BIOSCIENCES BIOTECHNOLOGY RESEARCH ASIA, December 2014. Vol. **11**(3), 1253-1258

Reproductive Tract Infections: Barriers for Seeking Health Behaviors, Knowledge and Attitude Among Married Women in Southwest Iran, 2014

Banafsheh Tehrani Neshat[1]*, Mahsa Sabetghadam[2] and Somayeh Sabetghadam[2]

[1]Department of Nursing, Jahrom Branch, Islamic Azad University,Jahrom,Iran.
[2]Department of Obstetrics and Gynecology, Jahrom University of Medical Sciences, Jahrom, Iran.

doi: http://dx.doi.org/10.13005/bbra/1513

(Received: 10 October 2014; accepted: 30 November 2014)

Sexually transmitted infections are a worldwide major concern in developing countries, particularly in women. Since knowledge plays an important role in attitude's mode and performance of individuals, therefore a descriptive study was performed to evaluate the level of knowledge and attitudes of married women in southern Iran about sexually transmitted infections. The descriptive study was sectional and 350 married women in the range age of 14- 59 year, participated in the study. The selection of samples was done among women who had referred to the women clinics in Jahrom which locates in Fars province. Data were collected by using a questionnaire including demographic characteristics, questions related to knowledge (24 items) and questions related to attitudes (12 items), were collected during 3 months by interview. Collected Data were analyzed by using the SPSS software, descriptive statistics tests and non- parametric (K-square) statistics tests and logistic regression. The mean age was 30.39±7.77 year old. Most women had good knowledge. Women awareness about the prevention of genital tract infections were includes: "gynecological infections can be prevented by compliance of the health tips" (96.6 %), "after treatment of infection the couple should always observe health principles to prevent from re-infection" (95.2 %), "gynecological infections cause redness, itching and burning sensation in the genital area" (92.2 %). The maximum level of attitude was related to the following options: "observe personal health like: daily change of underwear is beneficial in the prevention of infection" (78.8 %), "on time treatment of gynecological infections causes her personal health and also her husband and children health" (76.6 %), "being awareness of the causes and methods of transmission of gynecological infections, is very important to prevent them" (72.3 %). K-square test showed that there are significant differences between the level of knowledge and age (p<0.001), the level of knowledge and living location (p 0.001) and between attitude modes and age (p 0.001) and between attitude modes and education (p 0.002). Logistic regression test showed a significant association between level of knowledge and women's job. (p = 0.01). Given that, health and therapeutic personnel have important role in training of prevention methods from disease and in correct and healthy lifestyles, so established of Sexually Transmitted Diseases (STD) clinics, to meet the needs for screening, treatment and health education which relate to sexually transmitted infections in all age- wise groups and all the socio- economic classes is useful.

Key words: knowledge, attitude, women, reproductive- tract infections and sexually transmitted infections.

Reproductive- Tract Infections (RTIs) in women is one of the widespread health concerns[6]. Reproductive- tract infections, including sexually transmitted infections and HIV have significantly

* To whom all correspondence should be addressed.
Tel. : +989177177786;
E-mail: Minatehrani51@yahoo.com

known as a serious global health problem. Both men and women may suffer from RTIs, but their consequences are more damaging and broader for women. RTIs are often indistinguishable[2]. Annually about 150 million cases of RTIs occur in Southeast Asia and 65 million cases, occur in Africa.

Many women, who on the outpatient basis refer for care facilities, suffer from vaginal infections[13]. A wide variety of infectious diseases affect the female genital tract, which can be divided into two main groups: 1- sexually transmitted diseases. 2- Infectious diseases that arise due to the normal flora[16].

RTIs can lead to long –term health consequences such as pelvic inflammatory infection, cervical uterus cancer, infertility, spontaneous abortion and ectopic pregnancy and adverse pregnancy outcomes[11]. The transmission possibility of gonorrhea or syphilis from an infected person to a non- infected person, with once sexual intercourse is about 50% and contamination possibility of Chlamydia infection and the possibility of sexually transmitted viral infections are somewhat less than this amount[18]. According to the Iran official data, modes of transmission include: 50.1% were infected through injection drug use, 22.2% through intercourse, 18.5% through blood and blood products, 1% through mother-to- child and 8.2% of transmissions were unknown[14].

