Aim: To determine the factors that influence the practice of exclusive breastfeeding in adolescent mothers.

Methods: Cross-sectional study with 158 mothers lactating adolescents attending the services of primary care of Bucaramanga-Colombia. The instruments used to characterize adolescent mothers and to evaluate the effectiveness of family functionality the family APGAR. Data entered and validated in EpiInfo 6.04d and analyzed in Stata 10.1, to analyze continuous variables, we used measures of central tendency; categorical variables were expressed as proportions. Multivariate analysis described by prevalence ratio and confidence interval of 95%.

Results: mean age 17.9 years, 39.4% six months nursed and nursed 9.8% over 6 months and 89.2% had already had children. The reasons for not feeding her child with only breast milk are: 9.5% produce little milk, 12% child is still hungry, and 20.7% other causes. During lactation the 82.3% caresses her baby. People recommend breastfeeding are the doctor and nurse 84.3%, a relative 63.3% relative.

Conclusions: Accurate counseling and family support from the health institutions that will assure breastfeeding as a satisfying experience for both the teenager mother and the child.
**Material y Método:** Estudio de corte transversal, con 158 madres adolescentes en etapa de lactancia que asisten a los servicios de primer nivel de atención de Bucaramanga. Se aplicaron dos instrumentos para caracterizar las madres adolescentes y el APGAR familiar para evaluar la funcionalidad familiar. Datos digitados y validados en Epí-Info 6.04d y analizados en Stata 10.1; para analizar las variables continuas, se utilizaron medidas de tendencia central, las variables categóricas fueron expresadas como proporciones. El análisis multivariado se describió mediante razón de prevalencia e intervalo de confianza del 95%.

**Resultados:** Promedio de edad 17.9 años, el 39.4% lactó 6 meses y el 9.8% lactó más de 6 meses; el 89.2% ya habían tenido hijos. Las razones por las cuales no alimenta a su hijo con solo leche materna son: el 9.5% producen poca leche, el 12% el niño se queda con hambre, y el 20.7% otras causas. Durante la lactancia el 82.3% acaricia a su bebé. Las personas que recomiendan la lactancia materna son el 94.3% médico y enfermera, el 63.3% un familiar.

**Conclusiones:** Se precisa del asesoramiento y apoyo familiar y de las instituciones de salud para que el amamantamiento sea una experiencia satisfactoria tanto para la madre adolescente como para el hijo.

**INTRODUCTION**

At the present time the recognition continues in regards of the importance of breastfeeding around the world, especially in communities that have fewer resources, where it is the only affordable way to feed their infants.

In recent decades, breastfeeding has become an important indicator that reflects the level of well-being of a society as a whole. In this sense, the current recommendation to mothers from the OMS, it is to practice exclusive breastfeeding from childbirth to six months without any other liquid or additional solid foods that are not medicines or vitamins. After that age, it is possible to introduce adequate and safe complementary foods, but free demand breastfeeding should continue until the child is two years old or more (1,2).

Exclusive breastfeeding in Colombia fell from 2.2 months in 2005 to 1.8 months in 2010, presenting serious differences in different regions of the country. That is 4% of children under 5-year-old was never breastfed (3). The national survey on the nutritional situation in Colombia (ENSIN) 2010, evidence the advances of the country in this practice. The survey showed, among other things that: in Colombia, the average total lactation is 14.9 months and breastfeeding mother exclusive is 1.8 months and supplemented with other non-dairy liquid milk, it was 2.7 months on average (4,5).

Studies have shown that most of the children who were fed with exclusive breastfeeding for the first 6 months of life will reach optimal growth and development, which demonstrates the importance of continuing with exclusive breastfeeding and not to replace it with artificial milk (1,2).

The evidence has shown that breast milk components have the quality and appropriate concentration for each child in particular, that the contact of the child with his mother during the first months of life is essential for a good individual bio psychosocial development, and that the sucking function is the best stimulus to develop a harmonic morph-functional of maxillo-facial and oropharynx structures.

