Development Model of an Oral Health Care to Prevent Dental Caries in Pregnant Women

Nur Awalia Putri Zainal*[1,] Suharyo Hadisaputro[2,] Lanny Sunarjo[3,] Melyana N. Widyawati[4,] Diyah Fatmasari[5]

Poltekkes Kemenkes Semarang Dental Therapist and Hygienist

Tirto Agung Rd, Semarang Central Java, 50628, Indonesia

Abstract:- Background: A disease of the hard tissues of the teeth characterized by the destruction of the dentin and its coating is Dental caries. Pregnant women tend to experience dental caries because the mouth is more acidic and has a hormonal impact. Need of information, states of mind and conduct influence verbal wellbeing amid pregnancy. During pregnancy there are several changes in body parts such as changes in body weight, breast enlargement, diminished salivary pH, swelling of the feet and hands, and verbal wellbeing. One of the causes of verbal wellbeing issues is the nearness or nonattendance of nearby variables(caries).Objective: To deliver a suitable demonstrate of verbal wellbeing care for pregnant women and its application to extend information, state of mind and activities to avoid dental caries amid pregnancy. Method: The inquire about method incorporates five stages, specifically: data collection, demonstrate plan, master approval, show testing and item comes about within the form of a module. Within the module there's a direct to verbal wellbeing care amid pregnancy.(Quasy-Experiment pre-test and post-test with control design). The musings were conducted over 28 days, the research sample was roughly divided into 2 group based on inclusion criteria, 14 intervention groups and 14 control groups. The inquire about instrument utilized a survey and perception sheet. Factual test utilizing Intra class relationship coefficient, Man-Whitney, paired sample test and independent sample test. Results: The advancement of a verbal wellbeing care demonstrate has been connected to pregnant women. This show is altogether successful in expanding information with a score (p<0.001), demeanour (p<0.001), and conduct(p=0.017). Conclusion: Improvement of an appropriate verbal wellbeing care show is viable to extend information, demeanor, and conduct to anticipate dental caries in pregnant women.

Keywords:- Oral health care model, Dental caries, Pregnant women.

I. INTRODUCTION

Oral health care is indivisible portion of generally health that influences the quality of life and moves forward health, this is an understanding that oral health wellbeing may be a delicate tissue and related components within the verbal depth that empower people to socialize with others, conversation and connected with each other whereas eating. Will not cause brokenness, stylish unsettling influences and inconvenience due to illness, unpredictable nibbles and tooth misfortune, so that they can live socially and financially.(4)

The World Health Organization says oral health care malady may be a common dental malady that creates in individuals all through the world. Agreeing to the 2018 RISKESDAS information, it shows up that almost 60% of Indonesia people have oral health wellbeing care issues,as demonstrate by the tall prevalence of dental caries almost 90% and periodontal tissue ailment at 74.1%. The prevalence of dental caries in folks was 44.8% and females was 45.7%. In South Sulawesi Area, almost 70% still encounter oral health care issues, with almost 56% encountering dental caries and 13% of individuals accepting treatment with a male rate of 59%, and women by 56%.In Indonesians, Oral health care sicknesses that are as often as possible experienced by periodontal ailment and dental caries.Dental caries may be a malady of the difficult tissues of the teeth which is characterized by the annihilation of finish and dentin caused by the metabolic movement of microbes in plaque and the event of demineralization. Untreated dental caries will cause periodontal disease.(5)(6)(7)

Pregnant women tend to experience dental caries, because pregnant women have a pay less attention to oral hygiene, more acidic oral environment, and consume cariogenic foods more often. The hormonal impact that causes nausea makes pregnant women tend not to care about cleaning their teeth and mouth.(8)(9)In a past consider 70% of pregnant women experienced sickness and spewing for five until eight weeks. Remaining nourishment that's not cleaned can cause tooth rot.(8)

Oral health needs uncommon consideration, particularly amid pregnancy, since it can cause contaminations in other organs or nearby diseases. Pregnant women are enabled to use the right time, and at the righttoothbrush. Agreeing to common pharmaceutical, hormonal changes amid pregnancy can cause changes within the body counting the teeth and mouth, Amid pregnancy moment and third trimesters. Plan the primary three months of vomiting and over the top dribbling to preserve oral health care. The third trimester of pregnancy is related to the nearness of calcium within the

developing baby, so it is vital to know whether it is unsafe for pregnant women.(10)(11)(12)On this basis, researchers need to know about oral health to help pregnant women improve oral health status and early treatment to reduce pain by using garlic freely.