Most infection by immunodeficiency virus is in men in the ages of 19- 49 years old and most infection by other sexually transmitted diseases has been reported in the age range of 15-49 years, and this range is of childbearing age[4].

With the increasing presence of women in the labor market, they encounter to some challenges in their roles, lifestyles and family patterns. In addition, women have been exposed to environmental risks and stresses, which cause them to have more attention to the health and health promotion behaviors[19].

The major aspect of the control and prevention of disease and health protection is health education. This process occurs according to the characteristics of high- risk groups or groups that have played a major role in control of the disease[14]. Since knowledge plays an important role in people's attitude and behaviors, hence for any educational planning in order to increase awareness, change in mode of attitude and ultimately to create a favorable performance in women, this study was performed to investigate the level of knowledge and mode of attitude and also determination of health services seeking barriers for sexual examinations in married women. This aim was performed to help the society to promote the level of health by identification of society's training needs and also identification of related problems.

MATERIALS AND METHODS

This research was a descriptive –sectional study. The studied population is consisted of married women in reproductive ages and in the range age of 15- 49 year, in the city of Jahrom which is located in Fars province. The sample was contained 350 people who were selected by using of simple sampling method among married women in reproductive ages. The mentioned women were referred to health clinics to receive health services. By using of 4- Part questionnaire, data were collected through interviews within 3 months. The first part of questionnaire related to the demographic data and questions were placed in the other parts. Questions were divided as bellow: questions related to level of knowledge were (24 items), modes of attitude (12 items) and barriers to seeking health services for sexual examination were (12 items). After completing the questionnaires, given answers to knowledge questions were determined by three levels, good, average and poor, and also attitude questions were determined by positive and negative types. The relationship between variables of age, occupation, the education level of woman and also her husband, were determined with the mean score of knowledge scores and the level of attitude was determined by using the k-square test and logistic regression. And barriers to seeking health services for sexual inspection were determined through descriptive statistics.

Findings

The mean age of women was 30.39 ± 7.77. Related to the knowledge status, results show that 22.6% of the women have heard that the AIDS is the most common sexually transmitted disease and then 16.7% genital warts and 4.2% gonorrhea. Most women had good knowledge about reproductive

disease prevention methods. The highest level of knowledge about prevention methods included "96.6% of women believed that with respect to the health principles, can prevent gynecological infections", "95.2% of women believed that after treatment of infection the couples should always adhere to principle of health.", "91.2% of women believed that gynecological infections cause redness, itching and burning sensation in the genital area", 39.5% of women were unknown about this point that for treatment of infections "the couples both must take drugs". 30.8% of examined women "had no information" about this item that some gynecological infections have no symptoms and so medical examination and biopsy must be used for detection of them. And 30.5% of examined women "had no information" about this item that for the prevention of sexually transmitted infections, regular and stable medical examination (even in asymptomatic people), is essential.

Table 1. Relative frequency of knowledge scores of women in southern of Iran, about prevention of reproductive tract infections

