



The Barriers of Interprofessional Collaborative Practices of Healthcare Professionals in the Management of Hypertension in Pregnancy at Sewon Health Center 1 Bantul

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Abstract. Background. Globally, hypertension in pregnancy accounts for 10–22% of maternal deaths. Puskesmas Sewon 1 is a health center with the highest incidence of hypertension in pregnancy in Bantul Regency. **Objective:** This study aimed to explore the obstacles of interprofessional collaborative practices of healthcare professionals in the management of hypertension in pregnancy. **Methods:** The study used a qualitative research method with a single holistic case study approach. There were 15 participants in this study, consisting of doctors, midwives, ATLM, nutritionists, pharmacists, and pregnant women with hypertension. The data collection time is June-July 2022. Data analysis used thematic analysis. To improve quality assurance, assistive instruments are used in the form of interview guides, documentation studies, observation studies, logbooks, and field notes. **Results:** Based on the results of the thematic analysis, there were 3 sub-themes of the finding, namely uncooperative patients, limited working hours of doctors or lack of knowledge of healthcare professionals, and limitations of antihypertensive drugs. **Conclusion:** the barriers of interprofessional collaborative practice of healthcare professionals are limited working hours of doctors and lack of knowledge of healthcare professionals. While the barriers to the management of hypertension in pregnant women were uncooperative patients and limited antihypertensive drugs.

Keywords: interprofessional collaboration · hypertension · pregnant women

1 Introduction

This Pregnancy related hypertension remains an important cause of maternal and fetal morbidity and mortality [1]. Hypertension in pregnancy is different from general hypertension. If hypertension in pregnancy is not treated properly it will develop into preeclampsia which can increase morbidity and mortality in the mother and fetus [2]. The causes of maternal morbidity are eclampsia, severe preeclampsia, placental abruption, renal abnormalities, hepatic subcapsular hemorrhage, blood clotting disorders, HELLP syndrome (hemolysis, elevated liver enzymes, and low platelets), and retinal detachment. The causes of fetal morbidity are inhibition of fetal growth in the uterus, premature

birth, neonatal asphyxia, death in utero, and increased perinatal mortality and morbidity [3]. The treatment of hypertension in pregnant women cannot be carried out by only midwives, it is necessary to involve collaboration from other healthcare professionals such as doctors, nurses, and other healthcare professionals in equal responsibility and accountability according to their respective roles [4]. In Indonesia 2019, hypertension during pregnancy was the second highest cause of maternal death with 1,066 cases after bleeding [5].

Based on the data from the DIY Health Office in 2018, there were 29,105 cases of hypertension in pregnant women [6]. According to the health profile of Bantul Regency in 2021, in Bantul Regency the cases of hypertension in pregnancy have increased, in 2018 there were 1623 cases, in 2019 there were 2377 cases, and in 2020 there were 2459 cases.

Based on the results of the research conducted by [7] the practice of interprofessional collaboration has not been optimally implemented in Puskesmas. Another statement is also in accordance with research from [8] at the Puskesmas which the practice of interprofessional collaboration has not been fully implemented properly, due to an imbalance between the number of healthcare professionals and the workload given, then, there is a need for agreement between healthcare professionals on the practice of interprofessional collaboration to improve the quality of health services.

The researches on collaboration conducted in Puskesmas are still very limited. The results of a preliminary study at the Bantul Health Office on December 24, 2021, contained data on the number of pregnant women who were checked for blood pressure as many as 699 people at the Sewon Health Center 1, and pregnant women with the highest hypertension at the Sewon Health Center 1 were 540 people in 2021. According to [9] the data from the Sewon Health Center 1 cases of hypertension in pregnancy increased by 45 cases, in 2019 as many as 53 cases, and in 2020 as many as 54 cases, based on the gap of the problem the researchers are interested in conducting the research on the “the flow of interprofessional collaborative practice in the management of hypertension in pregnancy”.

2 Method

The research design is qualitative with a single holistic case study approach, the selection of participants used a purposive sampling technique with heterogeneous sampling. The data collection instrument used semi-structured interviews, documentation studies, and observational studies. The data analysis carried out was thematic analysis, by testing the validity of the data through triangulation of methods and sources, member checking, and audit trails in the form of logbooks and field notes.

