

Special Article: Sperm Function

A Sociological Approach to Vasectomized Patient's Trajectories at the Buenos Aires University Clinical Hospital "José de San Martín"

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Introduction

Vasectomy is a contraceptive method that is performed through a surgical procedure on the vas deferens, which transports sperm, and is used as a method of contraception. The success rate for vasectomy is high, 99.7%, with typically low complication rates ranging between 1% to 2% [1]. The British Andrology Society guidelines for the assessment of post vasectomy semen samples recommend that initial assessment should be undertaken 16 weeks post vasectomy and after the patient has produced at least 24 ejaculates. If no sperm are observed in the freshly produced seminal fluid specimen by direct microscopy, the sample should be centrifuged and the pellet examined to assess the presence of motile and non-motile spermatozoa. At least two consecutive semen samples sperm free ejaculates should be examined before clinicians should ad-

Abstract

According to Argentinian Ministry of Health records the number of patients requesting vasectomy increased twelve times in public hospitals, between 2015 and 2019. Physicians and specialists account for this change in recent years, arguing, among other reasons, a cultural change where the male assumes an active position in contraceptive methods. This research addresses vasectomized patient's trajectory at the Buenos Aires University Clinical Hospital "José de San Martín". Our aim was to define from a sociological point of view if we are actually witnessing a cultural change. While considering the last ten years (2012-2022), through a diachronic study analyzing patient's demand at the Male Fertility Laboratory (n: 1136) we found out that although the main motivation is fertility a minority (6%) consulting to confirm the absence of sperm in the ejaculate following vasectomy increased significantly in 2022 (Pearson's Chi-square $p < 0.0001$). After qualitative/quantitative interviews to the former patient's group (n:36) two subpopulations were distinguished the childless (42%; Median age: 30 years old; range: 24-35) and those having a family (58%; Median age: 39 years old; range: 35-54). Most of them had a university degree (67%) and learned about this anti-contraceptive method by the internet. It is remarkable that 94% of them were not aware of the Argentinian Law 236139 sanctioned in 2006 that grants their right to vasectomy. Among all the patients randomly interviewed in 2022 (n:200) condom anticontraceptive method was the best known (67%). Finally we conclude that in the meantime we are facing a *New Trend* that comprises a high educational level segment of our people that can become the seed of a *Cultural Change* in the future encompassing the whole society.

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vis the patient regarding the cessation of other contraceptive precautions [2]. Similar guidelines were approved in Spain [3].

According to Argentinian Ministry of Health records the number of patients requesting vasectomy increased twelve times in public hospitals, between 2015 and 2019 [4]. A vast number of Argentinian newspaper articles reported physicians and specialist's opinions regarding an increase in patient's vasectomy request in the last years [5,6]. It occurs in the frame of the gender issue up for debate in the public sphere in recent years. More precisely, demands for parity and equal women rights supported by a large part of the population. The discussion is focused around the relationship between genders. The masculinity and family models are questioned. These new emergences should be understood as social processes, as ongoing transformations

that are developing with greater or lesser intensity within our society [7-10].

In this context, we wonder if we are facing a *Cultural Change* or actually witnessing a *New Trend*. The term *Culture* has different meanings, from an anthropological point of view it reflects and summarizes the ways of doing, feeling, thinking of a human community. This global conception is established in opposition to that of *nature*, therefore, Culture is everything that is acquired and transmitted as opposed to innate [11].

In sociological terms, Culture defines a society, its habits, behavior and values; it is acquired, revealed and transmitted knowledge. Every human group shares a culture, throughout life it develops different types of *Capitals*, that means technical practices and conduct rules that constitute a representation of the world. On the other hand, a *New Trend* is referred to part of the society formed by people from a similar age, sharing social cultural characteristics, common behaviors and practices. In time *A New Trend* can become the seed of a *Cultural Change* that encompasses the whole society. However, a *Cultural Change* is more than a *New Trend* because it crosses to a greater or lesser extent all social sectors.

Our aim is to define the current situation in vasectomy practice from a sociological point of view. Then the following objectives were proposed: a) to confirm that vasectomy demand increased among our patients in the last ten years, b) to survey vasectomized patients recording their age and sociocultural characteristics and c) find out to what extent all our patients are aware of the existing contraceptive methods.

Patients and Methods

The research design is exploratory, descriptive and explanatory. Firstly, a diachronic analysis of patient’s demands was performed between 2012-2022 at the Buenos Aires University Clinical Hospital “José de San Martín” Male Fertility Laboratory (n: 1136). Then qualitative/quantitative interviews were done to patients requesting vasectomy in 2022 (n: 36) [12].

Age, paternity, cultural level, awareness of contraceptive methods and scope of Argentinian Law 26.130 [13] were recorded. The last two items were also explored through a randomized, qualitative survey with an open-ended question in the general population of patients that consulted the Buenos Aires University Clinical Hospital “José de San Martín” Male Fertility Laboratory during 2022 (n: 200).

