

Factors affect the vasectomy uptake of married couples in Bangka Belitung Islands, Indonesia

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ABSTRACT

Vasectomy is a highly effective male contraception. However, the 2007 to 2017 Indonesia Demographic and Health Surveys reported no vasectomy cases in Bangka Belitung Islands. This study aimed to identify the number and its barriers to low vasectomy use in the Bangka Belitung Islands. The combination of qualitative and quantitative methods used in this study. This study utilized health clinics' reports between 2015 and 2018 to identify whether or not vasectomy was executed in Bangka Belitung Islands. In-depth interviews were also carried out for medical practitioners, husbands, and wives to point out other crucial purposes of low vasectomy cases in the area. Vasectomy is regarded as a sexual displeasure contraceptive method. Those husbands had perceptions that vasectomy was similar to castration. They consider it as a sickening procedure. The wives perceived that vasectomy could make their husbands promiscuous. The misconceptions and stigma had been found as barriers for the low practice of vasectomy in the Islands. Reproductive health counseling for both husbands and wives need to be intensified to clarify those misconceptions about vasectomy. Vasectomy-specified campaign messages through various media channels should be conducted for couples in the area.

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1. INTRODUCTION

Over the years, male contraceptive use remains low compared to female methods. Traditionally, family planning has focused on providing contraception for women [1]. Males have been considered as silent partners in reproductive health matters [2]. Male involvement in contraceptive use has become a global concern since the enactment of the International Conference on Population and Development in 1994 in Cairo [3]. The need to include men in reproductive health concerns has also spread out since the launch of sustainable development goals (SDGs) point 5.6 to ensure universal access to sexual and reproductive health [4]. Male involvement in family planning has been understood as the integral prevention strategy of unwanted pregnancy, reduction of unsafe abortions, and promotion of childbirth spacing to lower maternal and child mortality risks in developing countries [5]. Male involvement in family planning also greater educational and economic opportunities for women and promotes gender equity [6].

Vasectomy has been espoused as one of the two males' modern contraceptive methods, other than the male condoms. Vasectomy was initially founded as a treatment of prostatic enlargement as an alternative

to castration in the early nine-tenth in the United Kingdom [7]. A scientific named Oschner was the first suggested vasectomy as a method for preventing pregnancy [7]. The failure rates of vasectomy are less than 1% which is considered a very effective method [8]. The common side effects due to vasectomy are a 1%-2% incidence of symptomatic hematoma, a 3.4% incidence of infections, and a 15%-52% incidence of chronic scrotal pain [9].

Vasectomy could be an alternative for couples who want to stop childbearing. The procedure of vasectomy is simple and easy to be conducted in low resource settings, such as Bangka Belitung Islands [10]. Nevertheless, compared with tubal ligation of women, vasectomy has been least known and least used among couples [11, 12]. Only one male compared to four females on a global level, who used a vasectomy [13]. At the national level, the prevalence rate for vasectomy had steady at 0.2% in 2017 [14].

Unfortunately, the vasectomy practices at a provincial level, particularly in the Bangka Belitung Islands were still unrecorded. Sample data from the Indonesia Demographic and Health Surveys have reported zero cases of vasectomy practice in the Islands from 2007 to 2017 [14-16]. No other research had clarified on vasectomy practice in the Islands. Hence, the objective of this study is to reconfirm whether or not vasectomy practice exists in Bangka Belitung Islands and to identify some challenges associated with low practices of vasectomy in the Bangka Belitung Islands, Indonesia.

2. RESEARCH METHOD

2.1. Data sources

Bangka Belitung Islands, Indonesia had been selected as the location of this study. In the administrative term, the Bangka Belitung Islands was divided into six regencies and one city, namely Bangka, Belitung, Southern Bangka, Central Bangka, Western Bangka, Eastern Belitung, and Pangkalpinang City [17]. The numbers of vasectomy practices in the Bangka Belitung Islands were obtained from clinical reports (private and public clinics) that conducted vasectomy services between 2015 and 2018. The clinical report of mixed contraceptive methods in the Bangka Belitung Islands from 2015 to 2018 was obtained from the national population and family planning board (BKKBN), Bangka Belitung Islands [18]. Those verified clinical reports were reported to the health and family planning offices from regencies/city to provincial levels each month. Due to a limited number of vasectomy practices in the islands, hence, this study only features it in absolute numbers.

Afterward, this quantitative data was explored by triangulation information from in-depth interviews to check the validity and reliability of the information in this study. The triangulation was conducted to enrich differing aspects of vasectomy practice in the Bangka Belitung Islands. It also helps the confirming of the answer of informants where one set of findings confirms other information. Finally, the triangulation of qualitative data can help to explain the results of a study.

