraceptive methods amongst vasectomized men is oral contraception and condoms. Quite a large group does not use any contraception. Men who used abstinence as a contraceptive method before vasectomy can begin to enjoy the intimate life and that may impact the quality of life of both partners. Our study showed positive trends of co-responsibility of both partners for procreation. At the same time, it may indicate the direction in which sexual education and couples counselling in Poland should lead.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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