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Risky sexual behavior and prevention of STIs in female merchants based on behavioral theory of health belief model: an exploratory study in Denpasar city, Bali

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ABSTRACT

Introduction: Previous studies have shown the risky behavior that causes women's vulnerability in markets to STI transmission is sexual intercourse with more than one partner. The present study reveals in depth risky sexual behavior and STI prevention among female merchants based on the behavioral theory of the Health Belief Model. This study aims to determine the risky sexual behavior and prevention of STIs in female merchants based on the behavioral theory of health belief model.

Methods: This study uses mix-methods (quantitative and qualitative methods). Using the quantitative method, this study first found a descriptive picture with a cross-sectional design. Then with the qualitative method, it extracted more in depth the experiences and social contexts experienced by the participants. The research sample was taken from 100 female merchants and in-depth interviews were conducted with 20 of those who had had sexual intercourse with an age range of 18-45 years in Denpasar City. Respondents were selected by purposive sampling.

Results: Risky sexual behavior by most of the respondents is by having premarital sexual intercourse. Most of the respondents, which is 60%, in the market perceive such action would not risk getting an STI because of loyalty to their partner. In terms of the seriousness of STIs, they assume it is indeed a serious disease. Nevertheless, to prevent STIs, the respondents assure us that avoiding risky sexual behavior is not truly what matters. The respondents believe they can manage to afford not to engage in risky sexual behavior for the prevention of STIs.

Conclusion: Most female merchants believe having risky sexual intercourse will not risk causing them to contract an STI. To overcome this, it is necessary to establish special programs to reduce the number of STIs in the community, especially in low-risk groups such as female merchants.

Keywords: Behavior, STI, traffickers, Denpasar.
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INTRODUCTION

Sexually Transmitted Infections (STI) have emerged as a public health problem throughout the world, both in developed and developing countries. The development of the STI problem is intensively worrying.[1] Its actual incidence and prevalence in various countries is not clearly known. STIs are a group of diseases that are transmitted mainly through sexual contact. According to WHO, every year in all countries, there are about 250 million new sufferers and according to the results of the WHO analysis, the number tends to increase from time to time.[2]

Low-risk populations, in this case, traders and housewives, are also often victims of STIs.[3] Based on the fact, it is clear STIs has become a separate problem which raises the bar to the government. The high number of STIs is evidence that the public's knowledge of STIs is still low. The main strategy for STI prevention is the establishment of prevention programs.[4]

One of the places in Bali where the interaction of the people is high is the market. They are the place where the population belongs to the low-risk group.[5] In the capital city of Bali Province, Denpasar, there is Pasar Badung which is the 24-hour-operating largest traditional market and is the center of the economy in the city and its surroundings, which operates 24 hours. The mobilization that occurs in Pasar Badung is quite high, in which the change of traders frequently occurs.

Previous studies on the vulnerability of women to the transmission of STIs and HIV were carried out in three service centers in Denpasar, one of which was at the Kespro Clinic located in Pasar Badung. The study shows risky behaviors causing women's vulnerability to the transmission of STIs and HIV were the behavior of sexual partners with more than one partner, low bargaining power in condom

negotiations, prostitution, and forced sex.[6] However, the study has not discussed the pattern of risky sexual behavior that occurs in the traders and their prevention behavior. This study aims to determine the risky sexual behavior and prevention of STIs in female merchants based on the behavioral theory of health belief model.

METHODS

Study Design

The present study adopts a quantitative and qualitative research design (mix-methods) with the aim of first finding a descriptive picture with a quantitative method using a cross-sectional design and then digging deeper into the experiences and social contexts experienced by the participants using a qualitative method.

Data Collection

The research sample was taken from 100 female merchants. In-depth interviews were conducted with 20 of the traders, especially those who had had sexual intercourse, were communicative, and aged 18-45 years at Pasar Badung, Denpasar City. Respondents were selected by purposive sampling.

Data Analysis

Data analysis is carried out descriptively using the frequency distribution table. Data analysis was carried out using the SPSS computer program version 21.

RESULTS

The results of the quantitative research are presented in tables and narratives to describe the frequency distribution of perceptions toward the components of behavioral theory of Health Belief Model obtained from female merchants at Pasar Badung, Denpasar City.

The results of qualitative research in this study are presented in narrative form. It includes the results of in-depth interviews that contain risky sexual behavior by female merchants as well as their perceptions of the Behavioral Theory component of the Health Belief Model toward STIs.

Most of the respondents had premarital sexual intercourse with their partners. They consider it a normal and natural action for couples to do. The following is an excerpt from the statements of one of the respondents:

"Hubungan seksual pertama kali yang saya lakukan ya sebelum menikah mbak. Dengan suami saya yang

Table 1. Frequency Distribution of Perceived Susceptibility to STIs and Perceived Severity/Seriousness of STIs.

