Research Article

The Impacts of Pelvic Floor Dysfunction Counseling to Knowledge Level and Attitude of Pregnant Women with Gestational Age above Thirty Six Weeks in the Selection of Delivery Method

Dampak Penyuluhan Disfungsi Dasar Panggul terhadap Pengetahuan dan Sikap Ibu Hamil lebih dari Tiga Puluh Enam Minggu dalam Pemilihan Metode Persalinan

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Abstract

Objective: To determine the level of knowledge about pelvic floor dysfunction before and after counseling in term pregnant women and knowing whether a difference a change of attitude in the selection method of delivery before and after counseling.

Methods: This study design using pre - post test. At the beginning of our study provide some sort of written test to determine the initial knowledge of participants prior to the extension and the selection of the desired method of delivery. Having obtained the results of the test, followed by education about pelvic floor dysfunction. Then do the post-test to determine the level of knowledge of the subject and mode of delivery that would be pursued. The study took place between February and May 2016 in 5 Public Health Center (PHC) in Jakarta that PHC Warakas (North Jakarta), PHC Tanah Abang (Central Jakarta), PHC Cengkareng (West Jakarta), PHC Jatinegara (East Jakarta) and PHC Jagakarsa (South Jakarta).

Results: A total of 102 study subjects who began the study gave the results of the pretest mean 71 ± 10.49 (p<0.0001) and post test results of 80.725 ± 7.7 (p<0.0001). Of the 102 subjects who began the study, there were two people who had previously chose method of delivery by caesarean section turned into vaginal.

Conclusion: There is a change scores better in knowledge about pelvic floor dysfunction after counseling. There was no significant difference between selecting the desired method of delivery before the after counseling.

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Keywords: fecal incontinence, pelvic floor dysfunction, sexual dysfunction, stress urinary incontinence, uterine prolapse

Abstrak

***Tujuan**: Untuk mengetahui tingkat pengetahuan seorang ibu hamil > 36 minggu yang datang ke puskesmas di wilayah DKI Jakarta tentang disfungsi dasar panggul dan apakah edukasi yang diberikan akan mempengaruhi pemilihan metode persalinan yang akan dipilihnya.*

***Metode**: Penelitian ini menggunakan desain pre - post tes. Pada awal penelitian kita memberikan semacam tes tertulis untuk mengetahui pengetahuan awal peserta sebelum dilakukan penyuluhan dan pemilihan metode persalinan yang diinginkan. Setelah didapatkan hasil tes, dilanjutkan dengan pemberian edukasi tentang disfungsi dasar panggul. Kemudian dilakukan post tes untuk mengetahui tingkat pengetahuan subjek penelitian dan cara persalinan yang akan ditempuh. Penelitian ini berlangsung pada bulan Februari hingga Mei 2016 di 5 Puskesmas Wilayah DKI Jakarta.*

***Hasil**: Sebanyak 102 subjek penelitian yang mengikuti penelitian ini memberikan hasil mean pre-tes 71± 10,49 (p<0,0001) dan hasil post-tes 80,725± 7,7 (p<0,0001). Dari 102 subjek yang mengikuti penelitian ini, setelah mereka mendapat penyuluhan dan pengetahuan yang memilih metode persalinan secara pervaginam sebanyak 97 subjek (95,1%) dan memilih metode persalinan secara seksio sesarea sebanyak 5 orang (4,9%).*

***Kesimpulan**: Bahwa terdapat perbedaan skor pengetahuan setelah dilakukan penyuluhan dan terdapat perubahan pemilihan metode persalinan antara sebelum dan sesudah penyuluhan.*

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***Kata kunci**: disfungsi dasar panggul, disfungsi seksual, inkontinensia fekal, prolaps uteri, stres inkontinensia urin*

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INTRODUCTION

A woman has 11% lifetime risk for developing pelvic floor dysfunction. Sometimes, when pelvic floor dysfunction is severe enough, surgery is indicated. More than 300.000 surgeries had been perfomed to treat the condition. Pelvic floor dysfunctions may lead to urinary inconticence, fecal incontinence, obstruction in miction or defecation, pain in perineal area, and bulging in vaginal area (specific symptoms clinically related with pelvic organ prolapse) and sexual dysfunction.[1]

As the incidence of pelvic floor dysfunction increases, the demand of cesaeran section in Nigeria also increases. There are several reasons, including labor pain (68.9%), afraid of problems that may occur during labor (60.1%), afraid of fecal incontinence incidence (20.2%) and afraid of urinary incontince incidence (16.8%).[2]