3 Result

3.1 Participants Characteristic

In this study were 15 participants, they are the main participants consisting of doctors, midwives, ATLM, nutritionists and pharmacists with a total of 14 participants and 1 of supporting participants was pregnant woman with hypertension. The participants characteristics of the group in this study are as follows (Table 1):

Table 1. Main participant characteristics and supporting participant

Code	Age	Education	Work	Work Period
IU.1	57 Years	DIII Midwifery	Midwife	37 Years
IU.2	34 Years	DIV Midwifery	Midwife	2 Years
IU.3	41 Years	S1 Medical	General Practitioner	9 Years
IU.4	35 Years	DIII Nutritional	Nutritionist	2 Years
IU.5	50 Years	Midwifery Education	Midwife	14 Years
IU.6	34 Years	DIII Midwifery	Midwife	12 Years
IU.7	56 Years	DIII Healthcare Analyst	Medical Laboratory Technologist	32 Years
IU.8	28 Years	DIII Healthcare Analyst	Medical Laboratory Technologist	3 Years
IU.9	55 Years	DIII Midwifery	Midwife	18 Year
IU.10	42 Years	Midwifery Education	Midwife	4 Years
IU.11	41 Years	DIII Midwifery	Midwife	17 Years
IU.12	52 Years	DIV Midwifery	Midwife	23 Years
IU.13	33 Years	S2 Medical	General Practitioner	4 Years
IU.14	41 Years	S1 Pharmacist	Pharmacist	13 Years
IP.1	40 Years	Senior High School	Private	-

Noted: IU = Main Participant

IP = Supporting Participant.

3.2 Thematic Analysis

Based on the results of the thematic analysis the researchers got, there were 3 sub-themes found (Fig. 1):

3.2.1 Uncooperative Patient

In this sub-theme, most of the participants said that based on patients' problems who did not want to be referred, the patients who procrastinated going to the hospital and the patients who did not control routinely. The participants' statements: IU.3, IU.5, IU.10.

"...sometimes the patients feel fine, sometimes they refused to be referred." (IU.3.41 years).

"...the patient is referred from the Puskesmas but they do not go. Sometimes the patients and families who are not cooperative in dealing with their disease conditions." (IU.5.50 years).

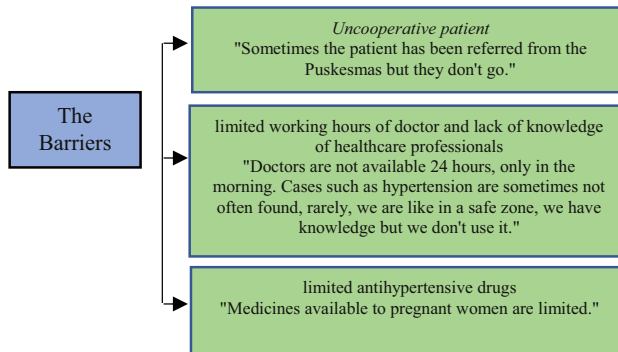


Fig. 1. Thematic Analysis

"...pregnant women knew have high blood pressure but do not check regularly. Pregnant women who do not take medicine as recommended or change their lifestyle, sometimes compliance for controlling is lacking because they think no complaints so they feel it is fine." (IU.10.42 years old).

3.2.2 Limited Working Hours of Doctor and Lack of Knowledge of Healthcare Professionals

According to the participants were hampered by limited working doctors hours and unused knowledge. The following is the statement of participant IU.11.

"..." Doctors are not available 24 h, only in the morning. Cases such as hypertension are sometimes not often found, rarely, we are like in a safe zone, we have knowledge but we don't use it..." (IU.11.41 years old).

3.2.3 Limited Antihypertensive Drugs

The participants said that they were constrained by the limited availability of antihypertensive drugs. The following is the statement of participant IU.10.

"...the drugs available for pregnant women are limited, for hypertension drugs that are recommended for pregnant women such as methyldopa, we don't have any, we are usually referred to the hospital for treatment." (IU.10.42 years old).

4 Discussion

4.1 Uncooperative Patient

In this study, the barriers experienced were patients who were not cooperative in responding to their disease conditions, in this case the patient liked to delay going to the hospital, the patient felt fine, the patient refused to be referred, the patient did not have control routinely, the patients did not take medication as recommended and did not want to change lifestyle. Based on the previous research [10] the results of the study that most of the patients did not control their blood pressure regularly. The patients' lifestyle is one of the factors that are difficult to control in hypertension therapy.