II. METHOD

A consider utilized quasi-experimental pre-test and post-test conducted using the Lemeshow equation whose tests were separated into two, group intervention and control bunches comprising of 28 sample based on the inclusion criteria.

III. RESULT

A. Data collection

A clear preparatory ponder points to recognize a learning demonstrate in terms of oral health wellbeing care advancement. An expressive preparatory think about is conducted as a thought in creating a show oral health wellbeing care for expanding information, demeanors, and activities for pregnant women. In the preliminary study, information was gotten through interviews with the wellbeing office, birthing specialists and dental wellbeing laborers (dental specialist and dental oral health specialist).

B. Model Design

Information obtained from data collection conducted by 5 respondents and information from existing journals to make the arrange on the appear. The comes about of collecting data uncovered that oral health care for pregnant women have been actualized but pregnant women required modern models and strategies since there required to be a more particular understanding of pregnant women with respect to oral health care.Analysts made oral health wellbeing care adjusted to approach reasonable for pregnant women.

C. Expert Validation

There are tree validators, specifically N.D as a master in wellbeingadministration, S.S as a master in obstetrics and D.M.L as a master in oral health care. Endorsement was carried out to urge data that was utilized as a for testing oral health wellbeing care illustrate for pregnant women.

Expert	F (%)	*p-value**
Dental Hygienist	98%	
Health Management Expert	96%	0,037
Obstetrician	80%	

Table 1: Expert Validation

The result about of master approval appear that the p-value = 0.037 is higher than 0,001 implies that a strategy of oral health education strategy during pregnancy by the oral health care model for pregnant women is important.

Variable	P-value	
	Intervention	Control
Knowledge Pre-Test	0,213	0,150
Knowledge Post-Test	0,111	0,210
Attitude Pre-Test	0,401	0,488
Attitude Post-Test	0,130	0,400
Action Pre-Test	0,400	0,584
Action Post-Test	0,447	0,996

Table 2: Normality Test

The result about of the normality test appeared that the information, state of mind and activity intercession gather had p>0.05 it might be concluded that the information were regularly dispersed, so the parametric test was proceeded.

Measurement time	Paired t-test**		
	Mean±sd		*P-value*
	Intervention	Control	
Pre-test	5,40±1,15	3,64±930	0,000
Post-test	9,51±1,230	6,08±1,552	0,000
	Independent t-test*		
	Mean±sd		
	Intervention	Control	*P-value*
Pre-test	5,60±1,340	4,04±790	0,001
Post-test	10,02±960	6,44±1,340	
	Unpaired data test value change(Δ)**		
	Mean±SD		
	Intervention	Control	*P-value*
Pre-post test	5.24±1,370	1,80±0.580	0,007

Table 3: Test the Effectiveness of Pregnant Women's Knowledge

The test of effectiveness for pregnant women obtained a p-value in the intervention group of p<0.001. The p-value of the control group information is p<0.001, meaning that the model for oral health services is PERMENKES No. 284 of 2006 is effective for increasing the knowledge of pregnant women.

The results of the unpaired viability test of data variables between the intervention group and the control group were very diverse, as shown in table 3 where the table shows that the progress of oral health of pregnant women is interesting in expanding the data compared to the treatment used in the control group.

The comes about of the unpaired data test, the pre-post delta (Δ) value decreased in meaning, it was seen that the p-value was >0.001 meaning that the increase in oral health services for pregnant women had succeeded in increasing information on pregnant women in the use of oral health care compared to the control group.