Pregnancy and labor are the major risk factors in the development of pelvic floor dysfunction. Never the less, women with risk factors have greater chance to develop pelvic floor dysfunction. Budi I Santoso concluded that risk factors could be determined from birth weight of the baby, history of episiotomy, second stage of labor duration, and history of perineal laceration.[3]

Inaccurate knowledge and understandings will make the wrong choice of delivery mode. Researchers believe that with good, correct, and comprehensive counseling, a woman will be able to choose mode of delivery more rationally and not based on the fear of pelvic floor dysfunction. Discussion about pelvic floor dysfunction needs early recognition of pelvic floor dysfunction risk factors.[4]

Uterovaginal prolapse can be equated to a herniation, which is the protruding of uterus into, or through the vagina caused by weakening of pelvic floor muscles and ligaments and fascia supporting the uterus. Many factors affecting strength and integrity of pelvic floor fascia will affect pelvic floor function. These factors can be congenital anomaly (such as hyperelasticity of collagen components of fascia) or environmental factors (such as distention or rupture of fascia during labor or weight bearing). Muscles in pelvic floor will experience degradation and denervation along with time. This denervation process is the cause of weakening of pelvic floor muscle. Usually, if a women experienced prolonged second stage of labor, cesarean section can protect from this injury. There is still a debate regarding cause from labor, some believe the rise from the stretch of distal pudendal nerve up to alcock canal in spina schiadica or from crushing injury on neuromuscular junction.

Urinary incontinence is a condition that can disturb all aspects in quality of life of a woman. There is an assumption that loss of bladder control due to labor and ageing is a normal thing. Generally definition and majority of urinary incontinence are when pressure of bladder exceeds pressure in urethra due to weakening urethra sphincter mechanism (urodynamic urinary incontinence) or due to high detrusor pressure (detrusor overactivity, neurogenic detrusor overactivity).

Consensus regarding classifications for sexual dysfunction in women which are sexual desire disorder where there is hypoactive sexual desire disorder, the diminished or lack of sexual fantasy and/or desire or urge to do sexual activity that persists or recurs, which cause personal distress; and there is sexual aversion disorder: rejection or avoidance of sexual contacts with partner that persists or recurrents, which caused personal distress.

There are two components which have major role in the incidence of fecal incontinence, which are anal sphincter (internal and external) and puborectalis muscle. Contraction from smooth muscle of internal anal sphincter can lasts long, in charge of closing anal canal up to 85%, and work 24 hours non stop, including when sleeping. If there is a damage in internal anal sphincter, then it is enough to cause fecal incontinence. External anal sphincter will help internal sphincter during certain sudden times; which is when there is elevation of intra abdominal pressure such as when coughing, sneezing, and more.

METHODS

This study used cross sectional as a study design to measure the change in knowldege score and method of delivery mode choice. In the beginning of the study, we gave a written test to know the initial knowledge of subjects before counseling was performed and choice of mode of delivery wanted. After we got the tests result, it was continued with counseling about pelvic floor dysfunction. Then post tests was done to determine level of knowledge of subjects and delivery mode they would undergo.

This study was conducted in public health centers (PHC) in DKI Jakarta, which include Warakas PHC in North Jakarta, Jatinegara PHC in East Jakarta, Tanah Abang PHC and Maternity Hospital, Cengkareng PHC in West Jakarta, and Jagakarsa PHC in South Jakarta. These public health centers were chosen for having maternity hospital facility and having the most antenatal care visitors

comparing with PHC in same area in DKI Jakarta. This study was conducted for 4 months, starting from February 2016 to May 2016.

The inclusion criteria were all pregnant mother with gestational age > 36 weeks that had never attend any class or counseling about pelvic floor dysfunction, had not known about method of delivery that would be planned, agree to participate in the study by signing informed consent, and had educational level from junior high school and above. The exclusion criteria were are all pregnant women with gestational age > 36 weeks with disorders that blocked birth canal such as tumors, huge hemorrhoid that may delay labor, patients with preeclampsia and eclampsia, patients that had known method of delivery planned was per abdominam labor, patients who were unwilling to be interviewed, and patients who couldn't communicate properly. All other clinical condition would be considered by main researcher of this study.

Plan of data analysis of this study was used to know the level of knowledge before and after education and selection of method of delivery that would be chosen by subjects before and after counseling. For the first data analysis, the score was obtained from subjects from test results before and after counseling. Analysis used for these data based on paired numeric comparative analysis was paired t-test if data distribution was normal. If the data distribution was not normal, we used Wilcoxon test. In this study, the expected results were mean of each group, mean difference between group, and confidence interval from the mean difference. For the analysis of selection of method of delivery chosen by subjects where subjects choice categorized into two categories, so for this data the test that will be used is McNemar test. In this study result expected were proportion in each group, comparison of proportion between group, confidence interval and p value of the comparison.

