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The Effect of Counseling and Family Planning Education on Knowledge and Attitude of Comorbid Families

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Abstract

To improve the comorbid families behavior, knowledge, and attitudes about evidence-based options, we undertook an educational intervention. In current study, we evaluated the knowledge and attitude of the comorbid families about family planning options pre and post informing program. the knowledge and attitudes of the comorbid families about family planning options pre and post educational intervention, from Feb-2015 to April-2016. This is a pre-post intervention survey analysis of seventy-six monogamous married couples. Couples were sequentially enrolled if they met inclusion criteria of harboring comorbidities when seeking family planning services. we evaluated the participants by using a questionnaire based on health belief model prior to and following the educational intervention. Education sessions incloude an educational video programme and a question and answer parts. For analyzing our data was used chi-square, paired t-test, Spearman and Pearson's correlation coefficient. Directed family planning education to couples with comorbidities significantly altered their attitude and knowledge. Counseling led to more informed choice behavior about family planning methods,by prioritizing permanent methods of vasectomy versus tubal ligation, especially after the education intervention (P<0.005). Family planning education and counseling directed to couples with multiple comorbidities should be a priority in health centers as because the appropriate contraceptive choice will improve their health literacy and outcomes.

Keywords: Family planning; Knowledge; Attitude; Vasectomy

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Introduction

Family planning and population control has been discussed for centuries. Kautilya (c.350-283 BC), the Indian political philosopher believed the population is as a source of political and economic strength. He described uncontrolled population growth as a social and public health disaster [1]. Family planning involves education, options counseling, and the clinical capabilitiy to provide services that allow individuals to control the number and the birth spacing of children, if desired. We were interested in assesing choice behavior in family planning options in couples with medical co-morbities. Medical comorbidities are often by worse health outcomes, more complex clinical management, and sometimes with high health care costs. Our study cohort had at least one chronic or disabiling condition that could be worsened by many available family planning options or procedures that often lead to a discontinuation of contraceptives. According to recent studies, estrogen containing contraceptives must be used by caution in women with significant cardiovascular risk factors, cardiovascular disease, or severe microvascular complications such as nephropathy with proteinuria or active proliferative retinopathy [2]. Because diabetic women frequently have obesity and high vascular risk factors, which increases both thromboembolic and arterial events, so it suggested the prescription of combined oral contraceptives (COCs) in them must be by more caution [3]. Appropriate family planning counseling considers individual choice behavior, individual cultural and religious belief, economics, and medical co-morbities. Optimizing each of the above factors lends itself to adjusted quality life years. A World Health Organization (WHO) expert committee for the success of Family Planning Programmes has sugested five ways to evaluate (1975), the most common of them is the evaluation of knowledge, attitudes, motivation, and behavior among people [4]. The most couples including those with significant comorbidities may not receive adequate informations and counseling on contraceptive methods and faslities [5,6]. In particular, there is a lack of specialist and sub-specialist services for the growing populations of young women with severe comorbid disease, such as congenital heart disease. Advice from a multispecialty team of family planning clinicians, obstetricians, and non-obstetrician specialists can help counsel comorbid couples regarding family planning options to make informed independent decisions about birth spacing and planning

