



Most Strengthening Factors Of Role Transition Based On Maternal Role Attainment In Primigravidas In Semarang City

Sri Wahyuni¹

¹Faculty of Nursing, Universitas Islam Sultan Agung, Semarang, Indonesia

(Corresponding author: wahyuni@unissula.ac.id)

Abstract: Primigravida is the first pregnancy which is a new experience for a woman to transition into a mother's role. The purpose of this study was to determine the factors that most influence role transition based on maternal role attainment nursing theory. The method used in the study was a quantitative cross-sectional design. The population of the study was primigravida mothers in Semarang City from June to December 2023, the number of samples was 135 which was calculated using the rule of thumb formula with a purposive sampling technique. The data was analyzed using logistic regression. The results of the study obtained data that from the maternal factor, age was the most influential factor in role transition with an OR of 4.7. In the fetal factor, gestational age had an effect on increasing role adaptation by 4.9 times compared to other factors. While the father's support factor has the potential to increase role adaptation by 5.8 times compared to other factors. Conclusion: Husband's support is the most influential factor in role transition compared to maternal age and gestational age.

Keywords: Role Transition, Maternal Role Attainment, Primigravida

INTRODUCTION

Pregnancy is one of the important phases in a woman's life that brings various changes, both physically, emotionally, socially, and psychologically. For a primigravida, or a woman who is experiencing her first pregnancy, this change is a new experience full of challenges. One of the significant changes that occurs is the transition of the role of a woman to a mother (1). In the transition phase, the role does not only involve physical readiness to undergo the process of pregnancy and childbirth, but also includes adjustments to self-identity, social roles, and new responsibilities as a mother. This process can be a psychological stressor if it is not accompanied by adequate support, either from partners, family, or health workers. Unpreparedness in undergoing role transition can affect the mental health of pregnant women, such as the emergence of anxiety, stress, and even the risk of postpartum depression. (2).

The prevalence of primigravida who experience psychological problems is very high, research data states that almost 80% of pregnant women experience disappointment, rejection, anxiety, restlessness, depression and melancholy and the incidence of mental disorders is 15% in primigravida mothers in the first trimester. (3). Other research also found data that as many as 45% of mothers experience problems with attachment disorders with their fetuses and are potentially at risk of experiencing mental disorders. (4). Postpartum depression can occur as a continuation of prolonged psychological problems during pregnancy. (5). The psychological problems that occur have an impact on the failure of role transitions, which is indicated by the lack of closeness between mother and baby. (6).

There are many factors that cause primigravida to face prolonged psychological problems. Several research studies have been conducted related to failure in role transition, among the studies mentioned that self-esteem, pregnancy planning and attitudes towards pregnancy as factors causing failure in role transition. (7). The study explored internal factors from the mother as the main trigger in the role transition. While other studies mention external factors as the cause of the success or failure of primigravida in carrying out their roles. The data states that the husband is very important in adapting the role change to become a mother. (8). Research studies involving the triad of interactions between

the mother, fetus and father in undergoing role transition as stated in the theory of Maternal Role Attainment are very important in the process of adapting to the role of mother.

Mercer in his theory states that the factors that influence women in preparing themselves to achieve the role of mother are grouped into maternal factors, fetal/baby factors, and father factors. The interaction between mother, baby and father is placed as the central interaction that lives in one environment. The stages of achieving the role of mother are related and in line with the growth and development of newborns. There is a correlation between bonding with the child during pregnancy, bonding after birth, and the mother's attachment style, The main predictor of bonding with the child after birth is attachment to the child during pregnancy (9). Early experiences of parenting in childhood by a mother can be activated during pregnancy and influence the relationship between mother and fetus as part of the parental maturation process. (10).