Table 1. Demographic Characteristics of the Subjects

Variable	n (%)	Variable	Mean ± SD
Education		Age	29.59 ± 6.2
SMP (junior high)	40 (39.2)		
SMU (senior high)	50 (49.0)		
D3	4 (3.9)		
S1	8 (7.8)		
Employment		Body weight (kg)	64.26 ± 1.07
Employed	30 (29.4)		
Unemployed	72 (70.6)		
Gravida		Body height (meter)	1.54 ± 6.05
Primigravida	38 (37.3)		
Multigravida	64 (62.7)		
History of delivery			
Yes	60 (58.8)		
No	42 (41.2)		
History of complication			
Yes	4 (3.9)		
No	98 (96.1)		
Family income (rupiah)			
< 1 million	7 (6.8)		
1 million - 2.5 million	65 (63.7)		
2.5 million - 5 million	27 (26.4)		
> 5 million	3 (2.9)		

RESULTS

As many 102 respondents fulfilled inclusion criteria. All respondents performed pretest, continued with attending counseling, and ended with perfoming posttest. Demographic characteristic of subjects are presented in Table 1.

There was significant difference between respondent's knowledge about pelvic floor dysfunction before and after counseling. In this study, we achieved that pre-test score with mean 72 and post-test score mean was 80. There was 9 subjects with lower level score of knowledge, 84 subjects with higher level score of knowledge, and 9 subjects with same results.

There was significant difference of subject's delivery methods between before and after counseling. From 102 subjects, there was 9 subjects choosing abdominal delivery methods before counseling but after the counseling, 2 subjects changed their option to choose vaginal delivery method.

DISCUSSION

A total of 102 subjects were included in this study. Most of the subjects was high-school education (49%), not working (70.6%), multigravida (62.7%), history of delivery (58.8%), absence of complications history (96.1%), and family income was about Rp 1.000.000 - 2.500.000 (63.72%).

Onkokwo NS, et al, reported that 39.6% pregnant woman from 843 subjects choosing cesarean section as a delivery method though there was no medical indication or comorbid disease that was indicated for a cesarean section. This is associated with health care facility type and educational status of subjects. In this study, most of the pregnant woman was high-school graduate (49%) and unemployed (70.6%). This research was done in primary health care facility which with the recent applied reference system, the researcher was easier to get the subjects who met the inclusion criteria than in secondary or tertiary health care facilities. In this research, compared to the previous study, the researcher not only use the physician's information, but also use the education material standardized by IUGA, where we aim to reduce mistakes in giving the information.

In this study, we would like to know whether there is improved knowledge of subjects. In this study, there is improvement in post-test score compared to pre-test score, which there was improvement in mean of score about 9.725 ± 2.788 and p 0.0001. This means that most of the subjects had understand the counseling which was given about the pelvic floor dysfunction, so the subjects can acquire the knowledge and consideration about her delivery method. There was 9 subjects who has the lower post-test score compared than the pre-test score which is after the counseling. The researcher analyzed that education failure according to Clinical Training Skills for Reproductive Health Professionals that the success key of effective clinical education determined by: usage of modelling behavior, competency-based training, and human counseling technique.[5]

Table 2. Pre-test and Post-test Score Comparison

Knowledge Level	Median (min, max)	Mean Difference	p
Before counseling	72.0 (36, 96)	9.725 ± 2.788	0.0001
After counseling	80.0 (64.100)		

Table 3. Selection of Delivery Method before and after Counseling

		selection of delivery method after counseling		*Total*	p
selection of delivery method before counseling		**Vaginal delivery**	**Abdominal delivery**		
	Vaginal delivery	93	0	93 (91.17%)	0.063
	Abdominal delivery	2	7	9 (8.83%)	
	Total	95 (93.1%)	7 (6.9%)	102 (100%)	

After the counseling, we examined that pregnant woman choosing cesarean section procedure was 7 from 102 subjects (6.9%). If we correlate with the education factor and health care type affected this study, the result will contradict with the previous study. Most of the pregnant woman has high-school graduate (49.0%), and only a few (7.8%) which were a college graduate. So, from the education history prospective, we can conclude that woman with educational stage as high as high school have an enough consideration to choose their best delivery method.