Compliance is an action or patient behavior that describes the extent to which the patient complies with the provisions given by healthcare professionals. Compliance with taking medication is very important, especially for chronic disease patients. One indicator of patient compliance with antihypertensive medication is blood pressure control. Patient non-adherence in drug use is the most common therapeutic failure [11]. One of the triggering factors that cause the patients' uncooperative response to the condition of the disease is the lack of patient knowledge. According to [12] the knowledge of about health will be the main motivator in maintaining health. The higher people's knowledge or understanding of health will be change the mind of health and illness, and it can improve the health status of the person.

4.2 Limited Working Hours of Doctor and Lack of Knowledge of Healthcare Professionals

In this study, it was found that the limited working hours of doctors were only on the morning shift, thus hampering collaboration with other interprofessionals. In addition, the case of hypertension in pregnant women is rarely found in the Sewon Health Center 1. Finally, the knowledge of the healthcare professionals forgot about the management of the case. Competence refers to the knowledge, skills, abilities and qualities of an individual [13]. Healthcare professionals played a role in the health care system and helped as first responders, direct care providers, information providers or educators and mental health counselors, then the government and professional organizations of healthcare needed to improve skills and knowledge related to the management of hypertension in pregnant women [14].

4.3 Limited Antihypertensive Drugs

Based on the results that found the barriers related to the limitations of antihypertensive drugs for the management of hypertension in pregnant women. Antihypertensive drugs that are recommended for pregnant women such as methyldopa are not available at the Puskesmas. Methyldopa is recommended as a hypertension-lowering drug in pregnancy, a central alpha 1-agonist and other centrally acting drugs, with a dose of 250–1000 mg and given 2 times a day. The effects of methyldopa are sedation, drowsiness, dry mouth, depression, postural hypertension, rebound hypertension, withdrawal syndrome, and some autoimmune events [15].

Limited facilities and infrastructure in health services is one aspect that needs to be considered. Therefore, it is necessary to improve health services, facilities and quality financial support, especially hypertension management such as antihypertensive drugs, essential drugs for ANC including magnesium sulfate, folic acid and calcium gluconate can reduce the rate of maternal mortality [16].

5 Conclusion

The barriers for healthcare professionals in practicing interprofessional collaboration is that doctors did not work 24 h, which is only in the morning. Cases of hypertension in pregnant women are rarely found, so the knowledge about the management of

hypertension in pregnant women is reduced. Barriers to healthcare professionals in the management of hypertension in pregnant women are the patient refused to be referred, the patient delayed the referral schedule, the patient did not routinely control and the patient did not take antihypertensive medication regularly. The only antihypertensive drugs provided at the Sewon Health Center 1 were captopril and amlodipine.

