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# Perspectives of male family planning acceptors on failed vasectomy and the meaning of contraception

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## Abstract

**Introduction** This study ventured into understanding the dynamics of contraception using the lens of the male end user. It aimed to examine more fully the experience of male acceptors to elucidate why vasectomy failed as a contraceptive modality.

**Methods** This was a multiple case study which elucidated the in-depth experiences of six participants on failed vasectomy and how they perceived contraception. The analyses of interview transcripts and field notes were based on the inductive approach of identifying data by means of thematic codes which emerged in a four-level process.

**Results** Subthemes were 1) failure of health education to correct misconceptions, 2) failure in compliance, 3) failure in cognition and understanding, 4) failure in shared decision making, and 5) failure in contraceptive intentions. Themes that emerged as causes of failure in vasectomy were 1) failure of partnership, and 2) failure caused by low level of health literacy.

**Conclusion** Failure of vasectomy was laden with antecedents that greatly influenced the manner by which the male acceptors behaved. The participants' perceptions of contraception were either changed or remained steadfast depending on how they had believed vasectomy to be of worth to them as a husband, father and male acceptor. In all but one participant, vasectomy became of no use to them thereafter.

**Key words:** Failed vasectomy, contraception, health education, health literacy, multiple case studies

**B**ilateral vasectomy is a family planning method that requires direct participation of the male in

decision-making processes involved in contraception. It gained popularity in 1991 with the no-scalpel modification introduced by Li Shunquiang in China. Since then, 60 million men were reported to have undergone no-scalpel vasectomy (NSV).<sup>1</sup> Vasectomy remained to be a highly effective permanent method of contraception but as with all other family planning methods, had causes of failure.

In the past, failure rates for vasectomy had been reported to be from 1% to 5%. Technical failure of the procedure had been attributed to specific surgical techniques. In the standard technique, a short piece of vas deferens is cut and removed, and the remaining

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two ends are tied. Fascial interposition, added to the standard technique increases the success of the procedure.

Failure of contraception during the post-operative period of waiting for azoospermia can be attributed to client's engagement in unprotected sex prior to sperm clearance during this crucial period. Program protocol dictates that sperm analysis can be done after three months post-operatively or after at least 20 ejaculations. If the final examination shows azoospermia, the client is given clearance to have unprotected intercourse. Both clients and service providers must be aware though, that vasectomy is not a procedure guaranteed to achieve 100% sterility, and emphasis of this fact is as important as close follow up of clients for sperm count and analysis.

Studies on failed vasectomy have looked into the technical causes of failure. A review of literature reveals numerous studies that extensively discuss advantages of the no-scalpel vasectomy over the traditional vasectomy, as well as differences in the surgical procedures as reasons for vasectomy failures. In 2005, a systematic review of 28 studies described a total of 183 failures or recanalization from approximately 43,642 vasectomy patients at 0.4%, and 20 studies in the same review described 60 pregnancies after 92,184 vasectomies with failures of 0.07%.<sup>2</sup> Most physicians and surgeons who perform vasectomies recommend one (sometimes two) post-procedural semen specimens to verify a successful vasectomy. Unfortunately, 34-36% of patients never return for verification tests citing inconvenience, embarrassment, or death or change in partner.<sup>3</sup>

However, studies that purposely addressed failed vasectomy cases in the context of the real-life situation as experienced by the male or such that explored the phenomenon of failed vasectomy from the point of view of the subjects other than those pertaining to the technicalities of the procedure itself are scant and limited. The dynamics involved in failed vasectomy cases is worth studying. As a public health program concern, there seems to be a gap in counseling and advocacy with failed vasectomy cases.

Knowing what the participants of this research believed and associated vasectomy with became a rich source of information to make one realize why a family planning method as definite as vasectomy, can be a cause of program concern. There were reasons for vasectomy failure beyond what were known and had been studied and this research sought to generate

explanations as to the meanings these participants gave to their failed vasectomy and their meanings of contraception.

The study aimed to examine in-depth, the experience of male acceptors to elucidate why vasectomy failed as a contraceptive modality. Specifically, the study addressed the following questions:

1. What is the male acceptor's motivation to use vasectomy?
2. How did vasectomy fail as a contraceptive?
3. How has failed vasectomy affected their perception of contraception?

