

## IMPLEMENTATION OF THE DIFFUSION PROGRAM AND ADOPTION OF VASECTOMY INNOVATION IN THE CITY OF SURABAYA

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### Abstract:

The capital city of East Java Province, Surabaya City, has the densest population. This population growth rate is the task of DP3APPKB Surabaya City to overcome, and one of the programs is vasectomy. In 2013, Surabaya received an award for fostering Vasectomy groups until the acceptance rate was high, but after that, the number of acceptors continued to decline drastically until now. This study aims to look at the implementation of the vasectomy innovation diffusion and adoption program in Surabaya City. This research used a qualitative approach to get in-depth results from various perspectives. This research used a qualitative data search to interview critical informants, supporters, and experts. Respondents who will be interviewed are key people who can provide complete data and information about the vasectomy diffusion process carried out by DP3APPKB (Office of Women's Empowerment and Child Protection, Population Control and Family Planning) Surabaya City and the Team. It was found that complexity, side effects, and cost are not constraints, vasectomy diffusion channels are effective, and the added value offered is diverse. DP3APPKB can further emphasize these in running the next Vasectomy program.

**Keywords:** Diffusion of Innovations, Innovation Adoption, Vasectomy, Surabaya

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## INTRODUCTION

According to Worldometers (2021), Indonesia is the 5th most populous country in the world, with more than 279 million people. Also, among ASEAN (Association of Southeast Asia Nations) countries, Indonesia is the most populous country compared to the other nine members, with a fertility rate of 2.1. It is very different compared to the most advanced country here, Singapore, which only has a fertility rate of 1.1. Being in the fourth most prominent position in the world after China, with a total population of 1.42 billion, India with 1.37 billion, followed by the United States with 328 million people, is a sign that the Indonesian people need to be careful about the survival of the country in the future.

Despite various efforts by the Indonesian Government, there is still an increase in the population of Indonesia every year. This population increase can have good and bad effects on a nation. When qualified human resources accompany a large population, it will provide a promising guarantee in every stage of optimal national development. Moreover, when this large population can increase the number of consumers of production activities consumed as primary, secondary, and

tertiary needs, it finally increases state revenue that can be turned back as capital for the community's welfare. (Sugiarto, 2019).

Therefore, according to the Coordinating Ministry for Human Development and Culture (2021), the most effective way can be implemented is to adopt from other developed countries that have a small population quantity with high intellect, namely by holding family planning programs, as well as various other efforts to reduce population. This family planning program is not optimally implemented, and UNICEF (2018) states that there are several factors, namely lack of education, rampant poverty, environment, and religion regarding children, as well as other views that come from tradition, making this program very difficult to achieve the Government's target in order to suppress this population.

Therefore, emphasis on the advantages of each family planning program for men and women must be conveyed more intensely to the audience to create an excellent public welfare program. Family planning for women is considered to have a higher risk of failure than for men because the various hormones in women's bodies become a separate consideration when carried out without adjusting the prerequisites of the health department itself. Excessive use of birth control can cause side effects and even death. These conditions include the risk of blood clots, decreased breast milk production, premenstrual syndrome, increased cancer risk, increased cholesterol levels, and increased risk of hypertension. Not only that, birth control methods have weaknesses that can harm a woman's body. When faced with other birth control options, namely injectable birth control, the disadvantage is that substances not needed by the body and should be shed with menstrual blood are buried in the uterus and can cause cancer.

Then, there was a device made from sheep intestinal sheaths, and early evidence was found during excavations at Dudley Castle, England. This tool is often known as a condom, which then develops into one of the contraceptive options for men. (Maulida, 2018). Furthermore, along with the times, a new method for contraception or male birth control was found, namely vasectomy. The first massive national vasectomy program was launched in India in 1954 (Leavesley, 1980). This contraceptive method is the most appropriate choice to control the population (Roberto et al., 2016). The advantage of vasectomy is that it does not affect the function of the genital address itself. Not only that, healing from vasectomy contraception only takes a short time. However, few are aware of vasectomy or male family planning compared to female family planning. The low level of acceptance of this type of vasectomy family planning is also influenced by the lack of information that family planning can also be done by men and not only women, the lack of support from the environment or close relatives, and the perception of the similarity of castration and vasectomy which is considered inhumane (Amanati et al., 2021).