Statistical Analysis

Chi-square test was employed to compare quality variables and Wilcoxon-Mann-Whitney for quantitative no parametric variables; p value<0.05.

Results

A diachronic analysis is a longitudinal interpretation that senses changes within a period [15]. The reference period established was 2012-2022. We decided to consider five years intervals within the former one, then the chosen years were 2012, 2017 and 2022. Table 1 shows our results.

The main demand was primary or secondary infertility in the different measurements done, that remained without changes as the other consultations reasons like varicocele. However, other type of requirement is now appearing, that of the vasectomized patients, who need to confirm the absence of sperm in

Table 1: Diachronic analysis of patient’s demands at the Buenos Aires University Clinical Hospital “José de San Martín” Male Fertility Laboratory.

Year (Patients)	Primary/Secondary Infertility	Varicocele	Vasectomy	Anothes
2012 (n=399)	92%	7%	0%	1%
2017 (n=322)	90%	7%	1%	2%
2022 (n=415)	84%	8%	6%***	2%

***Pearson's Chi-square p<0.0001

Table 2: Range age and paternity in vasectomized patients.

n=36	Patients withchildren	Childless patients
Median (year)	39	30***
Age Range (years)	35 - 54	24-35
Percentage	58%	42%

***Wilcoxon-Mann-Whitney test, p<0.0001

the ejaculate. Although it is a small group (6% in 2022), it represents a significant minority compared to previous years when it was almost nil (p<0.0001).

Among the vasectomized patient two populations could be distinguished, the childless and those having a family. Their age range is shown in Table 2.

When analyzing the educational level reached by the interviewed patients, we found that 67% had a partial or complete university level; no difference was found in the educational level while analyzing both groups (Pearson’s Chi-square p>0.05). Most of them learned about vasectomy un contraceptive method through the internet (84%). It is remarkable that 94% of the interviewees was not aware of the sanctioned Law 236139 that grants their rights to freely and voluntary access to the mentioned surgery. In order to respond to our third goal and reveal patient’s consciousness of the contraceptive methods and the scope of the law the survey results shows that, The condom prevails as the most known method (68%) and vasectomy is recognized in a lower percentage together with the condom (26%).

Discussion

The Argentinian Law No. 26.130 was enacted in 2006. It refers to surgical contraception interventions and establishes legal adult’s right to 'fallopian tube ligation' and 'deferent ducts ligation or vasectomy' access in the health system services. In this sense, it is important to point out, on one hand, that since it is a right, the State must guarantee its application and, on the other hand, it is no longer an exclusive attribution of the physician to prescribe this practice. The power to request this surgical intervention is exclusively in patient’s hands. Unfortunately, we could infer that our patients ignore the law and its scope. The Argentinian Ministry of Health reported a substantial increase in vasectomy demand between 2015 and 2019. In our records the increment was revealed in 2022. Clearly the raise is not directly associated with the law enactment but with patient imaginary and the way they metabolize the new contraceptive possibilities and decisions.

Among the vasectomized patients two populations were distinguished those childless around thirty years old and those with a family close to forty average age. In the former group vasectomy was a consensual decision within the couple while considering women health. The men assume active position in contraception. Culturally the choice does not express alternative values to traditional family heteronormative model. In the first group the priority of the demand is focused on personal projects favoring a level of fulfillment, of transcendence in per-

sonal life. The socially rooted idea of forming a family (father, mother, sons, daughters) is put aside by other options. They express a partial break with certain social mandates. The interviews reveal a distancing from the idea of the traditional family. Their *actions* express an ongoing cultural transformation. It is a change limited to a certain social sector with certain characteristics, it is worth asking if it is enough to affirm that we are in front of a cultural change [14].

The group of patients investigated who resort to vasectomy as a contraceptive method respond mostly to a specific social sector, they have a common cultural capital [15,16], they are mostly informed patients, with complete or partial university and/or tertiary education. Before undergoing the operation, they consulted with specialists to evacuate doubts such as whether their sexuality could be affected. They represent a narrow segment of the society. The survey performed in the rest of the patients confirm a lack of knowledge or significant lack of information about vasectomy as a contraceptive method. This finding is in favor of the idea of a new trend rather than a cultural change that is supposed to involve the whole society across different social sectors. Perhaps we can find a possible explanation for this new trend in the debates generated by feminism on gender issue and masculinity normative models and the way they operate in the social fabric.

Conclusions

From a sociological perspective, culture is the foundation of the collective identity of a group of individuals. Culture corresponds to a set of values, norms and practices acquired and shared by a plurality of people. A cultural change implies a change in the daily practices of a society, in its decisions and actions. There is an internalization of new habits or behaviors; it is also a collective assumption of new values. These are transformations that transcend social origin. They are changes that may initially have weight in certain social sectors, which may become cultural changes over time. Finally, we conclude that in the meantime we are facing a *New Trend* that comprises a high educational level segment of our people that can become the seed of a *Cultural Change* in the future encompassing the

whole society.

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