Risk of Contracting STIs	f (%)
no risk at all	60 (60)
may be risky	39 (39)
Risky	1 (1)
very risky	0 (0)
Seriousness of STIs	**f (%)**
not serious at all	9 (9)
not too serious	75 (75)
Serious	14 (14)
very serious	2 (2)

Source: Primary Data

Table 2. Frequency Distribution of Perceived Benefits.

No.	Perceived Benefits		f (%)
a.	Avoiding sexual intercourse with non-permanent or non-husband partners to prevent STIs	not beneficial at all	2 (2)
		not too beneficial	76 (76)
		beneficial	21 (21)
		very beneficial	1 (1)
		Total	**100 (100)**
b.	Using condoms consistently during sexual intercourse with non-permanent or non-husband partners to prevent STIs	not beneficial at all	2 (2)
		not too beneficial	81 (81)
		beneficial	17 (17)
		very beneficial	0 (0)
		Total	**100 (100)**
c.	Not having oral sex with a non-permanent or non-husband partners to prevent STIs	not beneficial at all	8 (8)
		not too beneficial	88 (88)
		beneficial	4 (4)
		very beneficial	0 (0)
		Total	**100 (100)**

Source: Primary Data

Table 3. Frequency Distribution of Self-Efficacy.

No.	Self-Efficacy		f (%)
a.	Avoiding sexual intercourse with non-permanent or non-husband partners to prevent STIs	Not at all efficacious	6 (6)
		Not too efficacious	19 (19)
		efficacious	74 (74)
		Very efficacious	1 (1)
		Total	**100 (100)**
b.	Using condoms consistently during sexual intercourse with non-permanent or non-husband partners to prevent STIs	Not at all efficacious	47 (47)
		Not too efficacious	44 (44)
		efficacious	9 (9)
		Very efficacious	0 (0)
		Total	**100 (100)**
c.	Not performing oral sex or anal sex with non-permanent or non-husband partners to prevent STIs	Not at all efficacious	1 (1)
		Not too efficacious	33 (33)
		efficacious	64 (64)
		Very efficacious	2 (2)
		Total	**100 (100)**

Source: Primary Data

sekarang. Dari sebelum nikah emang udah sering berhubungan."

'The sexual intercourse I had for the first time was before I got married. I had it with my current husband. We used to have it before we got married.'

(IM, married, 27 years old)

Most of the respondents claimed to have heard of STIs. They argue STIs are diseases that arise as a result of changing partners in sexual intercourse. The following is a quote from one of the respondents' statements:

"Pernah mbak. Itu yang kayak sakit kelamin itu kan. Kemaren baru dikasi penyuluhan. penyakit Infeksi Menular Seksual itu yang kayak kelamin keluar nanah, AIDS itu kan ya. Itu penyakit kelamin biasanya karena banyak punya pacar. Sering gonta-ganti pasangan. Makanya jadi keluar nanah di kemaluan."

"I've heard about it. It's like a venereal disease, right? Yesterday, there was socialization given about it. Sexually Transmitted Infectious disease is the one that causes pus to come out of the genitals, right? It's AIDS, right? It is a venereal disease that usually arises because a person has many partners. They often change partners. Then, it causes pus to come out of their genitals."

(NR, married, 45 years old)

Most of the respondents perceive they are not at risk of developing STIs. They claim they have no complaints so they are not at risk of getting an STI. There are also who believe if they are loyal to their partner, they will not be at risk of developing STIs. They believe that they are at risk of developing STIs only if they change their sexual partners. The following is an excerpt from a statement from one of the respondents:

"Kalo menurut mboknya sih ya gak berisiko. Ngapaen berisiko. Orang gak ada keluhan, ya gak berisiko. Kalo ada keluhan berbahaya di kelamin baru itu berisiko namanya."

"I think it's not risky. Why risky? I have no complaints, so it's not risky. It'll be only risky if there are complaints that are harmful to the genitals."

(KW, married, 45 years old)

In terms of the seriousness of STIs, most of the respondents think STIs are indeed serious diseases. They claim STIs are serious diseases like AIDS; they are deadly diseases and can lead the body to thinness, and there is no cure until now. They also think STIs are developed from sexual intercourse with multiple partners and the use of tattoo needles. The following is an excerpt from a statement of one of the respondents:

"Serius banget itu mbak. Soalnya itu kan gak ada obatnya. Bahaya itu penyakitnya. Kayak AIDS itu kan mbak contohnya. Soalnya ada tetangga katanya kena AIDS sekarang udah meninggal. Badannya kurus banget mbak. Kering kerontang. Soalnya dia nakal dulu. Sering nyewa cewek-cewek nakal. Pake tatto juga di badannya. Penuh itu badannya ada tattonya mbak."