[7]. Today the most effective permanent methods of sterilization for best birth control in men is vasectomy (divide and ligation of the vas deferens leading to stop of sperm passage from the testes) the common birth control in women are tubal ligation, intrauterine devices (IUDs) and implantable contraceptives. Also for this purpose a number of hormonal contraceptives including COCs, patches, vaginal rings, and depot injectables are suggested. The Less effective methods that known as barrier methods, such as condoms, diaphragms and contraceptive sponge and fertility awareness methods are more or less commonplace. Finally the least effective methods are spermicides and withdrawal by the male before ejaculation. Although Sterilizations are high effectives , but they are usually irreversible, and in appositive to them , the male or female condom methods are more effective in prevention of sexually transmitted infections [10]. Although female sterilization is the number one contraceptive choice among women in the word,but the laparoscopic and mini laparotomy tubal ligations may have some considerable complications as infection, injury to other organs, internal bleeding, and problems related to anesthesia [11]. The overall incidence of complications in laparoscopic and mini laparotomy and hysteroscopic sterilization estimated one of every 1000 ,the most important complication of hysteroscopic sterilization is central migration of device (0.6% to 3%) that may lead the uterine and tubal perforations [12]. Vasectomy is the only reproductive health procedure that relates to male's personal responsibility for contraception. It may perform under local anesthesia in an outpatient basis and is simple and less invasive operation with fewer complications than tubal ligation. It is also cheaper than a tubal ligation, with lesser failure rate than tubal ligation, about 0.01 per 100 procedure years, lower than 0.13 per 100 procedure years for tubal ligation [13]. There is high acceptance rates of vasectomy in developed countries like the USA and European countries, but it still not well accepted in most developing societies as Middle-east and African countries [14]. In the United States, 526,501 vasectomies were performed in 2002, which was 10.2 in 1,000 in men aged 25-49 years [15]. The recent American Urologic Association (AUA) guidelines declared the vasectomy should be considered as a permanent contraceptive procedure more frequently than current practice [16]. The no-scalpel vasectomy (NSV), was developed and first performed in China by Dr. Li Shunqiang in 1974 and first introduced in the United States in 1985 by Marc Goldstein, now it gained popularity as an innovative and preferred method of male sterilization in many countries [17]. In comparison NSV to traditional incisional technique, it results less complications as bleeding, hematoma, infection, and pain, and has a shorter operative time [18]. By 2002, 37.8% physicians who were involved in sterilization procedures as urologists, family practitioners, and general surgeons, were using the no-scalpel vasectomy technique [5]. Complications aftervasectomy are very rare, to minimise complications it requires a high level of expertise, the common post-vasectomy complications are hematoma, wound infection, sperm granuloma, post-vasectomy pain syndrome, persisting or recurrent fertility by recanalization or double vas deferens and traumatic fistulae [19]. Until now, there was no absolute conter indication for vasectomy. The relative conter indications for vasectomy are: the absence of children, age <30 years old, severe illness or poor general condition, no current relationship, scrotal infection and as a temporary contraceptive procedure [20]. Worldwide, fewer than 3% of partnered women in reproductive ages rely on a partner's vasectomy for contraception [21].

Materials and Methods

This pre-post intervention survey study was approved by Research Committee of Kerman Medical University (IR.Kmu.REC.1394.721) and was conducted between Feb-2015 and April-2016. Seventy-six couples with at least one child born before 2011 and a diagnosis of a comorbitiy was enrolled (serially by Physician referrals). Exclusion criteria included: no history of permanent contraceptieve use, less than one live-born child, female aged greater than 35 years-old, and men aged greater than 50 years-old. After formal written consent was obtained from all study participants, they were enrolled in this study. Each couple was counseled regarding all types of family planning options and procedures (it was about contemporary and permanent contraceptions and detailes of all kinds of them with their side effets). Knowledge and attitudes before and after the counseling were evaluated by means of a questionnaire. In our questionnaire, demographics, questions about attitudes and knowledge about types, indications, contraindications, pre and post procedure managements of all family planning proceduresweredetailed and the final answers of questionnaires was the results of both couples agreement. For the knowledge evaluations gradings ≥ 75% was good, 50-75% intermediate and <50% was considered poor. The attitude questions ofall kinds offamily planning procedures according to Likertgrading include deffects on other body organs, sexualactivity, possible of pregnancy after operation,need to reoperations, concern about future children, religious guilt and inferiority, and worry about divorce. The attitude scores (percents of positive, negative, and no comment) of each subject assessed by indexed questenaire, and compared them pre vs. post counseling. In this study for statistical calculations aspairedT-tests, analysis of variance (ANOVA) for comparing groups data means,for comparison proportions and performed logistic regression analysis. and for correlation, regression tests we used the SPSS-18 software.

