Model of Maternal Behavior in Pregnancy-Based Care Transcultural Care Theory (Sunrise Model) and Precede-Based

Evi Pratami*, Sukesi Sukesi, Suparji Suparji

Department of Midwifery, Politeknik Kesehatan Kementerian Kesehatan Surabaya, Surabaya, Indonesia

Abstract

BACKGROUND: Maternal mortality is still a problem in Indonesia. The current maternal mortality rate is 305/100.000 live births and is still far from the Sustainable Development Goals target, which is 70/100.000 live births in 2030. The direct causes of maternal death are related to maternal health conditions since pregnancy, while the indirect causes are related to social, economic conditions, behavior, community culture, and lifestyle.

AIM: The purpose of this study was to develop a behavioral model based on transcultural care (Sunrise Model) and precede in caring for pregnant women.

MATERIALS AND METHODS: It is an observational study, a cross-sectional approach. The study was conducted from March to October 2021. The population of this study were all pregnant women in the working area of the Public Health Center of the Health Service of Surabaya, Indonesia. The sample was determined using the rule of thumb formula; the sample size was 288 respondents and was selected by simple random sampling. The independent variables are Transcultural Care (technological factors, religion and philosophy of life, social and family attachments, cultural values and lifestyle, regulations and policies, economy, and education) and Precede (predisposing factors, supporting factors, and reinforcing factors). Inferential analysis was performed using the Partial Least Square method. The path analysis model was performed on all latent variables, external model, and internal model.

RESULTS: Results showed that the regularity of antenatal care was influenced by the factors of technology, religion and philosophy of life, social and family attachments, regulations and policies, education, and the reinforcing factors. The accuracy of taking medication or vitamins in pregnant women was influenced by social and family attachments, cultural values and lifestyles, regulations and policies, economics, predisposing factors, enabling factors, and reinforcing factors. Diet in pregnant women was influenced by the factors of technology, social and family attachments, regulations and policies, predisposing factors, enabling factors, and reinforcing factors. Monitoring of fetal movement in pregnant women was influenced by technological factors, predisposing factors, and enabling factors. Activity patterns in pregnant women were influenced by the factors of religion and philosophy of life, cultural values and lifestyles, regulations and policies, education, enabling factors, and reinforcing factors.

CONCLUSION: Based on the results of this study, it can be concluded that the Transcultur Care and Preced Methods are proven to be effective in improving maternal health behavior in caring for pregnancy.

Introduction

The maternal mortality rate (MMR) is currently still far from the target of the Sustainable Development Goals which is 70/100.000 live births in 2030. MMR in Indonesia is 305/100.000 live births. Despite many efforts made by the government, the MMR has not decreased significantly. In Surabaya, the MMR in 2018 was 72.99/100.000 live births. The first antenatal visits in Surabaya in 2018 amounted to 100% of 46,721 pregnant women. The coverage of fourth antenatal visits in Surabaya was 99.51% of 46.721 pregnant women, while the estimated high risk or complication among pregnant women in Surabaya in 2016 amounted to 9.496 people. The percentage of high-risk pregnant women or complications treated in health facilities was 90.24%, with causes of eclampsia/pre-eclampsia, bleeding, infection, heart disease, and others (Surabaya, 2016). The direct causes of maternal death are usually closely related to the condition of the mother's health during the process of pregnancy, childbirth, and postpartum, while the indirect causes are more related to social, economic, and geographical conditions as well as cultural behavior of the community [1], [2].

According to Transculture Care from Leigniger, the behavior of pregnant women in caring for their pregnancy is influenced by several factors, including (1) technological factors, (2) religious factors and philosophy of life, (3) social factors and family attachments, (4) the factors of cultural values and lifestyle, (5) regulatory and policy factors, (6) economic factors, and (7) education factors. Research conducted by Isa found that the assessment of health problems must be based on a cultural perspective to obtain more specific results according to the root of the problem in an event [2]. The impact of untreated pregnancy is that the pregnancy complications will not be detected early so that the condition of fetal growth is unknown.

Pregnancy risks that can be experienced include continuous vomiting, high fever, swelling of the feet, hands, and face accompanied by seizures, lack of movement of the fetus, bleeding in the birth canal, and premature rupture of the membranes. Other health problems that can arise during pregnancy may include chilling fever with cold sweats, pain when urinating, prolonged cough (more than 2 weeks), palpitations or chest pain, recurrent diarrhea sleeping difficulty, and excessive anxiety [3].