'That's very serious, sister. There has been no cure yet. The disease is severe. Isn't that like AIDS? I once had a neighbor who had AIDS and had died. His body was too thin; it's skinny wrinkled. He used to be naughty. He used to pay naughty girls. He also put tattoos on his body. His whole body was covered with tattoos.'

(DY, married, 25 years old)

Most respondents assume avoiding risky sexual behavior is not very beneficial for the prevention of STIs as they do not have a good understanding and comprehension of the disease. The following is an excerpt from a statement of one of the respondents:

"Kurang tau saya mbak. Gak ngerti dah saya. Kayaknya gak terlalu bermanfaat deh."

'I don't really know, sister. I don't understand about it. I think it's not too useful.'

(IM, married, 27 years old)

"Gak bermanfaat kayaknya. Gak tau saya mbak. Gak dah ngerti masalah gitu. Soalnya saya kan cuma punya pacar 1 aja sekarang. Gak gonta-ganti pasangan."

'It doesn't have a lot of benefits. I don't know, sister. I don't understand about that. I only have one boyfriend. I never change my partner.'

(KA, not married, 26 years old)

Most of the respondents also claim they could afford not to engage in risky sexual behavior for the prevention of STIs. They think they are loyal to their partner. The following is an excerpt from a statement of one of the respondents:

"Mampu sekali. Kan mbok Nyomannya orangnya setia. Ngapaen punya pacar banyak-banyak. Hahaha… Suaminya mbok Nyoman juga setia sama mbok Nyomannya."

'I can. You know, Sister Nyoman (the speaker) is loyal to her partner. Why do I have to have many of boyfriends? Hahaha (laughing)! My husband is also loyal to me.'

(ND, married, 30 years old)

In an effort to prevent STIs, respondents think they must be loyal to their partners, such as the excerpt from a statement of one of the respondents below:

"Ya harus setia sama pasangan. Jangan selingkuh-selingkuh mbak. Hahaha…"

'Well, we have to be loyal to our partner. No cheating. Hahaha…'

"Iya pokoknya jangan gonta-ganti pasangan. Harus setia."

'Yes. Anyway, no changing partners. We have to be loyal.'

(PS, not married, 25 years old)

DISCUSSION

The behavioral Theory of Health Belief Model is used to analyze risky sexual behavior and the prevention of STIs in female merchants. The theory is also used to apprehend responses of female merchants to the symptoms of the disease and behaviors toward the prevention of STIs.[7] The vulnerability of the low-risk population to the transmission of the disease is generally due to the lack of information obtained and lack of knowledge regarding STIs as well as their lack of access to STIs prevention services.[8]

The majority of low-risk populations are infected by their partners, who have become accustomed to having risky sexual intercourse with other partners other than them.[9] What is even worse is the partners having been infected with the disease avoid being transparent with their families, let alone get themselves checked. They worry they will be abandoned if they try to be honest about their condition.

Factors causing the high incidence of STIs in low-risk populations include because they are still considered to be in the second class, so they are powerless to refuse or to choose their sexual partners.[10] The risk is even higher for low-risk populations in general when the patriarchal culture in Indonesia is still prevalent, thus placing them in the most vulnerable position on either side. In several areas in Indonesia, the transmission of HIV/AIDS - which includes STIs - in low-risk groups can occur due to a large number of sexual intercourse with multiple partners, having sexual intercourse at a young age, and the low consistency of condom use.[11]

Most respondents perceive they are not at risk of contracting STIs. They claim they have no complaints and so assume they are not at risk of contracting the disease. There are also those who argue if they are faithful to their partner, they will not be at risk for STIs. They think only if they change their sexual partners will they be at risk of developing STIs. The female merchants in Pasar Badung are included in the low-risk group. Despite their knowledge that their partner has symptoms of risky behavior, they still consider themselves unlikely to be infected because of their loyalty to them. In addition, in spite of the fear of STIs, they do not use condoms. It is because their sexual partner hates having condoms on and also because they are afraid their partner will be indignant if they try to offer them condoms.[6]

The fact is consistent with the results of the past study conducted in 2015 regarding the relationship between individual perceptions and the risk of being infected with HIV in Mozambique. The study revealed 27% of women and 80% of men claimed they had no risk or had a small chance of contracting HIV despite the fact that they were actually a medium or high-risk group. Therefore, the knowledge factor is very influential on behavior change toward HIV prevention in Mozambique.[12]

Regarding the seriousness of STIs, most of the respondents admit they are indeed a serious disease. Respondents believe STIs are serious diseases such as AIDS. They even believe AIDS is a deadly disease and until now the cure has not been found, other than it can cause the body to become thin. They also think STIs are contracted from sexual intercourse with multiple partners and also from the use of tattoo needles.