## Methods

This was a qualitative research using case study as a methodology. The evidence from multiple cases was often considered more compelling, and the over-all study was therefore regarded as being more robust.<sup>4</sup> The use of the multiple case studies in this research emanated from the logic underlying the use of such, which was replication that either predicted similar results or predicted contrasting results but for predictable reasons.<sup>5</sup> Methodologically, this approach helped retain the holistic and meaningful characteristics of real-life events while understanding a complex social phenomenon such as failed vasectomy cases in the perspective of male family planning acceptors.

Purposive sampling was done for the selection of the six cases chosen for this research. The six men voluntarily underwent no-scalpel vasectomy under the family planning program initiatives of Valenzuela City from 2004 to 2008 and whose wives got pregnant unintentionally at various periods of time. All six participants were counseled by the researcher upon initial knowledge of their respective wives' pregnancies from 2004 to 2010. Follow-ups were done periodically by the health workers who recruited them for the voluntary vasectomy procedure.

For the definitive purpose of this research, the participants were sought individually. Upon obtaining verbal and written consents, a key informant interview session was scheduled by the respective health workers who served as point persons since the time of recruitment of the subjects for the voluntary vasectomy procedure. These same health workers accompanied the researcher to the residences of the subjects for the interview as well as for the follow-up sessions.

The researcher had always been available for the participants to assist them in the provision of laboratory services and counseling. Medical consultations were provided as adjuncts when the need arose. Confidentiality was kept at all times to protect the interest and rights of the participants and their families. The researcher ensured that no harm was inflicted on the participants and their families during and immediately after the study, minimizing the effects of issues that were related to the course of the undertakings of this research. At the end of the study, the researcher presented to the participants the results and validated the findings. Gratitude towards their participation and cooperation was expressed with a simple token or gift.

The interview was the primary means of accessing the experience and subjective views of the actors. The purpose of the interview was to elicit answers pertinent to the research questions: What was the male acceptor's motivation to use vasectomy? What were the consequences experienced with failed vasectomy by the male acceptors? How had failed vasectomy changed their perception of contraception?

The questions that were asked during the key informant interviews were classified to specific main topics under three categories. The initial set of questions pertained to decisions and considerations prior to vasectomy as well as those questions eliciting information after the procedure and reasons for non-compliance with the semen analysis protocol. The second category of questions were in reference to the impact of the failed vasectomy on the lives and decisions of the man as an individual, as a couple, as a family, and as an integral part of the community. The third category of questions drew insights on the male's perspective on contraception despite the failure of the method on himself and the impact of his wife's pregnancy on their marital relationship.

Besides in-depth interviews and focus interviews, field notes also included transcripts of the interviews, materials relating to intentions and reactions, documented personal notes about motivations and experiences with the participants. Observations of the participant's home environment and community were done to gather additional information.

Coding was an interpretive technique that both organized the data and provided a means to introduce the interpretations into certain quantitative methods. The data were segmented and labeled with a "code" that suggested how the segment was related to the

research objectives. Thereafter, they were coded to arrive at categories and themes. Coding of the interviews for analysis of the six cases was aggregated based on these levels: 1) that of the six male participants' riposte and the researcher's observations; and, 2) reflexive journals of the face-to-face interviews and field notes. Each case was treated separately, using the same data collection technique of interviewing, document analysis, using data from participant observation, site observation and field notes. Individual case reports were prepared using the pyramidal qualitative coding technique of Hahn<sup>6</sup> (Figure 1) which involved a process of focusing a mass amount of free-form data with the goal of empirically illuminating answers to the research problem posted. The codes progressed from unsorted data towards more refined categories, themes, and concepts in a step-ladder fashion.

