International Journal of Social Science (IJSS)
Vol.3 Issue.5 February 2024, pp: 673-680
ISSN: 2798-3463 (Printed) | 2798-4079 (Online)
DOI: https://doi.org/10.53625/ijss.v3i4.7421

THE EFFECT OF ELECTRONIC FOOD FOR PREGNANCY (E-FOCY) APPLICATION ON THE NUTRITION BEHAVIOR OF PREGNANT WOMEN IN THE RIAU ISLANDS COMMUNITY

By
Rita Ridayani[1], Dewi Mey Lestanti Mukodri[2], Marella[3], Ristina Rosauli Harianja[4*], Neni San Agustina Siregar[5]
[1,2,3,4,5] DIII Midwifery, Health Polytechnic, Ministry of Health, Tanjungpinang
E-mail: [4]rosaulli_ristinn@yahoo.co.id

Article Info
Article history:
Received Nov 20, 2023
Revised Nov 14, 2023
Accepted Dec 23, 2023

Keywords:
Pregnant Women, e-FOCY, Applications, Nutrition for Pregnant Women, Knowledge

ABSTRACT
Malnutrition is the cause of maternal and child death. One population that is very vulnerable to nutritional problems is pregnant women.This research method is quantitative research with a quasi-experimental design (Quasi Experimental) with a one group pretest and posttest design. The samples taken in this study were all 30 pregnant women in the second trimester who had their wombs checked at the Bugis Village Community Health Center. The results of the pre-test knowledge analysis between the control group and the intervention group showed a p-value of 0.867 (p<0.05), which means that there was no significant difference in the pre-test knowledge score between the control group and the intervention group. The results of the posttest analysis of knowledge between the control group and the intervention group showed a p-value of 0.000 (p<0.05). However, from the research results it was found that there were significant differences in attitudes and behavior between pregnant women who were given intervention using the E-FOCY application and those who were only given counseling from the KIA book. There was a significant increase in knowledge from the pre and post test results (p-value 0.000). However, in the intervention group the increase was higher than in the control group.

This is an open access article under the CC BY-SA license.

Corresponding Author:
Ristina Rosauli Harianja
DIII Midwifery, Health Polytechnic, Ministry of Health, Tanjungpinang
E-mail: rosaulli_ristinn@yahoo.co.id

1. INTRODUCTION

The health of pregnant women is an important aspect in maintaining human life, because the health condition of the mother during pregnancy has a major impact on fetal development, healthy birth, and post-natal maternal well-being.(Kasmiati, 2023). Adequate and balanced nutrition is a key element in maintaining the health of pregnant women and optimal fetal growth. However, there are big challenges in providing appropriate nutritional information to pregnant women, especially with the various factors that influence their eating patterns, such as food preferences, access to information, and daily lifestyle.(Dewi Mey LM, Rita Ridayani, Neny San AS, Jusuf Kritianto, 2020).

Pregnancy is fertilization or union of spermatozoa and ovum and is followed by nidation or implantation. Efforts to provide health services for pregnant women are realized through the provision of antenatal services(Cunningham, FG, Leveno, KJ, Bloom, SL, Dashe, JS, Hoffman, BL, Casey, BM, & Spong, 2018). Improvement efforts needed to overcome stunting include efforts to prevent and reduce direct disturbances (specific nutrition interventions) and efforts to prevent and reduce indirect disturbances (sensitive nutrition interventions).(Ekayanthi & Suryani, 2019). Pregnant mothers must have sufficient nutrition because the nutrition they get will be used for themselves and their fetus(Dewi Sri Sumardilah, Mindo Lupiana, 2021). A mother who does not have or is malnourished during pregnancy will cause the baby she is carrying to suffer from malnutrition. If this

International Journal of Social Science (IJSS)
Vol.3 Issue.5 February 2024, pp: 663-672
ISSN: 2798-3463 (Printed) | 2798-4079 (Online)

continues and is not addressed immediately, the baby will be born with a low birth weight (under 2500 grams), whereas for mothers who are malnourished, as long as they breastfeed they produce little breast milk.(Edyta Suliga, 2015).