Most maternal deaths can be prevented if they receive adequate treatment in health-care facilities. Therefore, the detection of risk factors in mothers, both by health workers and the community, is one of the important efforts in preventing death and illness. In an effort to improve the health of pregnant women, the government has implemented an integrated antenatal care (ANC) program and increased efforts to understand healthy lifestyles. Therefore, the authors examined the behavioral model based on Transcultural Care (Sunrise Model) and Precede in prenatal care for pregnant women. The purpose of this study was to develop a behavioral model based on Transcultural Care (Sunrise Model) and Precede, which has an effect on pregnancy care by pregnant women [1], [3].

Materials and Methods

It is an observational study, a cross-sectional approach [4]. The study was conducted from March to October 2021. The population in this study were all pregnant women who visited with a sample of several pregnant women in the working area of the Public Health Center of the Surabaya Health Service, Indonesia. The sample was determined using the rule of thumb formula; the sample size was 288 respondents and was selected by simple random sampling. The independent variables are Transcultural Care (technological factors, religion and philosophy of life, social and family attachments, cultural values and lifestyle, regulations and policies, economy, and education) and Precede (predisposing factors, supporting factors, and reinforcing factors). Inferential analysis was performed using the Partial Least Square method. The path analysis model was performed on all latent variables, external model, and internal model [5].

Results

Convergent validity test results

Table 1, which presents the results of convergent validity for the latent variables studied,

shows that all variables have a loading factor value of >0.6, and the resulted *t*-scores were regarded as valid if the score was more than 1.96 so that all indicators passed the convergent validity test.

Construct validity test results

Table 2 presents the results of convergent construct validity for the variables studied and shows that all variables have an AVE value > 0.5 so that they pass the construct validity test.

Construct reliability test results

Table 3 shows that the composite reliability and Cronbach's alpha values for each variable are all > 0.70, which means that the variables are consistent in this measurement. Thus, it can be concluded that the variables used in this study had met the reliability test.

T-test results from exogenous to endogenous latent variables and path parameter coefficient values in the structural model of the findings (inner model)

Table 4 shows that each exogenous variable has a significant effect on endogenous variables except for technological factors on the accuracy of drug/vitamin consumption, technological factors on activity patterns, the factor of religion and philosophy on the accuracy of drug/vitamin consumption, the factor of religion and philosophy on diet, the factor of religion and philosophy on motion monitoring, social and attachment factors on motion monitoring, social and attachment factors on activity patterns, the factor of culture on the regularity of examinations, the factor of culture on motion monitoring, the factor of policy and regulation on motion monitoring, the factor of policy and regulation on patterns activity, economic factors on the regularity of examination, economic factors on the accuracy of drug/vitamin consumption, economic factors on diet, economic factors on motion monitoring, economic factors on activity patterns, education factors on the accuracy of drug/vitamin consumption, education factors on diet, education factors on activity patterns, predisposing factors on regularity of examinations, the predisposing factors for activity patterns, and the reinforcing factors for motion monitoring.

Discussion

This study obtained new findings. Several observational variables described in the research framework turned out to have no effect in this study.

