Breach factors of growth and development controls (cred) in children less than 1 year old

Eulalia María Chahuas Rodríguez

ABSTRACT. Objectives: To determine factors breach of CRED controls less than 1 year. Methods: Descriptive, cross-sectional study population study of 25 mothers of children under one year aperturaron medical history in January 2016 with first CRED control breached the controls during that year. Data were collected by household interview and review of medical records, analyzed in absolute frequency tables and percentages. Results: Failure factors found were: socioeconomic with working hours Mother 56.0% and 60.0% household chores; cultural: ignorance of the frequency of controls 76.0% and health conditions - child’s illness 56.0%; Institutional: time 68.0% partial attention, too long using the nurse 60.0%, waiting time for care 76.0%, the nurse does not provide information about the importance of compliance controls 60.0%, lack of clarity in the information 68.0%, usefulness of information provided and the presence of nurse in hours indicated 66.0%. Conclusions: There are socio-economic, cultural and institutional breach of control growth and development factors less than one year.

Keywords: Factors, adhesion, growth and development.

RESUMEN. Objetivos: Determinar factores de incumplimiento de controles CRED del menor de 1 año. Métodos: Estudio descriptivo, transversal con población de estudio de 25 madres de niños y niñas menores de un año que aperturaron historia clínica en enero del 2016 con primer control CRED que incumplieron a los controles durante ese año. Los datos fueron recolectados por entrevista domiciliaria y revisión de historias clínicas, analizados en tablas de frecuencia absolutas y porcentajes. Resultados: Los factores de incumplimiento encontrados fueron: los socioeconómicos con horario de trabajo de la madre el 56,0% y quehaceres del hogar 60,0%; culturales: desconocimiento de la frecuencia de controles 76,0% y condiciones de salud – enfermedad del niño 56,0%; institucionales: horario de atención parcial el 68,0%, demasiado tiempo que utiliza la enfermera 60,0%, tiempo de espera para la atención el 76,0%, la enfermera no brinda información sobre importancia de cumplimiento de controles 60,0%, falta de claridad en la información 68,0%, utilidad de la información brindada y presencia de la enfermera en horario indicado 66,0%. Conclusiones: Existen factores socioeconómicos, culturales e institucionales en el incumplimiento del control de crecimiento y desarrollo del menor de un año.

Palabras clave: Factores asociados, incumplimiento, crecimiento y desarrollo.

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INTRODUCTION

Childhood is the most important stage to acquire, develop and intervene in the permanent formation. The World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF) indicate that it is important to provide care for the child’s caregivers so that they can promote optimal development from birth, the period of breastfeeding and promote increased self-sufficiency in school age, adolescence and adulthood.1

The child population in their first year of life has an accelerated increase in weight, height, neurological, cognitive and behavioral changes, have a total dependence on the mother, family and/or caregivers to be fed and protected from the external environment, so they need attention and essential care to enable them to achieve growth and development (CRED) of their emotional and social capabilities timely, being in the future adults responsible and rational for their own physical, mental and social. Therefore, they would have a healthy, useful and productive life, without negative effects for the rest of their lives.2

According to MINSA (Ministry of Health) Technical Standard No. 587 from 2017, an adequate growth and development of the child must be promoted, considering the accompaniment of the family as a protective factor, establishing that the CRED’s health professional nurse will carry out the interventions and timely identification of problems that will have an impact on their integral health, diminishing their possibilities of becoming a citizen who contributes to the socioeconomic development of their country.3

In this regard, there are studies that demonstrate the importance of the change processes in childhood and how they relate to the development of their competencies, acquisition of learning, personality and social behavior, which can be achieved when they are taken to their appointments because the breach to do so, brings negative consequences in their development, being important to recognize the factors that can influence the breach of the mother to CRED as: sociodemographic characteristics, age, degree of education; socioeconomic factors; work and cultural factors such as knowledge, beliefs of the mother.3,4,5