Malnutrition is the cause of maternal and child death. One population that is very vulnerable to nutritional problems is pregnant women(Saragih et al., 2007). Based on data obtained from the Tanjungpinang City Health Service in 2021, there were 4,451 pregnant women spread across 7 working areas of the Tanjungpinang City Health Center. Tanjungpinang is one of the health centers that targets pregnant women the most with 1,001 pregnant women, of which there are still pregnant women with Chronic Energy Deficiency (CED) and Anemia. Chronic energy deficiency (KEK) can have a negative impact on the mother and fetus. Malnutrition in pregnant women can affect the growth process of the fetus and cause miscarriage, abortion, stillbirth, neonatal death, congenital defects, anemia in babies, and birth with low birth weight (LBW).

Previous studies have highlighted the problem of inadequate nutritional knowledge among pregnant women and poor nutritional practices during pregnancy. In addition, there are still groups of pregnant women who may not have easy access to comprehensive nutrition resources, such as nutrition guidebooks or consultations with nutritionists. In today's digital era, smartphone-based application technology has become an increasingly popular solution for disseminating health information(Anyasor Chiamaka Ogechi, 2017; Republic of Indonesia, 2020).

Digital health services are present in society, with a variety of service options according to people's preferences and health needs(Indriyanti, ER, & Wibowo, 2020). One of them, through mobile-based health services, has the potential and benefit of increasing antenatal care practices in a positive way in influencing the behavior of pregnant women(Indriyanti, ER, & Wibowo, 2020). Android is a mobile operating system that is growing rapidly on smartphones today, supporting the development of new application ideas and innovations to add system functionality(Sarumaha, VD, Agustin, F., Tanjung et al., 2020).In this context, the Electronic Food for Pregnancy (E-FoCy) application emerged as an effort to provide easy and fast access to relevant nutritional information for pregnant women. This application is specifically designed to help pregnant women understand their nutritional needs during pregnancy, provide healthy meal plans, and provide important food consumption reminders. However, further research is still needed to evaluate the effectiveness of E-FoCy in influencing the nutritional behavior of pregnant women.

Therefore, this study aims to investigate and analyze the effect of the E-FoCy application on the nutritional behavior of pregnant women. Through this research, it is hoped that scientific evidence can be found that supports the positive contribution of this application to changes in the nutritional behavior of pregnant women. The results of this research will provide valuable insight into the potential application of technology in improving the understanding and practice of nutrition for pregnant women, as well as contributing to efforts to prevent pregnancy complications and healthy births.

2. METHODS

This research method is quantitative research with a quasi-experimental design (Quasi Experimental) with a one group pre test and post test design. The samples taken in this study were all 30 pregnant women in the second trimester who had their womb checked at the Bugis Village Community Health Center. This research design uses a pretest before being given treatment, so the results will be more accurate because they can compare the conditions before and after being given treatment, namely to assess the effect of the Electronic Food For Pregnancy (E-FoCy) application on the nutritional behavior of pregnant women. This research was conducted in Bugis Village in March-October 2023.

In the early stages, pregnant women were interviewed using SQ-FFQ, Pre-Test Behavioral Observation and their weight and LILa were weighed to assess the nutritional status of pregnant women before being given education using the Electronic Food For Pregnancy (E-FoCy) application. After that, pregnant women were given interventions regarding pregnant women's nutrition using the Electronic Food For Pregnancy (E-FoCy) application. The final stage was carried out after 2 weeks of using the Electronic Food For Pregnancy (E-FoCy) application. Post-closed behavioral observation was carried out. The research design model was as follows:

O1	X	O2

Information:
O1 : Pre-Test
O2 :*Post Test*
X : The treatment provided is in the form of an Electronic Food Pregnancy (E-FoCy) application**.**

International Journal of Social Science (IJSS)
Vol.3 Issue.5 February 2024, pp: 673-680
ISSN: 2798-3463 (Printed) | 2798-4079 (Online)
DOI: https://doi.org/10.53625/ijss.v3i4.7421

3. FINDING AND DISCUSSION

The Electronic Food Pregnancy (E-FoCy) application is an Android-based nutritional education application. E-FoCy contains information about balanced nutrition for pregnant women which aims to increase mothers' knowledge about the importance of food intake during pregnancy and prevent problems during pregnancy and post-pregnancy. This research is the initial stage in understanding the impact of the E-FoCy application on the nutritional behavior of pregnant women.

Data collection for this research was carried out from September to October 2023 on 30 pregnant women who were divided into 2 groups, namely the control group and the intervention group. Each pregnant woman in both groups was given a questionnaire (pretest) which contained pregnant women's knowledge about nutrition during pregnancy. Pregnant women in the control group were given counseling in the form of health information through the KIA book they owned. Pregnant women in the intervention group were given the E-FoCy application to use for 3 weeks. All features available in this application have been tried and used by respondents in the intervention group. Knowledge of pregnant women (posttest) was measured again in both groups. The data obtained is then processed and tested univariately and bivariately.

Midwifery Ante-Natal Care (ANC) is a method used to provide care during pregnancy and prepare for a comfortable birth with the aim of the mother and baby being born in good health.(Ni Wayan Sutarmi, DA Mirah Ardrini, DP . Duarsa, 2022). ANC treatment during pregnancy is carried out to monitor the pregnancy condition of the mother and fetus and prepare the mother physically and psychologically to face childbirth(Huberty et al., 2020). Pregnancy is the most important period for fetal growth. One of the factors influencing the success of a pregnancy is nutritional status(Kadir, 2019). Insufficient nutritional intake in pregnant women can cause Chronic Energy Deficiency (CED). Chronic Energy Deficiency is a condition where a person suffers from a long or chronic lack of intake or food which can result in health problems(Kuspriyanto, 2016).

a. Respondent Characteristics

In this study, the characteristics of respondents were seen from age, income, education, LILA, BMI and Gestational Age because they were considered to have the most influence on the nutritional status and nutritional behavior of pregnant women. From the research results, most pregnant women were aged 19-35 years.

Table 1
Respondent Characteristics

Characteristics	equency (n=30)	percentage(%)
Age		
<19 years old	1	2.5
19-35 years old	21	52.5
>35 years	8	20
Income		
Low	23	75
Tall	7	5
Education		
elementary school	0	0
JUNIOR HIGH SCHOOL	3	7.5
SENIOR HIGH SCHOOL	23	57.5
PT	4	10
LILA		
Normal	30	100
SEZ	0	0
BMI		
18.5-25	30	100
<18.5 or >25	0	0
Gestational Age		
Trimester 1	2	5
Trimester 2	17	42.5
Trimester 3	11	27.5

Table 1 above describes the characteristics of respondents in terms of age, income, education, LILA, BMI and gestational age. Most of the pregnant women were aged 19-35 years as many as 21 people (52.5%) and most of them were high school graduates as many as 23 people (57.5%). Most of the respondents had low income, 23

International Journal of Social Science (IJSS)
Vol.3 Issue.5 February 2024, pp: 663-672
ISSN: 2798-3463 (Printed) | 2798-4079 (Online)

people (75%). Regarding pregnancy conditions, the majority of respondents are currently in the second trimester of pregnancy, namely 17 people (42.5%) and all pregnant women have LILA and BMI within normal limits (100%).