METHODS

This study is a quantitative research type with a deep Cross-Sectional design. The population used is primigravida mothers domiciled in Semarang City in June - December 2023 with a sample size of 135. The sample is calculated using the Rule of Thumb formula and sampling is done by purposive sampling. The inclusion criteria for the samples taken are primigravida mothers in trimesters 1, 2 and 3 and the exclusion criteria are pregnant women who have a history of abortion. The data were analyzed using descriptive statistics, Chi Square and Logistic regression analysis.

RESULTS AND DISCUSSION

3.1 Results

This research has passed the ethical clearance test by Faculty of Nursing, Faculty of Nursing, Universitas Islam Sultan Agung Health Research Ethics Committee on 19 July 2022 under No. 307/KEPK-A.1-S1/FIK/VII/2022 and has obtained the respondents' consent through Informed Consent. The results of the study on the analysis of transition readiness factors based on maternal role attainment in primigravida in Semarang City conducted in 2023 are as follows:

3.1.1 Maternal Factors

Table 1. Description of Maternal Factors in Semarang City in 2023 (n = 135)

Maternal Factors	Category	Frequency (f)	Percent(%)
Age	Productive age 20-35 years	111	82,2
	Age at Risk <20 Years; > 35 Years	24	17,8
Education	High	102	75,6
	Low	33	24,4
Occupation	Work	91	67,4
	Unemployed	44	32,6
Health status	Low Risk Pregnancy	106	78,5
	High Risk Pregnancy	29	21,5
Knowledge	Good	94	69,6
	Not Good	39	28,9
Anxiety	Not Anxious	110	81,5
	Worried	25	18,5
Antenatal Care	Regular	107	79,3
	Irregular	28	20,7
Nutritional Status	Good	93	68,9
	KEK	42	31,1
Total		135	100,0

Table 1 shows that of the 135 respondents, the majority were of productive age, had higher education, namely high school and college, worked, had low-risk pregnancies, had good knowledge, did not experience anxiety, had regular antenatal care check-ups and had good nutritional status, but there were

still quite a lot of mothers who had low education 24.4%, were unemployed 32.6%, had high-risk pregnancies 21.5%, had less knowledge 28.9%, had irregular antenatal care 20.7% and had KEK nutritional status of 31.1%.

3.1.2 Fetal Factors

Table 2. Description of Fetal Factors in Semarang City in 2023 (n = 135)

Fetal Factors	Category	Frequency (f)	Percent (%)
Gestational Age	Aterm	68	50,4
	Preterm	67	49,6
Pregnancy Status	Planned	92	68,1
	Unplanned	43	31,9
Total		135	100,0

Table 2 shows that of the pregnant women who are in aterm and oretarem gestational age with the same proportion as some of the pregnancies are planned, but there are still quite a lot of unplanned pregnancies, namely 31.9%.

3.1.3 Father Factors

Table 3. Description of Father Factors in Semarang City in 2023 (n = 135)

Father Factors	Category	Frequency (f)	Percent (%)
Age	Adult: 26–35 years	14	10,4
	Teenager :17–25 years	121	89,6
Education	High	116	85,9
	Low	19	14,1
Occupation	Work	121	89,6
	Unemployed	14	10,4
Support	good	64	47,4
	Not Good	71	52,6
Total		135	100,0

Table 3 shows that most fathers are in the teenage age range, namely 17-25 years, have a high school or college education, work and provide less support to pregnant women with a very large percentage, namely 52.6%.

3.1.3 Role Comfort

Table 4. Comfort of Mother's Role in Semarang City in 2023 (n = 135).

Variable	Category	Frequency (f)	Percent (%)
Role Comfort	Comfort	64	47,4
	Uncomfortable	71	52,6
Total		135	100,0

The table shows that most primigravida mothers have not been able to undergo role transitions, as indicated by the majority feeling uncomfortable in their new role, namely 52.6%.

