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Influence of Maternal Beliefs, Attitude, Perceived Behavior on Breast-Feeding among Post Partum Mothers in Western Kenya

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Abstract: Great efforts have been made to enhance breast-feeding among mothers of infants, yet there is a continued decline in breast-feeding behavior. The Theory of Planned Behavior emphasizes that human behavior is governed by personal attitudes, social pressures and a sense of control. A study was set up to assess the influence of maternal beliefs, attitude, intention and perceived behavior control on breast-feeding behavior of mothers aged between 18-40 years of infants (≤1 year old) in western Kenya based on the Theory of Planned Behavior. A total sample of 230 breast-feeding mothers attending post natal clinics were randomly selected and were the respondents who provided information on the selected variables of the study. Cronbach's alpha was used to assess reliability and exploratory factor analysis used to assess validity. Skewness and kurtosis were used to assess for the normality of the obtained data. Structural equation modeling (AMOS version 7) was used to determine the predictive power of maternal attitude, subjective norm and perceived behavioral control on breast-feeding behavior. Maternal attitude ($\beta = 0.38$, $p<0.01$), perceived behavioral control ($\beta = 0.35$, $p<0.01$) and subjective norm ($\beta = 0.25$, $p<0.001$) predicted the mother's intention to breast-feed. Intention ($\beta = 0.95$, $p<0.001$) was a strong predictor of breast-feeding behavior.

Key words: Breast-feeding behavior, mother, attitude, intention, belief, Western Kenya

INTRODUCTION

Breast-feeding practices are more diversified and are characterized by the late initiation of breast-feeding, the administration of substances other than maternal milk and the introduction of weaning foods, some unhygienic, within one month following the infant's birth. Initiation of breast-feeding in the first hour, exclusive breast-feeding and continued breast-feeding to the first year are important causes of infant health (WHO, 2008). Exclusive breast-feeding and continuation of breast-feeding from 6-11 months is effective in reducing child mortality (Jones *et al*., 2003). Improved breast-feeding practices are crucial for child growth and development (Leon-Cava *et al*., 2002). Past efforts to improve breast-feeding behaviors have ranged from hospital norms and services, legislation and institutional policies, health workers training, peer counseling to mass media campaigns (Green, 1999; Hill *et al*., 2004). Even with such efforts the prevalence of exclusive breast-feeding remains low indicating individualized maternal behavioral factors (Wagner *et al*., 2005).

Many maternal factors such as verbalized attitude towards breast-feeding (Scott *et al*., 1997), physical responsiveness (Wiesenfield *et al*., 1985), life experiences, personality characteristics (Adeyinka *et al*., 2008) have been associated with breast-feeding behavior. Mothers who exclusively breast-feed have been reported to (Tella, 2003) value the pleasure of breast-feeding arising from successful breast-feeding as the template for both good mother-infant relationships. Many researchers (Chalmers *et al*., 2009; Chin *et al*., 2008; Kelly, 2006; Kiernan and Pickett, 2006; McCann *et al*., 2007) have reported breast-feeding disparities that extend across racial, socioeconomic and educational lines that affect both breast-feeding initiation and duration.

Factors external to mothers have been negatively associated with decline in breast-feeding (Alutu, 2000; Bermaix, 2000). Factors such as feeling being watched and judged, support needs including networks, esteem and emotional support, lack of confidence, discomfort, tiredness and sharing accountability have been elucidated (Dykes *et al*., 2003). Instrumental support and the nurses pro-practical support with breast-feeding, especially showing new mothers how to attach a baby to the breast are important factors (Adeyinka *et al*., 2008) that influence maternal breast-feeding behavior.

Intention to breast-feed has a strong influence on breast-feeding initiation, indicating that women who decide to breast-feed during early pregnancy are most likely to initiate lactation after birth (Persad and Mensinger, 2007). Decisions by mothers whether or not to breast-feed before or in early pregnancy have been based on baby- or mother-centered factors (Brodribb *et*

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al., 2007). Mother-centered factors include a dislike of breast-feeding because of inconvenience, social barriers and work-related barriers (Brodribb *et al*., 2007). Sociocultural, environmental and personal factors are some of the major influences in a woman's decision to breast-feed. If a woman perceives breast-feeding as social norm, she may be more inclined to breast-feed (Brand *et al*., 2011).

The presence of a support system has a strong influence on a mother's decision to breast-feed (Brodribb *et al*., 2007; Johnston and Esposito, 2007). Persad and Mensinger (2007) argue that a woman is more likely to breast-feed if she views breast-feeding positively and has support from her partner. The presence of professional support and both the breast-feeding initiation (Brodribb *et al*., 2007) and increased duration of breast-feeding (Taveras, 2003) are strongly correlated. During the immediate postpartum period, health-care workers reportedly played an integral role in assisting the mother to initiate breast-feeding (Brand *et al*., 2011).