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References

1. Y. Lu, R. Chen, J. Cai, Z. Huang, and H. Yuan, "The management of hypertension in women planning for pregnancy," no. October, pp. 75–84, 2018, doi: <https://doi.org/10.1093/bmb/ldy035>.
2. F. Ouasmani, B. Engeltjes, B. Haddou Rahou, O. Belayachi, and C. Verhoeven, "Knowledge of hypertensive disorders in pregnancy of Moroccan women in Morocco and in the Netherlands: A qualitative interview study," *BMC Pregnancy Childbirth*, vol. 18, no. 1, pp. 1–11, 2018, doi: <https://doi.org/10.1186/s12884-018-1980-1>.
3. L. Malha, C. P. Sison, G. Heiseth, and J. E. Sealey, "Hypertension in Pregnancy in Hypertension: A Companion to Braunwald's Heart Disease (Third Edition)," Ch 39. 2018 Elsevier.
4. F. S. Susilaningsih, H. S. Mediani, T. Kurniawan, M. Widiawati, L. Maryani, and I. Meharawati, "Sosialisasi Model Praktik Kolaborasi Interprofesional Pelayanan Kesehatan di Rumah Sakit," *Dharmakarya: Jurnal Aplikasi Ipteks untuk Masyarakat* ISSN 1410 - 5675. 6(1), 10–13.2017
5. Kemenkes RI. Profil Kesehatan Indonesia Tahun 2019 (Vol. 53, Issue 9, pp. 1689–1699). Kementerian Kesehatan Republik Indonesia.2020
6. Dinkes DIY. Profil Kesehatan Daerah Istimewa Yogyakarta 2020. Dinas Kesehatan Daerah Istimewa Yogyakarta.2019
7. Prayetni, N. M. Riasmini, B. Palestin, and, T. Prabowo, "Efektivitas Model Praktik Kolaborasi Interprofesional (PKIP) Tenaga Kesehatan Terhadap Kinerja Pelayanan Kesehatan Rumah," *JKEP*. Vol. 3 No. 1 Mei 2018, hlm 24–37
8. K. N. Insani and D. Purwito, "Persepsi Tenaga Kesehatan Tentang Praktik Kolaboratif di Puskesmas Bojong Kabupaten Purbalingga," *Jurnal Keperawatan Muhammadiyah* September 2020
9. S. Harsiwi, "Hubungan Graviditas Dan Indeks Masa Tubuh Dengan Kejadian Hipertensi Dalam Kehamilan Pada Ibu Hamil di Puskesmas Sewon 1 Tahun 2020," 2021
10. MA Brown, LA Magee, L Kenny, "The hypertensive disorders of pregnancy: ISSHP classification, diagnosis & management recommendations for international practice 2018," *Pregnancy Hypertens.* 2018;13:291-310.
11. L. Hinkosa, A. Tamene, and N. Gebeyehu, "Risk factors associated with hypertensive disorders in pregnancy in Nekemte referral hospital, from July 2015 to June 2017, Ethiopia: case-control study," *BMC Pregnancy Childbirth* [Internet].
12. D. I. Putra and Hasana, "Analisis Hubungan Sikap dan Pengetahuan Keluarga dengan Penerapan Program Indonesia Sehat dengan Pendekatan Keluarga," *Jurnal Endurance*, 5(1), 13.2020 <https://doi.org/10.22216/jen.v5i1.4282>

13. X. Gao, L. Jiang, Hu, Y., Li, L., and L. Hou, "Nurses' experiences regarding shift patterns in isolation wards during the COVID-19 pandemic in China: A qualitative study. *Journal of Clinical Nursing*," 29(21–22), 4270–4280.2020 <https://doi.org/10.1111/jocn.15464>
14. J. W. Guan, C. R. Chen, and S. N. Zhong, "Strategies for the prevention and management of coronavirus disease 2019," *European Respiratory Journal*, 55(4). <https://doi.org/10.1183/13993003.00597-2020>
15. B. Williams, G. Mancia, and W. Spiering, "2018 ESC/ESH Guidelines for the management of arterial hypertension," *European Heart Journal*. Vol 39 (33): 3021-104.2018
16. S. Ulandari and S. Yudawati, "Analisis Kualitas Pelayanan, Sarana Prasarana Dan Lingkungan Terhadap Kepuasan Pasien," *Care J. Ilm. Ilmu Kesehat.*, vol. 7, no. 2, p. 39, 2019, doi: <https://doi.org/10.33366/jc.v7i2.1087>.
17. G. Eason, B. Noble, and I. N. Sneddon, "On certain integrals of Lipschitz-Hankel type involving products of Bessel functions," *Phil. Trans. Roy. Soc. London*, vol. A247, pp. 529–551, April 1955. (references)
18. J. Clerk Maxwell, *A Treatise on Electricity and Magnetism*, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp.68–73.
19. I. S. Jacobs and C. P. Bean, "Fine particles, thin films and exchange anisotropy," in *Magnetism*, vol. III, G. T. Rado and H. Suhl, Eds. New York: Academic, 1963, pp. 271–350.
20. K. Elissa, "Title of paper if known," unpublished.
21. R. Nicole, "Title of paper with only first word capitalized," *J. Name Stand. Abbrev.*, in press.
22. Y. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, "Electron spectroscopy studies on magneto-optical media and plastic substrate interface," *IEEE Transl. J. Magn. Japan*, vol. 2, pp. 740–741, August 1987 [Digests 9th Annual Conf. Magnetics Japan, p. 301, 1982].
23. M. Young, *The Technical Writer's Handbook*. Mill Valley, CA: University Science, 1989.

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