Based on the results of research by Teguh (2018), it is known that age influences the incidence of chronic energy deficiency in pregnant women. The chance of pregnant women aged less than 20 years or more than 35 years suffering from chronic energy deficiency is 7.6 times higher than pregnant women aged between 20 years and 35 years.(Teguh et al., 2019). Most of the respondent graduates have a high school education which can be categorized as higher education. The results above show that mothers have more or less knowledge compared to mothers with good knowledge. In this case it will depend on the extent of the influence of the level of education so that it can instill a positive and broad view regarding the importance of nutritious food on health.(Ernawati, 2018). This is because education is one of the factors that influences knowledge besides age, according to Soekanto (2007), the higher a person's education, the better their perspective on themselves and their environment.(Fitria & Ariva, 2018). The higher a person's level of education, the easier it is to receive information and the more knowledge they have(Ainiyah et al., 2020). A higher level of education will make it easier for a person or community to absorb information and implement it in daily behavior and lifestyle, especially in terms of health and nutrition. The mother's education level greatly influences the family's health status.

Most of the respondents have low income. This greatly influences the nutritional behavior of pregnant women. A family's ability to buy nutritious food is influenced by the level of family income. A high income makes it possible to meet the food needs of all family members. On the other hand, low income levels result in a lack of family food purchasing power(Tahir, 2021). If food purchasing power is low, it causes the nutritional needs of toddlers to be inadequate(Sitanggang & Nasution, 2013).

Regarding pregnancy conditions, the majority of respondents currently have LILA and BMI within normal limits. Upper arm circumference (LiLA) has been used as a proxy indicator for the risk of chronic energy deficiency (KEK) for pregnant women in Indonesia because there is no data on pre-pregnancy weight for the majority of pregnant women. So far, the LiLA threshold used is 23.5 cm. This study aims to test the validity of LiLA on body mass index (BMI), which is a better indicator for determining the nutritional status of adult women.(Harjanti & Ninik, 2016).

b. Analysis of Different Knowledge Tests of Pregnant Women in Groups

The mean difference test in the control group and intervention group was carried out first to test the normality of the data using the Kolmogorov-Smirnov test with the result p value=0.000 (P<0.000) which means the data is not normally distributed. Based on the results of the data normality test, the hypothesis test that will be used is the Wilcoxon test for differences within groups and the Mann Whitney test for differences between groups as shown in the following table:

Table 2
Analysis of Different Knowledge Tests of Pregnant Women in Groups

	Control		Intervention	
	Pre Test	**Post Test**	**Pre Test**	**Post Test**
Mean (SD)	72.33 (13.05)	72.67 (14.61)	73.67 (9.99)	83.33 (9.94)
Median	80	80	80	90
Range	40-90	40-90	50-90	60-100
P value	0.655		0,000	

Table 2 shows that the average pre-test score in the control group was 72.33 with a standard deviation of 13.05, while the average post-test score was 72.67 with a standard deviation of 14.61 and an average increase of 0.34. The mean pre test score in the intervention group (Using the E-FoCy Application) was 73.67 with a standard deviation of 9.999. The average post test score increased to 83.33 with a standard deviation of 9.94 and an average increase of 9.66.

The results of knowledge analysis in the control group using the Wilcoxon test showed a p-value of 0.655 (p<0.05), which means that there was no significant difference in knowledge scores in the pre-test and post-test in the group that did not use the E-FoCy Android application. The results of knowledge analysis in the intervention group using the Wilcoxon test, obtained a p-value of 0.000 (p<0.05). So from this test it can be concluded that there is a significant difference in knowledge between before and after using the E-FoCy Application.

c. Analysis of Tests of Differences in Knowledge of Pregnant Women Between Groups

Measuring the difference in mean pre-test and post-test knowledge between groups was carried out using the Mann Whitney test to produce the following values:

Table 3

International Journal of Social Science (IJSS)
Vol.3 Issue.5 February 2024, pp: 673-680
ISSN: 2798-3463 (Printed) | 2798-4079 (Online)
DOI: https://doi.org/10.53625/ijss.v3i4.7421