Breastfeeding is a satisfying experience for both the mother and the son by skin with skin contact that occurs between the two of them, the mother is extremely sensitive during lactation and her major concern revolves around the feeding and the care of her
son. However, in adolescent mothers, mainly due to the stage of life they are living, to ignorance and lack of experience that causes them "distress".

In Colombia, 19% of the adolescent population are mothers\(^{(4)}\). The teenage mother, is a young woman who needs to live this period of her life, since early motherhood does not make it adult woman; She would not be ready in a short time to achieve important goals, assume her sexuality, reproductive health, self-care, affective relationships with the family, with her partner and with her son. They are tasks and challenges that young women have never addressed that would lead these teen mothers to feel overload with work and to feel a strong emotional charge, which constitutes a large risk for breastfeeding. We cannot fail to mention the "attachment", relationship mother-child, link to which has given it much importance lately nationally and worldwide, since a good "attachment" is related to a longer and better quality of breastfeeding, favoring the bond in the initial mother-child relationship, which stimulates a better\(^{(6)}\) child psychomotor development.

In a conducted study regarding the psychosocial factors that influence the abandonment of breastfeeding by age groups, it was found that such factors were more frequent in those younger than 20 (71.4%) and not abandoned 28.6 per cent of these minors\(^{(7)}\). Elsewhere in Argentina another study found that the abandonment of exclusive breastfeeding in 42% of mothers included the following causes: maternal work 42%, 35% milk production, the refusal of the baby to the breast 12%, pathology, nursing 7% and poor preparation of nipples 4%\(^{(2)}\).

It is essential to know the reasons that have influenced teenage mothers to provide or not feeding at its mother's womb, in order to give guidelines or guide the preventive work in primary health care, in favor of the maternal and infant health in the study population.

For this reason, the objective of the present study was to determine the factors that influence the practice of exclusive breastfeeding in adolescent mothers.

**METHOD**

A cross-sectional study was conducted with a population of breastfeeding teenage mothers who attend services offered operating units of the State Social Enterprise, Bucaramanga Health Institute -SSE ISABU, of first level of care. Estimated size of sample in the statistical programme Epi info version 6.04d\(^{(8)}\) and analyzed in Stata10.1\(^{(9)}\), with the following criteria: level of 95%, 80%, an expected prevalence of none exclusive breastfeeding in teenage mothers in the non-exposed group of 40% to be able to detect Association more than a reason for prevalence ≥ 1.4 giving as a result a sample of 158 teenage mothers in breastfeeding stage who served during the second half of 2011, and residing in the metropolitan area of Bucaramanga- Colombia. Sampling by convenience to the collection of information, where teen mothers who were going to participate, to complete the sample were taken. Inclusion criteria: adolescent pregnant women from 13 to 19 years served in the SSE ISABU, the informant is a teenage mother without mental disorders diagnosed by a specialist. Exclusion criteria: reporting under the age of 13 years, teen mothers with mental disorders. We applied two instruments for the collection of information, which comply with the psychometric properties that let you use them and ensure the validity of the study, the first to characterize adolescent mothers and the second family APGAR to evaluate family functionality\(^{(10)}\). For fingerling and data analysis became a database.
doubly fingerings in Epi info 6. 04d. After revised database was exported to Stata10.1, for the analysis of the information. He was the descriptive analysis of the characteristics of the population. On nominal scale variables were described as percentages along with their 95% confidence intervals, and continuous variables were described with measures of central tendency, later became measures statistics as calculations: percentages, frequency, represented by tables. The multivariate analysis was described by reason of prevalence and 95% confidence interval. Study procedures were initiated with the identification of the adolescents surveyed; the contact took place in health centers and homes of teenage mothers. The collection was made during the second half of 2011 and the first half of 2012.

It is a research without risk for informants, according to the classification of the 1993 resolution 8430 because no intervention or intentional modification of biological, physiological, psychological, or social variables of persons participating in the study was not performed. Taking into account the approval of the legal representative of SSE ISABU, informed of the participants by written, principles of autonomy, privacy and confidentiality of information (11).

