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# Motivation toward vasectomy based on abortion law changes in Oklahoma

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**Introduction:** In May 2022, lawmakers in Oklahoma passed House Bill 4327, which outlawed abortion after fertilization. The governor signed the bill on May 25, 2022. It is uncertain whether these changes will motivate more men in Oklahoma to undergo vasectomy.

**Materials and methods:** Males seeking vasectomy were informed of the study and asked to participate. Participants filled out a survey regarding their marital status, number of children, fertility treatment history, and their influences in making the decision to pursue vasectomy. We removed the identifying information from the survey. After collection, the data was imported to a database. Medical records were investigated to confirm patients underwent the procedure.

**Results:** Of the 126 participants, 116 underwent vasectomy. Patients who did not undergo vasectomy tended to be older (38.4 vs. 34.2,  $p=0.03$ ). Participants who underwent vasectomy and were concerned about abortion laws tended to be married (69.7 vs. 30.3%,  $p=0.04$ ) with fewer children (1.2 vs. 2.3,  $p<0.0001$ ). When correlating specifically “concern about abortion laws” and going through with vasectomy, the risk ratio of 1.12 (95% CI 1.04, 1.20) indicates that patients concerned about abortion laws were slightly more likely to undergo vasectomy.

**Conclusions:** Over 26% of men said that their decisions were somewhat impacted by abortion law changes. The concern about abortion law changes seemed to be predictive of patients undergoing vasectomy. Continued data collection will help determine whether there is a time-sensitive nature regarding the impact of abortion law changes on motivation to vasectomy.

**Key Words:** vasectomy, abortion, fertility

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## Introduction

In 1973, the United States Supreme Court decided in favor of Norma McCorvey, known as Jane Roe,

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ruling that the Due Process Clause of the Fourteenth Amendment to the United States Constitution provided a right to privacy that protects a woman’s right to choose whether to have an abortion.<sup>1</sup> Over the past couple of years, many states started to pass more restrictive abortion laws. In May 2022, a Supreme Court draft opinion was leaked, signaling a potential overturning of *Roe v Wade*, which would mean the end of the protection of a woman’s right to choose at the federal level, turning the decision back to the states. A few weeks later, lawmakers in the State of Oklahoma passed a bill, outlawing abortion after the point of fertilization. The bill was later signed into law on May 25, 2022. Given the changes to reproductive healthcare in Oklahoma we are interested in patients’

motivation towards vasectomy and we hypothesize that there will be an increase in motivation towards vasectomy as a means for birth control in response to these new laws.

### Materials and methods

After obtaining Institutional Review Board approval we asked male patients over 18 years old, with intact ductus deferens and intact fertility presenting to three University of Oklahoma Urology clinics seeking vasectomy to participate in the study by completing a consent form along with a questionnaire. Exclusion criteria included patients under 18 years of age, lack of intact ductus deferens determined by physical exam and no history of prior vasectomy, either biologic children or no documented fertility concerns prior to study enrollment. Dates of consultations ranged from April 2022 until December 2022 with procedures ranging from May 2022 until March 2023. The questionnaire, see Figure 1, included questions regarding marital status (married or single), number of biologic children, prior fertility treatments and finally five additional questions regarding their decision to pursue vasectomy. The five questions regarding vasectomy motivation were 1) “partner desire to stop birth control,” 2) “cannot afford

more children,” 3) “concerned about abortion laws,” 4) worried about pregnancy outside of relationship,” 5) “none of these.” Demographic data including age, ethnicity, marital status, number of children and motivation for vasectomy were collected from the medical record as well as in-office questionnaires.

### Statistical analysis

We compared patient characteristics by vasectomy status and concern about abortion laws using t-tests for continuous variables and chi-square tests or Fisher’s exact test for categorical data. We also calculated risk differences and risk ratios along with their 95% confidence intervals to evaluate the magnitude of the associations between vasectomy procedure and reason for seeking consultation.

### Results

There were a total of 126 eligible participants. Patient ages ranged from 22 to 49 years of age (mean 34.5). 92.1% of patients underwent vasectomy and 99.2% responded with their marital status. The majority of patients were white (83.9%) with black, Hispanic, Asian and American Indian making up the remainder of the population, Table 1.

<b>Vasectomy Questionnaire</b>							
<b>Marital Status:</b>	<b>Married</b>			<b>Single</b>			
<b># of Children:</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6+</b>
<b>Prior Fertility Treatments</b>	<b>Yes</b>			<b>No</b>			
<b>Is your decision to pursue vasectomy related to any of the following (Circle all that apply):</b>							
<b>Partner desire to stop birth control</b>				<b>Cannot afford more children</b>			
<b>Concerned about abortion laws</b>				<b>Worried about pregnancy outside of relationship</b>			
<b>None of these</b>							

Figure 1. Sample of vasectomy questionnaire.