This situation is observed in mothers who breach the CRED controls in the first year of life. According to the Office of Statistics and Information of the Magdalena Maternal and Child Center (Centro Materno Infantil Magdalena) – Directorate of Integrated Health Networks (DIRIS, in Spanish) in Center Lima; in 2014, 39 mothers, representing 95.12%, breached to bring their children; in 2015, 45 mothers, representing 97.82%; in 2016, 25 mothers, or 73.5%; and finally, in 2018, 100.0% of the mothers breached.6

The capacities that the child develops are dynamic and influenced by biological and environmental factors that will have significant effects on his/her behavior and learning, in which the mother’s care will be transcendent, those which require ensuring nutrition, basic sanitation, education and stimuli for a perfect long-term development.7 This avoids the figures indicated by the Demographic and Family Health Survey (ENDES, in Spanish) of 12.2% of the population less than five years old with chronic malnutrition and 46.1% of children between 6 and 36 months with nutritional anemia.8

Upon reviewing the primary sources, studies conducted in Peru show that in Tingo Maria,9 the predominant sociodemographic risk factors for breach of the CRED control are the age of the mother from 21 to 35 years old, which represents 70.0%, high school education level, 50.0%, number of children with no more than two dependents, 58.0%, and mothers working independently, 50.0%; Regarding cultural factors: the mothers who received information from CRED represent 92%, a care time of two hours, 98%, adequate consultation time offered by the nursing professional, 64%, and good treatment, 56.0%; the demand factors: accessibility, distance from the health facility and the mothers’ home, greater than 30 minutes represents 92%, and the assessment of adequate care from CRED, 96%.

Likewise, two studies carried out in Arequipa10-11 indicated that from 67.4% of mothers were absent to less than 50% of the total controls for their age, which I call relative desertion; and 32.6% were absent to more than 50% of the total controls for their age, which I call absolute desertion. On the other hand, Gonzalez E.11 pointed out the causes that influence the level of breach, among them the economic cost, the lack of time and the trip from home to the health facility by 46.15%.

Lurin12 also highlights the various breach causes: 25% of mothers indicated a lack of nurses for the CRED control and 88% of mothers indicated inadequate care hours, 64% prolonged time for care, 48% housework and care of minor children and 24% occupation or work schedule. On the other hand, Ascarate M. et al13 found that the breach factors of CRED were: 54%, mother’s age from 20 to 29 years old; 74%, complete elementary education; 85.5%, low economic accessibility to attend the health center; 37.1%, prolonged waiting time for control; and 33.9%, CRED appointment forgetting.

The World Health Organization (WHO) states that 10% of people in a country suffer from one or more health problems that alter their performance as a human being within their community and are associated with different childhood problems that affect their physiological, motor and socio-affective functions; as a product of the unfavorable physical environment in which it develops from its prenatal stage to its first stages of life, affecting its anthropometric measurements or iron deficiency, as reflected in the results of ENDES 2018, which indicates that 12.2% of the population under five years of age suffers from chronic malnutrition.14-15

Likewise, these problems could be detected in a timely manner if the mother goes with her child to the CRED control.
appointments where she is provided with activities oriented towards the achievement of the optimal development of her child, such as, the continuous follow-up of anthropometric measurements and developmental functions; as well as the counseling of the professional strengthens the key practices in the care of her child, participation in early developmental care sessions and administration of immunizations as part of the prevention of immune preventable diseases.\(^{16}\)

The marital status contemplates the existence of the single, married or cohabiting mother, observing different characteristics in each of them; being married she will probably have physical, moral, emotional and economic support from her partner, while being cohabiting or single, she does not necessarily have support for the care of her child, having to share them with work and home activities, which limits her time.\(^{17-18}\)

The occupation is related to activities that the mother carries out inside and outside home, whether in dependent jobs in public, private or independent institutions, with rigid and prolonged schedules that can affect her attendance at CRED, because her daily income is subordinated to her attendance at daily work, favoring her breach.\(^{19-20-21}\)

Finally, the education level facilitates the understanding of the information provided to the mother, allowing her to improve the living quality of her family, through changes in her beliefs, attitudes and practices in the care of her child, considering that she has previous knowledge which facilitates learning, enriching the culture, values, economic growth and the adequate use of health services.\(^{13-21}\)

For all the above-mentioned reasons, a study was proposed with the objective of determining the breach factors of CRED controls in children less than 1 year old.

