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THE EFFECTS OF AN EDUCATION PROGRAM BASED ON HEALTH BELIEF MODEL ON SEX KNOWLEDGE AND BEHAVIOR IN COUPLES REFERRED TO MARRIAGE COUNSELING CENTER, DEZFUL, IRAN

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ABCTRACT

Introduction: One of the most important subjects in public health, specifically mental health is to identify and study sexual drives and behaviors. So, this study aimed to determine the impact of Health Belief Model (HBM) on awareness of dangerous sexual behaviors in pre-marriage females. **Methods**: This study is an educational trial. The studied population who were 200 persons visited health care center of Dezful city, randomly divided into intervention group (100 persons) and control group (100 persons). Educational intervention was done during three 60 minutes sessions. The data was collected by a questionnaire (including 60 questions) through direct interviews before and three months after the educational intervention. The collected data was analyzed by Chi-square test, Fisher's exact test, Independent t-test and paired t-test. **Results**: After the intervention, the scores of awareness among intervention group in comparison with control group increased ($p<0.01$). An increase was found in perceived susceptibility, perceived severity, perceived benefits, perceived barriers, self-efficiency and cues to behavior among intervention group after

intervention ($p<0.01$), but not any increase or significant difference was found among control group. **Discussion**: The results of this study show the impact of education based on HBM on people's awareness and views related to dangerous sexual behaviors, therefore training young couples in order to reform their beliefs and views can be a main basis of pre-marital counseling sessions. In fact, training young couples to improve marital relationship quality can has a substantial effect on sexual satisfaction which leads to prevent family disputes and their eventual consequences.

KEYWORDS: Sexual behaviors, Sexual relations, Health behavior, Health Believe Model, Health education.

INTRODUCTION

One of the problems in medical and health services management is to monitor and control people's dangerous sexual behaviors. According to global studies, there are about 50 million HIV-infected individuals that training which ends in awareness can decrease such illnesses in the societies.[1, 2] Urinary tract infection is the second common factor which the patients need to health care. This kind of infection is sometimes without any signs[3] and this terminates in ease of disease transmission.[4] This problem has made this infection prevalent even in developed countries.[3] Many studies have carried out due to the importance of appearance and prevalence of the infections. For instance, one study represented the widespread prevalence of urinary infection and the source of more than 90 percent cases was bacterial urinary tract infection which for women was 41 and men 11 percent.[5] The other study signified that 11 million and 300 thousand persons in the US once in a lifetime had urinary tract infection and took Antibiotic and the annual cost of such cases with medical prescription was 1 million and 600 thousand dollars.[6] According to WHO, health education is the only efficient approach against AIDS in which vulnerable groups must be first ones to be trained and HBM is a model to prevent dangerous behaviors.[7] Numerous studies has determined the relationship between HBM constructs and unsafe sexual behaviors and its constructs has been used to decrease dangerous sexual behaviors[8] and to use condoms.[9] Moreover, studying sexual behaviors is a hard task and calculated estimations are based on individual reports.[10] Lack of valid data in Iran has resulted in unreliable statistics.[11] It is indispensable to determine efficient policies by knowing models of sexual behaviors and reasons of dangerous behaviors to conserve individuals with such manners and their partners.[12] Education is the basis of all human activities. In fact, education is a purposeful effort to improve awareness

and views to make relatively stable behaviors. It is worth noticing that the education not always ends in learning but a stable learning necessitates a good education.[13,14] The first step in the process of educational planning is to choose a model of health education which HBM is a proper one as an efficient and valuable instrument in the field of educational assessments. This model contains such constructs: perceived susceptibility (one's perception of the risk of contracting a particular disease), perceived severity (one's perception of seriousness and gravity of a disease), perceived benefits (one's perception of the positive consequences that are caused by preventive behaviors), perceived barriers (one's perception of costs of the new behaviors) and self-efficiency and behavior (an accelerating force which makes an individual needs to execute behaviors). Since this model has been based on individual's beliefs, it is one of the most suitable models in this field.[15-17] Since married couples have different sexual behaviors, an improvement in their behaviors can be made by pre-marital training, increasing sexual knowledge and amending beliefs and views. However, sexual health as caring about couples, sexual safety, diagnosing related uneasiness, helping to improve behaviors and amplifying sexual satisfaction must be considered as a main axis of knowledge of a healthy family. This study, aimed to determine the impact of HBM on awareness of sexual behaviors in persons referred to marriage counseling center of Dezful in 2014.