Analysis of Different Knowledge Tests of Pregnant Women in Groups

	Pre Test		Post Test	
	Control	**Intervention**	**Control**	**Intervention**
Mean (SD)	72.33 (13.05)	73.67 (9.99)	72.67 (14.61)	83.33 (9.94)
Median	80	80	80	90
Range	40-90	50-90	40-90	60-100
P value	0.867		0,000	

The results of the pre-test knowledge analysis between the control group and the intervention group showed a p-value of 0.867 (p<0.05), which means that there was no significant difference in the pre-test knowledge score between the control group and the intervention group. The results of the post test analysis of knowledge between the control group and the intervention group showed a p-value of 0.000 (p<0.05). So from this test it can be concluded that there is a significant difference in the post test knowledge scores between the group that was only given counseling and the group that used the E-FoCy application.

There was a significant increase in knowledge from the pre and post test results. However, in the intervention group the increase was higher than in the control group. This is in accordance with Hidayatul's theory (2020) that knowledge is a process of using the five senses that a person carries out on certain objects to produce skills.(Ainiyah et al., 2020). Knowledge can form certain beliefs, so that someone behaves in accordance with those beliefs. Aspects of nutritional knowledge include food and nutrition (understanding, types, functions, sources, consequences of deficiencies).

This is also in line with research related to the influence of the e-KIE application on the knowledge of pregnant women conducted by Susilawati et al., (2021), that internet-based communication, information and education media help pregnant women increase their knowledge.The use of media in health education aims to raise attention to a problem and remind the information conveyed in order to cause changes in knowledge. Therefore, in the current millennial era, electronic media is the right choice to balance the level of need to change the level of knowledge for the better to obtain all the information needed.

d. Analysis of different tests of attitudes and behavior of pregnant women between groups

From the research results, it was found that there were significant differences in attitudes and behavior between pregnant women who were given intervention using the E-FOCY application and those who were only given counseling from the KIA book. There was a significant increase in knowledge from the pre and post test results (pvalue 0.000). However, in the intervention group the increase was higher than in the control group.

Table 4

Analysis of Differential Tests of Attitudes and Behavior of Pregnant Women in Groups

Variable	**Group Android Application (Mean)**	**Group Control (Mean)**	***p value***	
			pre	**post**
Behavior	87.89	74.75	0.040	0.003
Maternal Nutrition				
Mother's attitude towards nutrition	88.70	85.76	0.051	0,000

Based on the results of table 4, the results show a significant comparison of nutritional behavior and maternal attitudes between the Android application group and the control group. Pregnant women who do not have sufficient knowledge about pregnancy often experience problems during pregnancy. Pregnant women's knowledge also influences their attitudes and behavior in maintaining pregnancy. This is in accordance with the opinion of Notoatmodjo (2014) that information is one of the external factors in gaining a person's knowledge. An individual's knowledge greatly influences their health attitudes and behavior every day. Aspects of nutritional knowledge include food and nutrition (understanding, types, functions, sources, consequences of deficiencies). Lack of nutritional knowledge results in reduced application of information in daily life and is one of the causes of nutritional disorders(Notoadmodjo, 2014)

4. CONCLUSION

The results of the pre-test knowledge analysis between the control group and the intervention group showed a p-value of 0.867 (p<0.05), which means that there was no significant difference in the pre-test knowledge score between the control group and the intervention group. The results of the posttest analysis of knowledge between the

International Journal of Social Science (IJSS)
Vol.3 Issue.5 February 2024, pp: 663-672
ISSN: 2798-3463 (Printed) | 2798-4079 (Online)

control group and the intervention group showed a p-value of 0.000 (p<0.05). However, from the research results it was found that there were significant differences in attitudes and behavior between pregnant women who were given intervention using the E-FOCY application and those who were only given counseling from the KIA book. There was a significant increase in knowledge from the pre and post test results (p-value 0.000). However, in the intervention group the increase was higher than in the control group. Furthermore, further research may be needed to measure the long-term impact of this application on the health of pregnant women and the well-being of the unborn baby. This data will help in improving and optimizing the E-FoCy application and improving maternal health care.

