INTERPERSONAL COMMUNICATION TRAINING FOR MIDWIVES AND NUTRITIONISTS IN EFFORTS TO SUPPORT ANTENATAL SERVICES IN BADUNG DISTRICT

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Abstract, **Background**: Anemia of pregnant women is still a major problem related to health problems in the first thousand days of life. The importance of the prevention and prevention of anemia in pregnant women is supported by the many research results that show a significant relationship between the problems of nutritional anemia in pregnant women and health problems for the mother and fetus, including the risk of giving birth. The success of the implementation of IEC in antenatal care for pregnant women at the puskesmas is related to the ability of health workers, both midwives and nutritionists, to provide counseling on reproductive health and nutrition needed during pregnancy.
Objective: to determine the effectiveness of interpersonal communication training for midwives and nutritionists in supporting the provision of antenatal care for pregnant women at the Badung District Health Center.
Methods: This study was an experimental study with a randomized pretest and posttest control group design. The research was conducted at the Badung District Health Center. The population in this study were midwives and nutritionists who served at the Puskesmas and performed antenatal services. The minimum sample size is 40 people for each group. Sampling is done by Multistage Sampling. Data was collected by interview method using a questionnaire. The data that has been obtained is then processed and analyzed with a computer application program.
Result: The training conducted in the intervention group, can improve interpersonal communication skills for the empathy component and the equality component. The openness component, the support component, and the positive feeling component did not significantly change after training in the intervention group. Meanwhile, in the control group, all components were relatively unchanged at the final data collection (post test). The practice of providing information on iron deficiency anemia by midwives and nutritionists has been carried out by all respondents. The recommendation from the research is that interpersonal communication training can be replicated in other health centers to maximize the antenatal services provided to pregnant women.

Keywords: Antenatal care, Interpersonal communication, nutrisionist, midwifery

Background

Anemia of pregnant women is still a major problem related to health problems in the first thousand days of life. The problem of anemia in pregnant women is not only found in developing countries but also in developed countries. Even the prevalence of anemia in pregnant women is quite high, reaching 41.8% [1]. The state of the problem of anemia in pregnant women in Indonesia from several research results found that there is a prevalence range of 30-50% [2,3,4]. The prevalence of anemia in pregnant women in Bali Province is 25.6% [5].

The importance of prevention and control of anemia in pregnant women is supported by many research results that show a significant relationship between nutritional anemia problems in pregnant women and health problems for the mother and fetus, including the risk of giving birth [6], premature or low birth weight babies [7], the risk of maternal and infant mortality [1] as well as neurodevelopmental and neurocognitive disorders that have an impact on children's learning and

memory disorders [8]. The implementation of effective IEC is very important in preventive and promotive efforts to prevent anemia in pregnant women carried out by health workers at the puskesmas, through counseling conducted by midwives during the antenatal period of pregnancy [9]. Meanwhile, nutritionists are potential workers who can actively take responsibility for providing education and counseling on balanced nutrition and food sources of iron needed by pregnant women [10].

The importance of interpersonal communication skills has become a subject of study in various fields of science to improve the effectiveness of the IEC program or other purposes. Health workers who provide counseling are sure to communicate with their clients. The communication process carried out can determine whether information is reached to the target which ultimately affects the achievement or failure of the IEC program objectives. Good interpersonal communication will be able to build closeness and intimacy in the process of conveying messages. When discussing the patient's status and the service plan to be carried out, creative communication is needed, including extracting retrospective medical information for service needs [11]. The results showed that the failure of interpersonal communication of health workers can have a negative impact on the implementation of health programs that are less than optimal, marked by negative perceptions of health workers. Health workers were considered unfriendly, stiff, chatty, lacked a smile in providing services, officers were also found to be efficient at talking and not communicating if the public did not ask [12].

The success of the implementation of IEC in antenatal care for pregnant women at the puskesmas is related to the ability of health workers, both midwives and nutritionists, to provide counseling on reproductive health and nutrition needed during pregnancy. Seeing the importance of interpersonal communication to achieve IEC goals, researchers are interested in examining the effectiveness of midwifery and nutritionist interpersonal communication training. The purpose of this study was to determine the effectiveness of interpersonal communication training for midwives and nutritionists in supporting the provision of antenatal care for pregnant women at the Badung District Health Center.