Measurement time	Paired t-test**		
	Mean±SD		P-value
	Intervention	Control	
Pre-test	20,94±2,401	19,92±2.061	0,000
Post-test	44,90±2,668	21,86±2,070	0,000
Independent t-test*			
Mean±SD			
	Intervention	Control	P-value
Pre-test	21,70±1,650	20,80±1,530	0,153
Post-test	45,30±2,270	22,20±1,930	0,000
Unpaired data test value change(Δ)**			
Mean±SD			
Intervention		Control	P-value
Pre-post test	23,40±3,030	1,00±0,829	0,003

Table 4: Test the Effectiveness of Pregnant Women's Attitudes

The comes about of theeffectiveness test for pregnant women obtained a p-value in the intervention group of p<0.001. The p-value of the control group is p<0.001, which means that the model for oral health services is PERMENKES No. 284 of 2006 is effective in improving the attitude of pregnant women.

The comes about of theunpaired effectiveness test of the information variable between the intervention group and the control group were completely different, as shown in table 2 where the table shows that the progress of oral health services for pregnant women is effective in expanding information compared to the treatment used in the control group.

The comes about of theunpaired data test, the pre-post delta (Δ) value decreased in meaning, it was seen that the p-value was 0.003 meaning that the increase in oral health services for pregnant women had succeeded in increasing information on pregnant women in the use of oral health care compared to the control group.

Measurement time	Paired t-test*		
	Mean±SD		P-value
	Intervention	Control	
Pre-test	3,38±1,651	4,20±1,302	0,017
Post-test	4,02±3,934	6,20±,349	0,000
Independent t-test*			
Mean±SD			
	Intervention	Control	P-value
Pre-test	3,77±0.930	5,22±1.393	0,002
Post-test	4,53±1.240	9,46±1,445	0,000
Unpaired data test value change(Δ)**			
Mean±SD			
Intervention		Control	P-value
Pre-post test	3,73±2,160	3,14±1,027	0,015

Table 5: Test the Effectiveness of Pregnant Women's Actions

Data on pregnant women's actions showed the p-value of the intervention group was 0.017, meaning that the advancement programs can be made in expanding the act of brushing teeth for pregnant women.

Expanding the act of brushing teeth, the development of a model of oral health care for pregnant women are important. This is often evidenced by an increase in the average value after being treated in the intervention group which is superior to the control group.

The comes about of thetest of unpaired esteem delta (Δ) pre-post contrast meaning, it appears that the p=0.015, meaning that it indicates the development of oral health services for pregnant women. Women were eligible to expand the activity of pregnant women in the use of oral health care compared to the care used in the control group.

D. Model results

The product is a model of oral health care for pregnant women. This model is designed for dental health experts about the basic concepts of implementing dental health care for pregnant women which is illustrated for pregnant women in connection with the increasing interest of dental health specialists in carrying out promotive and preventive efforts, especially those related to dental health, by expanding the capacity of pregnant women in terms of oral health care.

Fig. 1: Cover Model Image

IV. DISCUSSION

Keeping up oral health care of pregnant women depends on their conduct, since the level of data and behaviour is the most component in a behaviour. Questionnaire related to behavior is all exercises or activities as well as information had amid pregnancy such as perseveringly brushing teeth, constantly devouring vegetables and natural product, to perseveringly going by wellbeing offices in arrange to check pregnancy, counting teeth and mouth.(13)(12)(14)

Conduct that still should be changed amid pregnancy since it can influence oral health which in turn contributes to the development of oral health depth infections(15).oral health care upkeep conduct that can meddled with the consolation of pregnant women amid pregnancy.(16)(17)(18)

One of the variables related with the rate of caries in pregnant womenis knowledgeinformation will underlie the

arrangement practices that bolster or don't back children's oral health cleanliness. Information can be gottenordinarily or orchestrated way, specifically through the instructive handle.Mother's knowledge about oral health is a behaviourpredisposing factors that do not support oral health during pregnancy.(19)(20)

V. CONCLUSION

- The model is made for oral health services whose application is effective and appropriate in improving attitudes, knowledge, and behaviour to prevent dental caries in pregnant women.
- Improvement of oral health care show connected to pregnant women is significantly effective to prevent dental caries by increasing of knowledge ($p<0.001$), improvingof attitude($p<0.001$), and behaviour ($p=0.017$).

VI. SUGGESTIONS

It is hoped that pregnant women will take better care of their oral hygiene by improving their behaviour during pregnancy. Such as, eating healthy food, diligently brushing teeth, regularly go to the health office to get information about dental health during pregnancy.

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