



Path Analysis: Knowledge, Motivation Factor, and Their Relationship with Readiness to Provide Exclusive Breastfeeding among Pregnant Women



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Abstract

Women who prepare early will be better prepared both physically and psychologically to breastfeed exclusively. The purpose of this research was to determine whether the motivation variable as a mediator of the relation between knowledge of exclusive breastfeeding with readiness to exclusive breastfeeding. The study was observational, A total of 150 respondents, These three variables, namely knowledge, motivation, and readiness in exclusive breastfeeding, measured by the enclosed questionnaire. Correlation between variables was analyzed with path analysis. The relation between variables in all three models was significant ($p < 0.001$), whereas the relation between knowledge and preparedness in exclusive breastfeeding, is not significant ($\beta = 0.142$; $p = 0.092$). The relation between knowledge and preparedness in exclusive breastfeeding changed from the first model, into the fourth model. Besides there is a decline in the path coefficient of 0,302 became 0,142, the relation also becomes insignificant. This shows that the fourth mediation relationship condition is fulfilled. Pregnant women motivation exclusively breastfed mediates the relationship between knowledge of exclusive breastfeeding with maternal readiness in exclusive breastfeeding.

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1. Introduction

Exclusive breastfeeding is a strategic activity, increase exclusive breastfeeding can reduce the regional government subsidies for health, because infants and children are healthier so that will reduce morbidity and infant mortality, and at the same time will also improve the quality of local human resources in that region (Depkes, 2008) Application of exclusive breastfeeding in the community at this time is still very low it can be seen from the unavailability of facilities for breastfeeding in public places and not all mothers are working getting permission to breastfeed or get the facility to issue and accommodate breast milk. The low adoption of exclusive breastfeeding was also due to lack of understanding and motivation of people about the benefits and importance of exclusive breastfeeding, maternal characteristics, information access, health care workers and family support also there is an intensive promotion and marketing milk formula (Setyowati. 2008).

Motivation can be defined as the power (energy), how strong is the motivation of the individual will much determine the behavior of the display quality. According Luthan theory of motivation developed by Abraham H. Maslow was essentially revolves around the notion that humans have five levels or hierarchy of needs, namely: (1) physiological needs (physiological needs), (2) (safety needs), (3) the need for love (love needs); (4) the need for self-esteem (esteem needs), and (5) self-actualization /self-actualization (Luthan, 2011). While according to Robins is a collection of psychological motivation that causes movement, direction, and persistence of voluntary attitudes that lead to Goal (Rema, 2014). So it can be concluded that motivation is a collection of psychological processes that have the power within someone that causes movement, direction, effort, and persistence in the face of obstacles to reach a goal.

To occur confidence in pregnant women, the health personnel should motivate that: (1) Mothers believe that she can breastfeed, and breastfeeding is best for babies, and mothers can produce enough milk to fulfill the nutritional needs of infants, milk production does not depend on the size of the mother's breast, (2) the mother aware of any physical changes that happen to her and understand that these changes are normal, (3) mothers know and understand the growth and behavior of the baby and how to faced and Overcome it (Wenzel D, 2010). One of the characteristics of motivation is motivation quality, is a motivation which appears from themselves to have and improve the quality of their self and the ability to realize the desire/goal to be achieved. The realization of this motivation quality in an effort to realize that if mothers want to succeed to exclusively breastfeed their children, then she must have a good knowledge and understanding of exclusive breastfeeding.

Knowledge is warning about a specific, universal, methods, processes, patterns and source structures. To remember something involving logic to real conditions. Knowledge is influenced by many things, among formal education factor. Someone's knowledge of an object contains two aspects: positive and negative (Hasibuan, 2005). Both of these aspects will determine the attitude of a person, the most positive aspect, the more positive of the certain object. Knowledge is a variety of symptoms encountered and human obtained through observation. Knowledge arises when someone uses his intellect to recognize certain objects or events that never seen or felt before. Knowledge is the result of the idea, and this occurred after people perform sensing on a specific object. Domain knowledge is very important in shaping a person's actions.