METHODS

This study is an educational trial**.** The research population was individuals referred to Marriage Counseling Center of Dezful in 2014.Simple random sampling was used among above-mentioned persons. A justifying session was held to make interviewers homogeneous to fill in the questionnaires in which the aim and the way of proper asking of each question were identified. The mass of samples with the mean difference formula and considering (a=0/05, b=0/20) in which score difference before and after the intervention in main paper was about 3.3 with variance 7. Also 72 persons were in intervention group and 72 persons in control group that for more certainty and missing of samples, 100 individuals were added. The instrument of this study was a questionnaire which consisted of 60 questions. This questionnaire which was nameless and coded, divided into three parts. Part one included 4 questions of demographic information about age, sex, education and job. Part two included 8 multiple choice questions about awareness assessment. Part three included 48 questions about constructs of HBM based on Likert five scale in which were 8 questions of perceived susceptibility, 8 questions of perceived severity, 8 questions of perceived benefits, 8 questions of perceived barriers, 8 questions of cues to behavior, 8 questions of self-efficacy.

The scoring of awareness assessment and cues to behavior was determined as YES=2 points and No= 1 point. The scoring of constructs of HBM was determined as I strongly agree=5 points, I agree = 4 points, No idea= 3 points, I disagree = 2 points, I strongly disagree = 1 point. The scoring in reverse questions of constructs of HMB was determined as I strongly agree=1 point, I agree = 2 points, No idea= 3 points, I disagree = 4 points, I strongly disagree = 5 points. In order to ascertain content-related reliability, all previous studies and available questionnaires were contemplated and then primary draft was prepared in the light of conditions of region. The questionnaire was sent to some experts and masters of health education and psychiatry. After receiving comments about questions, their relations to subject, understandability and fluency, the next draft was prepared. For determining the validity, the questionnaire was filled by 30 individuals (persons referred to health center not being that of main population). After calculation, The reliability coefficient for awareness questions was 0.74, perceived susceptibility 0.80,perceived severity 0.75, perceived benefits 0.81 and self-efficacy 0.77.After obtaining consent from Ethics Committee, the above mentioned individuals consciously and willingly entered the study. The qualified individuals randomly divided into two groups: intervention group and control group and they were asked to return at appointed times. First, pre-test questionnaire was filled during interviews by researcher. Then, three 60-minutes training sessions (once in a month) were held as speech or question and answer. The individuals received training points as pamphlet at the end of sessions. Considering HBM, the education package was arranged. At first the benefits and barriers of reduction or avoidance of dangerous sexual behaviors and then the benefits and barriers of doing safe behaviors were taken into consideration. Afterwards, extensive and severe consequences of dangerous sexual behaviors to make perceived threat were explained. At the end of intervention the way of doing safe behaviors, reduction and avoidance of dangerous behaviors were described. Three months later, post-test questionnaire of intervention group and control group were filled by researcher. The collected data was analyzed by SPSS Version 16. Paired t-test was used to compare average score of awareness with constructs of HBM, before and after the intervention for each of group. Independent t-test also was used to compare increasing of awareness score with constructs of HBM between two groups. Finally, Chi-square test and Fisher's exact test were used to deal with homogeneousness of two groups regarding age, sex, education and job.

RESULTS

200 hundred persons randomly divided into intervention group (100 persons) and control group (100 persons) were considered which mean and variance of two groups age were 26/92 ± 6/5 and 26/49±5/5 respectively. These two scales based on Independent t-test in two groups didn't show any significant difference statistically. (p >0.273) The other demographic characteristics in two groups didn't show any significant difference (Table 1).

Table 1: Comparing frequency distribution of demographic characteristics of intervention and control group.

Variant	intervention group n=100 Number(Percent)	Control Group n=100 Number(Percent)
Sex Male Female	 40 (51.3) 60 (49.2)	 38 (48.7) 62 (50.8)
Educational level Illiterate Primary Secondary High College	 16 (45.7) 61 (54.5) 10 (47.7) 9 (45) 4 (44.4)	 19 (54.3) 51 (45.5) 14 (58.3) 11 (55) 5 (55.6)
Occupation Employed Housewife Farmer Others	 68 (54.4) 9 (47.4) 13 (38.2) 10 (45.5)	 32 (45.6) 10 (52.6) 21 (61.8) 12 (54.5)

The results of this study indicated a significant difference between two groups before and after the intervention in terms of awareness score, perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to behavior and self efficacy. (Table2).