One of the regions in Indonesia with the largest number of poor people and a significant growth rate is East Java Province. (Liputan6.com, 2022). East Java has 4.181 million poor people, with 40.67 million people. According to the census results, there was an increase of 0.79%, and from the census data, it was noted that the area with the highest population was Surabaya City. In 2013, the MDGs Award was received by Surabaya City in the reproductive health category with the Government's successful program to foster Vasectomy groups. However, it did not last long, as the number of vasectomy acceptors in the city dropped drastically. The Surabaya City Office of Women's Empowerment and Child Protection and Family Planning and Control made several efforts, such as socialization and observation on vasectomy.

It is essential that the Government examines the performance of other regions and adopts tried-and-true methods to raise vasectomy rates to restore vasectomy's former glory in Surabaya City. As mentioned in Cahyani (2017), 16% of people in Surabaya do not have support for vasectomy, 70% have sufficient support, and their families fully support 14%. Although people still need to be

more interested in the program, vasectomy has opportunities to succeed in Indonesia. By improving the current weaknesses, such as more intense socialization and routine services in several community health centers, providing family planning cards and other information about vasectomy in various mass media so that people know that this program is free and free of charge. This research wants to see how the DP3APPKB office implemented the vasectomy innovation diffusion and adoption program in Surabaya.

Rogers (2003) states that diffusion is the process by which innovations are communicated through specific channels at a certain period among members of a social system. The messages disseminated in the communication process contain ideas or practices that are new or considered new. Diffusion is the medium of innovation agents of change used to persuade someone to adopt an innovation. Thus, diffusion is a type of communication that contains messages about a new idea until it is adopted.

**METHODS**

This research uses qualitative methods. This qualitative research was conducted because it can be used to construct reality and understand its meaning with a qualitative approach that describes symptoms and events, which will then be described. This research uses qualitative research because it focuses on processes, events, and authenticity. Researchers then interpret the results of qualitative research to find answers that are not obtained quantitatively. By continuing qualitative research, this interpretive research will make researchers directly involved in ongoing experiences with participants. The main reason for conducting qualitative research is that it is exploratory, and the researcher seeks to listen to participants and build understanding based on what they hear (Creswell & Creswell, 2023).

This research used a qualitative data search to interview critical informants, supporters, and experts. Respondents who will be interviewed are key people who can provide complete data and information about the vasectomy diffusion process carried out by DP3APPKB (Office of Women's Empowerment and Child Protection, Population Control and Family Planning) Surabaya City and the Team.

**Table 1.** In-depth Interview Respondents

Name	Name Coding
Siti Asiyah Agustini, S.Psi, M.M.	SA
Djoenijanto Soesilo, S.H., M.M.	DS
Nurul Habibah Umar, S.ST., M.P.HR.	NH
Ni Made Rai Indrawati, Ir.	NM
Suharto Ahmad	HA
Suradi	S
Natalio Astono	NA

Rianti Anggraini

RA

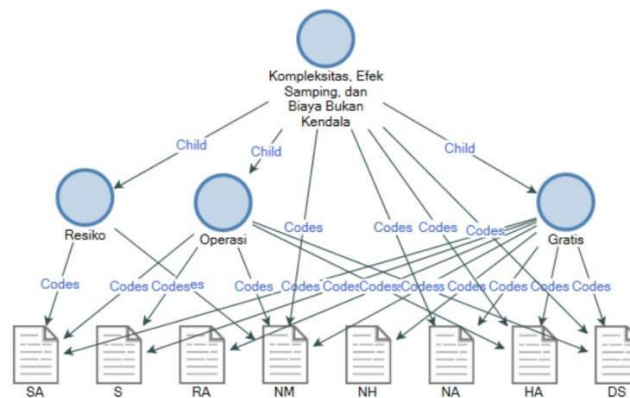
Source: Processed by Researchers (2023)

**RESULT AND DISCUSSION**

In this study, male family planning or vasectomy is the main topic that is expected to be one of the solutions in helping the growth of quality families. The vasectomy diffusion process carried out by DP3APPKB begins with the design of activities to direct implementation in the community. This activity involves a large number of stakeholders.

These stakeholders related to vasectomy became informants in finding the innovation diffusion model for vasectomy adoption in Surabaya City with multimodal mediation. The first informant is the vasectomy adopters, who directly know the vasectomy knowledge dissemination conducted by DP3APPKB until they adopt it. The second is the cadre who goes directly to the community to disseminate information related to vasectomy. The third is the Family Planning Field Officer co, commonly called PLKB, a Civil Servant appointed with duties and responsibilities to conduct counseling, services, evaluation, and development of family planning. The fourth is the Sub-coordinator of Population Control and Family Welfare of DP3APPKB Surabaya City, who served until October 2022. The fifth is a new official serving from October 2022 as Sub-coordinator of Family Planning of DP3APPKB Surabaya City. The sixth is the Head of Population Control, Family Planning, and Family Welfare of DP3APPKB Surabaya City, who served from April 2019 - October 2022 and entered according to the research period.