Lack of knowledge of mothers on reproductive health will affect the problems during pregnancy and after labor, therefore it is important for mothers to gain broad access to a variety of information relating to their reproductive health, as part of the fulfillment of women's reproductive rights. Mother has a strategic role and position in the family and society as a pioneer, drivers, guards, and forts to protect her child also as initiators for greater public awareness to deals with the importance of exclusive breastfeeding for the quality of human resources in the future (Depkes, 2008).

Breastfeeding mother often has problems that disturbing the lactation process, especially to the primipara's mother. According to Soetjningsih the problems that often occur to the breastfeeding mother such as, the nipples pain or chafed, this is the most often the problem in breastfeeding (Soetjningsih, 1997). Painful or chafed on nipple majority caused by a mistake technique in breastfeeding. The expansion of breast is caused by mother's milk does not drink by infant so that the mother's milk is collected in the duct system that caused the expansion. Difficulties which may arise during the process of lactation is cracked nipples, nipples that enter into, infective mastitis and lactation are not adequate (Maharaj, 2013), it is necessary to the preparation during pregnancy well, because breast milk plays an important role to create a healthy and strong baby. The difficulties that arise during the process of breastfeeding can be prevented by preparing to breastfeed exclusively one of them with good antenatal care, by giving special attention to the preparation of the breasts and nipples in anticipation of a positive breastfeeding to the infants (Soetjningsih, 1997). According to Soetjningsih that the advantage of breastfeeding should be supported by granting the right way, for example, the provision immediately after birth (the first 30 minutes the baby must drink it), and utilization of

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colostrum so it takes effort to prepare it properly so that every mother can breastfeed her baby. To anticipate problems during breastfeeding, the mother should do the breast treatment of early at the gestational age of 7-8 months. When a pregnant woman does not perform breast care well and just do the treatment after giving birth or after breastfeeding difficulties, it is often found that the case would harm the mother and baby.

Readiness is a form of maturity for someone to face the new situation and is one of the important things that must be owned by a person to decide anything. After all, a mother should take the decision to breastfeed or not and will provide exclusive breastfeed or not. The process of making the decision to breastfeeding is usually taken away days before giving birth and even before marriage, such as Katherine opinion, states that the decision to breastfeed or not done since there are many pregnant women even before having children (Katherine, 2005). There are many factors that affect the success of breastfeeding mothers in advance exclusive breastfeeding where the mother only exclusively breastfed without giving additional food and drink during the first 6 months of a baby's life. According to Purwanti Preparation of breastfeeding during pregnancy is important. Mothers who prepare early will be better prepared to breastfeed (Jessica A. 2014).

The purpose of this study is to determine whether the motivation variable pregnant mothers to give exclusive breastfeeding as a mediator of the correlation between knowledge of exclusive breastfeeding with readiness in exclusive breastfeeding. Knowledge is measured by four indicators of material they are the notion of exclusive breastfeeding, understanding IMD, the benefits of exclusive breastfeeding and breastfeeding techniques. Motivation is measured by three indicators, namely support, effort, and persistence. Mother readiness is measured by five indicators they are maternal health preparedness, maternal psychological preparedness, readiness breast, nutrition / maternal nutrition, and infant health preparedness.

2. Research Methods

The observational studies conducted with subjects of pregnant women who live in Surakarta. 150 respondents participated in the study. Mechanical sampling in a study by proportional cluster random sampling, namely: the technique of determining the subject of research where a sampling unit is a group (cluster) with proportional (Murti, 2010, Effendi, 2014). These three variables, namely knowledge about exclusive breastfeeding, exclusive breastfeeding in the motivation and readiness in exclusive breastfeeding, measured by the enclosed questionnaire. All indicators have been validated both in terms of language or sentence structure (content validity) as well as from the side of the construct (convergent-divergent validity with confirmatory factor analysis). All constructs (variables) also has a high reliability (Cronbach's alpha > 0.9). Relationships between variables were analyzed in the simplest form of the structural model with path analysis. Intermediate variables criteria expressed as a mediator between the independent variables and the dependent variable is when the relationship between the three significant variables and the influence of the independent variable on the dependent variable decreases significantly when the intermediate variables entered as covariates (independent variables together). Data processing was performed using SPSS for Windows version 13. Statistical testing is done with a significance level of 5%.