Table 1: Convergent validity test results

Serial number	Latent variables	Dimensions	Indicators	Loading factor	Notes
1	Transcultural Care	X1.1 Technological factors	X1.1.1 Technological use perception	0.885	Valid/Significant
			X1.1.2 Technological utilization	0.809	Valid/Significant
			X1.1.3 Reasons for seeking medical help	0.797	Valid/Significant
		X1.2 Religious and life philosophy factors	X1.2.1 Religion	0.761	Valid/Significant
			X1.2.2 Religious habits	0.762	Valid/Significant
			X1.2.3 Effort	0.689	Valid/Significant
			X1.2.4 Self concept	0.852	Valid/Significant
			X1.2.5 Marital status	0.878	Valid/Significant
			X1.2.6 Perception and perspective	0.830	Valid/Significant
		X1.3 Social and family attachment factors	X1.3.1 Pregnant women identity including name, age, address	0.817	Valid/Significant
			X1.3.2 Family status	0.740	Valid/Significant
			X1.3.3 Family type	0.780	Valid/Significant
			X1.3.4 Decision making	0.800	Valid/Significant
			X1.3.5 Family routine	0.729	Valid/Significant
		X.1.4 Cultural values and lifestyle factors	X1.4.1 Position in society	0.736	Valid/Significant
			X1.4.2 Language used	0.770	Valid/Significant
			X1.4.3 Non-verbal language used	0.781	Valid/Significant
			X1.4.4 Personal hygiene habit	0.870	Valid/Significant
			X41. 5 Dietary habit	0.718	Valid/Significant
			X1.4. 6 Recreation facilities	0.772	Valid/Significant
		X1.5 Hospital policy and regulatory factors	X1.5.1 Time to interact with the environment when sick	0.854	Valid/Significant
			X1.5.2 Uniforms or special clothes when sick	0.788	Valid/Significant
			X1.5.3 Number of family present when sick	0.755	Valid/Significant
			X1.5.4 Understanding of rights and obligations when sick	0.771	Valid/Significant
			X1.5. 5 Payment method when sick	0.772	Valid/Significant
		X1.6 Economic factors	X1.6.1 Type of job	0.763	Valid/Significant
			X1.6.2 Source of the medical fee	0.808	Valid/Significant
			X1.6.3 Saving habit	0.767	Valid/Significant
			X1.6.4 Saving amount	0.875	Valid/Significant
		X1.7 Education factors	X1.7.1 Pregnant women level of education	0.819	Valid/Significant
			X1.7.2 Family level of education	0.798	Valid/Significant
			X1.7.3 Type of education	0.813	Valid/Significant
2	Precede	X2.1 Predisposing factor	X2.1.1 Knowledge	0.721	Valid/Significant
			X2.1.2 Attitude	0.730	Valid/Significant
			X2.1.3 Belief	0.709	Valid/Significant
			X2.1.4 Faith	0.893	Valid/Significant
			X2.1.5 Value and perception	0.716	Valid/Significant
			X2.1.6 Tradition	0.713	Valid/Significant
		X2.2 Enabling factor	X2.2.1 Physical Environment	0.910	Valid/Significant
			X2.2.2 Facilities and infrastructure	0.897	Valid/Significant
		X2.3 Reinforcing factor	X2.3.1 Attitude and behavior of health-care provider	0.838	Valid/Significant
			X2.3.2 Family attitude and behavior	0.863	Valid/Significant
			X2.3.3 Community attitude and behavior	0.749	Valid/Significant
3	Pregnant women behavior	Y1 Regularity of Pregnancy Examination		1.000	Valid/Significant
		Y2 Accuracy of Drug/Vitamin Consumption		1.000	Valid/Significant
		Y3 Pregnant Women Diet Pattern		1.000	Valid/Significant
		Y4 Fetal Movement Monitoring		1.000	Valid/Significant
		Y5 Activity Pattern		1.000	Valid/Significant

Table 2: Construct validity test results

Variables	AVE values	Notes
X1.1 Technological factors	0.691	Valid
X1.2 Religious and life philosophy factors	0.637	Valid
X1.3 Social and family attachment factors	0.599	Valid
X1.4 Cultural values and lifestyle factors	0.602	Valid
X1.5 Hospital policy and regulatory factors	0.622	Valid
X1.6 Economic factors	0.647	Valid
X1.7 Education factors	0.656	Valid
X2.1 Predisposing factor	0.562	Valid
X2.2 Enabling factor	0.816	Valid
X2.3 Reinforcing factor	0.669	Valid
Y1 Regularity of Pregnancy Examination	1.000	Valid
Y2 Accuracy of Drug/Vitamin Consumption	1.000	Valid
Y3 Pregnant Women Diet Pattern	1.000	Valid
Y4 Fetal Movement Monitoring	1.000	Valid
Y5 Activity Pattern	1.000	Valid

AVE: ???.

Transcultural Care consists of indicators of technological factors, religion and philosophy of life, social and family attachments, cultural values and lifestyles, regulations and policies, economy, and education. The Precede variable consists of indicators of predisposing, reinforcing, and enabling factors, while the behavior of pregnant women in caring for pregnancy consists of regular prenatal care, accuracy in taking drugs or vitamins, maintaining diet, monitoring fetal movements, and maintaining activity patterns during pregnancy.

A study by Russell Salvador in 2018 found that health-care providers (HCPs) are very culturally competent, especially in changing aspects of behavior.

However, important interventions should be undertaken to increase awareness and sensitivity when working with diverse patients [6]. A study by Hidayat and Musrifatul in 2019 found that the culture-based nursing care model is a culture-based approach model that plays an important role in overcoming children's health problems in the community, especially when cultural factors are conflicting with healthy principles [7].