**Complexity, Side Effects, and Cost Not an Obstacle.** The results obtained from NVivo 14 coding related to interview questions on informants can be seen in the following figure:



Source: Processed by Researchers (2023)

**Figure 1.** Coding Results Complexity, Side Effects, and Cost are Not Constraints

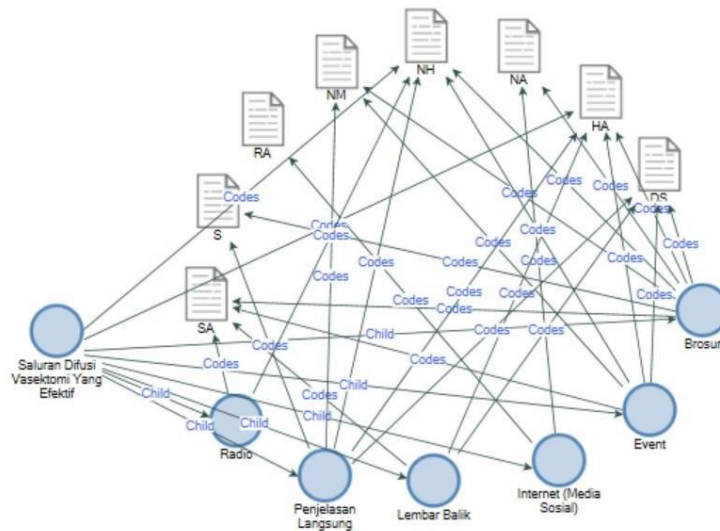
In the figure above, discussions about the difficulty level, side effects, and cost are not obstacles to vasectomy. These three are the statements that are tempered in the statistical test results. Statements Q3, Q5, and Q22 were answered because of the informants' statements in the in-depth interviews. As stated by SA regarding side effects, "Yes, everything is explained the same. However, the side effects are just after surgery. I always say it is okay. Yes, the name is just dissected. There must be a little sengkkring. Yes, but it is okay for a while. After that, I did not feel anything. If the cost is the program, yes, ma'am. Yes, there is no fee. It is all free, ma'am. "

This statement is also reinforced by NM regarding the low level of difficulty because the failure rate is low, namely "The message that MOP has many benefits. Benefits like Mr. Harto are like this. So far, the failure rate is a little. If I say not too much, the agency also explains like that.

Furthermore, vasectomy acceptors, namely S and NA, confirmed that the cost is not a concern because the Government has covered it in the statement, "Yes, when I was asked, I first asked whether I would pay or not. When I found out I did not have to pay, I just followed. Moreover, I even got an envelope at that time. Then he said it was safe and did not add more children. " And "If the fee is free. You even get money."

It is in line with what Paa et al. (2022) conveyed that diffusion is increasing globally in their research due to convenience, availability, and cost. In addition, technological, non-technological, and environmental factors can also contribute positively to the high diffusion level. The explanation includes three things: difficulty level, side effects, and costs of free coding children, surgery, and risks. In Figure 5.2, it can be seen that all informants did provide information on this matter.

**Effective Vasectomy Diffusion Channel.** The coding results related to the diffusion channel obtained in NVivo 14 from the results of interview questions to informants can be seen in the following figure:



Source: Processed by Researchers (2023)

**Figure 2.** Effective Vasectomy Diffusion Channel Coding Results

In Figure 2, it can be seen that the channels used by DP3APPKB are indeed diverse. Of course, NH as a PLKB can explain the tool used as a channel to communicate vasectomy, namely, "For our communication channels, ma'am, in addition to the existing ones, such as we have brochure posters, we also utilize media on the radio. We also have through what is it, and we also have RRI radio. Then, we also have groups for what activity groups we enter for this male family planning education.

S confirmed that one of the tools was used, namely, "Yes, I have seen brochures before. The one that my father brought. However, I prefer to listen to the story. However, it was good, so I just followed it. Yes, it was explained directly by Mr. Harto's team. I also told my friend, and then I invited Mr. Harto.