3. Results and Analysis

In this section, it is explained the results of research and at the same time is given the comprehensive discussion. Results can be presented in figures, graphs, tables and others that make the reader understand easily [2], [5]. The discussion can be made in several sub-chapters.

The demographic characteristics of respondents most commonly found are aged 21-25 years (64.0%), high school educated (52.7%), do not work or only as a housewife (56.7%), and just married less than 2 years (68.0%). Path analysis is done in the simplest structural model as can be seen in Figure 1. It has been mentioned before that the intermediate variables criteria (Z) are expressed as a mediator between the independent variable (X) and the dependent variable (Y) is when the correlation between the three significant variables and influences the independent variable on the dependent variable decreases significantly when the intermediate variables entered as covariates. To test this criterion then carried out four regression analysis, namely (1) X to Y, (2) X to Z, (3) Z to Y, and (4) X and Z to Y.

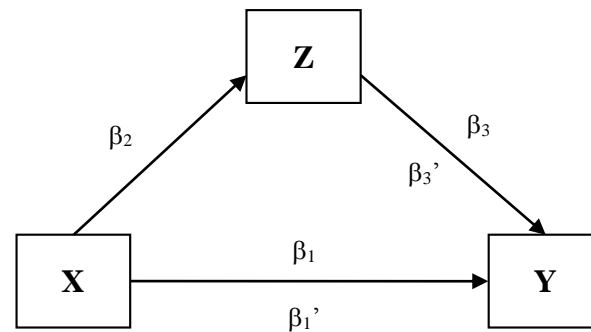


Figure 1. Structural models with Path Analysis for Relations Mediation

In Table 1 presented the results of the calculation of estimates and statistical test path coefficient (β) for path analysis based on four regression models that have been determined. Correlation between variables in the first model ($1\beta = 0.302$), the second model ($2\beta = 0.458$), and the third model ($3\beta = 0.415$) was significant ($p < 0.001$) so that the three conditions mediation are complete. In the fourth model of the relationship between motivation and readiness in exclusive breastfeeding was significant ($3\beta' = 0.350$; $p < 0.001$), whereas the relationship between knowledge and preparedness in the otherwise exclusive breastfeeding is not significant ($1\beta' = 0.142$; $p = 0.092$). The correlation between knowledge and preparedness in exclusive breastfeeding changed from the first model (without the readiness as covariates) into the fourth model (with readiness as covariates). In addition to a decline in the path coefficient of 0,302 became 0,142, the correlation also becomes insignificant. This suggests that the fourth correlation condition is fulfilled. It can be concluded that the motivation of pregnant mothers exclusively breastfed mediates the relationship between knowledge of exclusive breastfeeding with readiness to exclusive breastfeeding.

Table 1
Estimation and Test Statistics Trails Path Coefficient Analysis

No	Regression Model	Coefficient symbol	β	P	Explanation
1	$X \rightarrow Y$	β_1	0,302	< 0,001	Significant
2	$X \rightarrow Z$	β_2	0,458	< 0,001	Significant
3	$Z \rightarrow Y$	β_3	0,415	< 0,001	Significant
4	$X \rightarrow Y$	β_1'	0,142	0,092	Not Significant
	$Z \rightarrow Y$	β_3'	0,350	< 0,001	Significant

Description:

X = Ability of exclusive breastfeeding;