What information do you have about the prevention of common genital tract infections?		Answer		
		Yes	No	I don't know
1	Normal femininity secretions are low, viscous, colorless and odorless.	82.8	0.8	16.4
2	If a woman suddenly increased secretion, should be suspected to femininity infections	75.5	0.3	24.3
3.	If the color or smell of femininity secretion change, should be suspected to gynecological infections	89	0.8	10.2
4.	Gynecological infections cause redness, itching and burning sensation in the genital area	91.2	0.6	8.2
5.	Gynecological infections cause frequency, dyspareunia, below abdominal p ain and back pain	82.5	0.6	16.9
6.	Gynecological infections are transmitted by intercourse	67.8	0.8	31.4
7.	Gynecological infections are usually transmitted through the public toilet	66.7	1.1	32.2
8.	Gynecological infections transmitted through contaminated bath	72.9	1.4	25.7
9.	Gynecological infections transmitted through contaminated underwear	86.4	2	11.6
10.	Gynecological infections transmitted through contaminated hands and long nails	54.5	1.7	43.8
11.	In case of non-compliance the correct way of washing the genital area, infections can be transmitted from the anus to the vagina	72.3	0.8	26.8
12.	Wearing tight underwear and nylon clothing, cause gynecological infections	74.9	1.1	24
13.	With respect to hygiene principles, can prevent the gynecological infections	96.6	0.8	2.5
14.	In case of using vaginal internal- drugs like ointments, the hands should be washed with soap and water, before using the drug.	90.1	0.0	9.9
15.	some gynecological infections have no symptoms and medical examination and sampling should be used for diagnosis	66.9	2.3	30.8
16.	Long- term use of antibiotics, prone the person for gynecological infections.	30.2	1.7	68.1
17.	In case of gynecological infections should abstain from intercourse and /or use condoms	73.2	0.3	24.9
18.	To treatment gynecological infections, both couples must take drugs	58.8	1.7	39.5
19.	When infections are treated in couples, sanitation should always be considered to prevent re- infection.	95.2	0.6	4.2
20.	Diagnosis and treatment of gynecological infections can prevent their risks.	91	1.1	7.9
21.	To prevent sexually transmitted infections, regular and stable medical examination (even in asymptomatic people) is essential.	69.2	0.3	30.5
22.	To prevent sexual transmitted infections, sexual intercourse should be avoided during menstruation.	89	0.6	10.2
23.	In case of any signs of infection (even mild), should ask for help.	74.9	0.6	24.6
24.	Treatment of sexually transmitted diseases is enough just for who has symptomatic.	30.2	0.3	69.5

Table 2. Relative frequency scores of attitude of women in southern Iran, about the prevention of reproductive tract infections

S. No.	Choose your opinion about the following statements and indicated it by ×	Answers				
		Totally agree	agree	No comments	Disagree	Quite disagree
1	Preventing from gynecological tract infections is more important than treatment	0.3	15	2.3	2.3	0.3
2	Medical examination and sampling of femininity secretions, cause discomfort in women.	17.2	31.1	20.6	23.2	6.2
3	Respect to the personal hygiene like daily changing the underwear is beneficial in prevention of infection.	78.8	15.3	3.7	0.6	0.6
4	The use of vagina internal drugs to treat femininity infections, is difficult	16.7	29.9	26.6	18.9	4.8
5	Couples in case of stricken to infection, must be honest to tell his/her partner.	64.7	23.7	7.3	2.3	0.8
6	Medical examination of genital tract, causes embarrassment	21.5	24.9	15.5	20.9	16.4
7	Detection of femininity infections has no benefit except creation of anxiety	7.3	11.3	13.8	35.9	28.8
8	The use of condoms when person is stricken to infections is unpleasant.	16.1	15	35.6	17.8	11.9
9	Being awareness of the cause and mode of transmission of gynecological infections is very important for prevention of them	72.3	18.6	3.1	2	0.6
10	Whatever more I know about gynecological infections, I tend more to prevent them	72	18.6	3.7	2	1.4
11	Only certain people should be thinking about the prevention of gynecological infections	8.5	3.7	6.2	30.8	47.5
12	On time treatment of gynecological infections causes health for person and also for his/her partner and children	76.6	15	5.1	1.4	0.6

Most of the studied women had a positive attitude towards prevention of reproductive tract's common infections. 78.8% believed that "respect to the personal hygiene like daily changing of underwear has benefit in the prevention of infection." 76.6% believed that "on time treatment of gynecological infections can cause their health, and the health of their husbands and children." And 72.3% believed that "to be aware of the cause and the methods of transmit of gynecological infections is very important to prevent them.'", but only 0.3% of the examined women totally agreed with the following phrase "prevention of genital infections is more important than the treatment."

About health services seeking barriers for sexual -medical examinations, it is determined that the barrier for 78% of women was embarrassing to do sexual examinations, the barrier for 76% of people was fear of pain during sexual examinations and 72.9% cited that they do not need sexual examinations due to not having any signs of disease.

K-square test showed that there are significant differences between the level of knowledge and age ($p<0.002$), the level of knowledge and living location ($p<0.001$) and also between the modes of attitude and age ($p<0.001$) and between the modes of attitude and education ($p<0.002$). Logistic regression test showed a significant association between level of knowledge and women's careers. ($p = 0.01$).