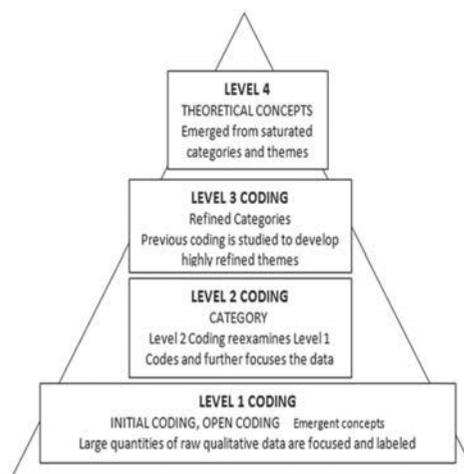
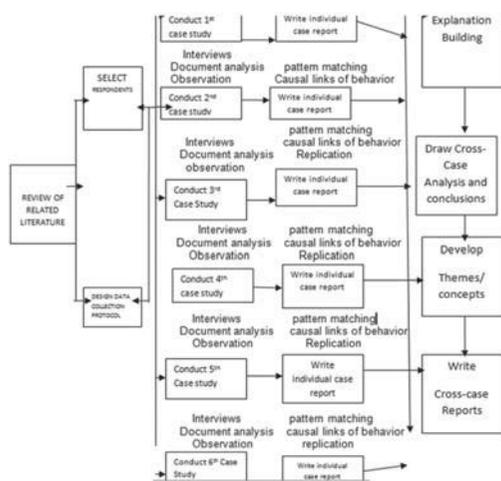


Figure 1. Pyramidal qualitative coding technique by Hahn (2008).

Each case emerged with individual patterns on how the failure occurred and how they perceived contraception after the discovery of the failure of vasectomy. These responses were clustered to generate emergent concepts, categories, refined categories and conceptual meanings. Once these were organized, the individual framework of each case was drawn to link antecedents for acceptance of vasectomy to the reason of the failure of each respondent's vasectomy and to the outcome behaviors due to failed vasectomy.

For each case, the core categories were classified as either reasons for wanting vasectomy (antecedents

to acceptance of vasectomy) or actions taken when failure of vasectomy happened (outcome behaviors). The more dominant core category that emerged based on the observations of the researcher as to the major reason for acceptance of vasectomy became the final antecedent. The same was done with the final outcome behavior. The reasons for failure of vasectomy were derived from the coding done, which emerged as subthemes and themes.



**Figure 2.** Procedural framework for the multiple case study method of male acceptors of failed vasectomy, adapted and modified from case study method of Robert Yin (1989, p.6).

## Results

The characteristics of six men included in this study are shown in Tables 1 and 2. They had a mean age of 43.5 years, reached at least high school level and were employed except for Case 3. They had three to six children each. They had their respective procedures between 2003 and 2008 and their wives got pregnant within a year to six years after the procedure, with three pregnancies resulting in the birth of a child. None of the six male participants had semen analysis prior to the post-vasectomy pregnancy despite instructions and follow-up for them to do so.

**Case 1. Deal or no deal** The failure of vasectomy for Case 1 emanated from the participant's failure to understand what was taught. He knew that success rate for vasectomy was at 99% but he failed to understand the implication of the 1% failure rate and did not think that such could happen to him. He was bent on believing that 99% being a measure in estimation of 100%, was perfectly 100%. This led him further to believe that he had no reason to confirm the status of his vasectomy. The outcome behavior of Case 1 derived as codes from the answers of the participant which consisted of trust mitigating failure, rationalizing contraception, and adoption of frugal behavior. The failure was mitigated by the participant's trust in his wife. His wife though, opted

**Table 1.** Demographic profile of six participants.

Case no.	Code	Age (yr)	No. of children	Educational attainment	Occupation
1	VO1	38	4	High school	Employee
2	LO2	38	4	1st yr college	Employee
3	ET3	40	6	High school	None
4	OD4	44	3	High school	Taxi driver
5	PL5	48	4	High school	Tricycle driver
6	LB6	53	3	High school	Handyman

**Table 2.** History of vasectomy procedure and wife's pregnancy.

Case no.	Code	Year of NSV	Year of wife's pregnancy	Outcome of pregnancy
1	VO1	2005	2011	Aborted
2	LO2	2003	2003	Birth of child
3	ET3	2006	2009	Aborted
4	OD4	2004	2009	Birth of child
5	PL5	2004	2006	Birth of child
6	LB6	2008	2009	Fetal death
			2010	Infant mortality (multiple de-formities)

to abort the child while he refused to undergo sperm analysis.

For Case 1, the dominant antecedent was failure to understand what was taught by the provider about vasectomy. The concept of a 1% failure rate had been interpreted as a zero failure rate. His failure to understand that vital information also influenced him not to undergo a sperm count. His outcome behavior of rationalizing his poor cognition was a way of coping. He was quick to rationalize his poor cognition of contraception with his being a good provider to his children. Even though vasectomy failed on him, he remained undaunted because he knew he was a responsible provider anyway - with or without vasectomy.