Z = motivation of exclusive breastfeeding

Y = readiness of exclusive breastfeeding

The results of this research showed the mediating role of maternal motivation in exclusive breastfeeding in the relationship between knowledge of exclusive breastfeeding and its readiness to exclusive breastfeeding. A pregnant woman who has a good knowledge about exclusive breastfeeding, it would appear the motivations, where the mother suffered a psychological process that has the strength that caused the encouragement, effort, and persistence to be able to exclusively breastfeed their children. Indicators of maternal motivation for exclusive breastfeeding can be seen from (1) their urge mothers to exclusively breastfeed, such as the mother's willingness to issue a high effort in order to succeed to give exclusive breastfeeding. (2) their efforts to prepare everything so that his desire to be able to exclusively breastfeed their children materialize, the effort is a force or factors contained in a person that drives behavior. (3) The persistence of the mother to realize her desire, persistence here is a voluntary attitude of mothers leads to the goal to be achieved.

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4. Conclusion

Knowledge of pregnant women about exclusive breastfeeding is a predisposing factor or form of motivation for exclusive breastfeeding. Furthermore, the motivation will encourage the readiness of mothers to breastfeed exclusively. The relationship between knowledge and preparedness in exclusive breastfeeding mothers changed from the first model, into a fourth model and a decrease in the path coefficient from 0,302 into 0,142. The role of motivational variables in the research is to mediate the relationship between knowledge of exclusive breastfeeding with maternal readiness in exclusive breastfeeding.

Conflict of interest statement and funding sources

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Statement of authorship

The author(s) have a responsibility for the conception and design of the study. The author(s) have approved the final article.

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References

- Allen, J. A., Belay, B., & Perrine, C. G. (2014). Using MPINC data to measure breastfeeding support for hospital employees. *Journal of human lactation*, 30(1), 97-101.
- Departemen Kesehatan, R. I. (2008). Pedoman pencegahan dan pengendalian infeksi di rumah sakit dan fasilitas pelayanan kesehatan lainnya. *Jakarta: Departemen Kesehatan RI, Cetakan kedua.*
- Effendi, S. T., Rao, V. Y., Momin, E. N., Cruz-Navarro, J., & Duckworth, E. A. (2014). The 1-piece transbasal approach: operative technique and anatomical study. *Journal of neurosurgery*, 121(6), 1446-1452.
- Hasibuan, M. S. (2005). Organization and Motivation.
- Luthans, F. (2011). Organizational behaviour: An evidence-based approach. *McGraw-Hill.*
- Maharaj, N., & Bandyopadhyay, M. (2013). Breastfeeding practices of ethnic Indian immigrant women in Melbourne, Australia. *International breastfeeding journal*, 8(1), 17.
- Murti, B. (2010). Ukuran Sampel Untuk Kasus Lainnya Dan Beberapa Prinsip Penting Ukuran Sampel, Dalam Desain Dan Ukuran Sampel Untuk Penelitian Kuantitatif Dan Kualitatif Di Bidang Kesehatan.
- Rahardjo, S. (2006). Faktor-faktor yang Berhubungan dengan Pemberian ASI satu jam pertama setelah melahirkan. *Kesmas: National Public Health Journal*, 1(1), 11-17.
- Ramakrishnan, R., Oberg, C. N., & Kirby, R. S. (2014). The association between maternal perception of obstetric and pediatric care providers' attitudes and exclusive breastfeeding outcomes. *Journal of Human Lactation*, 30(1), 80-87.
- Shealy, K. R., Li, R., Benton-Davis, S., & Grummer-Strawn, L. M. (2005). The CDC guide to breastfeeding interventions.
- Soetjningsih, D. S. A. K. (1997). ASI: Petunjuk untuk Tenaga Kesehatan. *Egc1997.*
- Wenzel, D., Ocaña-Riola, R., Maroto-Navarro, G., & De Souza, S. B. (2010). A multilevel model for the study of breastfeeding determinants in Brazil. *Maternal & child nutrition*, 6(4), 318-327.

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