**METHODOLOGY**

The study was descriptive and cross-sectional, conducted in a population made up of 25 mothers who opened their children’s medical records at a health center in Lima during January 2016 and who breached one or more of the 11 CRED controls during the first year of life. The data collection was done through a home visit, according to schedule, starting in March and ending in September 2017, in several districts of Lima and one in the city of Chiclayo, asking mothers for the CRED card of their child, to verify the number of controls during 2016. Penao M.\(^{22}\) proposed questionnaire in his research was used in a health center in Lima-Peru in 2013. For the purposes of this study, the researcher carried out the validation process through expert judgement as well as the calculation of reliability in cronbach alpha and pilot test fulfilling the whole process and validating the instrument.

**RESULTS**

Of the total number of mothers surveyed about newborn care, 5.3% have a high level, 79.5% have a medium level and 15.2% have a low level.

Figure 1 shows the socioeconomic factors according to breach of the CRED control: 56% of mothers reported that their work schedule made it difficult for them to attend CRED controls and 60.0% said that it was the housework factor.

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**Fig. 1**

*Socioeconomic factors according to the breach of CRED control.*
The cultural factors that motivated the breach of CRED control were: 76% of mothers reported not knowing the control frequency and 56% indicated the belief that they only take the child to the control when they are sick and only 68% did not know the importance of the control, which motivated their breach, respectively.

Figure 2 shows the cultural factors according to the breach of CRED control.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of the mother</td>
<td>68%</td>
<td>32%</td>
</tr>
<tr>
<td>Beliefs about the importance</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Lack of knowledge about the frequency</td>
<td>68%</td>
<td>32%</td>
</tr>
<tr>
<td>Knowledge about the importance</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>Assistance due to illness</td>
<td>56%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Figure 3 shows the eight institutional factors that encourage the breach of the control appointments at CRED: 68% of mothers said that it was due to the hours of operation; 60% felt that the time used by the professional for the CRED control was excessive; 76% felt that it was the waiting time to receive care; 60% of mothers did not receive information on the importance of compliance; 68% did not feel that the information provided by the professional was clear; 56% said that the information was not useful; 60% of the interviewees felt that there were not enough professionals and only 56% that the professional was not on the hours of operation.

Figure 3 shows the institutional factors according to the breach of CRED control.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother’s perception of the opening time</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>Insufficient number of professionals</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Information Use</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>Information Clarity</td>
<td>32%</td>
<td>68%</td>
</tr>
<tr>
<td>Information to comply with the controls</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Distance from home</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td>Treatment of the nursing service</td>
<td>24%</td>
<td>76%</td>
</tr>
<tr>
<td>Nurse’s treatment</td>
<td>32%</td>
<td>68%</td>
</tr>
<tr>
<td>Waiting time</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>Excessive time for the control</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Opening time</td>
<td>68%</td>
<td>32%</td>
</tr>
</tbody>
</table>
DISCUSSION

In this research, when analyzing the socioeconomic factors of breach of the CRED controls, it was found that 56% of mothers refer that they do not attend because of work hours and 60% because of household chores. Similar results were found by Baubeta L. et al, where the main cause of breach of CRED appointments was work in 20%. This could be due to the fact that women currently participate more actively in the dependent or independent labor market with rigid and prolonged schedules, reducing the time they dedicate to their families, which makes it difficult for mothers to comply with CRED control appointments since their attendance would mean stopping working and not receiving the remuneration necessary for the satisfaction of their basic needs, the child and their family. Another factor not to be breached is housework, which is little valued by society and not considered a profession that demands skills and knowledge of the mother for the development of competencies, which can last between 35 and 65 hours a week where the mother shares her time between caring for the home, cleaning the house, managing the household economy, acquiring products to meet basic needs, preparing meals, in addition to caring for her child and in some cases with their work outside the home coupled with the lack of organization for the implementation of activities.