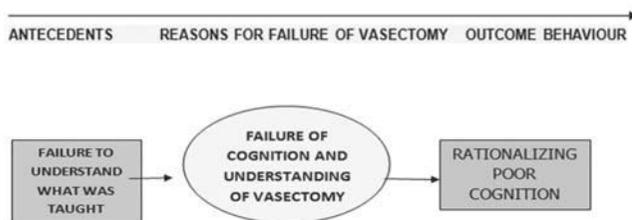


Figure 3. Emerging concept for case 1

Case 2: The sex bomb For Case 2, the failure of his vasectomy was rooted on his inability to translate knowledge into action. The prevailing attitude of "bahala na", deeply rooted in the Filipino culture, made LO2 forsake whatever information he obtained. This also enhanced his tendency to comply poorly with the restrictions of vasectomy. Failure of health education to correct his misconceptions harnessed LO2's idea of the consistency of his ejaculate on the 8th time represented success of his vasectomy. His willingness to initiate control of contraception as well as his perception of the absolute effect of vasectomy also contributed to his not being able to translate whatever he knew of the method into actions that could have averted the failure. The values of LO2 hindered his actions towards a positive outcome, since his sexual pleasures dictated the consequences of his decisions. LO2's cognition of vasectomy resulted to outcome behaviors such as: 1) defining positive reactions of others towards his acceptance of vasectomy as a positive reward, 2) trusting his spouse to mask the impact of the failure by rationalizing his love and trust in her, as well as 3) claiming the child as his.

Once LO2 rationalized his poor compliance to the protocol of vasectomy, he had in part, accepted that it had failed indeed.

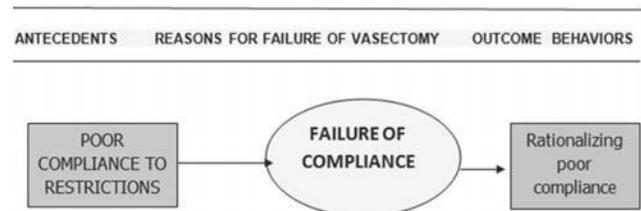


Figure 4. Emerging concept for case 2

Case 3: "Ang bulong" (The Whisper) Case 3 was a story of misconceptions. Health education failed to correct ET3's wrong beliefs regarding vasectomy in particular and contraception in general. His learned experiences led him to fear almost all the contraceptive methods. The fact that his wife committed one mistake after another with the use of oral and injectable contraceptives due to misconceptions did not deter the couple from pursuing their contraceptive intent. However, unintended pregnancies resulted thereafter and led him to believe that family planning could ease his poverty if his wife adhered to the method. Misconceptions gave him comfort and relief from his fear of his wife getting sick or dying if she underwent ligation. He blamed other people, persisting with his beliefs despite the ready access to health education and services.

ET3 felt the impact of a large-sized family with all the economic, psychosocial, and emotional consequences weighing heavily on him. He regarded contraception as a means to ease his hardships and poverty. How he hoped to alleviate his family's poverty was another matter that continued to elude ET3. The failure of his vasectomy tested the partnership he had with his wife. For the moment, contraception had provided him with a respite from having yet to take care of another child. Thus, any family planning method was good enough for him.

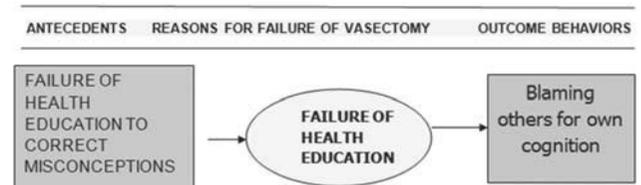


Figure 5. Emerging concept for case 3

Case 4: I love her, good-bye For OD4, his acceptance of vasectomy was not due to its contraceptive benefits but rather as proof of his wife's infidelity. Though he perceived family planning as a way to ease his poverty, the failure of his marriage led him to seek control over his chaotic situation. He was confident that his wife's adulterous ways would be punctuated with her pregnancy by another man.

Once it served its purpose, OD4 had no use for vasectomy, which for him was successful even without a sperm count. The unrequited love for his wife was the driver of his perception of his failed vasectomy. This was the root of his inappropriate rationalization for contraception. According to OD4, his wife was guilty beyond reasonable doubt, and that was all proven by his vasectomy. But at the end of the day, OD4 had his misgivings, both loving and hating at the same time. (After the initial interview session, OD4 had a sperm count; the result was zero.)