Table 2: Comparing average scores of variables in intervention and control group before and after the intervention.

	Pre-intervention		P-value	post-intervention		P-value
	Control n=100	intervention n=100		Control n=100	intervention n=100	
awareness score	12.97±1.28	13.22±1.14	0.131	15.29±0.23	12.65±1.29	<0.001
perceived susceptibility	30.22±3.14	31.32±2.65	0.312	36.66±1.55	30.26±3.04	<0.001
perceived severity	32.82±2.94	33.72±3.64	0.061	39.45±1.87	32.66±3.33	<0.001
perceived benefits	33.72±2.83	33.12±2.94	0.381	38.60±1.46	34.01±2.65	<0.001
perceived barriers	22.14±5.23	23.12±4.53	0.899	33.78±2.84	21.66±4.93	<0.001
cues to behavior	13.52±1.13	13.22±1.54	0.181	16.01±0.61	13.44±2.02	<0.001
self efficacy	27.82±3.12	28.22±3.52	0.789	36.55±2.66	27.12±3.33	<0.001

* Independent t-test.

The statistical results showed that the awareness of individuals in intervention group was increased but in control group was decreased. (Table 3).

Table 3: Comparing average changes of scores of variables in intervention and control group before and after the intervention.

	Variation in Control Mean±SD	P-value	Variation in Intervention Mean±SD	P-value
awareness score	-0.32±3.01	0.234	2.07±1.03	<0.001
perceived susceptibility	0.04±1.22	0.201	5.34±2.34	<0.001
perceived severity	-0.16±1.44	0.175	5.73±3.58	<0.001
perceived benefits	0.29±1.31	0.089	5.48±2.72	<0.001
perceived barriers	-0.48±4.22	0.355	10.66±5.23	<0.001
cues to behavior	-0.08±0.76	0.541	2.79±1.81	<0.001
self efficacy	-0.07±0.74	0.418	8.88±3.63	<0.001

DISCUSSION

One of the efficient factors to increase satisfactory relations between couples is making them familiar with sexual affairs. The misconception, social and cultural obstacles also has made sexual health education difficult to train which has led to deficiency or low quality and quantity level of such services. In consequence a good sexual health education in order to prevent its related problems can be recommended as an essential approach or strategy in this field.[18] The current study found that after intervention, the average of awareness score and scores of constructs of HBM in intervention group were increased significantly ($p<0.01$) but there wasn't any significant change in control group. The results of this study indicated the impact of educational intervention on awareness accretion of population which is parallel with the other studies in this field that comes next. It was asserted in the study of Cunningham and his colleagues that the individuals have cognitive and emotional responses in the case of perceived severity. These two different responses separately effect on people's behaviors to refer health centers to be cured. Although cognitive response encourage the persons to do but emotional response as a barrier discourage them not to do, because they severely scared of having a problem in this field.[19] Therefore it is recommended that in addition to cognitive promotion, emotional impediments must be considered to balance or decrease. A study in 2012 showed the role of educational intervention based on health model on preventive behaviors of urinary infections. In this study perceived susceptibility of investigated women was desirable.[20] Although high perceived susceptibility can be

considered as a desirable prognosticator of preventive behaviors, but then again high susceptibility is the result of two factors; first: educational programs emphasizing related epidemic problems in the society, second: people 's struggling with the mentioned problems. Thus, it seems that because of relatively widespread incidence of above mentioned infections in our country, the people's susceptibility has increased. Accordingly it is suggested that perceived susceptibility must be increased by training before entanglement of disease. The findings of a study in 2003 corroborate the results of current study in which perceived benefits increased after education.[21] It is encouraging to compare this study with that by Milhause et al in which stressed the positive effect of educational intervention on decreasing perceived barriers.[22] Self-efficacy is an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments and it is a intermediate factor between gaining education and health behavior.[23] Self efficacy considered in this study and the findings showed a significant difference of that in control group. Numerous studies confirmed the results of this work about increasing of self-efficacy after intervention.[24,25] Cues to behavior in intervention group increased after educational intervention but any significant difference wasn't observed in control group. Therefore, the impact of educational intervention based on HBM was positive.

CONCLUSION

In the light of findings of current study, it can be concluded that sexual education based on HBM helps individuals to improve sexual affairs and prevent from unsafe sexual relations which terminates in transmission of dangerous diseases. Anyway training young pre-marital couples can prevent from marital disputes. Since married couples have different sexual behaviors, an improvement in their behaviors can be made by pre-marital training, increasing sexual knowledge and amending beliefs and views. All in all, sexual health as caring about couples' sexual safety, diagnosing related uneasiness, helping to improve behaviors and amplifying sexual satisfaction must be considered as a main axis of health services management.