Perceived seriousness refers to one's perception of the severity of the illness they are suffering from. The more severe the disease, the greater the perceived threat.[13] This threat will encourage one to make efforts to prevent disease. One's perception of severity will affect how they act on their behavior. A person still has the perception that transmission of STIs can take place quickly and symptoms can be felt immediately, when in fact STIs can appear without symptoms and will be able to show symptoms only when the infection is already severe due to not getting treatment or because of the wrong treatment – this will lead to a worsening condition.[14]

It is in accordance with previous research, that is, analytical survey research with quantitative and qualitative methods conducted in 2014 regarding the perception of housewives regarding VCT testing on HIV/AIDS prevention behavior in Banyumas Regency. It was found most housewives considered HIV/AIDS to be a serious disease. One's actions to seek treatment and prevention of disease are driven by the threat of the disease.[11]

Most respondents assume avoiding risky sexual behavior is not very beneficial for the prevention of STIs. It is due to their lack of knowledge and understanding of it. However, there are also respondents who think avoiding risky sexual behavior is beneficial for the prevention of STIs. They argue that STIs are acquired from changing sexual partners. Additionally, they also believe that condoms can prevent STIs.

Sexual behavior is a major determinant of sexual and reproductive health. This is supported by the previous research on partnerships and risky sexual behavior in the UK compared estimates of the population behavior patterns of the National Survey of Sexual Attitudes and Lifestyles (Natsal) in 2000 (1999-2001) and Natsal in 1990 (1990-1991). The survey was conducted on men and women aged 16-44 years living in the UK employing the interview method and the results were compared with respondents in Natsal 1990. From the data obtained, the prevalence of risky behavior had reportedly increased compared to data from Natsal in 1990. The use of condoms for protection from STIs was greater than offset by an increase in risky sexual intercourse in the UK.[15]

Regarding STIs prevention behavior, most of the respondents claim they could afford not to engage in risky sexual behavior for STIs prevention. They admit they are loyal to their partners. Additionally, in an effort to prevent STIs, the respondents believe they need to be loyal to their partners.

Based on the previous research, it was found prevention of the risk of STIs transmission is very important. Transmission of STIs through heterosexual intercourse was the largest mode of transmission in India. The increasing HIV/AIDS pandemic took place by means of the transmission of married women or housewives from their infected partners. Prevention of transmission to housewives was the target of the STIs prevention program which remained difficult to achieve. The study was conducted by means of an interview-based survey to 350 housewives in Mumbai, India, of which 67% (236) were aware of HIV/AIDS. Despite their awareness of the disease, 59.3% (140) of them continued to have risky sexual intercourse with an increased risk of HIV. When interviewed, the housewives said the reasons for not changing their behavior were because they had monogamous sexual intercourse, they also did not belong to a risky population like commercial sex workers, plus they had great faith in their husbands. Therefore, it is not only necessary for housewives to have an STIs prevention program, but also for their partners.[16]

A similar study was also conducted in Kenya. It investigated the relationship between the risk of HIV infection and sexual behavior which had been still poorly understood, although the perceived risk was considered important as the first step towards behavioral change. The study made use of data from the Health and Demographic Survey of Kenya in 1998 with a logistic regression model.[17] The results of the study showed an association between the risk of HIV/AIDS and risky sexual behavior in women and men. Sociodemographic, knowledge,

age, marital status, education, occupation, place of residence, ethnicity, information about HIV/AIDS, and condom use to prevent STIs were the influencing factors.[18]

This study has limitations, namely, this study could be repeated as an interventional investigation with larger samples, including all kinds of female merchants and healthcare workers from a larger area.

CONCLUSION

Most of the respondents have heard of STIs and HIV/AIDS. Regarding susceptibility to STIs, most respondents assume they are not at risk of contracting STIs. Regarding the seriousness of STIs, most of the respondents admitted STIs are indeed serious diseases. It is considered that avoiding risky sexual behavior be not very beneficial for the prevention of STIs. The respondents also believe they could manage not to engage in risky sexual behavior for the prevention of STIs. In addition, further studies with different study designs and larger samples need to be conducted to identify correlations between risk factors for STIs.

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AUTHOR CONTRIBUTION

All authors contributed to this study's conception and design, data analysis and interpretation, article drafting, critical revision of the article, final approval of the article, and data collection.

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CONFLICT OF INTEREST

The authors report no conflict of interest.

ETHICAL STATEMENT

The respondents already gave permission and written consent to be published.

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