Mothers who breast-feed have been reported to be at a reduced risk for developing postmenopausal breast cancer, have higher bone density after menopause, experience a more timely and efficient return of the uterus to its pre-pregnancy state and experience reduced bleeding and increased weight loss in the postpartum period (Brodribb *et al*., 2007; Hale, 2007). Breast-feeding mothers report reduced stress levels, which could be due to increased prolactin levels (Brodribb *et al*., 2007; Hale, 2007; Camurdan *et al*., 2007). Women who breastfed were reported to have an increased length of time between pregnancies, a decreased risk of ovarian cancer and a decreased risk of post-menopausal hip fractures (AAP, 2005).

This study seeks to examine the maternal beliefs, attitude and perceived behavior towards initiation of breast-feeding in the first hour, exclusive breast-feeding in the first six months and continued breast-feed to one year among breast-feeding mothers of babies up to one year among breast-feeding mothers.

MATERIALS AND METHODS

The study was conducted a cross-sectional descriptive survey design in hospitals in Western Kenya. About 230 breast-feeding mothers attending postnatal clinics were randomly sampled out of which twelve mothers attended traditional birth clinics. A 41 item questionnaire was developed to fit the objectives of the study. Participating mothers completed a questionnaire assessing breast-feeding attitudes, subjective norm, perceived behavioral control and intention on a seven point Likert scale for each measure based on Ajzen's theory of planned behavior (Ajzen, 2001). Each category was measured against salient beliefs (attitude), normative belief (subjective norm), control belief (control belief) and intention towards breast-feeding. Three communalities considered were for each measure was: initiation of breast-feeding in the first hour of birth, exclusive breast-feeding in the first six months and continued breast-feeding through the first year for each category. The questionnaire was subjected to reliability and yielded a Cronbach's alpha ranging between r = 0.68 to r = 0.92 on all concepts of measurement. Validity of the questionnaire on attitude was 0.77, subjective norm 0.82, perceived behavioral control 0.80 and intention was 0.76 and were all considered good for measurement. Demographic questionnaire contained eight items that measured selected demographic characteristics of participants.

Statistical procedures included descriptive and inferential statistics using SPSS version 15.0 for data entry. Cronbach's alpha was used to assess reliability and exploratory factor analysis for validity. Skewness and kurtosis were used to assess for the normality of the obtained data. Structural equation modeling (AMOS version 7) was used to determine the predictive power of maternal attitude, subjective norm and perceived behavioral control on breast-feeding behavior. Standardized regression weights were run to indicate better predictors of breast-feeding behavior while correlations were run between selected variables.

RESULTS

Salient beliefs influencing breast-feeding behaviour: Most participants (65%) were aware of some of the benefits of initiating breast-feeding within the first hour of birth and associated it with stimulation of milk production for the baby. They also associated this with the success of breast-feeding in the future. About 76% of the participants believed that early breast-feeding enhances bonding process between mother and infant. Other perceived benefits of breast-feeding included: boosting the baby's immunity (72%), conferring protection against infantile diarrhea (20%), quickening expulsion of the placenta and reducing postpartum bleeding (28%). About 21% firmly believed that breast-feeding was the normal, natural method of feeding an infant. Participants provided the following disadvantages: embarrassment (80%), painful nipples (78%), while 12% stated that caesarean births made it difficult for a mother to initiate breast-feeding within the first hour.

Exclusive breast-feeding was defined as feeding the baby restrictively on breast-feed milk with no fluids and water except medicine. Basically, 61% reported that exclusive breast-feeding helps to prevent various childhood illnesses, 31% associated it with strengthening of the baby's immune system and 31% associated it with enhancement of the baby's IQ and 31% associated it with the prevention of breast cancer. About 15% of the participants associated exclusive

breast-feeding with the enhancement of the bondage between the mother and infant. About 7% of the women reported exclusive breast-feeding for six months to be convenient while 13%associated with reduced costs. However, mothers reported embarrassment (81%) breast-feeding in public places, while 59% of reported culture as the main disadvantages of exclusive breast-feeding.

About 42% of the women associated continued breast-feeding through the first year with delayed fertility, 34% associated it with reduced risks of cardiovascular diseases, 42% with enhanced neuro-development of infants and 38% with improved physical and emotional growth of babies. However, 71% of the women described breast-feeding as a time-wasting activity that reduced time for recreational activities and embarrassing (79%).

Normative beliefs influencing breast-feeding behaviour: Normative beliefs of women about initiation of breast-feeding in the first one hour, exclusive breast-feeding for the first six months and continued breast-feeding in the first year were recorded. These beliefs related to the social expectations of important people in a mother's life regarding the performance of breast-feeding behavior.

About 82% of the participants stated that the medical professionals and traditional birth attendants' opinion was most influential on mother's decision to initiate breast-feeding within the first hour while 69% associated it with the environment (significant others). All mothers asserted that the final decision would be with the mother. The environment (significant others) was the major hindrance to breast-feeding.

About 42% associated exclusive breast-feeding for first six months with the medical professionals and traditional birth attendants and were the important people who encouraged the practice of exclusive breast-feeding for six months. Family members (80%), mother's partner (68%) and society (64%) were reported to be the major hindrances to exclusive breast-feeding in the first six months. These groups perceived exclusive breast-feeding for the first six months as insufficient for the infant's growth and development. Continue breast-feeding through the first year was influenced by health professional and traditional birth attendants (42%), family members (19%) as reported by participants. The main hindrances to continued breast-feeding through the first year were the mother's partner (12%).