From seven pregnant women that choose a c-section delivery method, 42.86% are afraid of getting uterine prolapse, 42.86% are afraid of the pain during labor, and the rest are afraid of getting weak pelvic floor muscles and having straining problems. Moreover, two women who had chosen to do a c-section delivery method before have changed their mind and chose pervaginam delivery instead. That's because after getting counseled and knowing the risks of getting pelvic floor dysfunction, the precautions like Kegel exercises, reduce body weight, and change of lifestyle by reduce heavy lifting, respondents switch their delivery method from c-section to vaginal delivery.

Other than that, Indonesia also have a payment system (health insurance) called BPJS (Badan Penyelenggara Jaminan Sosial) that will make sure all the medical treatments are according to indications. If someone choose a c-section delivery method but she doesn't meet the medical indications, then the cost of actions will not be insured by the government, so that the patient must pay the bill herself. The costs of c-section method in Indonesia are relatively more expensive than the normal pervaginam method. Where in our research, there are 7 subjects (6.8%) whose salaries are below one million rupiah, 65 subjects (63.7%) whose salaries are between 1 - 2.5 million rupiah, 27 subjects (26.4%) whose salaries are between 2.5 - 5 million rupiah, and 3 subjects (2.9%) whose salaries are more than 5 million rupiah.

In addition to the causes that are explained before, the other causes of the lack in awareness and rights of choosing a c-section delivery method in Indonesia are the influence from their husband and family in making a decision. The family and the husband are often make decisions that will not endanger the mom and the baby and also relatively cheaper in costs and insured. While in Indonesia, women are more likely to obey and follow what the husband says. This was also discussed by Onkokwo NS, et. al. in his research that discovered the influences from the husband and family are pretty much big, 33.3% from the husband, 17% from the parents, and 11% from the family members.

This study has the advantage that carried out in primary care facilities in each region of the municipality of Jakarta that the sample obtained represents the Primary Health Centre in DKI Jakarta and the study subjects got the knowledge about early detection of signs and symptoms of pelvic floor dysfunction, prevention and treatment of pelvic floor dysfunction. However, there is disadvantage of this study, such as: no standarized education materials so the education materials that we use based on education guidelines from International Urogynecology Association (IUGA) so the reseachers aware that not all the subjects understand well with given content of education materials.

Because the education done in indoor hall and in big groups that each group consist of 10 - 15 people. This study was only done in Primary Health Centre where the subjects mostly use BPJS Kesehatan (Badan Penyelenggara Jaminan Sosial) insurance so the selection method of delivery was still associated with financial problems. It would require further research using more samples and conducted also in secondary and tertiary health centers where it can get more research subjects who use another financing beside BPJS so the selection method of delivery does not depend on financial terms.[6]

CONCLUSION AND SUGGESTIONS

From this study, it can be concluded that there is a difference in knowledge score about pelvic floor dysfunction after counseling, where the score is better. There are 2 out of 102 subjects (1.9%) that change their choice of method of delivery from before to after counseling.

Based on these findings, further study with better method of research and larger population which covered more research location other than primary healthcare facilities need to be done so more comprehensive research data with more variative population can be acquired. Furthermore,

standardized education/counseling guidelines about pelvic floor dysfunction need to be written to determine knowledge in larger population.

REFERENCES

1. John O. L. DeLANCEY M, b, Lisa Kane Low P, RN, CNMa,b,c, Janis M. Miller P. Graphic Integration of Causal Factors of Pelvic Floor Disorders: An Integrated Lifespan Model. Am J Obstet Gynecol. 2008; 199(6): 610.e1-.e5.
2. Sung VW, Raker CA, Myers DL. Treatment decision-making and information-seeking preferences in women with pelvic floor disorders. Int Urogynecol J. 2010; 21(9): 1071-8.
3. Okonkwo NS, Ojengbede OA, Morhason-Bello IO. Maternal demand for cesarean section: perception and willingness to request by nigerian antenatal clients. Int J Women's Health. 2012: 141-8.
4. Santoso BI. Budi Iman Santoso Assessment (BISA): a model for predicting levator ani injury after vaginal delivery. Med J Indones. 2012; 21(2): 103-7.
5. Hove MCPS-t, Pool-Goudzwaard AL, Eijkemans MJC, Steegers-Theunissen RPM, Burger CW. Pelvic floor muscle function in a general female population in relation with age and parity and the relation between voluntary and involuntary contractions of the pelvic floor musculature. Int Urogynecol J 2009; 20: 1497-504.
6. Weemhoff M, Shek KL, Dietz HP. Effects of age on levator function and morphometry of the levator hiatus in women with pelvic floor disorders. Int Urogynecol J. 2010; 21: 1137-42.