DISCUSSION

Based on the findings, most of the subjects were well aware in the context of the

prevention of reproductive tract infections, probably due to the development of public information about the prevention of genital- tract problems and emphasis on presence of preventive care at the present time[6]. Anderson and Milson in a similar study observed that there is a high level of awareness in 97% of studied subjects, in the context of prevention of genital tract's bacterial infections[1]. Most subjects in the study of Farokh Zadian, had fairly good knowledge about the prevention of reproductive tract infections[6].

Many of the women, who precipitated in the study, had not even heard the name of many of the classical sexual diseases. For example, just only 0.6% of the women had heard the name of Chlamydia disease, while it is the most common bacterial sexual diseases. Perhaps the widespread publicity about AIDS, is overshadowed the importance of the other sexually transmitted diseases. This women's awareness of Syphilis, Gonorrhea, Herpes and Genital Warts, was also very low. In the study of Saeed Khan, et al., the knowledge statistics of people about different disease are like following: 78% of people had known Gonorrhea, 70% of people had known AIDS, 68% of people had known Syphilis, 43% of people had known HIV, 21% of people had known Herpes infection, 14% of people had known Chlamydia and 13% of people had known Hepatitis[17]. The information of studied women in the research of Saeed Khan was also low to moderate in the context of causing factors and manner of infection treatment of genital tract[6].

About the modes of attitude, most women had positive attitude towards prevention of reproductive tract infections. Also in the Rabinson's study, 77% of participants in research had a positive attitude to the prevention of genital infections[15]. However, based on the study of Ostovar and his co-workers, 52.4% of the women had negative attitude toward transmitted way and prevention methods of sexually transmitted diseases and AIDS. And its mentioned reasons were misinformation and fear from adverse effects of these diseases[14].

In the present study, the barriers to seeking health services for sexual examinations were mentioned by women who participated in the study as shame sensation, fear from sexual examination and lack of need for examination because of the lack of signs and symptoms of disease. Also in the study of Li and his co-workers, more than 38.4% of studied women, on account of too sensation of shame had refused the sexual examination[11]. Fonck and his co-workers in their study in Kenya were noted that the feeling of shame and fear are barriers of pursuit for the health care in reproductive tract infections[7].

The level of awareness had significant differences according to the age and living location ($p<0.001$), the results of the same study showed that there was a significant correlation between the level of knowledge and age. Also there was a significant correlation between the level of knowledge and level of education[14]. Women with higher education have higher level of knowledge. All of these findings emphasize the impact of education on the level of knowledge. Lancester believes, the education level of society especially women, can be effective on the health of family and community. Because several studies have shown that the level of education and literacy of women is an important factor in the development of community's health[10].

The mean age of the studied women was 30 7.77 years. Perhaps the younger age group for some reasons such as high level of education, greater experience in sexual activity and greater use of health services, has higher level of scores in knowledge. It is also observable in the study of Li that younger women with less number of pregnancies will have better reproductive health behaviors and their knowledge about infections of reproductive tract will be higher[11]. In the study of Vasan, comparing the level of awareness with age and living location shows that the level of awareness is higher in the young women and inhabitants of the urban areas[21]. The study of Tirana showed that more educated parents and living in urban areas are two cases that have a strong relationship with a better knowledge[20].

There was a significant difference between the modes of attitude and age and the level of education of women, ($p< 0.001$ and $p< 0.002$), so that the highest mean score of attitude, related to the younger age group and higher level of education. Furthermore, UNESCO knows literacy, training and education as important factors for creation of change in the mode of attitude and approaches of people to reproductive health[6].

Logistic regression test showed a significant association between knowledge and women's careers ($p = 0.01$). In this study most of the samples were housewives. It seems that giving information through radio, television and newspapers have been effective in raising the level of knowledge among women.

CONCLUSION

The results of this research support the hygiene training strategies for prevention of these diseases of reproductive tracts. Appropriate factors for transfer of such information are magazines, radio, television and newspapers. In addition to the hygiene training to the population including men and women, also healthcare workers should be included in training. However in this study, younger people have a higher level of knowledge about the concept of STD, but the need of older age- wise group to education, should not be forgotten.