Results

85 couples were recuirted to our cohort; however, 76 (89%) completed the questionnarirean were included in our analysis. Each couple received a one hour counseling session and educational intervention about family planning programs and options.The mean ages of men and women were respectively 35 ± 3.3 and 28 ± 2.7 years. 25% of men had comorbid diseases while 75% women had underlying medical conditions (10% of the time both had comorbidity). The most common comorbidity was diabete mellitus (DM) in females, 19(33.33%) DM females vs. 8(42.10%) DM males. Before education of family planning 65% of their attitude about family planning programs was negative, 10% had not comment and 25% had a positive attitude. After the educational intervention 3%, 10% and 85% had negative, no-comment and positive attitudes (P<0.005). Knowledge about family planning programs before education were poor 75% of the time, intermediate 15% of te time and 10% was good. After education thischanged to 5% poor, 10% intermediate and 85% good (P<0.005) (Figures 1 and 2). The preferred contraceptives before education was COC pills, intra uterine device (IUD), condoms, vasectomy, andtubal ligation. After education, this changed to vasectomy, tuballigation, COC pills, IUD and condomrespectively. Among all choices, after the intervention, vasectomy was the prefered contraceptive choice [42.10% vs. 13.15%, (X^2=20.782, Odds ratio=4.78, 95% Confidence Interval=0.8827 to 4.4251 P<0.001)], (Figure 3). Demographic relationship related to knowledge and attitudes of couples about vasectomy after education is presented in Table 1.

Discussion

Slightly more than half of unwanted pregnancies are among women who were not used any Contraceptive methods in the pregnant month

.At least 37% of all pregnancies in the United States are unintended. Most of Contraception methods are effective if correctly used; however, no method is absolutely perfect. However, sometimes unintended pregnancies occur due to inappropriate using of contraception in 43% or method failure 5% [23]. The population's reproductive health is today mainly related to unintended pregnancy, and its preventing procedure is a priority for most reproductive age couples [24]. In women with chronic medical conditions the unintended and unplaned pregnancies may have serious health consequences [25]. Their comorbid diseases may be worsened or become uncontrolled by pregnancy [2]. Also, most of the medications that used to many chronic conditions are potentially teratogenic [26], and in adition, most of the women with comorbidities may not receive adequate counseling and mayexperienced unwanted pregnancies [27], about 17% of women in the world take antiepileptic drugs, which may reduce the effects of hormonal contraceptive drugs and also, diabetic women not receive contraceptive counseling in periodic visits [2], even irregular Pre-pregnancy blood sugar control in diabetic women can be cause some adverse effects [28]. In couples with significant medical conditions the safe, permanent, and most effective forms of contraception should be offered, and they should be informed about the risks and benefits of these methods and also about the possible of an unwanted pregnancies. Currently, the most appropriate family planning procedure for these patients are sterilization methods, because they are the most effective permanent methods of birth control and is not usually reversible like vasectomy in men and tubal ligation, intrauterine devices (IUD), and implantable contraceptives in women [29]. The other approaches are hormonal contraceptives as oral pills, patches, vaginal rings, and injection methods because of some side effects have not recommended,and finally the least effective methods for the temporary nature of them as conception barriers such as condoms, diaphragms and contraceptive sponge and nonpharmacologic family planning options (awareness method) are not used in comorbid patients. Therefore contraception decision making should include patients health status, and the most appropriate method of contraceptive depends on a couplles overall health, age, frequency of sexual activity, their decide about to have children in the future, and history of familial diseases. So first couples should consult their health care providers to assess which method of contraceptive is

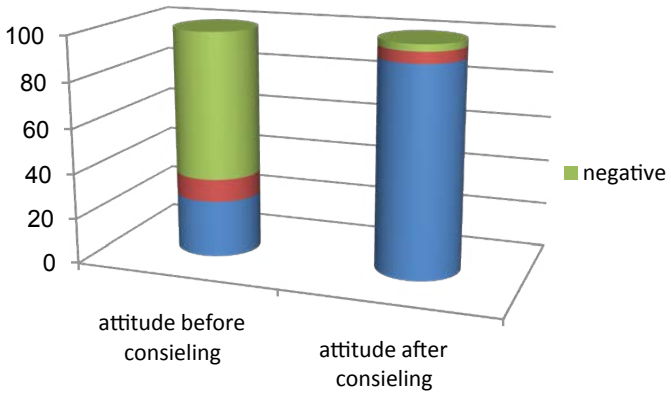

Figure 1: Comparison of overall attitude before and after counseling and education onoptions counseling for family planning.