Method

This study is an experimental study with a randomized pretest and posttest control group design. The indicators of achievement of this research can be assessed from the quality of the curriculum and training modules held and the enthusiasm of the participants in participating in the training activities. The research was conducted at the Badung District Health Center. The selection of research locations was determined purposively with the following considerations: Badung Regency is one of the regencies in Bali Province that has the KBS program (Krama Badung Sehat). This KBS program strongly supports innovative programs that can eventually be adopted and developed in other areas. This research was conducted for 6 months from May to October 2019.

The population in this study were midwives and nutritionists who served at the Puskesmas and carried out the task of carrying out antenatal care and counseling services for pregnant women. Based on the calculation of the minimum sample obtained a minimum number of 40 people. Sampling is done by Multistage Sampling. Sampling stages: Two sub-districts were taken, namely Mengwi District and Abiansemal District. In each selected sub-district, 1 puskesmas was chosen as the treatment group and 1 puskesmas as the control group at random. Furthermore, at each puskesmas purposively taken as many as 20 midwives and nutritionists who are involved in antenatal and counseling services for pregnant women in their working areas. The samples in each treatment and control group were 40 people so that the total sample was 80 people. Respondents in this study were the research sample.

Data was collected by interview method using a questionnaire. The data collected includes identity, demographics, interpersonal communication skills as well as information conveyed by midwives and nutritionists at the time of delivery of antenatal services. The data that has been obtained is then processed and analyzed with a computer application program. The analysis carried out includes Descriptive analysis to determine the range of values, averages, and standard deviations of all data; Test the normality of the data in each group against the pre-test and post-test data using the Kosmogorov Smirnov test statistic; Test the homogeneity of the data using Levene's test and the average difference test between the pre-test and post-test statistical paired difference test (paired t-test). Meanwhile, for comparison or average difference test in the treatment group and the control group, the test was conducted using an independent t-test.

Result

Based on the descriptive data of the sample, the lowest age was 22 years, and the highest age was 55 years with a mean and standard deviation of 34.60+8.36. From the sample tenure, the lowest tenure is under 1 year

and the highest is 34 years with an average and standard deviation of 9.96+9.17 years. The full distribution is as in table 1.

Table 1. Sample Characteristics

Variable	Intervention Group		Control Group		Total	
	f	%	f	%	f	%
Sex						
• Male	1	2.5	-	0	1	1.2
• Female	39	97.5	40	100.0	79	98.8
Marital status						
• Single	-	-	6	15.0	6	7.5
• Marry	40	100.0	33	82.5	73	91.3
• Disforce	-	-	1	2.5	1	1.2
Residence						
• Inside the health center area	14	35.0	14	35.0	28	35.0
• Outside the health center area	26	65.0	26	65.0	52	65.0
Education level						
• Diploma in Midwifery	35	87.5	38	95.0	73	91.3
• Bachelor of applied Midwifery	-	-	1	2.5	1	1.2
• Diploma in Nutrition	4	10.0	1	2.5	5	6.3
• Bachelor of applied Nutrition	1	2.5	-	-	1	1.2
Total	40	100.0	40	100.0	80	100.0

Assessment of Interpersonal Communication Skills Before and after Training

Judging from the average score of each component, it can be seen that prior to the implementation of the intervention, the openness and empathy components were significantly different between the intervention and control groups ($p<0.05$). The average openness component score was higher in the intervention group than in the control group. As for the empathy component, the opposite is true. For more details can be seen in table 2.

Table 2. Independent t-test results for the Interpersonal Communication Component for Midwives and Nutritionists in the intervention group and the control group before training

Component	Mean±SD		95% CI	p
	Intervention Group	Control Group		
Disclosure (12)	10.8250±0.95776	10.1250±1.92404	(0.023461; 1.376539)	0,043*
Empathy (11)	10.7750±0.42290	10.9500±0.22072	(-0.325162; -0.024838)	0.023*
Support (6)	5.9250[a]±0.26675	5.8750[a] ±0.33493	(-0.084781; 0.184781)	0.462
Positive feelings (7)	6.8250±0.44650	6.8500±0.48305	(-0.232061; 0.182061)	0.811
Equality (12)	10.7000±1.60448	11.2250±1.04973	(-1.128549; 0.078549)	0.087
Total (48)	45.0500±2.64042	45.0250±2.99133	(-1.230965; 1.280965)	0.968

Overall, the average score of the interpersonal communication component increased both in the intervention group and the control group after the training. The complete data is as in table 3.