REFERENCES

[1] Ainiyah, N. H., Mardliyana, N. E., & Hasnida, M. (2020). Pengaruh Pendidikan Kesehatan Media Booklet terhadap Tingkat Pengetahuan Ibu Hamil tentang Tumbuh Kembang Janin di Surabaya. *Jurnal Keperawatan Muhammadiyah*, *3*(September), 395–398. http://journal.um-surabaya.ac.id/index.php/JKM/article/view/15136

[2] Anyasor Chiamaka Ogechi, O. O. H. (2017). Factors Influencing the Nutritional Practice of Pregnant Women Living in a Semi-Urban Region of Ogun State, Nigeria. *Saudi Journal of Medicine*.

[3] Cunningham, F. G., Leveno, K. J., Bloom, S. L., Dashe, J. S., Hoffman, B. L., Casey, B. M., & Spong, C. Y. (2018). *Maternal Anatomy. In Williams Obstetrics, 25e*. McGrawHill Education. accessmedicine.mhmedical.com/co ntent.aspx?aid=1160771636

[4] Dewi Mey LM, Rita Ridayani, Neny San AS, Jusuf Kritianto, M. (2020). Penggunaan media edukasi gizi aplikasi Electronic Diary Food (EDIFO) dan metode penyuluhan serta pengaruhnya terhadap pengetahuan ibu hamil. *Quality : Jurnal Kesehatan*, *14*(1).

[5] Dewi Sri Sumardilah, Mindo Lupiana, A. A. (2021). The Effect of Demonstration in Preparing a Nutritious Food Menu on Nutrition Consumption Patterns of Pregnant Women. *Jurnal Aisyah: Jurnal Ilmu Kesehatan*.

[6] Edyta Suliga. (2015). Nutritional behaviours of pregnant women in rural and urban environments. *Annals of Agricultural and Environmental Medicine*, *22*(3), 513–517.

[7] Ekayanthi, N. W. D., & Suryani, P. (2019). Edukasi gizi pada ibu hamil mencegah stunting pada kelas ibu hamil. *Jurnal Kesehatan*, *10*(3), 312–319.

[8] Ernawati, A. (2018). Hubungan usia dan status pekerjaan ibu dengan kejadian kurang energi kronis pada ibu hamil. *Jurnal Litbang: Media Informasi Penelitian, Pengembangan Dan IPTEK*, *14*(1), 27–37.

[9] Fitria, S. E., & Ariva, V. F. (2018). Analisis Faktor Kondisi Ekonomi, Tingkat Pendidikan Dan Kemampuan Berwirausaha Terhadap Kinerja Usaha Bagi Pengusaha Pindang Di Desa Cukanggenteng. *Jurnal Manajemen Indonesia*, *18*(3), 197–208.

[10] Harjanti, A. I., & Ninik, C. (2016). Studi Komparatif Pengukuran Lila (Lingkar Lengan Atas) Dan Imt (Indeks Massa Tubuh) Dengan Berat Badan Pada Ibu Hamil Kek (Kekurangan Energi Kronik). *Jurnal Ilmu Kebidanan Dan Kesehatan (Journal of Midwifery Science and Health)*, *7*(1).

[11] Huberty, J., Sullivan, M., Green, J., Kurka, J., Leiferman, J., Gold, K., & Cacciatore, J. (2020). Online yoga to reduce post traumatic stress in women who have experienced stillbirth: a randomized control feasibility trial. *BMC Complementary Medicine and Therapies*, *20*(1), 173. https://doi.org/10.1186/s12906-020-02926-3

[12] Indriyanti, E. R., & Wibowo, S. (2020). Bisnis Kesehatan Berbasis Digital : Intensi Penggunaan Aplikasi digital halodoc. *Jurnal Pengabdian Dan Kewirausahaan*.