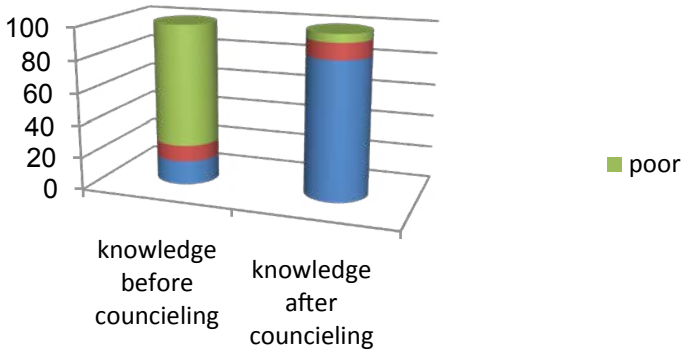

Figure 2: Comparison of couples knowledgebefore and after counseling and education onfamily planning procedures.

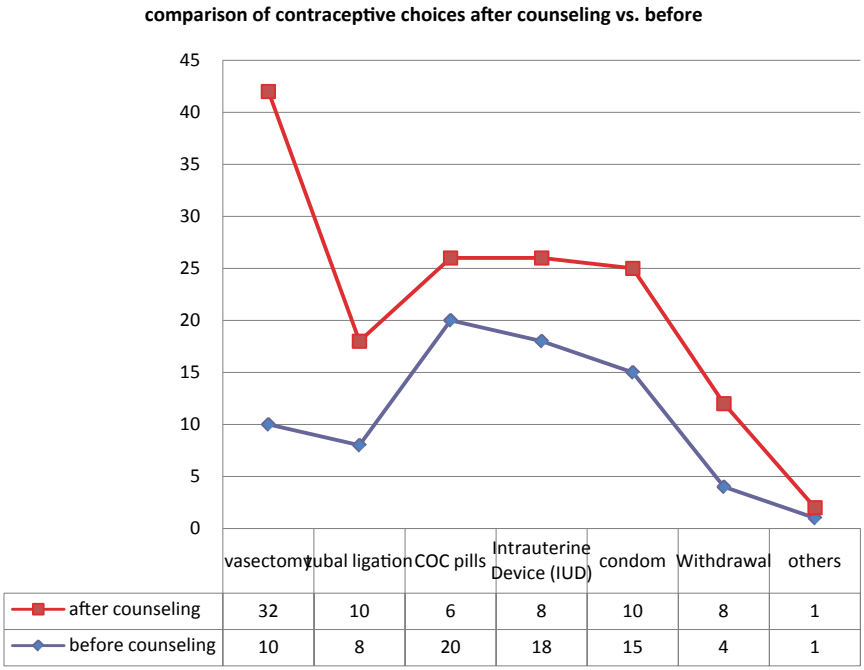

Figure 3: The effect of counseling on choice ofcontraceptive options.

Table 1. The relationship of age, employment duration, marriage duration, children number, Salary incomeandeducation levelwithvasectomy knowledge and attitude.

Levels	Age	Education Level	Marriage Duration	Children Number	Salary income
Knowledge	r=0.035	r=0.592	r=0. 114	r=0.124	r=0.092
	P=0.115	P=0.022	P=0.032	P=0.011	P=0.442
Attitude	r=0.022	r=0.982	r=0. 124	r=0.222	r=0.002
	P=0.012	P=0.019	P=0.011	P=0.048	P=0.099

best for them. Some types of contraceptive methods have some serious and high risks that often become apparent in pregnancy times and may be higher than the risks by the other methods. The best types of contraception for high risk patients are permanent sterilizations as tubal ligation and vasectomy. Vasectomy is a less invasive and highly effective method of permanent male and with a low morbidity and an extremely low mortality rate contraception, about 40 million couples use it in the world. However, although vasectomy is the safest and has more benefits vs. female sterilization, but still it has remaind far less known and used, even in the developed countries, as the United States, where it constitutes a significant family-planning method [30]. As recent report, from 1995 since the late 1970s, 11% of American women of reproductive age have been witched to vasectomy for contraception; and this rate has been remained stable since the late 1970s and now it has reached to about less than 28% of women who have a tubal ligation [31]. Improving the knowledge and attitude of about contraceptive procedures especially vasectomy among real needy contraceptive users and family-planning service providers could add to couple's contraceptive options, and help finally to reduce the number of unwanted and harmfull pregnancies. In the men's contraceptive program, one should consider vasectomy along with othe methods as oral contraception for females, condom use, tubal ligation, intrauterine devices, and others for fertility control needs, and also for better decisions, they should counseled and educated for risks and benefits of all contraceptive procedures and their roles as a permanent sterility. When the choice is permanent surgical sterilization as vasectomy on base of positive attitudes and complete knowledge about it, so the good outcomes of it will be for ever without any regret, psychological effect and fertility revers requests.