The study by Russell Salvador in 2018 found that HCPs are very culturally competent, especially in changing aspects of behavior [6], [7]. The role of older mothers who are close to pregnant women may be relevant when conveying information. The use of theories/models can guide the development

Table 3: Construct reliability test results

Variables	Cronbach's alpha	Composite reliability	Notes
X1.1 Technological factors	0.781	0.870	Reliable
X1.2 Religious and life philosophy factors	0.887	0.913	Reliable
X1.3 Social and family attachment factors	0.833	0.882	Reliable
X1.4 Cultural values and lifestyle factors	0.868	0.901	Reliable
X1.5 Hospital policy and regulatory factors	0.848	0.891	Reliable
X1.6 Economic factors	0.825	0.880	Reliable
X1.7 Education factors	0.740	0.851	Reliable
X2.1 Predisposing factor	0.847	0.884	Reliable
X2.2 Enabling factor	0.775	0.899	Reliable
X2.3 Reinforcing factor	0.760	0.858	Reliable
Y1 Regularity of Pregnancy Examination	1.000	1.000	Reliable
Y2 Accuracy of Drug/Vitamin Consumption	1.000	1.000	Reliable
Y3 Pregnant Women Diet Pattern	1.000	1.000	Reliable

Table 4: *T*-test results from exogenous to endogenous latent variables and path parameter coefficient values in the structural model of the findings (inner model)

Variables	Original sample	Sample mean	SD	T Statistics	p	Notes
X1.1 Technological factors -> Y1.1.Examination Regularity	0.152	0.152	0.061	2.480	0.013	Significant
X1.1 Technological factors -> Y1.3.Diet Pattern	0.135	0.131	0.057	2.348	0.019	Significant
X1.1 Technological factors -> Y1.4.Movement Monitoring	0.122	0.120	0.050	2.430	0.015	Significant
X1.2 Religious & Philosophy Factors -> Y1.1.Examination Regularity	0.149	0.151	0.054	2.757	0.006	Significant
X1.2 Religious & Philosophy Factors -> Y1.5.Activity Pattern	0.157	0.161	0.047	3.312	0.001	Significant
X1.3 Social & Attachment Factors -> Y1.1.Examination Regularity	0.134	0.137	0.058	2.288	0.023	Significant
X1.3 Social & Attachment Factors -> Y1.2.Accuracy of Drug/Vitamin Consumption	0.163	0.160	0.051	3.227	0.001	Significant
X1.3 Social & Attachment Factors -> Y1.3.Diet Pattern	0.193	0.187	0.049	3.951	0.000	Significant
X1.4 Cultural Factors -> Y1.2.Accuracy of Drug/Vitamin Consumption	0.130	0.132	0.053	2.439	0.015	Significant
X1.4 Cultural Factors -> Y1.3.Diet Pattern	0.103	0.105	0.049	2.120	0.034	Significant
X1.4 Cultural Factors -> Y1.5.Activity Pattern	0.147	0.147	0.067	2.200	0.028	Significant
X1.5 Policy & Regulatory Factors -> Y1.1.Examination Regularity	0.122	0.122	0.054	2.279	0.023	Significant
X1.5 Policy & Regulatory Factors -> Y1.2.Accuracy of Drug/Vitamin Consumption	0.148	0.149	0.051	2.908	0.004	Significant
X1.5 Policy & Regulatory Factors -> Y1.3.Diet Pattern	0.141	0.142	0.059	2.392	0.017	Significant
X1.5 Policy & Regulatory Factors -> Y1.5.Activity Pattern	0.145	0.141	0.054	2.701	0.007	Significant
X1.6 Economic factors -> Y1.2.Accuracy of Drug/Vitamin Consumption	−0.131	−0.136	0.043	3.024	0.003	Significant
X1.7 Education factors -> Y1.1.Examination Regularity	0.145	0.147	0.053	2.713	0.007	Significant
X1.7 Education factors -> Y1.4.Movement Monitoring	0.080	0.082	0.038	2.084	0.038	Significant
X2.1 Predisposing Factors -> Y1.2.Accuracy of Drug/Vitamin Consumption	0.253	0.256	0.052	4.891	0.000	Significant
X2.1 Predisposing Factors -> Y1.3.Diet Pattern	0.206	0.211	0.054	3.843	0.000	Significant
X2.1 Predisposing Factors -> Y1.4.Movement Monitoring	0.630	0.631	0.061	10.240	0.000	Significant
X2.2 Enabling factor -> Y1.1.Examination Regularity	0.272	0.271	0.066	4.093	0.000	Significant
X2.2 Enabling factor -> Y1.2.Accuracy of Drug/Vitamin Consumption	0.163	0.161	0.060	2.739	0.006	Significant
X2.2 Enabling factor -> Y1.3.Diet Pattern	0.160	0.165	0.065	2.447	0.015	Significant
X2.2 Enabling factor -> Y1.4.Movement Monitoring	0.115	0.113	0.037	3.109	0.002	Significant
X2.2 Enabling factor -> Y1.5.Activity Pattern	0.132	0.132	0.054	2.450	0.015	Significant
X2.3 Reinforcing factor -> Y1.1.Examination Regularity	−0.162	−0.162	0.049	3.326	0.001	Significant
X2.3 Reinforcing factor -> Y1.2.Accuracy of Drug/Vitamin Consumption	0.127	0.127	0.055	2.311	0.021	Significant
X2.3 Reinforcing factor -> Y1.3.Diet Pattern	0.130	0.133	0.063	2.086	0.037	Significant
X2.3 Reinforcing factor -> Y1.5.Activity Pattern	0.237	0.237	0.067	3.550	0.000	Significant