RESULTS

We analyzed 158 surveys applied to teen mothers in the metropolitan area of Bucaramanga during the period of breastfeeding. The socio-demographic and economic characteristics of the participants have shown that the average age of teenage mothers was 17.9 years, with levels of secondary schooling in the 82.8% of those participants, and whose occupation was home to 62%. The predominant civil State in a 65.8% is free and with regard to social security the 70.9% have a Health Promoter- Administering subsidized regime – HP (ASR) which corresponds to Entities promoters of health subsidized regime. The 72.8% lived in rental and belonged to the social stratum 1 and 2 with the 56.3% and 32.9% respectively.

The average monthly income is given by a 64.3% with a current legal minimum wage, while 24% of families who have incomes below a current legal minimum wage. Responsibility as head of the family is the husband/partner in a 46.8%. In the 26.6% of the households there is some member of the family of overwork, which is distributed by 41% in the husband/partner, a 15.4 in the mother of the teenagers and 12.8% % in the teenage mother. Table I.
Within the obstetric history should be noted than the 73.5% attended prenatal ranging between 5 and 8 controls during the gestation period. The 84.2% of teen mothers have a child and the birth canal that prevails is the vaginal with a 54.4%, of which 89.2% had children to term. With respect to the number of children the 84.2% had 1 son, 14.6% had 2 children and 1.3% had 3 children. Table II.

Table I. Variables description of teenage mothers (nominal Variables)

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Nº</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARITAL STATUS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free Union</td>
<td>104</td>
<td>65.8</td>
</tr>
<tr>
<td>Single</td>
<td>37</td>
<td>23.4</td>
</tr>
<tr>
<td>OCCUPATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td>98</td>
<td>62.0</td>
</tr>
<tr>
<td>Works</td>
<td>46</td>
<td>29.1</td>
</tr>
<tr>
<td>Study</td>
<td>22</td>
<td>13.9</td>
</tr>
<tr>
<td>SCHOOLING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Primary</td>
<td>19</td>
<td>12.1</td>
</tr>
<tr>
<td>High school</td>
<td>130</td>
<td>82.8</td>
</tr>
<tr>
<td>Technology</td>
<td>4</td>
<td>2.55</td>
</tr>
<tr>
<td>University</td>
<td>4</td>
<td>2.55</td>
</tr>
<tr>
<td>SOCIOECONOMIC LEVEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social stratum 1</td>
<td>89</td>
<td>56.3</td>
</tr>
<tr>
<td>Social stratum 2</td>
<td>52</td>
<td>32.9</td>
</tr>
<tr>
<td>Social stratum 3</td>
<td>15</td>
<td>9.5</td>
</tr>
<tr>
<td>Social stratum I 4</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>SOCIAL SECURITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Promoter</td>
<td>32</td>
<td>20.3</td>
</tr>
<tr>
<td>Health subsidized regime</td>
<td>112</td>
<td>70.9</td>
</tr>
<tr>
<td>Beneficiaries of social programs</td>
<td>10</td>
<td>6.3</td>
</tr>
<tr>
<td>None</td>
<td>4</td>
<td>2.5</td>
</tr>
<tr>
<td>TYPE OF HOUSING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homeownership</td>
<td>43</td>
<td>27.2</td>
</tr>
<tr>
<td>In lease</td>
<td>115</td>
<td>72.8</td>
</tr>
</tbody>
</table>

*N° = Teenage mothers
The results showed that among the factors influencing the abandonment of breastfeeding, the 39.2% have breastfed their child only breast milk for 6 months, the 55.4% have included water or food before 6 months of life, and the reasons for which they would not feed their child with breast milk only 9.5% considered that they produce little milk the 12% because the child is left with hunger, and the 20.7% other causes (water, concerns, influence of others, clinical problems).