Control beliefs influencing breast-feeding behaviour: Factors that may influence mothers' decision to initiate breast-feeding within the first hour of birth included delivery room procedures (63%), mother's health after child birth (59%) and knowledge (40%). The main deterrent to initiation of breast-feeding was lack of confidence (81%). Factors associated with promotion of breast-feeding for six months of life was mother's and infant's health (42%). The major deterrents included mothers' resumption of duty having to be away from the baby for long hours (62%), embarrassment (38%), not allowed to breast-feed in public (21%) and trend/fashion (10%). Factors that influenced continued breast-feeding through the first year included resumption of daily busy routine (72%), going back to school (71%), mother's health (35%) and mother's knowledge (12%).

Factors influencing breast-feeding behavior: The predictive power of maternal attitude for breast-feeding intention was given by $Y = 0.38X+e$, where Y is intention, X = Attitude, e = Residual. Residual refers to other intervening variables that could influence breast-feeding behavior. A unit change in maternal attitude was associated with change of 0.38 units in breast-feeding intention, indicating influence of maternal attitude on breast-feeding behavior.

Subjective norm is a belief that key people may influence a mother's ability to optimally or sub = optimally breast-feed weighed by the compliance to such influence. The predictive power of subjective norm for breast-feeding intention was given by $Y = 0.25X+e$, where Y = Intention, X = Subjective norm, e = Residual. A unit change in subjective norm is associated with 0.25 units change in breast-feeding intention, indicating influence of subjective norm on breast-feeding intention. Perceived behavioral control was the belief a mother had that certain factor (work, health, status, breast-feeding knowledge, culture, education, career) could facilitate or impede optimal breast-feeding weighed by the perceived control power she has on these factors. The power of indirect prediction of perceived behavioral control on breast-feeding intention was given by $Y = 0.35X+e$, where Y = Intention, X = Perceived Behavioral Control, e = Residual. A unit change in perceived behavioral control is associated with a change of 0.35 units in breast-feeding intention.

The predictors of intention were ranked as follows: attitude ($\beta = 0.38$, $p<0.01$), indirect prediction of perceived behavioral control ($\beta = 0.35$, $p<0.01$), subjective norm ($\beta = 0.25$, $p<0.05$). Intention strongly predicted breast-feeding behavior ($\beta = 0.95$, $p<0.001$). There was a significant association between attitude and perceived behavioral control was ($\beta = 1.00$, $p<0.001$) and between attitude and subjective norm ($\beta = 0.97$, $p<0.001$). Intention predictors accounted for 68% variance on breast-feeding intention. Combination of direct perceived behavioral control and attitude accounted for 57% variance on breast-feeding behavior.

DISCUSSION

Believe of the health and emotional benefits of both the mother and child will influence breast-feeding behavior.

Breast-feeding enhances bonding between the baby and the mother and boosts the immunity of the child and also is associated it with reduced risk for breast cancer. However, mothers are embarrassed of breast-feeding in, public places due to the need to protect one's modesty and avoid the act of being seen to behave indecently by the public. Embarrassment was the least important of the attitudinal factors influencing mothers' intention of initiation, exclusive breast-feeding in the first six months and continuation of breast-feeding through the first year.

The mother's partner, family members, health professionals and traditional birth attendants, society and environment are the significant referents that will influence a breast-feeding behavior. The influence from these significant referents affects the mother's decision on initiation, exclusive breast-feeding in the first six months and continuation of breast-feeding through the first year. Health professionals and traditional birth attendants are the major source of support regarding a mother's breast-feeding intention and have a significant influence on breast-feeding behavior, with nurses as the significant social referents approving breast-feeding. The mother's partner, family members and society are the disapproving social referents towards optimal breast-feeding and effort to promote breast-feeding behavior need to address these social referents.

Self-confidence is a barrier to initiation of breast-feeding within the first hour of birth. A mother of low self-esteem does not consider her self-confidence to achieve the intention to initiate breast-feeding as being important. The timing of the mother's return to work is a significant influence on exclusive breast-feeding for first six months. Supportive work environments will increase breast-feeding duration (Johnston and Esposito, 2007). Creating a supportive environment in society is an important aspect of breast-feeding behavior since mother's perception of the disapproval of people in society is a hindrance to the practice of optimal breast-feeding behavior. The significance of indirect prediction of perceived behavioral control on breast-feeding behavior is that mothers' are confident in their ability to practice breast-feeding regardless of the obstacles to breast-feeding intention.

Conclusion: Employers need to encourage mothers to sustain breast-feeding after returning to work through the reduction of hours at work, especially in reporting time. The design of breast-feeding educational strategies needs to emphasize the importance of optimal breast-feeding behavior to inform the disapproving social referents. Fostering strong combined relationships amongst mother's partner, family members, health professionals and traditional birth attendants, society and environment is fundamental to support a breast-feeding mother.

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