This information is then explored more deeply through in-depth interviews. The qualitative data of this study were collected through in-depth interviews in Bahasa of three couples who had already conducting vasectomy and those four non-vasectomy couples in December 2018. Information triangulation was used by asking those males who received vasectomy services, their partners, and vasectomy service providers. Those males were selected randomly and reported anonymous for their confidently.

Informants criteria were married males and females who already conducted vasectomy service and who were disagree with vasectomy. The key informant criteria were those medical doctors who delivered vasectomy practices in Bangka Belitung Islands Province from 2015 to 2018. The information about attitudes on vasectomy was validated by their reproductive partners. Their partners were interviewed separately. This study also interviewed two health providers who conduct vasectomy in the area. Those interviews were private and confidential. Some questions were open-ended to enable the researchers in gaining information regarding the reasons behind vasectomy practices. The results of the in-depth interviews were left and transmitted into the transcripts. Afterward, thematic content analysis and line-by-line coding of the dataset were utilized for the analysis of the qualitative data by using ATLAS.ti. After the data analysis developed, themes were subsequently formed from the patterns that emerged on perception regarding vasectomy and presented in the results.

The criteria for informants were married men and women who had had vasectomy services and did not agree with a vasectomy. The key informant criteria were the medical doctors who delivered vasectomy practices in Bangka Belitung Islands Province from 2015 to 2018. Information about vasectomy attitudes has been validated by their reproductive partners. Their partners have been interviewed separately. This study also interviewed two health providers who conduct vasectomy in the area. Those interviews were private and confidential. Some questions were open-ended to enable the researchers to gain information regarding the reasons behind vasectomy practices. The results of the in-depth interviews were left and transmitted into the transcripts. Then, thematic content analysis and line-by-line coding of the dataset were used for qualitative

data analysis using ATLAS.ti. After developing the data analysis, a theme was formed from the patterns that emerged in perceptions of the vasectomy and then the results were presented.

3. RESULTS AND DISCUSSION

3.1. The quantitative result

Table 1 shows that from 2015 to 2018, 907 men were sterilized. These findings clarify that there were no reported cases of vasectomy from 2007 to 2017 based on the publication of the Indonesian Demographic and Health Survey [14-16]. On average, 226 men each year undergo vasectomy on the islands. In the Bangka Islands' Central Bangka Regency, the practice of vasectomy is mostly found on the islands, while the city of Pangkalpinang is the least. In Belitung Islands, East Belitung Regency shows the highest number of vasectomy practices while Belitung has the lowest number.

Table 1. Number of current user-vasectomy, Bangka Belitung Islands, 2015 to 2018

Bangka Belitung Islands	2015	2016	2017	2018	Total by region
Pangkal Pinang	21	26	58	28	49
Eastern Belitung	94	96	59	55	149
West Bangka	87	91	94	94	181
Belitung	43	41	44	48	91
Bangka	26	35	65	46	72
Central Bangka	115	90	83	92	207
Southern Bangka	121	121	33	37	158
Total by year	507	500	436	400	907

Source. The National Population and Family Planning Board (BKKBN), Bangka Belitung Islands (2019) [18].

3.2. The qualitative result

3.2.1. Female stigma against vasectomy

The perspective about male involvement in family planning is often rooted in a negative stigma. Three out of four female informants stated that they would not allow their husbands to do a vasectomy. They were afraid that their husbands would have affairs with another woman, without any notice. Vasectomy is perceived as a guarantee for men to engage in a promiscuous lifestyle since they were incapable of impregnating a woman. The disbelief could create issues that might lead to marital instability. Two female participants in the non-vasectomy group said:

Original script: "*Nga ngizinin.. Takut lakiku kawin lagi trus gak ketahuan.*" (NR, 37 years old)

Translated script: "I will not allow (him). I am afraid that my husband will marry to another woman, without any notice." (NR, 37 years old)

Original script: "*Ach ga ah, vasektomi itu kayak ngasi izin ke laki buat selingkuh.. Dia jajan kemana mana aman ga bakal ngamilin perempuan lain..ok...*" (NI, 42 years old)

Translated script: "No way, this vasectomy is like giving a permit to your man to have an affair. He can play around as he likes without fearing of impregnating other woman...ok." (NI, 42 years old)

In contrast, those couples who experienced vasectomy stated that vasectomy had made them happier because the wives had no more obligations to use contraceptives. Those statements had diminished the misperception of vasectomy. Two female participants in the vasectomy group declared:

Original script: "*Sejak laki aku disteril, aku ndak perlu pusing pusing pakai kontrasepsi...*" (PV, 48 years old)

Translated script: "Since my husband had a vasectomy, I don't have to worry about (using contraceptive)." (PV, 48 years old)