As our study showed the education and counseling forfamily planning seekers are necessary to decide and chose a favorite family planning procedure and also the presence of wives in such courses was effective in persistence and even in psychological outcomes of these procedures. Knowledge of our study group about vasectomy was 65% poor, 10% intermediate and 25% good, that after education it improved 3%, 5% and 92% respectively. Also the our contraceptive course changed attitudes of the study group from 75% poor, 15% intermediate, and 10% good to 85%, 10%, 5% respectively.

Select and applying of a contraceptive method is the measure that often related indirectly to its acceptability, but acceptance and use is strongly influenced by a number of factors, including cost, availability, accessibility, knowledge, attitudes of health care professionals and so on. Currently only on base of prevalence, male-controlled contraceptives account for a mild amount of contraceptive use worldwide [32].

The lack of information, misunderstandings, and rumors in choosing of contraceptive methods causes reluctance most of people about vasectomy [33]. Vasectomy volunteers and their wives frequently research about it before to undergoing the operation, some times they may had been incountered by false rumors such as decreasing sexual desire and potency. Some hear that this complications occure instantaneously and immediately after operation, others belive that it happens gradualy over long time. In some cases, these beliefs led men to avoidfrom vasectomy. Main beliefs that often cause vasectomy clients to postpone vasectomy is its equivalently to castration, sometimes they believe that vasectomy causes cancer, and believe that if sperm remain in the body may has harmful effects on health, and eventually some people think that vasectomy causes obesity and physical inability.

During a study period in Iran between 1996 and 2011, before vasectomy became outlawed in the whole country ,the vasectomy rate was rising (from 0.1% to 3.35%), but it were performed 4 times less than tubal ligations [34]. As the recent decrease in population growth rate in Iran in middle east countries, at now the volunteer of permanent sterilization procedures (vasectomy and tubal ligation) are stopped, but in a vital need to permanent sterilization the vasectomy will have preferred to tubal ligation, as it was showed in this study the best decide will be obtained by improving the knowledge and attitude of permanent sterilization volunteers by education consulting courses. These courses also security the stability of permanent sterilization and even effect on post sterilization regrets.

References

1. Chousalkar AS (2004) Methodology of Kautilya's Arthashastra. The Indian J Politic Sci 65: 55-76.
2. Rachel AB, Megan C, Mcnamara AL (2010) Spencer Contraception Choices in Women with Underlying Medical Conditions.Am Fam physician 82: 621-628.
3. Gourdy P (2013) Diabetes and oral contraception. Best Pract Res Clin Endocrinol Metab 27:67-76.
4. Rajesh RS, Narayan KA, Akshaya KM (2003) Rapid appraisal of knowledge,attitude and practices related to family planning methods among men within 5 years of married life. Indian J Prev Soc Med 34: 62-67.
5. Davis AR, Pack AM, Kritzer J, Yoon A, Camus A (2008) Reproductive history, sexual behavior and use of contraception in women with epilepsy. Contraception 77: 405-409.
6. Schwarz EB, Maselli J, Gonzales R (2006) Contraceptive counseling of diabetic women of reproductive age. Obstet Gynecol 107: 1070-1074.
7. Haddad LB, Feldacker C, Jamieson DJ (2014) Medical eligibility, contraceptive choice and intrauterine device acceptance among HIV-infected women receiving antiretroviral therapy in Lilongwe, Malawi. Int J Gynaecol Obst 126: 213-216.
8. Bartz D, Greenberg JA (2008) Sterilization in the United States. Reviews Obst Gynecol 1: 23-32.
9. Janine BF, Lisa MC, Livia M, Priya N (2014) Understanding patterns of temporary method use among urban women from Uttar Pradesh, India. BMC Public Health 14:1018.
10. Holmes KK, Weaver M (2004) Effectiveness of condoms in preventing sexually transmitted infections. Bull World Health Organ 82: 454-461.
11. Deborah Bartz, James AG (2008) Sterilization in the United States. Rev Obstet Gynecol 1: 23-32.
12. Mark Guelfguat, Tammy RG, Jason Di Poce, Jay GH (2012) Imaging of Mechanical Tubal Occlusion Devices and Potential Complications. Radio Graphics 32: 1659-1673.
13. Ebeigbe PN, Eigbefoh J (2011) Vasectomy: A Survey of Attitudes, Counseling Patterns and Acceptance among Nigerian Resident Gynaecologists. Ghana Med J 45: 101-104.
14. Holden CA,Cumming R, Wittert G,Handelsman DJ, Kretser DM, et al. (2005) Sexual activity, fertility and contraceptive use in middle aged and older men; Men in Australia, Telephonesurvey (MATES). Hum Reprod 20: 3429-3434.
15. Mark AB, Melanie AL, Daria LT, Robert JM (2004) Characteristics of Men Receiving