3.1.4 Relationship between maternal factors, fetal factors and paternal factors on role comfort

Table 5. Relationship between Maternal Factors, Fetal Factors and Paternal Factors on Role Comfort in Primigravida in Semarang City in 2023 (n=135)

Variable	Category	Role Comfort		Total	P value
		Uncomfortable	Comfort		
Mather Factors					
Age	Productive age 20-35 years	18	6	24	0,01

	Age at Risk <20 Years; > 35 Years	53	58	111	
Education	High	17	16	33	0,52
	Low	54	48	102	
Occupation	Work	24	20	44	0,44
	Unemployed	47	44	91	
Health status	Low Risk Pregnancy	17	12	29	0,30
	High Risk Pregnancy	54	52	106	
Knowledge	Good	18	20	39	0,37
	Not Good	50	44	94	
Anxiety	Not Anxious	17	8	25	0,05
	Worried	54	56	110	
Antenatal Care	Reguler	19	9	28	0,05
	Irregular	52	55	107	
Nutritional Status	Good	29	13	42	0,00
	KEK	42	51	93	
Fetal Factors					
Gestational Age	Aterm	47	20	67	0,00
	Preterm	24	44	68	
Pregnancy Status	Planned	30	13	43	0,00
	Unplanned	41	51	92	
Father Factors					
Age	Adult: 26–35 years	67	54	121	0,05
	Teenager :17–25 years	4	10	14	
Education	High	10	9	19	0,59
	Low	61	55	116	
Occupation	Work	19	4	14	0,11
	Unemployed	61	60	121	
Support	good	28	8	36	0,00
	Not Good	43	56	99	

The table shows data that there is a significant relationship between the mother's sub-variables of age, anxiety, antenatal care visits and nutritional status to role comfort. In the fetal factor variable, there is a significant relationship for all sub-variables, namely gestational age and pregnancy status to role comfort. While for the father's factor variable, there is a significant relationship between the sub-variable of age and support for role comfort.

3.1.5 Factors Most Related to Role Transition in Primigravida

Table 6. Factors Most Related to Role Transition in Primigravida in Semarang City in 2023 (n = 135).

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Mother Factors						
Age	1.552	.638	5.909	1	.015	4.720
Education	.346	.769	.202	1	.653	1.413
Occupation	-.610	.719	.718	1	.397	.544
Health Status	-.144	.626	.053	1	.818	.866
Knowledge	-1.012	.715	2.006	1	.157	.363
Anxiety	-.638	1.651	.149	1	.699	.528
Antenatal Care	-.125	1.500	.007	1	.934	.883
Nutritional Status	.936	.661	2.005	1	.157	2.550
Fetal Factors						
Gestational Age	1.597	.541	8.719	1	.003	4.938
Pregnancy Status	-.104	.558	.035	1	.852	.901
Father Factors						
Age	1.475	.805	3.355	1	.067	4.370
Education	-1.045	.697	2.250	1	.134	.352
Occupation	.634	.869	.532	1	.466	1.886
Support	1.759	.646	7.421	1	.006	5.806
Constant	-6.976	2.394	8.490	1	.004	.001

Table 8 shows that the most significant maternal factor related to role transition is age with a p value of 0.015 and an OR value of 4.720, indicating that maternal age has a 4.7 times greater effect on role transition compared to other internal factors of the mother. In the fetal factor, gestational age is significantly related to role transition with a p value of 0.003 and an OR value of 4.938, meaning that gestational age has a 4.9 times greater effect on role transition compared to pregnancy status. Meanwhile, for the father's support factor, it is significantly related to role transition with a p value of 0.006 and an OR value of 5.806, indicating that father's support has a 5.8 times greater effect on role transition compared to other internal factors of the father. Of all the factors including maternal factors, fetal factors and father factors, husband's support is the most influential factor on role transition in primigravida.

3.2 Discussion

Role transition in primigravida is a process of psychological, social, and emotional adjustment experienced by pregnant women to adapt to their new role as prospective mothers. Many factors influence the success of role transition in primigravida. This study specifically examines the interaction that occurs in three directions or triads based on Mercer's maternal role attainment theory, namely interactions in the nuclear family between the mother, fetus and father. From the research that has been done, the biggest factor that has the most influence on role transition is husband's support. Good husband's support can increase the success of the transition to motherhood by 5.8 times compared to other variables.