Original script: "*ga ada beban lagi.. kapan aja siap melayani suami.*" (ADS, 45 years old)

Translated script: "I don't have any burden anymore... I am ready any time to serve my husband." (ADS, 45 years old)

3.2.2. Male stigma against vasectomy

Three male informants who did not experience vasectomy had expressed uneasiness about the potential effect of vasectomy on the sexual faithfulness of their partners. Two male participants in the non-vasectomy group perceived that:

Original script: "*Ouch ntar abis disteril, impoten donk. kasian bini aku lah...*" (JK, 43 years old)

Translated script: "Ouch after I got sterilized, I will be impotent. O my poor wife." (JK, 43 years old)

Original script: "*Kalo udah digituin, ntar punyaku loyo.. gawat nanti.*" (OS, 47 years old)

Translated script: "If it's done, mine will be sluggish ... it's so bad." (OS, 47 years old)

One male informant stated that they would not do any vasectomy because they are afraid of the sore that might be occurred. The male was afraid of the pain of his penis due to vasectomy practice.

Original script: "*disteril? gak berani...takut...sakit...*" (PS, 49 years old)

Translated script: sterilized? I don't dare ... I am afraid ... it hurts." (PS, 49 years old)

Nevertheless, this study also interviewed three males' informants who had experienced vasectomy: RL (49 years old), NZR (47 years old), and IDR (44 years old). They stated that after they were given a vasectomy, their sexual activities become more intense since they are not afraid of the pregnancies anymore. Two of three males stated they conducted vasectomy because they love their wives and they felt pity because their wives experienced a side effect of female contraceptive methods. Two male participants in the vasectomy group declared that:

Original script: "*Ga ada masalah dengan steril, malah sejak disteril aku sama biniku lebih sering ngamar...*" (NZR, 47 years old)

Translated script: There is no problem with being sterilized.. In fact, since then (the sterilization), my wife and I have sex more frequently." (NZR, 47 years old)

Original script: "*Kasian sama bini, udah tua masih minum pil.. dia sering pusing. ya udah gantian aku aja yang steril.*" (RL, 49 years old)

Translated script: "How pity my wife, she is old already but she still consumed pill. She often feels dizzy. So, I decided to replace her duty to be sterilized." (RL, 49 years old)

Original script: "*Awalnya sih takut, tapi aku cinta sama biniku.. kasian dia repot ngurusin anak ntar kalo saya minta jatah dia hamil lagi tambah kasian.. biar aku aja yang steril..ok....*" (IDR, 54 years old)

Translated script: "At first, I was scared, but I love my wife... it is a pity of her because she has to take care of my children. If I asked for sex, she would get pregnant again, it will increase her burden... so, let me be the one who get sterilized ... ok." (IDR, 54 years old)

3.2.3. Health provider viewpoint

Qualitative data were also collected through in-depth interviews with two-trainings-doctors dr. RD (60 years old) and dr. NG (42 years old) as key informants. Those key informants said that information regarding vasectomy was also spread out by peer-groups who lead by some males who had experienced vasectomy. In interviews with the doctors, the results revealed that couples in Bangka Belitung Islands generally showed low interest in discussions on vasectomy. This apathy created a situation, that husband nor wives are reluctant to initiate discussions on vasectomy. This low interest by couples was attributed to the misconceptions and misinformation associated with the procedure. Two health providers who served vasectomy stated that:

Original script: "*kami coba menginformasikan steril kepada para suami, tapi ketika kami bilang itu permanen, orang-orang ga mau dengerin lagi.*" (dr. RD, 60 years old)

Translated script: "we try to inform the husbands about sterilization, but when we say it is permanent, they don't want to hear anymore." (dr. RD, 60 years old)

Original script: "*gini ya masalahnya, ketika dibilang ke orang-orang kalo vasektomi itu metoda operasi pria.. nah mereka takut karena kata-kata operasi identik dengan orang sakit. Mereka juga takut karena permanen, ga bisa punya anak lagi..impoten kata mereka.*" (dr. NG, 42 years old)

Translated script: "This is the problem when we said that vasectomy is a male surgery method. They are afraid because the word "surgery" is synonymous with sick people. They are also afraid because it is permanent, they will not be able to have any more children... impotent, they said." (dr. NG, 42 years old)

In interviews with health care providers, the non-reversibility of the procedure emerged as a well-entrenched theme as one of the reasons why men consider vasectomy as an unfavorable family planning method. The procedure is permanent; the community members are afraid if in the future they want to have children but have already done a vasectomy.