SD: Standard deviation.

of nursing practice. The application of the model helps improve nursing practice. We should not only focus on knowing the physical aspects but also on the social and cultural circumstances surrounding pregnant women [8].

A study conducted by Pratami et al. in found that lifestyle affected the regularity of prenatal care and the accuracy of taking drugs or vitamins in pregnant women [5], [8].

Social capital is able to affect the behavior of high-risk pregnant women, especially in terms of the regularity of ANC, accuracy of drug or vitamin consumption, diet, and monitoring of fetal movements but not on the pattern of pregnancy activity. The behavior of high-risk pregnant women, especially those related to the regularity of ANC, accuracy of taking medication or vitamins, and monitoring of fetal movements, does not depend on cultural capital but affects diet and activity. Improving the behavior of high-risk pregnant women can be developed by applying the community capital model [5], [7], [9]. A study conducted by Evi in 2019 found that cultural capital and lifestyle had an effect on breastfeeding mothers in the Madurese community [5], [8]. Any cultures do not support exclusive breastfeeding among Madurese. Then cultural modification was carried out through a transcultural trial model in the Madurese culture, which required good cooperation between health workers and local community leaders to actively participate in helping the surrounding community in changing negative cultures into positive ones for public health [10], [11].

A study by Rachel Lang-Balde in 2018 focused on understanding cultural beliefs and practices to improve maternal health outcomes. Women's aspirations and understanding of the cultural construction of care are needed to encourage the use of biomedical health systems along with the use of indigenous practices [12]. Naseri 2018 research found that cultural capital includes a range of abilities, i.e., mental and practical skills as well as behavioral abilities that are reflected in a person's speech, beliefs, values, and special attitudes [10], [12]. Fariba's research in 2020 found that health education programs based on the PRECEDE model can improve self-care for patients undergoing hemodialysis. In summary, this program increases the knowledge score and attitudes of participants so that it has a positive effect on the predisposing factors. By amplifying predisposing and reinforcing factors, this model improves participants' self-care abilities [13], [14].

Mazeyeh's research in 2020 found that an increase in the average self-care behavior in patients undergoing intervention education demonstrated an effective role of education in self-care behavior. Planning an educational intervention based on PRECEDE model and providing a structure is needed to facilitate the realization of self-care behavior in patients with hypertension [9], [10]. Eating a variety of foods proportionally with a balanced nutritional pattern and one serving more than before pregnancy needs to be done. Eating portions that are not maintained may cause metabolic disorders in the form of chronic energy deficiency, which can cause impaired fetal growth, prolonged labor, postpartum hemorrhage, and excess intake, which may lead to diabetes mellitus, which also adversely affects the mother and fetus [3].

Skiner, as quoted by Notoatmodjo, argues that behavior is a person's response or reaction to

external stimuli. Behavior and behavioral symptoms that appear in the activities of organisms are influenced by both genetic and environmental factors. In general, it can be said that genetic and environmental factors are determinants of the behavior of living things, including humans. Heredity is the basic conception or capital for the subsequent development of the behavior of living things. Meanwhile, the environment is the condition or the ground for the development of the behavior. The encountering mechanism between these two factors in the context of forming behavior is called the learning process [4].