[13] Kadir, S. (2019). Faktor Penyebab Anemia Defisiensi Besi Pada Ibu Hamil Di Wilayah Kerja Puskesmas Bongo Nol Kabupaten Boalemo. *Jambura Journal of Health Sciences and Research*, *1*(2), 54–63.

[14] Kasmiati, K. (2023). *Asuhan kehamilan*. PT. Literasi Nusantara Abadi Grup.

[15] Kuspriyanto, S. (2016). Gizi Dalam Daur Kehidupan. *Bandung: Refika Aditama*.

[16] Ni Wayan Sutarmi, DA Mirah Ardrini, D. P. . Duarsa, and D. P. Y. . K. (2022). Perception and Behavior of Pregnant Women in Antenatal Care (anc) Visits During the Covid-19 Pandemic in Tabanan Regency. *Bali Medika Jurnal*, *8*(4), 360. https://doi.org/10.36376/bmj.v8i4.217

[17] Notoadmodjo, S. (2014). *Promosi Kesehatan dan Perilaku Kesehatan*. Rineka Cipta.

[18] Repubilik Indonesia, K. K. (2020). *Pedoman Bagi Ibu Hamil, Ibu Nifas, dan Bayi Baru Lahir Di Era Pandemi Covid-19*. 9–12.

[19] Saragih, B., Syarief, H., Riyadi, H., & Nasoetion, A. (2007). Pengaruh pemberian pangan fortifikasi zat multi gizi mikro pada ibu hamil terhadap pertumbuhan linier, tinggi lutut dan status anemia bayi. *Gizi Indonesia*, *30*(1).

[20] Sarumaha, V. D., Agustin, F., Tanjung, D. Y. H., Tanjung, H., Teknik, J., Universitas, I., Utama, P., Jurusan, D., Informasi, S., & Potensi, U., & Utama, U. P. (2020). Rancang Bangun Aplikasi Client – Server Control Slide Presentation Berbasis Desktop Dan Android. *Jurnal Mahasiswa Fakultas Teknik Dan Ilmu Komputer*, *1*, 1.

[21] Sitanggang, B., & Nasution, S. S. (2013). Faktor-Faktor Status Kesehatan pada Ibu Hamil. *Jurnal Keperawatan Klinis*, *4*(1), Susilaningsih, Syamsudin, Kartika, S. (2017). Du.

[22] Susilawati, E., Herinawati, H., Permata, A. G., & Suryani, S. (2021). PENGARUH eKIE GIZI IBU HAMIL TERHADAP PENGETAHUAN MELALUI APLIKASI QUIZIZZ PADA ERA NEW NORMAL DI PUSKESMAS AUR DURI KOTA JAMBI. *Nursing Care and Health Technology Journal (NCHAT)*, *1*(3), 137–143. https://doi.org/10.56742/nchat.v1i3.18

[23] Tahir, S. (2021). Hubungan Pendidikan Dan Pekerjaan Terhadap Status Gizi Ibu Hamil Di Puskesmas Pattallassang Kabupaten Gowa. *Jurnal Antara Kebidanan*, *4*(2), 61–67.

[24] Teguh, N. A., Hapsari, A., Dewi, P. R. A., & Aryani, P. (2019). Faktor-faktor yang mempengaruhi kejadian kurang energi kronis (KEK) pada ibu hamil di wilayah kerja UPT Puskesmas I Pekutatan, Jembrana, Bali. *Intisari Sains Medis*, *10*(3).

International Journal of Social Science (IJSS)
Vol.3 Issue.5 February 2024, pp: 663-672
ISSN: 2798-3463 (Printed) | 2798-4079 (Online)

THIS PAGE IS INTENTIONALLY LEFT BLANK