Regarding the cultural factors of breach of CRED controls, 76% of mothers do not know the frequency of CRED controls and 56% believe that they should take their child only when they are sick, increasing the possibility of breaching the controls. Similar results were found by Baubeta L. et al. who concluded that one of the main causes of the breach was the devaluation of the control frequency by mothers in 42.0% which differs from the results reported by Quevedo D., who showed that only 4.0% reported such devaluation. In this study, the majority of mothers do not know the frequency of CRED controls because by not attending their appointments regularly, they do not receive education from the nursing professional about their child’s individualized care plan in which the number and frequency of controls are defined according to the CRED Technical Standard, sensitizing and motivating them not to stop attending their controls according to their child’s age, and giving them the possibility of improving their health care, nutrition and child development.

Likewise, another result of this study was that the mother takes the child to the control only when he/she is sick related to the family’s belief that the child only goes to the doctor when he/she needs it, it does not consider the preventive part. If during the CRED control, information and counseling is provided, the development and integral welfare of the children will be achieved by directing them to practices that maintain stability between health and illness. Therefore, the interventions developed have a direct impact on education, promotion and prevention of child health. Pender N. affirms that a person’s previous behavior is modified through the continuous process of health education, achieving a commitment that will put into practice health promoting behavior such as the prevention of noncompliance with appointments CRED.

On the other hand, the study found eight institutional factors that influence the breach of CRED controls, which we will list below: 68% due to office hours; 60% reported the use of excessive time spent by the nurse for CRED controls; 76% due to waiting time to receive care; 60% of mothers did not receive information on the importance of compliance; 68% did not consider as clear the information provided by the professional; 56% indicated that the information was not useful; 60.0% perceived insufficient number of professionals and only 56% referred to the fact that the professional is not in the opening hours. Similar results were found in the study by Quevedo D., where the factors associated with the breach reported to be: 100.0% said that there were insufficient nurses; regarding the inadequate hours of operation was 88%; 64%, prolonged waiting time; 56%, information provided by the nurse was not useful or clear; and 4%, inadequate time for CRED control. The results are also similar to those of Cordero et al and Cantaro where they found an insufficient number of nurses to care for the children with a CRED appointment and that when they are available they do not comply with the established schedule. Regarding the time for care, Cordero et al found that 69.7% corresponded to the waiting time before the CRED control; 22.4% to the effective time of this control and that although the mothers had received education with participatory dynamics from the nurses they had not understood the content provided.

On the other hand, different results were found by Estrada V. et al, where 50% had an excellent perception of the services received at the CRED clinic; and 31% reported that the main reason for the breach was forgetting to schedule an appointment. In this regard, the results obtained in this study are as follows: the hours of service programmed in the CRED clinics are established in six-hour schedules according to each institution. As these are rigid hours, they may result in less participation by the mother in attending the program.

On the other hand, the mother perceives that the nurse uses excessive time for the CRED controls; this is due to the fact that there is no uniformity in all the facilities for the attention time used of approximately 45 minutes; in which the integral evaluation is provided to recognize the determinants of the relationship between health and nutrition of the child; educational and counseling sessions of the mother. Regarding the waiting time, from the time she arrives at the facility until she enters the CRED service, the mother feels that it is too much time, which causes her discomfort, frustration and anger, because sometimes this time lasts all morning inside the health facility.

It is worth mentioning that another factor is the insufficient number of professionals, which causes restrictions on the...
care that this professional can provide in the service, causing negative effects on the mother, if added to this, she is not present to perform the intervention of growth and development during the opening hours, due to the multiplicity of activities that she performs, the characteristics of the demand of the user public, the number of offices that require the assistance of the nurse, the category of the health facility determines the resolution capacity, which may be determining that the mother does not attend her appointments in the service. \(^5\)

It is concluded that there are socioeconomic, cultural and institutional factors in the breach of the control of growth and development in the children less than one year old.

**Conflict of Interests:** The authors declare that there is no conflict of interests.
BIBLIOGRAPHIC REFERENCES


18. Organización Internacional del trabajo (OIT) Trabajo doméstico remunerado en el Perú. Situación y perspectivas en función al convenio 189 y las recomendaciones 201 de la OIT; 2013.190 p. [Citado 16 de noviembre 2018].


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