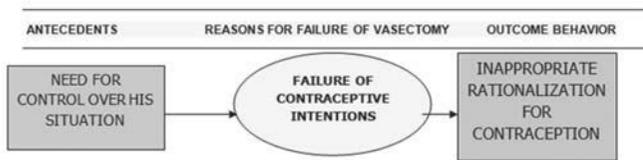


Figure 6. Emerging concept for case 4

Case 5: Unbroken vow Case 5 had all the antecedents of a successful contraception - shared responsibility, compatibility of contraceptive intention, positive contraceptive experiences, love for wife and willingness to assume responsibility. However, his vasectomy failed because of his failure to comply with program protocol of undergoing a sperm count. The husband and wife's relationship were marked by the following characteristics: 1) compatibility of their contraceptive intentions; 2) same aspirations regarding the number of children desired; and 3) agreement on the contraceptive method to be used. In accepting vasectomy, the burden of contraception was carried by PL5. His perceptions and decisions were borne out of his regard and love for his wife. Despite the failure of vasectomy, he accepted it while his wife shared in the consequences. Their participatory engagement in contraception led to strengthen their contraceptive

intentions. For PL5, vasectomy was his best option, and had no qualms about a repeat procedure. It was a necessity rather than a choice and was a manifestation of their partnership as husband and wife. Despite the obvious failure of his vasectomy, the whole episode was a positive contraceptive experience for both of them as evidence by the love and joy brought about by the product of that contraceptive failure - a daughter they longed for.

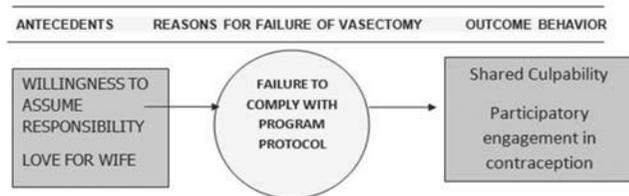


Figure 7. Emerging concept for case 5

Case 6: The fast and the furious For Case 6, inadequate contraceptive information led to a hasty decision-making. Inadequate client-provider interaction added to the burden of his poor understanding of vasectomy. His misconceptions were not addressed either. Once failure of the method occurred, he was naturally skeptical and blamed others for the way he understood the instructions given to him about the sperm analysis, which he did not pursue. He could have been spared of the unfortunate experience of the tragic death of his last two children, born with multiple congenital anomalies. The evidence of his failed vasectomy was enough for LB6 to remain skeptical regarding his perceptions of contraception. In the end, because he did not believe in vasectomy anymore, he decided not to undergo sperm analysis.

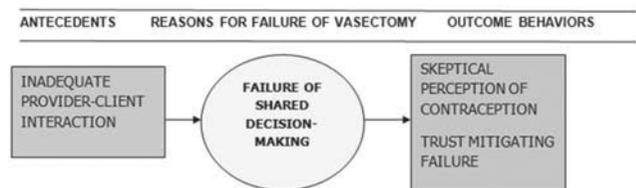


Figure 8. Emerging concept for case 6

Emerging frameworks to themes and subthemes From the emerging frameworks of the six cases, the reasons for failure of vasectomy of the participants were categorized into two themes: failure of partnerships and failure due to low levels of health literacy. Drawn to elucidate underlying factors for failure, from the following refined categories from each of the cases emerged the five subthemes: failure of health education to correct misconceptions; failure in compliance; failure in cognition and understanding; failure in shared decision-making; and failure in contraceptive intentions.

## Discussion

### Theme 1: Individual's low health literacy level

One's health seeking behavior is also related to the individual level of health literacy. Where there are adequate levels of health literacy, the population has sufficient knowledge and skills and where members of a community have the confidence to guide their own health, people are able to stay healthy, recover from illness and live with disease or disability.<sup>7</sup> With adequate levels of health literacy, family planning methods would have been understood by the participants enough to remember and seek ways to have a sperm analysis that could have determined the early failure of their vasectomy procedure. They could have discerned that vasectomy, being fallible, can present failure - their failure. A clear understanding of the details of the informed consent read before the acceptance of the procedure as well as the instructions for the other parts of the protocol for vasectomy was hinged on understanding the male acceptor and his level of health literacy.