In relation to the time devoted to breastfeeding, the 94.3% have long enough for milk and the 84.3% do so because they are at home. Teenage mothers during breastfeeding the 82.3% caresses her baby, the 80.4% speak it, 74% regarded it and 15.2% other activities of which the 31.8% sees television, and 27.3% play while they are breastfeeding. Regarding people who recommend exclusive breastfeeding for the first 6 months of life of the child, the 84.3% do doctor and nurse, the 63.3% relative, the 22.8% 19% and a friend a neighbor. Table III.
The multivariate analysis of the factors influencing the exclusive breastfeeding, it is important to highlight both the family support and health institutions, and the influence of the family, which for this study was represented by the mother and the mother of the teenager, they are protective factors for exclusive breastfeeding, as well as the feelings of joy when breastfeeding. Table IV

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Reason of Prevalence</th>
<th>IC 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support family and Health Center</td>
<td>2.2</td>
<td>1.0-4.8</td>
</tr>
<tr>
<td>Influence of the mother-in-law</td>
<td>2.9</td>
<td>2.0-4.4</td>
</tr>
<tr>
<td>Feel joy through breastfeeding</td>
<td>2.6</td>
<td>1.1-6.2</td>
</tr>
<tr>
<td>Influence of the mother</td>
<td>1.3</td>
<td>1.2-1.4</td>
</tr>
</tbody>
</table>

DISCUSSION

Nursing is a satisfying experience both for the mother and son by skin to skin contact that occurs between the two of them, the mother is extraordinarily sensitive during lactation and her main concern revolves around the feeding and care of her child. However, in adolescent mothers, mainly due to the stage of life they are living, the lack of knowledge and lack of experience causes them “distress” (12).

Pregnancy at increasingly younger ages is becoming a social problem and global public health. Taking into account that in the present study, the average age was 17.9 years, and which is dominated by the marital status of free union, it is important to note that the teenage mother, is a young woman, need to live this period of her life, since early motherhood does not make it adult woman; she would not be ready in a short time to achieve important goals, assume their sexuality, reproductive health, her self-care, her affective relationships with family, with her partner, and her child. They are tasks and challenges that young women have never addressed and would lead these teen mothers to feel overload with work and with a strong emotional charge, which constitutes a risk for the exclusive breastfeeding.

Maternal schooling level showed that the vast majority of adolescents have secondary education, which shows that a greater level of maternal education, greater commitment to the exclusive breastfeeding, as results obtained in another study (2). The above, confirms that the exclusive breastfeeding promotes growth and development of children and fulfillment of maternal and family role.

In Colombia, the rate of pregnancies in women aged 15 to 19 spent between 1990 and 2005 70 to 90 per thousand and in 2010 fell to 84 births per 1,000, which still continues to be high, as one in five women aged 15 to 19 has been pregnant once, 16% are already mothers and 4% is expecting her first child (13). Pregnancy in adolescents affects all social strata, but is dominated by the kind of low socio-economic level, in part because of the lack of sex education, and ignorance of the birth control methods (14). In the present study was made evident that the majority of teen mothers (89.2%) belonging to strata 1 and 2 already had a son (84.2%), two sons (14.6%) and up to three children (1.3%), as in another study where the 78.1% of the participants had children (12).
In terms of the birth canal, this study dominates the vaginal delivery, similar to another study where 43% of teenage mothers had their children via caesarean section \(^2\). It excels in the present study the fulfillment of antenatal care where a large majority of teenagers had between 5 and 8 controls, which encourages breastfeeding with the support of health staff, as numerous studies confirm that insofar as the information received by the mother during the prenatal and postpartum hospitalization, served to extend the exclusive breastfeeding up to the sixth month \(^2, 12, 17\).  

If you consider that breast milk is the best food that can give exclusively to a child up to six months of age, in a study conducted in Argentina \(^1\) the exclusive breastfeeding reached 6 months in 25% of children under 20 years, elsewhere in Colombia \(^12\) 26.7% of women with children, it gave breastfeeding for less than six months while in the present study it shows an increase in the practice of the exclusive breastfeeding where the 39.4% lactated 6 months to 9.8% lactated over 6 months, contrary to the study carried out in the Canary Islands \(^13\) where age (being very young) influences in reverse order the continuation of breastfeeding since it is observed that with regard to women who continue breastfeeding to 15 days and subsequently, those younger than 20 years gave less breastfeeding as in studies carried out in Cuba \(^15, 16\).  