TABLE 1. Patient characteristics by vasectomy status

	Vasectomy		p value	Total
	Yes (n = 116) Mean (sd)	No (n = 10) Mean (sd)		Mean (sd)
Age	34.2 (5.7)	38.4 (6.2)	0.03 <sup>a</sup>	34.5 (5.9)
Number of children	2.0 (1.3)	2.2 (1.7)	0.68 <sup>a</sup>	2.0 (1.3)
	n (%)	n (%)	p value	n (%)
Race/ethnicity				
White	96 (84.2)	8 (80.0)	0.30 <sup>b</sup>	104 (83.9)
Black	10 (8.8)	0		10 (8.1)
Hispanic	6 (5.3)	2 (20.0)		8 (6.5)
Asian	1 (0.9)	0		1 (0.8)
American Indian	1 (0.9)	0		1 (0.8)
Missing/Unknown				2
Marital status			1.00 <sup>b</sup>	
Married	94 (81.7)	8 (80.0)		102 (81.6)
Not married	21 (18.3)	2 (20.0)		23 (18.4)
Missing				1

<sup>a</sup>t-test; <sup>b</sup>Monte-Carlo estimation of fisher’s exact test (excludes missing value from analysis); <sup>c</sup>Fisher’s exact test

Of the 126 eligible participants seeking vasectomy, 10.75% did not undergo vasectomy. Patients who followed through with vasectomy tended to be younger (34.2 vs. 38.4,  $p = 0.03$ ). Of the 10 patients who did not undergo vasectomy, 5 lacked insurance coverage

and none of them had concerns about abortion laws. Number of children, race/ethnicity and marital status did not differ between these groups, Table 1.

Patients concerned about abortion laws were more likely to be married (69.7 vs. 30.3%;  $p = 0.04$ ) and

TABLE 2. Patient characteristics by concern about abortion laws

	Concerned about abortion laws		p value	Total
	Yes (n = 33) Mean (sd)	No (n = 93) Mean (sd)		Mean (sd)
Age	34.0 (5.6)	34.7 (6.0)	0.53 <sup>a</sup>	34.5 (5.9)
Number of children	1.2 (1.3)	2.3 (1.2)	< 0.0001 <sup>a</sup>	2.0 (1.3)
	n (%)	n (%)	p value	n (%)
Race/ethnicity				
White	29 (87.9)	75 (82.4)	0.95 <sup>b</sup>	104 (83.9)
Black	2 (6.1)	8 (8.8)		10 (8.1)
Hispanic	2 (6.1)	6 (6.6)		8 (6.5)
Asian	0	1 (1.1)		1 (0.8)
American Indian	0	1 (1.1)		1 (0.8)
Missing/Unknown				2
Marital status			0.04 <sup>c</sup>	
Married	23 (69.7)	79 (85.9)		102 (81.6)
Not married	10 (30.3)	13 (14.1)		23 (18.4)
Missing				1

<sup>a</sup>t-test; <sup>b</sup>Monte-Carlo estimation of fisher’s exact test (excludes missing value from analysis); <sup>c</sup>Fisher’s exact test

TABLE 3. Prevalence of vasectomy by reason for seeking vasectomy consultation

	Received vasectomy		Risk difference (95% CI)	Risk ratio (95% CI)
	Yes n (row %)	No n (row %)		
Concern about abortion laws				
Yes	33 (100.0)	0 (0.0)	10.8 (4.5, 17.1)	1.12 (1.04, 1.20)
No	83 (89.3)	10 (10.8)		
Partner desires to stop using birth control				
Yes	46 (92.0)	4 (8.0)	-0.1 (-9.8, 9.6)	1.00 (0.90, 1.11)
No	70 (92.1)	6 (7.9)		
Cannot afford more children				
Yes	34 (94.4)	2 (5.6)	3.3 (-6.2, 12.9)	1.04 (0.94, 1.15)
No	82 (91.1)	8 (8.9)		
Worried about pregnancy outside of relationship				
Yes	6 (100.0)	0 (0.0)	8.3 (3.4, 13.3)	1.09 (1.03, 1.15)
No	110 (91.7)	10 (8.3)		
None of the above				
Yes	44 (89.8)	5 (10.2)	-3.7 (-13.8, 6.4)	0.96 (0.86, 1.07)
No	72 (93.5)	5 (6.5)		