The results of this study are in line with previous research on husband's support which states that with good husband's support, wives also have good self-confidence in facing role transitions and have good values. (8). The presence and support of a husband can help a wife feel more secure, comfortable, and confident during pregnancy. A husband who provides attention, understanding, and practical assistance such as accompanying pregnancy check-ups, helping with housework, and providing moral support can reduce stress and anxiety experienced by the wife. Husband's support also improves communication and emotional closeness of the couple, which is important for maintaining family harmony. Husband's support can balance emotions and increase life satisfaction. (11).

Pregnant women who get support from their husbands tend to be more adaptable to various changes during pregnancy, in addition, mothers will be more receptive to advice from health workers. The support given by the husband will be a motivation for the wife who will form a positive parenting pattern. (12). Support creates a sense of ownership and togetherness in responsibility for the fetus to provide the best, facilitate all programs during pregnancy, have a well-planned birth and be able to quickly adapt to a new role (13). Support from a husband increases the quality of psychological comfort which can create a sense of togetherness in going through the stages of taking on a new role as a parent.

The research results also obtained data that the age of pregnant women affects role transition. The mother's age increases the mother's ability to adapt to her new role 4.7 times greater than other factors. Age is one indicator of a person's level of readiness and experience. In general, the older a person is, the more life experience they have. This experience can include learning from various situations, decision making, and the ability to face challenges, which ultimately shape the individual's readiness to carry out certain roles or responsibilities. (14). Age has a significant influence on a woman's desire to get pregnant. In general, the desire to have children often arises and increases at reproductive age and at a young age when psychological maturity is not yet available. (15). Women as they get older will have an instinct to have offspring, this condition is an internal stimulus that can create a sense of readiness to take on a new role..

From the fetal factor, gestational age has a strong potential in supporting adaptation to role transition by 4.9 times compared to other variables. Gestational age, or the stage of pregnancy being experienced, influences the level of acceptance of women towards role changes, especially for primigravida. (16). In the third trimester, most pregnant women are more mentally and emotionally prepared to welcome the birth of a child. Acceptance of the role of motherhood and the formation of a new family identity are increasingly mature, although anxiety before childbirth is still possible. (17). In general, the more mature the gestational age, the higher the level of acceptance of the presence of a new family, provided

that there is emotional support, understanding of the pregnancy process, and the couple's readiness to undergo role changes.

CONCLUSIONS

Analysis of readiness factors in undergoing role transition based on maternal role attainment involving three components, namely mother, fetus and father, is most dominantly influenced by husband's support. Husband's support increases adaptation to role transition by 5.8 times compared to other variables. In the mother's factor, age is the biggest factor influencing role adaptation where age is 4.7 times faster influencing role transition. While the fetus factor is dominated by gestational age as a factor influencing role adaptation. Gestational age is able to increase role transition by 4.9 times faster than other factors.

ACKNOWLEDGMENTS

This research can be carried out well and smoothly thanks to the contributions of many parties. For that, the author would like to express his deepest gratitude to the Rector and Academic Community of Sultan Agung Islamic University Semarang, Respondents in Semarang City who have participated in the research, enumerators from health cadres who were able to cooperate well during the research. Hopefully the results of this study can provide positive and beneficial contributions to the development of science and for parties in need.