REFERENCES

1. HIV/AIDS JUNPo, Organization WH. Report on the global HIV/AIDS epidemic: UNAIDS, 2002.
2. Organization WH. World health statistics 2010: World Health Organization, 2010.

3. Joshi S, Schultz TP. Family planning and women's and children's health: Long-term consequences of an outreach program in Matlab, Bangladesh. Demography., 2013; 50(1): 149-180.
4. Fisher A, Laing J, Stoeckel J. Handbook for family planning operations research design: Population Council, 1983.
5. Desforges JF, Stamm WE, Hooton TM. Management of urinary tract infections in adults. New England journal of medicine., 1993; 329(18): 1328-1334.
6. Foxman B, Barlow R, D'Arcy H, Gillespie B, Sobel JD. Urinary tract infection: self-reported incidence and associated costs. Annals of epidemiology., 2000; 1(8): 1500-1509.
7. Karimi M, Ghofranipour F, Heydarian AR. The effect of health education based on health belief model on preventive actions of AIDS on addict in Zarandieh., 2009.
8. Croyle R. Theory at a glance: a guide for health promotion practice. Washington, DC: Department of Health and Human Services National Institutes of Health., 2005.
9. Rahmati NF, Niknami S, Amin SF, Ahmadi F, Tavafian S, Hajizadeh E. Individual factors predisposing HIV/AIDS high risk behaviors: A qualitative study., 2011.
10. Organization WH. The world health report 2002: reducing risks, promoting healthy life: World Health Organization, 2002.
11. Gheiratmand R, Navipour R, Mohebbi M, Mallik A. Uncertainty on the number of HIV/AIDS patients: our experience in Iran. Sexually transmitted infections., 2005; 81(3): 279-280.
12. Moore AR, Oppong J. Sexual risk behavior among people living with HIV/AIDS in Togo. Social science & medicine., 2007; 64(5): 1057-1066.
13. Cotrell R, Girvan J, McKenzie J. Principles & Foundation of Health Promotion and Education., 2013.
14. Tones K, Robinson YK, Tilford S. Health education: effectiveness and efficiency: Springer, 2013.
15. Pender N, Murdaugh C, Parsons M. The health promotion model. Health promotion in nursing practice., 2002; 4: 59-79.
16. Rimer BK, Glanz K. Theory at a glance: a guide for health promotion practice., 2005.
17. Sakraida TJ. Health promotion model. Nursing theorists and their work., 2010; 7: 434-453.
18. Collaborators C. 2nd International & 6th National Iranian Congress on Health Education and Promotion.

19. Cunningham SD, Kerrigan D, Pillay KB, Ellen JM. Understanding the role of perceived severity in STD-related care-seeking delays. Journal of Adolescent Health., 2005; 37(1): 69-74.
20. Taghdisi MH, Nejadsadeghi E. The effect of health education based on health belief model on behavioral promotion of urinary infection prevention in pregnant women. Journal of Research & Health., 2012; 2(1): 44-54.
21. Abood DA, Black DR, Feral D. Nutrition education worksite intervention for university staff: application of the health belief model. Journal of nutrition education and behavior., 2003; 35(5): 260-267.
22. Milhausen RR, Wood J, Sanders SA, Crosby RA, Yarber WL, Graham CA. A novel, self-guided, home-based intervention to promote condom use among young men: a pilot study. Journal of Men's Health., 2011; 8(4): 274-281.
23. Wolf MS, Davis TC, Osborn CY, Skripkauskas S, Bennett CL, Makoul G. Literacy, self-efficacy and HIV medication adherence. Patient education and counseling., 2007; 65(2): 253-260.
24. Harvey SM, Kraft JM, West SG, Taylor AB, Pappas-De Luca KA, Beckman LJ. Effects of a health behavior change model–based HIV/STI prevention intervention on condom use among heterosexual couples: a randomized trial. Health Education & Behavior., 2008.
25. DiClemente R, Wingood G, Rose E, Sales J, Crosby R. Evaluation of an HIV/STD sexual risk-reduction intervention for pregnant African American adolescents attending a prenatal clinic in an urban public hospital: preliminary evidence of efficacy. Journal of pediatric and adolescent gynecology., 2010; 23(1): 32-38.