As important aspect to consider is to have included complementary foods before 6 months of life than for this study the 55.4% included water or food, while another study 28.0% of women started it before six months, 22.9% and 49.3% six months after this age \(^12\).  

The above can be attributed to health staff promoting the onset of the exclusive breastfeeding, which is consistent with other research \(^1, 12, 17\) where the moments most used by the team of health and greater impact to provide information on natural feeding mothers were antenatal care and hospitalization for childbirth, which presupposes that better receptivity is given in these scenarios that must be prioritized, having to rescue other areas such as home and instances, child healthy to boost results.  

In addition, studies have shown \(^12, 18\) that with respect to the support of breastfeeding time increases in women who received health education and support from health workers. This agrees with the results of the present study where the 75.3% received information about breastfeeding (doctor and nurse) staff of the institutions of health and a 63.3% by the family.  

It is important to note that with respect to people that recommend exclusive breastfeeding for the first 6 months of life of the child, institutions, health personnel and family \(^18\) become the pillars as the results of the present study show it.  

It has a special interest to see that having received information about breast feeding directly from health professionals during pregnancy appears constantly in time as a factor with entity itself, independent of other factors. The above shows the positive influence of the promotion of breastfeeding from the health sector \(^17, 19\) and confirms the importance of breastfeeding as a protective factor for diseases prevalent in childhood \(^20\).  

From the psychological point of view, the experience of breastfeeding allows the mother to share with her child moments of pleasure and well-being, making more intense emotional bond with her baby. Breastfeeding provides a space for intimate
contact, where body contact, smell, voice, looks, will be the first demonstrations of love and communication between the mother and the baby. Breastfeeding offers a space for intimate contact and is a way to share love with the baby. It is a relationship based on contact, smell, taste and looks and the beginning of a dialogue that will then occur through the words. So, as it was presented in this study, during the process of breastfeeding the majority of mothers were tender with the child, spoke to him, and looked at him, while a few mothers said to carry out other activities such as watching television, among others. Similar feelings were found in other studies where mothers believe that milk is a benefit for them and improves the attachment of their children (12, 21).

If you consider that many studies have given the task of investigating the causes of the abandonment of breastfeeding, it should be noted that in one of them there is a prevalence of the 93.5% of diagnostic nursing breastfeeding ineffective (22), where the main cause suspension of breastfeeding to the preceding child was little milk arising in a 20.9% to another study (23) where it was found that the cause of most frequent abandonment was the decline in the production of milk (24), and the concern of the mother for insufficient milk production is therefore a factor that impacts in the short duration of breastfeeding. However, this study found one prevalence in which lower abandonment causes as little milk production and because the child was left with hunger, it also found other causes such as concerns, clinical problems and influence of other people.

It was found that the concern of the mother by the insufficient production of milk is a factor that impacts in the short duration of the exclusive breastfeeding (12). Other causes reported in this study were: the disease of the mother 15%, 9% work and disease of child 2%. The work was the cause of suspension of breastfeeding in other national and international studies; however the labor factor that has an impact on the practice of exclusive breastfeeding is the absence of facilities for breastfeeding (12).

Different studies have shown that mothers who did not receive family support gave up breastfeeding (16) more frequently and among other factors found were: the lack of support of someone close, low milk production, the concern about the baby’s crying because the mother is not present to breastfeed, the fatigue and the lack of time to nurse their quiet and without trouble, the commercial advertising of milk formulas which can replace breastfeeding, lack of information and secure knowledge about the importance of breastfeeding, and the fear of leaving the child in a breeding or an unknown place (25).