Vasectomies In the United States, 1998-1999. Perspectives on Sexual and Reproductive Health36: 27-33.

16. Sharlip ID, Honig S, Labrecque M, Marmar JL, Ross LS, et al. (2012) Vasectomy: AUA guideline. J Urol 188: 2482-2491.
17. Dhar NB, Jones JS (2006) Determining the success of vasectomy. BJU Int 97: 773-776.
18. Cook LA,Vliet H, Gallo MF, Lopez LM (2007) Scalpel versus no-scalpel incision for vasectomy. Cochrane Database Syst Rev CD004112.
19. Rogers MD, Kolettis PN (2013) Vasectomy. Urol Clin North Am40: 559-568.
20. Dohlea GR, Kopac C, Krauszd A, Giwercmane AJ (2012) European Association of Urology guidelines on vasectomy. Actas Urol Esp 36: 276-281.
21. Ajeet SH, Aniruddha D (2012) Awareness and Perception to Vasectomy among Women Attending Antenatal Clinic at Teaching Hospital, Nagpur, India. Int J Biol Med Res3: 2401-2404.
22. Ward EL (1997) Perspectives from Couples on the Vasectomy Decision: A Six-Country Study. Reproductive Health Matters for the World Health organisation 58-67.
23. Frost JJ, Darroch JE, Remez L (2008) Improving Contraceptive Use in the United States, In Brief, New York: Guttmacher Institute.
24. Finer LB, Zolna MR (2014) Shifts in Intended and Unintended Pregnancies in the United States, 2001-2008. American J Public Health 104: S43-S48.
25. Monica D, Anne D, Erika B (2010) J Women's Health19: 575-580.
26. Honein MA, Gilboa SM, Broussard CS (2013) The Need for Safer Medication Use in regnancy. Expert Rev Clin Pharmacol 6: 453-455.
27. Guilherme RJ, Claudia MP, NilsonRJ, Flavia CS, Evandro MK, et al. (2015) Understanding and Managing Pregnancy in Patients with Lupus. Autoimmune Dis 18.
28. Nekuei N, Kohan S, Kazemi A (2015) Preconception care in diabetic women. Journal of Education and Health Promotion 4: 8.
29. Peterson B, Kathryn MC (2005) Long-Acting Methods of Contraception Herbert. N Engl J Med 353: 2169-2175.
30. Stephanie TP, John KA, William JB (2008) Advances in Male Contraception. Endocrine Rev 29: 465-493.
31. Catherine DT, Hanif N, David CS (2004) Pregnancy rates after vasectomy: a survey of US urologists Contraception 69: 401-406.
32. United Nations, D. o. E. a. S. A, Population Division. World Contraceptive Use 2009 (POP/DB/CP/Rev 2009).
33. Cui NL, Pan X, Yang Q, Minxiang L (2010) Factors influencing the declining trend of vasectomy in Sichuan,China. Southeast Asian J Trop Med Public Health 41: 1008-1020.
34. Farrokh EH (2015) Novel restricted access to vasectomy in Iran: addressing changing trends in vasectomy clients' characteristics over 16 years in northwestern Iran. Contraception 92: 488-493.