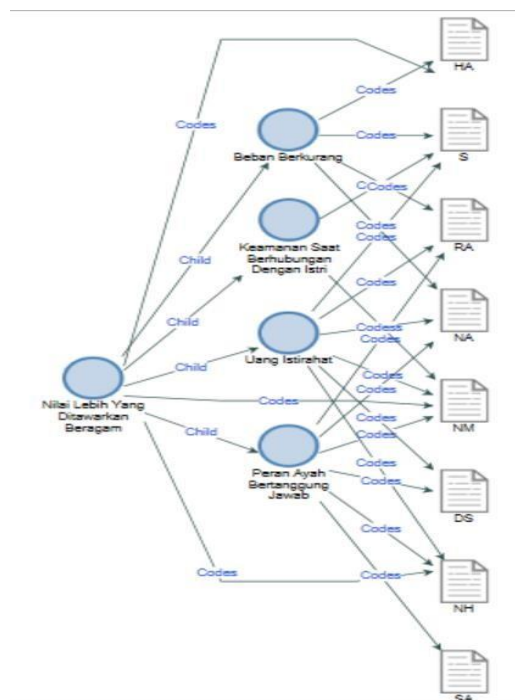
SA added that one of the activities that became a communication channel was holding an event in the statement, " Yes, so far there are many yes. The program submitted by the team has a radio that is still running or not; I have to ask again. Then there is the brochure that we made. Yes, but that activity is the most effective if we gropyokan it directly to the crowd. To the terminal like that. We can operate on the spot. We provide the bus.

This is as found by Taloko et al. (2022) in a study entitled Analysis of Health Promotion Strategies in Increasing Male Participation (Vasectomy) in the Family Planning Program in North Sulawesi Province. The strategy that can be used for the socialization of male family planning is a direct explanation from the motivator. In this study, the motivator was the cadre who explained.

In addition, late-adult acceptors NA and her partner RA preferred to view articles on the internet and social media. The explanation can be seen from their answers 'WA group, and then the cadre was visited by Mr. Kader directly to this house. Explained like that. "At that time, my husband told me the family was planning for men, so I immediately browsed on Google. There is. Moreover, I read about it; it is good, too.

With these various explanations, it is found that communication channels of many kinds are indeed a vital concern in diffusion to have the final impact of an innovation, namely adoption. Zhai et al. (2021), researchers from Tianjin, China, also said the same thing about diffusion channels being critical in determining the scale of adoption. In this study, the channel most often mentioned is a face-to-face or direct explanation.

**More Value Offered Diverse.** The results obtained from NVivo 14 coding related to interview questions on informants related to the adoption of innovations:



Source: Processed by Researchers (2023)

**Figure 3.** Coding Results of Diverse Added Values Offered

Based on a pre-survey conducted by researchers in consultation with various parties, the word frugal emerged as one of the added values offered. However, statistically, the results obtained were not significant. Furthermore, at the in-depth interview stage, it turns out that saving money and the added value offered is a lot, starting from the feeling that the burden is reduced, as seen from S's statement, namely, " I do not think about heavy things at home anymore. Having children does not add to the burden on the family. "

Furthermore, NM's statement also states about the safety obtained with vasectomy: "Yes, we explain that the birth control is not long. Some have to take pills every month. If not, change the

device every 3-5 years and others. However, with vasectomy, it is enough for the father to participate once, and it is safe forever. It certainly makes it more hassle-free. The risk is also low and even practically impossible to fail. It can become a child or other birth control device if you forget to take the pill. The father can feel safe, no longer burdening his wife. Especially those whose wives have problems."

Then, the following added value that emerged was the provision of rest funds, which turned out to be one of the added values offered. Five informants conveyed it, some of them were DS and NM, namely, " From the agency, the first thing that is prepared is the budget in the APBD. We try to prepare it fully. Give them money to rest for three days. The amount is 300,000, and it is hard to increase it. It takes its special policy from above. " And " Actually, after the operation, the acceptors get that lo, not incentives but funds so that they replace their rest. The term is that they are advised to rest two to three days after the action. "

As stated by Harahap (2018), men are expected not only to be passive family planning participants but also to support their wives in choosing and using certain contraceptives. Men also have an essential role in reproductive health. As a responsible father, getting support from his wife will increase 2.647 times the use of male family planning, namely vasectomy.

## CONCLUSION

The first result found that complexity, side effects, and costs are not obstacles to the spread of innovation, so explanations related to these do not need to be of particular concern. Second, the effective diffusion channel in this study is socialization or direct explanation. Third, the added value offered varies from reduced burden, safety, and getting the rest of the money, and the most frequent response of informants is the father's role in the family. The research on the diffusion and adoption of vasectomy that has been explored can be an input for DP3APPKB, starting from the budget design stage to its implementation to raise positive things in the community.

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