



Application of the PRECEDE Model to Understanding Postnatal Depression

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Dear Editor-in-Chief

In the Diagnostic and Statistical Manual – Fourth Edition (SM-IV-TR) postnatal depression (PND) is not currently recognized as a separate diagnosis. Instead, the DSM-IV-TR recognizes mood problems during the postnatal period using a “with postnatal onset” specifier to several mood disorders including, major depressive, manic or mixed episode of major depressive disorder, bipolar i disorder, bipolar ii disorder and brief psychotic disorder (1).

Postnatal depression, that is depression occurs in a mother within 6 weeks of her giving birth, can have profound effects upon the health and well-being of the mother, her baby and the family (2) characterized by a number of symptoms including core symptoms of depressed mood and/or loss of pleasure, together with additional symptoms, including changes in weight or sleep, fatigue or loss of energy, feelings of worth lessens or guiltiness, concentration difficulties, and suicidal ideation (3). Therefore, PND is a multifactorial disorder with biological, psychological, and sociological aspects interacting with woman’s risk individually. In addition to the considerable negative personal impact that PND has on women, PND also negatively affects marital relationships (1). Mothers are fully active in their role, when they feel healthy, and the

society considers them healthy. While, PND can be explained by clinical criteria and physical symptoms, social recognition is also effective in this area.

PND may also detrimentally affect mother-infant attachment, and infant social and cognitive development. Depressed mothers are less emotionally sensitive and less attuned to their infant’s emotional state. These serious implications make PND an important mental illness to study because of the tremendous impact it has on the mother and support system, including child’s development and familial relationships (1). The ability of a woman to adjust to these changes affects herself, her infant, other children she may have, and her partner (3). Healthy People 2010 listed improve-ement of the health and well-being of women, infants, children, and families as goal (3).

The first step in designing an educational program is selecting a health education model which starts the program on the right way and guides it to the evaluation phase. One of the frequently used models in health education and promotion is the PRECEDE model. We assessed the effectiveness of application of PRECEDE model on pregnant women for preventing PND. We hypothesized that predisposing, enabling and reinforcing would

serve as antecedents to postnatal depression. Identifying preventive factors is considered an important step in treatment of PND. Predisposing factors, enabling and reinforcing factors are presented as underlying factors in PRECEDE model and addressing each of these factors by the individual and society plays an important role in prevention of this disorder.

Therefore, this study investigated predisposing, enabling and reinforcing as factors that can prevent postnatal depression.

The PRECEDE model has been widely applied in health promotion settings. Its main goals are to explain health-related behaviors and to guide the design of interventions that aim to change health-related behaviors, their antecedents, and their sequelae (4). The PRECEDE framework attempts to identify a type of education which results in certain changes and eventually leads to Prevented PND. The PRECEDE portion of the model (Phases 1-4) includes social, epidemiological, behavioral, environmental, educational, administrative, and policy assessments. Predisposing, Reinforcing, Enabling, Constructs in Educational Di-

agnosis and Evaluation (PRECEDE) model has been developed by Green and Kreuter as a theoretical model to identify the needs of educational programs and health promotion (5).

In order to gather the data, a questionnaire, was designed based on the PRECEDE model. This model provided a framework which clarifies the factors affecting the behavior, such as the predisposing factors (knowledge, attitude, etc.), enabling factors (availability of resources, and skills), and reinforcing factors (the effect of others, family members, peers, etc.), in identifying a training program. Data was collected from 230 pregnant women in the north-east of Iran. The data were analyzed by using SPSS-20 software. Data was analyzed using multiple regression analysis. Multiple regression analysis was carried out to test the hypotheses that comprised the direct effects of Predisposing, enabling, and reinforcing on postnatal depression. As illustrated in Table 1, the analysis revealed that predisposing, enabling, and reinforcing were found to have significant impacts on postnatal depression, which explained about 48% of the variability.

Table 1: Results of the Regression Analysis

Variables	Std.Beta	t-value	P-value
Predisposing	0.11	1.37	0.17
Enabling	0.38	4.92	000
Reinforcing	0.21	2.59	0.01
R ²	0.23		
Adjusted R ²	0.21		
F-value	12.83		

P<0.05

The results indicate that in terms of predictive power enabling had the biggest influence followed by reinforcing. The effectiveness of the PRECEDE model was also confirmed in a study which was examined factors associated with mental health promoting behaviors among Hong Kong adults. The findings suggest that predisposing, enabling, and reinforcing factors are important in understanding mental health promoting behavior practices, which in turn may contribute to better mental well-being and quality of life (4). This study aimed to describe the application of

PRECEDE model on pregnant women for preventing PND. It was hypothesized that predisposing, enabling and reinforcing would serve as antecedents to PND. In general, educational programming based on the PRECEDE model positively affects different aspects of pregnant women's behavior in preventing PND.

The results of this study indicated that mothers training program based on the PRECEDE model was highly effective on the prevention of PND in the study population. It is recommended that further studies be conducted that are different in

terms of social factors, cultural factors, beliefs, and customs to better understand the relationship between PND, and other demographic factors, so that appropriate educational interventions to the area and culture of each region can be adopted in line with prevention.

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