Table 3. Results of Independent t-test for the Interpersonal Communication Component of Midwives and Nutritionists in the intervention group and the control group after training

Component	Mean±SD		95% CI	P
	Intervention Group	Control Group		
Disclosure (12)	10.9750± 0.99968	10.5250±1.69445	(-0.169287; 1.069287)	0.152
Empathy (11)	10.9500±0.22072	10.9750±0.15811	(-0.110466; 0.060466)	0.562
Support (6)	5.9250[a]±0.26675	5.8750[a] ±0.33493	(-0.084781; 0.184781)	0.462
Positive feelings (7)	6.7250±0.59861	6.8250±0.44650	(-0.335074; 0.135074)	0.399
Equality (12)	11.1500±1.31168	11.5000±0.81650	(-0.836352; 0.136352)	0.156
Total (48)	45.7250±2.32034	45.7000±2.49307	(-1.047074; 1.097074)	0.963

Differences in the components of Interpersonal Communication Before and after training

Table 4. Results of Paired t-test for the Interpersonal Communication Component for Midwives and Nutritionists in the intervention group and the control group

Component	Rata-rata±SD Kelp Intervensi		t	P	Rata-rata±SD Kelp Kontrol		t	P
	Pre-Test	Post Test			Pre-Test	Post Test		
Disclosure (12)	10.8250± 0.95776	10.9750± 0.99968	-.784	.438	10.1250± 1.92404	10.5250± 1.69445	-1.457	.153
Empathy (11)	10.7750± 0.42290	10.9500± 0.22072	-2.876	.006	10.9500± 0.22072	10.9750± .15811	-1.000	.323
Support (6)	5.9250[a]± 0.26675	5.9250[a]± 0.26675	na	na	5.8750[a] ± 0.33493	5.8750[a] ± .33493	na	na
Positive feelings (7)	6.8250± 0.44650	6.7250± 0.59861	.941	.352	6.8500± 0.48305	6.8250± .44650	.330	.743
Equality (12)	10.7000± 1.60448	11.1500± 1.31168	-2.259	.030	11.2250± 1.04973	11.5000± .81650	-1.921	.062
Total (48)	45.0500± 2.64042	45.7250± 2.32034	-1.763	.086	45.0250± 2.99133	45.7000± 2.49307	-1.770	.084

From the table 4, there is a significant difference in the average scores before and after training in the intervention group, namely the empathy component (p = 0.006) and equality (p = 0.030). While the results of the paired t-test in the control group, almost all of them did not differ from the results of the pre-test with the post-test, which was indicated by a p>0.05.

Practice of Providing Information on Nutritional Anemia to Pregnant Women

All respondents (100%) stated that they provided information about nutritional anemia to pregnant women. But what is different is where they provide the information. In the intervention group that provided information to the public in more than 2 places as many as 45% while in the control group only 42.5%. Others state that they provide information on less than 2 locations.

In terms of the type of place where the information is given, it varies. Most of the answers were as a place to provide information in more than 2 locations, namely at the public health center, Posyandu, and during home visits. In the intervention group, more (52.5%) stated that at the public health center, Posyandu and during home visits. While in the control group as much as 42.5%

The information provided by the respondents varied greatly, some stated that they conveyed 1 or 2 topics, but there were also those who conveyed the topics presented very completely. In the intervention group, as much as 95% provided complete material while in the control group only 82.5%. More data about the information provided can be seen in table 5.

Table 5. Information on Iron Nutrient Anemia given to pregnant women

Information about Anemia	Intervention Group		Control Group		TOTAL		p
	f	%	f	%	f	%	
Less	0	0.0	3	7.5	3	3.8	0.134
Enough	2	5.0	4	10.0	6	7.5	
Complete	38	95.0	33	82.5	71	88.8	
TOTAL	**40**	**100.0**	**40**	**100.0**	**80**	**100.0**	

All respondents (100%) both from the intervention group and the control group stated that apart from providing information about nutritional anemia to pregnant women themselves, they also stated that they advised pregnant women to seek information about iron nutritional anemia. The media as a source of information suggested by respondents varied widely, but the most recommended was from the internet or social media. This is probably because the internet and social media are very massive media used today.