REFERENCES

1. Anderson E.A,Milson T.knowledge about the prevention of transmitted diseases. *Adolesc Sex Health* 2002: 339-341.
2. Allahqoli L,Saeedi Z.A,Azin A,Hajaan S,Majd H.A,Molavi N.Socially damaged women's perception of sexually transmitted infections:A Qualitative study. *Life Science Journal* 2014; **11**(4s): 1-7.
3. Bakhtiari A.,Hajian K.Surving knowledge and health behaviors in married women about STD and its preventive methods.*Mazandaran Medical Science University* 2005; **14**(42):90-98.
4. Edelman CL,Mandel CL(Eds).Health promotion, through out the lifespan, USA: Mosby; 2002; 78.
5. Erdem TC.Recent advances in the diagnosis of sexually transmitted disease. *Sex. Transm.Dis* 1999; **21**(suppl.2):S 19-s 27.
6. Farokhzadian J.,Zohreh Kermani SH.,Sabzevari S,Nakhaii N.Surving knowledge ,Attitude and practice among women about prevention from common Genital tract infections in kerman. *Fertiliy and infertility Quaterly* 2005; 346-355.
7. Fonck K,Mwai C.H,Rakwar J,Kirui P,Ndinya A.J.Health care seeking behavior and sexual behavior of patients with sexually transmitted disease in Nairobi, Kenya. *Sex Transm Dis* 2001: **28**(7): 367-371.
8. Fish AN.Frairweather DV.Oriel JD.Ridgway GL.Chlamydia trachomatis infections in a gynecology clinic population:identification of high risk group and the value of contact tracing. *Eur J Obstet Gynecol Reprod Biol* 1999; **31**(1): 67-74.
9. Hernandez LS,Winch PJ,Parker K,Gilman RH.Understanding of reproductive tract infections in a peri-urban Pueblo Joven in Lima, Peru. BMC Women's health 2006; **6**: 7.
10. Lancester J,Stanhope M.Community public health Nursing .3th Edition,Mosby company, USA 2000:164-259.
11. Li C,Han HR,Lee LE,Lee M,Lee Y,Kim MT.Knowledge,behaviors and prevalence of reproductive tract infections:A descriptive study on Rural women in Hunchun,*China* 2010; **4**(3): 122-129.
12. Mazhar SB.Agha MA.Shaikh MA.Knowledge and misconceptions about STIs in married women.*J Pak Med Assoc* 2001; **51**(11):389-92.
13. Mobasheri M,Saeedi varnamkhast N,Karimi A,Banaeiyan S.,Turkish Journal of medical Sciences,prevalence study of Genital tract infections in pregnant women reffered to health centers in Iran 2014; **44**: 232-236.
14. Ostovar M.,Nassiriziba F.,Taavoni S.,Haghani H.Knowledge and Attitudes Of Women Towards Sexually Transmitted Diseases and AIDS. *Iranian nursing Quaterly* 2007; **19**(48):47-54.
15. Rabinson B.E.HIV/STD Knowledge,Attitudes and Risk behaviors among American Adolscents. *J Sex Edu Ther*.2000; **4**(23):37-46.
16. Ryan K.J,Kistners gynecology women's health, 5th, Mosby Company 1999; 455.
17. Saeed khan M, Unemo M,Zaman S, Lundborg C.S.Knowledge,Attitudes and practices regarding human immunodeficiency virus/ Acquired Immune Deficiency syndrome and sexually transmitted infections among health care providers in Lahore, Pakistan. *J Ayub Med Coll Abbottabad* 2009; **21**(4).
18. Smit ET. Protecting Fertility Network; 2002; **22**(1): 15.
19. Smeltzer SC,Bare BG,Hinkle JL,Cheever KH.Brunner and Suddarth's ,Textbook of Medical surgical Nursing 2008
20. Tirana Albania,Burazeri G.Knowledge and attitude of undergraduate students towards STD in Tirana.*Coat Med J* 2003; **44**(1): 86-91.
21. Vasan RS,Sama PS,Thankappan KR.Knowledge and attitude of college students in kerala towards HIVs,STD and sexually. *Nat Med J India* 2000; **13**(5):231-6.