A study by Ira and Uki in 2017, which aims to determine predisposing, reinforcing, and supporting factors that influence the selection of birth attendants in Bondowoso, found that age 20–34 years, working outside home, doing ANC visits, and having good traditions directly increased possibility of selecting skilled birth attendant [15]. This study tested Transcultural Care and Precede on the behavior of mothers in caring for pregnancy. The Transcultural Care variable consists of indicators of technological factors, religion and philosophy of life, social and family attachments, cultural values and lifestyles, regulations and policies, economics, and education; the Precede variable consists of indicators of predisposing, reinforcing, and enabling factors, while the behavior of pregnant women in caring for pregnancy consists of regular ANC visit, accuracy of taking medication or vitamins, maintaining diet, monitoring fetal movements, and maintaining activity patterns during pregnancy. The applied model was based on significant indicators. Model testing showed significant behavioral changes in groups receiving treatment in the form of behavioral stimulation from significant factors. The results showed that behavior as a whole was influenced by Transcultural Care and Precede. Both are two factors that complement each other in shaping the behavior of pregnant women.

The behavioral model manifested in this study was also able to significantly increase social sensitivity and indirectly increase community empowerment, increase shared responsibility, and increase social interaction in the community.

Conclusion

Based on the results of this study, it can be concluded that the Transcultur Care and Preced Methods are proven to be effective in improving maternal health behavior in caring for pregnancy. It is recommended that in improving healthy behavior for pregnant women, more optimal health education efforts are needed.

Suggestions

1. The role of forming behavior, especially based on Transcultural Care and Precede, needs to be improved by involving elements of family, community leaders, health workers, husbands, and the environment
2. The formation of behavior takes a long time. For this reason, continuous efforts need to be made to obtain better results
3. Socialization of the use of technology needs to be done to realize good behavior, especially for pregnant women
4. Suggestions to policymakers should to be provided regarding the protection of pregnant women.

References

1. Dinkes. Profil Kesehatan Kota Surabaya. Surabaya: Dinkes Kesehatan Surabaya; 2016.
2. Gustafsson Jertfelt IH, Alice Blanching SL. Cultural perspective in open-ended interviews – The importance of being adaptable. Cult Psychol. 2016;5(2):16-19.
3. Kementerian Kesehatan, RI. Buku Kesehatan Ibu dan Anak, Kementerian Kesehatan RI. Jakarta: Kementerian Kesehatan RI; 2016.
4. Notoatmodjo S. Ilmu Perilaku Kesehatan. Jogjakarta: Rineka Cipta; 2010.
5. Pratami E, Sukesi S, Ervi HN. The behavioral model development of pregnant women in accordance to pregnancy treatment lifestyle. Clin Epidemiol Global Health. 2021;12(100802):1-5.
6. Abalos-Fabia RS, Khadrawi SM, Ellasus RO. Behavior, awareness, and sensitivity of healthcare providers in a multicultural environment. Nurs Med J Nurs. 2018;6(2):58-70.
7. Hidayat AA, Musrifatul U. The effect of the nursing care model based on culture to improve the care of malnourished madurese children in Indonesia. Macedonian J Med Sci. 2019;15(7):1220-5.
8. Andina D, Elena SG. Cultural care of pregnancy and home birth: An application of the sunrise model. Res Theory Nurs Pract. 2020;34(4):358-370. https://doi.org/10.1891/RTNP-D-19-00090. PMid:33199408
9. Abedi M, Borhani M, Rahimzadeh H, Mehri A, Mehri AHZ. The role of education in promoting self-care behaviors in patients with hypertension: An application of the PRECEDE model. J Educ Community Health. 2020;7(4):303-10.
10. Awatiful AC. The application of transcultural nursing model in perspective of madura culture improving breastfeeding mother's behavior in jember. J INJEC. 2017;2(1):9-16.
11. Naseri S. A study on cultural capital and high-risk behaviors of college students in Iran. Mediterranean J Soc Sci. 2018;9(2):28-34.
12. Rachel Lang-Balde RA. Culture and birth outcomes in Sub-Saharan Africa: A review of literature. J Transcult Nurs. 2018;29(5):465-72.
13. Fariba M, Fatemeh AL. Effect of education based on "PRECEDE" model on self-care behavior in hemodialysis patients. J Edu

Health Promot. 2020;9(69):1-7.

14. Pratami E, Husni E, Isfentiani D. Breastfeeding model in madurese viewed from culture capital and lifestyle according to pierre bourdieu. Indian J Forensic Med Toxicol. 2019;13(4):1633-8.

15. Ira MP, Uki RB Hastuti BM. PRECEDE-PROCEED model: Predisposing, reinforcing, and enabling factors affecting the selection of birth attendant in Bondowoso district. J Health Promot Behav. 2017;2(2):160-73.