Discussion

Patient satisfaction is a determinant in public health services. Unfriendly attitude, stiff, chatty, lack of smile can be the cause of client/patient satisfaction with suboptimal service [12]. Interpersonal communication between midwives and nutritionists in antenatal care at puskesmas is very important to note. The purposes of interpersonal communication include 1) conveying information to others; 2) share experiences with others; 3) cultivate sympathy; 4) cooperate; and 5) generate motivation. De Vito said that the effectiveness of interpersonal communication begins with five general qualities that are considered, namely openness, empathy, supportiveness, positiveness, and equality [13].

The intervention group and the control group had interpersonal communication components of openness, empathy, support, positive attitude, and equality which were relatively equal. Overall, the average score of the total components of interpersonal communication in the two groups was relatively the same ($p>0.05$). Interpersonal communication training intervention conducted in the intervention group had a significant effect on the empathy component ($p<0.05$) and the equality component ($p<0.05$). In the initial data collection, it was found that the mean score of the empathy component was significantly ($p<0.05$) higher in the control group (10,9500 ± 0.22072) than in the intervention group (10,7750 ± 0.42290). After the implementation of the intervention, it was found that the score for the empathy component in the intervention group increased to 10,9500 (SD=0.22072). Empathy is the ability of a person to feel that if he were someone else, he could understand something that was being experienced by someone else, he could feel what someone else was feeling, and he could understand an issue from another person's point of view, through the eyes of another person. Empathetic people can understand the motivations and experiences of others, their feelings, and attitudes, as well as their hopes and desires [13].

Interpersonal communication training in the intervention group significantly increased the equivalence component score ($p<0.05$). This equality component is very important for health workers, especially midwives and nutritionists who provide antenatal services for pregnant women at the puskesmas. According to De Vito, the equality component in interpersonal communication will help the communication process by placing oneself on a par with others (there is no difference between the officer and the client); aware of the existence of different interests; recognize the importance of the presence of others; do not impose the will; two-way communication; mutual need and an atmosphere of intimate and comfortable communication. By maintaining this component of equality, a health worker can certainly more easily carry out the counseling process or provide antenatal services to pregnant women. From the client's point of view, of course, the officer's positive attitude in terms of equality will be able to increase the satisfaction of the service he receives. Information on iron nutrition anemia was provided by all health workers, midwives, and nutritionists in both groups. The place of providing information has been carried out not only in the workplace, but also during home visits of pregnant women. This family approach is recommended by the Indonesian Ministry of Health to create a healthy family. Most of the information topics related to iron nutritional anemia of pregnant women were completely provided to both groups. The recommended sources of information are more diverse, not only from conventional media such as health workers, or brochures, but have developed using social media and the internet.

Conclusion

Based on the results of the study it can be concluded as follows:

1. The ability of interpersonal communication before the implementation of the training for the openness component was better in the

intervention group, while the empathy component was better in the control group. The support component, the positive feeling component and the equality component were relatively the same both before training in the intervention group and the control group.

2. Training conducted in the intervention group, can improve interpersonal communication skills for the empathy component and the equality component. The openness component, the support component, and the positive feeling component did not significantly change after training in the intervention group. Meanwhile, in the control group, all components were relatively unchanged at the final data collection (post test).
3. The practice of providing information on iron deficiency anemia by midwives and nutritionists has been carried out by all respondents, at least in 1 place of work and most of them provide information during home visits. Most of the information material provided is complete, to support the fulfillment of health services for pregnant women.
4. There are differences in interpersonal communication skills in the empathy component and the equality component before and after training in the intervention group and control group ($p<0.05$)

The recommendation from the research is that interpersonal communication training can be replicated in other health centers to maximize the antenatal services provided to pregnant women and further research needs to be done regarding the implementation of antenatal services provided, seen from patient satisfaction as service recipients.

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