REFERENCES

- [1] Wahyuni, S., Rasendrya, A. A., Arief, Y. S., & Triharini, M. (2024). Planned pregnancy affects primigravida readiness in role transitions. *Journal of Pakistan Medical Association*, 74(5 Suppl 5), S63–S66.
- [2] Wahyuni, S., Arief, Y. S., & Triharini, M. (2024). A new strategy to improve maternal-fetal attachment in primigravida women with prenatal spiritual-based stimulation. *Healthcare in Low-resource Settings*, 12(12048), 1–6.
- [3] Sembiring, I. S., Sakdiyah, H., Susanti, P., & Dani, S. (2022). The effect of pregnant women's class on primigravida mothers' anxiety at Pegajahan Community Health Center, Serdang Bedagai Regency. *Scientific Midwifery*, 10(4), 2721–9453.
- [4] Tukamushabe, P., Ngabirano, T. D., Okonya, J. N., & Saftner, M. A. (2024). Prevalence and factors associated with impaired maternal–infant bonding among mothers attending young child clinics in Kampala, Uganda. *International Journal of Environmental Research and Public Health*, 21(665), 1–14.
- [5] Khamidullina, Z., Marat, A., Muratbekova, S., Mustapayeva, N. M., & Aimagambetova, G. (2025). Postpartum depression epidemiology, risk factors, diagnosis, and management: An appraisal of current knowledge and future perspectives. *Clinical Medicine*, 14(2418), 1–16.
- [6] Gustafsson, S., & Raudasoja, M. (2024). Experiences of success and failure in childbirth. *Journal of Reproductive and Infant Psychology*, 00(00), 1–21. <https://doi.org/10.1080/02646838.2023.2301380>
- [7] Mekawan, N., Phahuwatanakorn, W., & Ratinthorn, A. (2023). Factors influencing transition to motherhood. *Journal of the Police Nurses*, 7(15), 1–12.
- [8] Wahyuni, S., & Arief, Y. S. (2024). Husband's contributions to stimulate wife's confidence in experiencing role transition: A cross-sectional study. *SAGE Open Nursing*, 10, 1–9.
- [9] Zdolska-Wawrzkiwicz, A., & Bidzan, M. (2019). The dynamics of becoming a mother during pregnancy and after childbirth.
- [10] Røhder, K., Væver, M. S., Aarestrup, A. K., Jacobsen, R. K., Smith-Nielsen, J., & Schiøtz, M. L. (2020). Maternal-fetal bonding among pregnant women at psychosocial risk: The roles of adult attachment style, prenatal parental reflective functioning, and depressive symptoms. *PLOS ONE*, 15(9), 1–19.
- [11] Prasiska, N. N. A., Hudaniah, H., & Andriany, D. (2024). The role of husband support on subjective well-being in working mothers. *Jurnal Ilmiah Psikologi Terapan*, 12(1), 39–45.
- [12] Angraini, S., Puspitawati, H., & Muflikhati, I. (2024). Gender of roles, family interaction, and family well-being in single-earner and dual-earner families. *Journal of Family Science*, 09(02), 151–168.
- [13] Emin, W. S., Taqiyah, Y., & Asnaniar, W. S. (2023). Husband's support for the childbirth process: Concept analysis. *An Idea Nursing Journal*, 2(02), 87–91.
- [14] Mulkey, M., Baggett, A. B., & Tumin, D. (2023). Readiness for transition to adult health care among U.S. adolescents, 2016–2020. *Child: Care, Health and Development*, 49(2), 321–331.
- [15] Alizadeh-Dibazari, Z., Abbasalizadeh, F., Mohammad-Alizadeh-Charandabi, S., & Mirghafourvand, M. (2024). Evaluation of childbirth readiness and its associated factors and consequences in pregnant women referring to health

centers in Tabriz, Iran, and providing strategies to promote childbirth readiness: A sequential explanatory mixed method study protocol. *BMJ Open*, *14*(10), e087038.

- [16] Teskereci, G., Akgün, M., & Boz, İ. (2022). The precursors' adaptation to pregnancy, prenatal attachment, and maternal self-confidence. *Journal of Obstetrics and Gynaecology*, *42*(8), 3552–3559.
- [17] Mariyana. (2023). Readiness for childbirth in primigravida third trimester pregnant women at the Spirit of Internal Health Center, Barito Kuala District. *Jurnal Eduhealth*, *14*(02), 866–871.