3.3. Discussion

This study is designed for identifying vasectomy practices in Bangka Belitung Islands from 2015 to 2018. This study also examines various barriers that may discourage married couples from using vasectomy. The findings suggest that the previous sample of Indonesia Demographic and Health Surveys that reported no vasectomy practice in Bangka Belitung Islands were misrepresentative. This study found 908 vasectomy practices in the Islands from 2015 to 2018.

Females have a huge role in the decision for men to accept vasectomy or not. A study conducted in Latin America reveals that a wife's disapproval emerged as a major factor that can influence a men's intention to accept vasectomy or not [19]. This is a very crucial finding in this study because given the fact that the couple's potential role in the decision-making process, vasectomy promotional efforts should be directed toward women as well as men [20, 21]. Therefore, a man's decision to do a vasectomy revolves around the wife's approval.

The misperception of vasectomy on the sexual performance of men was a disadvantage to the uptake of this method. Women generally did not have sufficient information that vasectomy did not affect the sexual performance of men [22]. In an earlier study in Southern Ghana among couples who choose both tubal occlusion and vasectomy, it was reported that women played key roles in the decision to do vasectomy [23]. Among those who had chosen vasectomy, women were more likely to communicate the procedure with their partners and to have known a satisfied vasectomy user before making the choice [24, 25].

Also, virtually all respondents reported hearing negative comments about vasectomy. These concerns can be dispelled when the correct and accurate information about vasectomy is made available to couples either by health care providers or other vasectomized men [26]. There is evidence that the low use of vasectomy is not entirely because of men's resistance to the method, but also because of the less information received by those couples on vasectomy practice, hence, it became barriers to make information and services available and accessible for those couples [27, 28]. The study further revealed that vasectomy was widely stigmatized with vasectomized men labeled in offensive terms. Nevertheless, given the stigma attached to male sterilization, even men who have had affirmative experiences with the procedure might well choose not to expose or acknowledge this to others in the community, thus limiting the spread of positive sides that are essential to increase acceptance of vasectomy [29].

Family planning services providers should be concerned about this and measures taken to reduce the misperception. The use of innovative ways such as using model couples to promote vasectomy may be more effective [30]. Another strategy that could be used to increase acceptance for vasectomy is to increase knowledge on the nature of the vasectomy procedure to change the minds of people of the perceived effects of vasectomy on both a man's physical and sexual ability [19]. The women's attitudes towards vasectomy were also a factor in how active they were in the family planning decision-making process [31].

Despite efforts that have been conducted by the Bangka Belitung's Government to incorporate family planning into the existing peer group to spread out more accurate and correct information, the misperception and stigma are still major challenges. In a situation where access to correct information is lacking, community members are compelled to rely on misinformation, which is always bothering myths [32, 33]. A study conducted in the Kingdom of Eswatini found that lack of knowledge about the procedure for a vasectomy, societal norms, cultural beliefs, and misconceptions influenced the acceptability of vasectomy [34].

Nevertheless, a study in Bangladesh showed that family planning health workers were significant sources of vasectomy knowledge [35]. Hence, there is a need to offer comprehensive information to community members. The use of multiple information sources such as home visits, health providers, mass media (radio, internet, newspaper, magazine, or television), and peer groups could help to reduce the misperception of vasectomy [36, 37]. Moreover, the use of couples who have experienced vasectomy to share their experiences about vasectomy would strongly an advantage to clarify the misinformation on vasectomy [21, 38]. Most of the males will choose contraceptive methods that are commonly used in the community and as such believed socially standard [39].

There are three limitations to this study. Firstly, the number of males who practiced vasectomy in the Bangka Belitung Islands were very rare. Therefore, this study cannot conduct further regression analysis. Secondly, a cultural and religious taboo that inhibits the use of vasectomy in this study remains unknown unless they are explored by an ethnographic or expanded qualitative research. Lastly, the in-depth interview was mostly conducted in the local language and translated into English by a different person, thus, some words might be possible distortions.

4. CONCLUSION

This study had attempted to fill an important gap in the literature on whether or not vasectomy practice exist in Bangka Belitung Islands. Unlike reported by the Indonesia Demographic and Health Survey

that reported no vasectomy practice in the Islands, this study showed a contrary report. The official reports of in the area revealed that 907 males had been conducted vasectomy practice from 2015 to 2018. The huge barriers of males to conduct vasectomy were due to misconceptions of both husbands and wives. The findings reveal that the homogeneity of married couples' thoughts about vasectomy was influenced by their lack of knowledge and awareness about the procedure for a vasectomy, and misconceptions due to cultural beliefs. Hence, further programs need to be developed into new and innovative strategies that involve both men and women in the family planning counseling process. Wives were also found as crucial partners in the vasectomy advocacy strategy since they may influence a man's decision in vasectomy decision.

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