have fewer children (1.2 vs. 2.3 children,  $p < 0.0001$ ), Table 2. When childlessness was further explored by comparing none versus one or more children, those concerned about abortion laws were more likely to have no children (36.4 vs. 6.5%,  $p = 0.0001$ ). Age and ethnicity were not associated with abortion law concerns, Table 2. Vasectomy procedures were completed among 100% of the 33 patients concerned about abortion laws and 89.25% of the 93 who were not concerned about abortion laws, Table 3. Among patients undergoing vasectomy consultation, those who expressed concern about abortion laws were 12% more likely to go forward with the procedure (RR 1.12, 95% CI 1.04, 1.20). Other factors such as partner desire to stop birth control and inability to afford more children were less predictive of undergoing vasectomy, Table 3. Among the 116 patients who obtained a vasectomy, the frequency of post-vasectomy semen analysis was similar in patients who did (51.5%) and did not (53.0%) express concern about abortion laws ( $p = 0.88$ ). Furthermore, there were no differences ( $p = 1.0$ ) in complication rates between the two groups (3.0% vs. 4.8%, respectively). Complications included 1 post-op pain requiring narcotics in the “concerned about abortion laws group.” Additional complications included 1 post-op hematoma requiring scrotal exploration/evacuation, 1 hypoglycemic episode, 1 post-op painful granuloma and 1 infection requiring

antibiotics of which none of them had concerns about abortion laws. Although not of statistical significance 6% of our patient population chose to undergo vasectomy solely based on concern about abortion laws.

## Discussion

Reproductive rights continue to remain an important topic in the United States’ current political landscape and the recent legal changes have the potential to impact urologists as more men seek contraceptive options in response. Between 2017 and 2020 35 states passed laws restricting access to abortion care, while only 12 states passed laws expanding access to care.<sup>2</sup> Patel et al published an article in October 2022 showing an increase in Google searches for “vasectomy” following the Supreme Court decision to overturn *Roe v Wade*.<sup>3</sup> They found that states which prohibited abortion had higher relative search volume for vasectomy with Oklahoma being the highest in the country.<sup>4</sup> Numerous news outlets have published articles discussing an increase in vasectomy interest following the Supreme Court *Roe vs Wade* decision, but there are limited studies published in the literature. In March 2023 Sarah Vij, MD published a transcription in *The Urology Times* discussing an increase in vasectomy consults throughout their

clinics.<sup>5</sup> In July 2022 Datta et al analyzed Google search trends regarding contraceptive choices from April 2022 to July 2022 and showed a spike in interest regarding contraceptive methods.<sup>6</sup> Vasectomy was the highest searched method followed by tubal ligation.<sup>6</sup> In our study 39.7% of participants were motivated to undergo vasectomy due to their partner's desire to stop birth control, however, this concern did not translate into higher rates of vasectomy among those seeking consultation.

In the United States couples ages 15-44 are relying on female sterilization 3 times more than male sterilization (1.5 times more in married couples).<sup>4,7</sup> In countries such as Canada where vasectomies are covered free of charge through the national health insurance program males undergo sterilization 2 times more than females.<sup>4</sup> In the United States around 500,000 vasectomies are performed annually with the majority of these performed by urologists.<sup>8</sup> Our findings showed over 26% of men who sought vasectomy consultations were motivated by the abortion law changes and those concerned were 12% more likely to proceed with the operation. Those motivated by concern about abortion laws were more likely to be childless. Surprisingly 6% of our population underwent vasectomy solely due to concern about the abortion laws. This was not statistically significant, but nonetheless an interesting discovery. This increase in motivation could lead to an increase in the number of vasectomy consults and procedures for urologists in Oklahoma and potentially throughout the United States. Future studies would need to be performed to track the number of vasectomies performed by urologists before and after the abortion law changes to see if the motivation translates into an increase in actual procedures and an overall shift in sterilization procedures within the United States.

Our study is not without limitations and a few of these need to be addressed. There were only 10 patients who elected not to proceed with vasectomies, so comparisons of factors influencing this decision are based on sparse data which may have limited statistical power and precision. The findings are limited to those who sought vasectomy consultation. Thus, inferences cannot be made about factors that influenced the motivation to seek consultation given data was not available for men who did not seek consultation.

## Conclusion

Over 26% of men said that their decisions were somewhat impacted by abortion law changes. After consultation, men concerned about abortion law were

12% more likely to undergo vasectomy. Continued data collection will help determine if there is a time sensitive nature regarding the impact of abortion law changes on motivation to vasectomy. Further studies will be needed to see if this increased motivation for vasectomy leads to an increase in vasectomies. □

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