The current situation of the working mother and the influence of the work environment, family support, employer and health professionals are key sources to achieve the success of breast feeding. In the present study should be noted that although responsibility as head of the family is the husband/partner (46.8%), a significant number of teen mothers are respondent's work (29.1%) and many of them as head of the family (12.8%), what constitutes failure to exclusive breastfeeding. However, keep in mind that teenage mothers who are studying (13.9%) are dependent on other adults such as parents, relatives or non-relatives. In addition, the vast majority of teen mothers play in home which have no compensation, but favors in that sense, having enough time to breast-feed because they are at home. In another study, it should be noted that work at home was found as a protective factor for milk (I.C. 0.11, 0.5), which expresses that the favorable conditions of the domestic environment influence nursing (24). While in different national and international studies work was the cause of
suspension of breastfeeding, however the labor factor that has an impact on the practice of LM is the absence of facilities for breastfeeding (12).

The foregoing is mentioned in a study (25) in terms of the activity, where half of the women who were mothers before the age of 20 had no pay work, contrary to what happens with parents. For the woman who is currently in the breastfeeding period, it is essential to have a healthy work environment, which promotes the continuity of breastfeeding, facilitate the relationship mother-child-family, improve the quality of life of the family and the community, and ensure an improvement in the productivity in your work. You could say that, to achieve a good breastfeeding requires time, space and support facilities. Similarly, independent age teen mother should not be in the situation of having to choose between their different roles: To be a nursing mother, teenage mother or working women.

In Colombia, breastfeeding is a right, and in the cases of women workers, the breastfeeding period corresponds to the time following the date of childbirth in which the woman enjoys special protection; In addition, will be entitled to the payment of fourteen (14) weeks of paid rest referred to this law, if he has not enjoyed his license maternity leave; the article 238 of the substantive labor code includes a break paid for the worker during the period of lactation, which is to grant two breaks of 30 minutes each day so the mother can feed her baby. This lactation period extends for 6 months after the date of delivery, or more months if there is a medical authorization. Also, if you have a medical clearance, the employer should grant more than two daily breaks the worker infant (26).

CONCLUSIONS

The results of this study allowed to determine the critical aspects which are confronted the teen mother in the terms of the factors that make it difficult for exclusive breastfeeding and those who favor the abandonment of the same.

Required advice and family support it is recommended as well as the help of health institutions to make breastfeeding a successful experience for both the teen mother and the child favoring not only skin to skin contact that occurs between the two of them, but because the mother is extraordinarily sensitive during lactation and prioritize their demands about the needs and care of her child.

For the mother who attends school or works during the period of breastfeeding, it is essential to have a healthy environment, which promotes the continuity of exclusive breastfeeding, facilitate the relationship mother-child-family, and improve the quality of life of the family and the community.

REFERENCES

2. González IA, Huespe MS, Auchter MC. Lactancia materna exclusiva factores de éxito y/o fracaso. Revista de Posgrado de la VIa Cátedra de Medicina, Enero 2008; 177: 2
3. Colombia, Ministerio de Salud y Protección Social. Lactancia materna articulada a la estrategia "De Cero a Siempre". Boletín de prensa N° 209 de 2012. Disponible en: URL:
13. República de Colombia, Departamento Nacional de Planeación. Consejo Nacional de Política Económica y Social, Lineamientos para el desarrollo de una estrategia para la prevención del embarazo en la adolescencia y la promoción de proyectos de vida para los niños, niñas, adolescentes y jóvenes en edades entre 6 y 19 años. Documento Conpes Social 147. Bogotá, D.C., Enero 31 de 2912. Disponible en URL: http://www.dnp.gov.co/LinkClick.aspx?fileticket=BSINpiuEDQ0%3D&tabid=1473
19. Wambach KA, Aaronson L, Breedlove G, Domian EW, Rojjanasrirat W, Yeh HW.
Un ensayo controlado aleatorio de apoyo a la lactancia y educación para madres adolescentes. West J Nurs Res 2011; 33 (4): 486-505
24. Muñoz LP, Martínez JW, Quintero AR, Lasso GI, Medina GA. Características asociadas a las prácticas de lactancia en madres asistentes a tres instituciones de salud de Pereira. Investigaciones Andina 2005; 11: 17-27