For whatever meaning(s) corresponding to Case 2's response of "bahala na", the endpoint was an action that reflected his poor compliance with the restrictions of the protocol by having unprotected sex with his wife. The other participants had their own "bahala na" attitude when they decided not to pursue the recommended sperm count. Note that the participants then had nowhere to go for their sperm analysis. Their individual complacency - or self-confidence - was anchored in their belief that there was no way for their vasectomy to fail - until their wives got pregnant.

### Theme 2: Failure of shared decision-making

To maximize provider-client interactions, it is necessary for clients to get as much correct information as a health provider can give. When there is not enough information, the decision will not be sound. The health provider could have inadvertently led the client to err into deciding what treatment option best suits him.

It is increasingly important to emphasize developing partnerships among patients, physicians, and other health professionals. Patient involvement in their own health care is likely to reduce errors, adverse events, and non-adherence to treatment.<sup>8</sup> Studies which had examined shared decision-making using qualitative and quantitative methods found it appropriate in any situation where there was more than one reasonable course of action and where a single option was not readily apparent.<sup>9</sup> The physician often provides initial information about available options, ensuring that patients understand the ramifications of their choices but patients must decide on their own course of treatment.<sup>10</sup> However, before provider and patient can engage in shared decision-making, there must be a shared understanding of each other's frame of reference.

When men were actively involved in and informed about family planning, the acceptance and continuation of contraception increased.<sup>11</sup> There was the sense of ownership that linked the male to the intention of the contraception. He was able to transcend the minor disadvantages associated with the contraceptive: the male was aware a condom could fail with typical use but persisted in its use because it brought him the emotional satisfaction of not being able to impregnate his wife when used perfectly. The same emotional stability of being free from anxieties of unintended pregnancy with vasectomy led the male to confer it with positive emotions that sustained his continued use. The contentment of having several pregnant-free years due to vasectomy drove the participants of this study to believe that the procedure was indeed successful.

Partnership calls for the acceptor and his wife to have the intention of shared responsibility in contraception. Couples must share responsibilities in procreation and in contraception. Increasing male involvement in family planning hopes to direct male participation towards the goals of partnership in order for the method to succeed. Partnership also

calls for service provider-client interaction that is grounded on an acceptable level of health literacy in order to maximize information passed during counseling and demand generation of acceptors. Such partnership is needed even after the acceptor has undergone the surgical procedure in order to motivate him to undergo the next step, which is sperm analysis. Whatever the result of the sperm analysis, the partnership needs to make ways so that client needs are addressed earlier and unintended pregnancies are averted, if possible.

Because of the failure of partnerships in this study, the acceptors were left with unintended pregnancies that resulted to extreme consequences: a cause for abortion, marital rift, and personal agony or a source of immense joy and blessing. When the partnership between acceptor and wife and between service provider and acceptor failed, vasectomy as a means of contraception was of no use to the acceptor. All participants saw the importance of contraception even in the face of its failure as a family planning method. The reasons they accepted vasectomy were still the very same reasons why they wanted their wives to continue with another contraceptive after a failed vasectomy.

The way the participants understood, processed, and acted upon the knowledge given to them when they accepted vasectomy was a product of the level of their individual health literacy. Sadly, there were no provisions for the program to address this factor as provider-client interactions were minimal and sometimes a one-shot deal. There was no in-depth assessment of how the acceptors understood the instructions given to them. There were no follow-up sessions done to monitor the status of acceptors post-vasectomy and to emphasize the need for a sperm analysis. The level of health literacy of the acceptors was not addressed nor improved even with the failure of their vasectomy. The participants continued with their misconceptions, fears, and fallacies that eventually became a burden to the program in general.

The reality bites of failed vasectomy led these acceptors to realize the truth that despite all that has been said and done, no method is ever perfect and infallible. In a sense, males undergoing vasectomy

have no emotional support from service providers who have been trained in the program to be pro-woman, dispensing contraceptive commodities for women.

When vasectomy fails as a method, there are a lot of issues service providers and program managers can never address. Until vasectomy is demystified to be fallible given the failure rate, the male acceptor will be burdened beyond imagination, far beyond the intentions and meanings of contraception. The service providers will be unable to reach out and help them because by that time they do so, contraception in its whole perspective, would be of no use to the clients.

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