THE EFFECT OF MATERNAL AGE, EDUCATIONAL LEVEL, NUMBER OF CHILDREN AND OTHER FACTORS ON BREASTFEEDING PRACTICE AMONG SAUDI WOMEN IN RAFHA REGION. A CROSS SECTIONAL DESCRIPTIVE STUDY

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ABSTRACT

The aim of the present study is to assess the effect of maternal age, educational level, employment, number of children, and other factors on breastfeeding practice among Saudi Arabia mothers in Rafha region. For this purpose, one hundred Saudi women who gave birth to a child - or more -, whether by vaginal or cesarean section from Rafha General Hospital were selected to conduct a Cross Sectional Descriptive study. This study has shown that the mothers who had early initiation of breastfeeding represent (70%), while who had used a bottle or any replacement product of natural milk represent (30%). It was concluded from this study that the breastfeeding practice was affected by the maternal age, Educational level, Employment, Number of children and Mode of transmission. As mothers who have age of less than 35 years, high educational level, large number of children and vaginal delivery were significantly (P<0.05) associated with higher breastfeeding practice rate, while employed mothers of age more than 35 years who had caesarian section show decrease in the rate of breastfeeding practice. Moreover, gender of baby shows no effect on breastfeeding practice in this study. We tried to encourage our participants to practice breastfeeding. Furthermore, this study provides us with
clear idea about different factors that affect the breastfeeding for current evaluation and future implementation of programs aiming toward achieving a higher breastfeeding practicing level among Saudi mothers.

**KEYWORDS:** Breastfeeding, Children, Maternal Age, Rafha region.

**INTRODUCTION**
Breastfeeding is the normal way of providing young infants with the nutrients they need for healthy growth and development. Virtually all mothers can breastfeed, provided they have accurate information, and the support of their family, the health care system and society at large.

Colostrum, the yellowish, sticky breast milk produced at the end of pregnancy, is recommended by WHO as the perfect food for the newborn, and feeding should be initiated within the first hour after birth.

Exclusive breastfeeding is recommended up to 6 months of age, with continued breastfeeding along with appropriate complementary foods up to two years of age or beyond.

Health outcomes differ substantially for mothers and infants who formula feed compared with those who breastfeed. For infants, not being breastfed is associated with an increased incidence of infectious morbidity, as well as elevated risks of childhood obesity, type one and type two diabetes, leukemia, and sudden infant death syndrome. For mothers, failure to breastfeed is associated with an increased incidence of premenopausal breast cancer, ovarian cancer, retained gestational weight gain, type two diabetes, myocardial infarction, and the metabolic syndrome.

Early feeding plays a central role in the development and maturation of the infant immune system. Compared with human milk-fed infants, formula fed infants have higher pH stools and greater colonization with pathogenic bacteria, including E coli, Clostridium difficile, and Bacteroides fragilis. Breastfeeding is a key modifiable risk factor for disease for both mothers and infants.
MATERIAL AND METHODS

Protocol
Participants were recruited from Rafha General Hospital from July to October, 2015. We conducted a cross-sectional study for three months and collect the data by using an interview-administered questionnaire. The questionnaire was prepared in English Language. It consists of seven questions (Table 1). The estimated time to complete the questionnaire was approximately 2 minutes. The questionnaire had three components:
1) Demographic data, including age, educational level and employment.
2) Health service related data, including mode of delivery.
3) Other determinants, including gender of baby and number of the children.

Table 1: Interview-administered questionnaire was given to participants in order to collect data needed for the study.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you practice breastfeeding?</td>
<td>Yes [☐] No [☐]</td>
</tr>
<tr>
<td>How old are you?</td>
<td>Less than 35 [☐] More than 35 [☐]</td>
</tr>
<tr>
<td>What is your highest level of education?</td>
<td>High school or less [☐] College or higher [☐]</td>
</tr>
<tr>
<td>Are you employed?</td>
<td>Yes [☐] No [☐]</td>
</tr>
<tr>
<td>How many children do you have?</td>
<td>One [☐] More than one [☐]</td>
</tr>
<tr>
<td>What is the gender of your baby?</td>
<td>Boy [☐] Girl [☐]</td>
</tr>
<tr>
<td>How did you deliver your baby?</td>
<td>Vaginally [☐] Cesarean Section [☐]</td>
</tr>
</tbody>
</table>

Sample size
The total sample size was 100 Saudi women. We exclude 30 women of them who did not practice breastfeeding at all (Figure 1). The demographic data, health services related data and other determinants are presented in table 2.

Data Collection
We collect the data from the questionnaire as well as from the hospital records. Any missing data were obtained from the participants. The data were applied to some statistical tests to determine whether there is a significant association between the breastfeeding practice and other related factors or not.
Statistical Analysis

Patients data were analyzed by using Chi-square test. A P-value < 0.05 was considered statistically significant. All values were expressed as number (percentage %) as it is shown in table 2.

Table 2: The relation between breastfeeding practice and factors related to it. Values expressed as numbers and percentages.

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Number of woman practicing Breastfeeding</th>
<th>Breastfeeding practice ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal age (n=70) *</td>
<td>Less than 35 years</td>
<td>60’</td>
</tr>
<tr>
<td></td>
<td>More than 35 years</td>
<td>10’</td>
</tr>
<tr>
<td>Educational level (n=70)</td>
<td>High school or less</td>
<td>20’</td>
</tr>
<tr>
<td></td>
<td>University education</td>
<td>50’</td>
</tr>
<tr>
<td>Employment (n=70)</td>
<td>Employed</td>
<td>22’</td>
</tr>
<tr>
<td></td>
<td>Not employed</td>
<td>48’</td>
</tr>
<tr>
<td>Number of children (n=70)</td>
<td>One child</td>
<td>20’</td>
</tr>
<tr>
<td></td>
<td>More than one child</td>
<td>50’</td>
</tr>
<tr>
<td>Gender of baby (n=70)</td>
<td>Boy</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>36</td>
</tr>
<tr>
<td>Mode of delivery (n=70)</td>
<td>Vaginally</td>
<td>46’</td>
</tr>
<tr>
<td></td>
<td>Cesarean Section</td>
<td>24’</td>
</tr>
</tbody>
</table>

(*) We excluded 30 women (from the total 100) who did not practice breastfeeding at all. (‘) P value < 0.05, Chi square test.

RESULT

This study has shown that mothers who had early initiation of breastfeeding represent (70%), while mothers who had used a bottle or any replacement product to natural milk represent (30%) and it was found that breastfeeding practice was affected by the maternal age, Educational level, Employment, Number of children and Mode of transmission as the lower aged, unemployed, well-educated mothers who delivered vaginally and have more than one child show high breastfeeding practice rate, (Table 2). While higher aged, employed mothers with educational level of high school or less who delivered by C.S. and have only one child show statistically low breastfeeding practice rate, (Table 2). Furthermore, this study shows that the gender of the baby does not statistically affect the breastfeeding practice rate.
DISCUSSION

We carried out a cross sectional study, it reveals that mothers who aged less than 35 years show high ratio of breastfeeding practice against those who aged more than 35 years. (Table 1, Figure 2) show that, in which mothers who aged less than 35 years and practice breastfeeding represent (85.7%) against (14.3%) of mothers who aged more than 35 years.

It was found that mothers who get a college educational level or higher, practice the breastfeeding more than those who get high school educational level or less. That is because mothers who get a college educational level or higher have better knowledge about the importance of breastfeeding practice that may affect the health status of both the mother and the baby, while those who get high school educational level or less, lack such information. In
another words (71.4%) of mothers that get a college educational level or higher have practiced the breastfeeding, while only (28.6%) of mothers who get high school educational level or less have practiced the breastfeeding, as it indicated in (Table 2, Figure 2).

In addition, breastfeeding practice was higher among the housewives in comparison with employed mothers, as the unemployed mothers have enough time to practice the breastfeeding. (Table 2, Figure 2) show the breastfeeding practice ratio of housewives mothers (68.6%) in comparison to employed mothers (31.4%).

We also note that, mothers who had more than one child reported a higher level of breastfeeding as it indicated in (Table 2, Figure 2); this may be attributed to having more experience of proper breastfeeding and an appreciation of the importance of early initiation. (Table 2, Figure 2) show the breastfeeding practice ratio of mothers who practice breastfeeding and have more than one child (71.4%) in comparison to those who practice breastfeeding and have only one child (28.6%).

Similarly, mothers who delivered vaginally had a higher rate of early initiation of breastfeeding than those who delivered by cesarean section, as it indicated in (Table 2, Figure 2), and this may be attributed to the pain of the surgery, infant separation from the mother, and inability of the mothers to sit in the appropriate position for breastfeeding her child after a C.S. (Table 2, Figure 2) show the breastfeeding practice ratio of mothers who have delivered vaginally (65.7%) in comparison to those who have delivered through caesarian section (34.3%).

Furthermore, after applying our statistical analysis, we found that there is no significant association between the breastfeeding practice and the gender of the baby. Mothers who have delivered a baby boy and practice the breastfeeding represent (48.6%), while those who have delivered a baby girl and practice the breastfeeding represent (51.4%).

**Comparison with other studies**
The result of our study pointed out that the increase in the maternal age and the educational level contribute to a higher level of breastfeeding practice. These findings have been supported by other studies. In addition, the current study showed a higher breastfeeding practice ratio among mothers who have more than one child and being unemployed, which was supported by other studies.
Clinical implications and future research

Breastfeeding linked clinically with good nutrition and immunity for the infants. Therefore, WHO recommend initiating the breastfeeding early; half to one hour after the delivery, to establish a rapid relation between the mother and her newborn.\[7\]

Our study shows that several factors affect the practicing of breastfeeding. So early detection and proper management of them is mandatory. In addition, the study provides us with clear idea about these factors for current evaluation and future implementation of programs aiming toward achieving a higher breastfeeding practicing level among Saudi mothers.

CONCLUSION

Agreeing with other studies, lower aged, unemployed, well-educated mothers who delivered vaginally and have more than one child show high breastfeeding practice rate.

Furthermore, the gender of the baby does not statistically affect the breastfeeding practice rate, suggesting that there is no significant association between them.

ACKNOWLEDGMENT

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REFERENCES


