



Annual International Scientific Conference Early Childhood Care and Education, ECCE 2016,  
12-14 May 2016, Moscow, Russia

## The role of maternal depression symptoms in psychological functioning of infants with congenital heart disease subjected to heart surgery

Maria G. Kiseleva <sup>a \*</sup>, Yury P. Zinchenko<sup>b</sup>

<sup>a</sup>*Bakulev Center for Cardiovascular Surgery, Rublevskoe st 135, Moscow, 121552, Russia*

<sup>b</sup>*Lomonosov Moscow State University, Mokhovaya st 11/9, Moscow, 125009, Russia*

---

### Abstract

This article investigates the psychological and emotional functioning of infants with congenital heart disease (CHD) subjected to heart surgery and their caregivers (mothers). We analyze the role of a mother's depression and anxiety levels in the infant's psychological and emotional functioning and development. Infants aged 2-12 months with CHD undergoing cardiac surgery and their mothers were enrolled.

We have revealed a general emotional ill-being of the mothers examined. We have found a delay in psychosocial and physical development of infants with CHD subjected to heart surgery. The higher level of the mothers' depression significantly correlated with a bigger delay in the psychological development of the infants with CHD subjected to heart surgery.

© 2016 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the organizing committee of ECCE 2016.

*Keywords:* infants with congenital heart disease, depression, psychological development

---

---

\* Kiseleva M.G. Tel.: +7-905-743-18-09; fax: +7-495-513-36-09.  
E-mail address: [only4masha@yandex.ru](mailto:only4masha@yandex.ru)

## 1. Introduction

Congenital heart disease (CHD) affects 1% of newborns [1]. In some cases heart surgery in infancy is the only effective therapeutic method. The use of heart surgery has improved the outcomes for children with CHD, and increased survival rates. But still the situation of heart surgery is a major psychological stress for an infant with CHD and his family. Much attention is now being placed on the developmental and psychological outcomes of these children.

Starting from birth, babies seek out human connections. They are biologically endowed with a capacity to discriminate and respond to different stimuli. They imitate facial expressions and synchronize their own expressions, gestures, and vocalization with those performed by other people. Early attachment is an effective child-mother bond that promotes survival through the child's reliance on the adult for protection [2]. When the child cannot feel safe because the parent is unavailable or unpredictable the basic conditions that promote early mental health are severely undermined.

The life-threatening nature of heart surgery in infancy, separation and distress interfere with normal child-mother interaction [3]. A long lasting stress, the fear for her infant, lack of support and fatigue can lead to the development of depression in mothers of infants with CHD subjected to heart surgery. Depressive symptoms can impair by dulling or slowing a mother's response or by provoking irritable and intrusive responses that do not match the infant's cues. The depressed mother may withdraw or have shorter, less frequent interactions with her child, touch the child less often, and respond less sensitively to her child's signals [4]. Depressive symptoms blunt the mother's expression of joy and positive affect as well as their affective availability. Such mothers talk with their infants very slowly and less often, use flat voice tones that impair language acquisition, attentiveness, affect regulation, and arousal in the infants. Depressive symptoms also diminish a mother's game-playing with her infant. Some mothers with depressive symptoms interact with their infants in an irritable and intrusive way. Such interactions fail to foster learning and behavioral regulation [5].

Infants of depressed mothers look at their mother less often, vocalize less, and show more negative affect and less play and exploratory behavior. Because the infant-directed speech of such mothers lacks the qualities that facilitate associative learning, their infants lag in their performance of standardized language and mental development scale [6].

We made research with its primary goal to examine the psychological and emotional functioning of infants with CHD subjected to heart surgery and their caregivers (mothers). We analyzed the role of a mother's depression and anxiety levels in her infant's psychological and emotional functioning and development. Our general hypothesis was that mothers' psychological ill-being might be related to the lower rates in the psychological development of infants with CHD subjected to heart surgery.

## 2. Method

The participants of our research were 150 dyads – infants with CHD subjected to heart surgery at the Bakulev Center for cardiovascular surgery, Moscow, Russia, and their caregivers (mothers), who volunteered for the study (the study group). The mean age of the infants was  $5.46 \pm 2.28$  months, 46% of them were girls. All the children from the study group had severe CHD, which means that they were generally symptomatic and needed to be operated on more than once.

The control group consisted of 35 infants without somatic and mental disorders and their mothers. The mothers from the study were interviewed and asked to fill in questionnaires two days before the heart surgery and two weeks after. The Centre for Epidemiologic Studies Depression Scale (CES-D) was used to measure depression levels in the mothers. State-Trait Anxiety Inventory (STAI) was used to reveal anxiety levels in the mothers.

The level of psychological development and functioning of the infants was measured two days before the surgery by The Diagnosis of Neuro-Psychological Development of Infants (DNPDI) designed by Pantukhina G.V., Pechora K.L., Frukht E.L. [7] and The Devereux Early Childhood Assessment for Infants (DECA-I).

Download English Version:

<https://daneshyari.com/en/article/5126205>

Download Persian Version:

<https://daneshyari.com/article/5126205>

[Daneshyari.com](https://daneshyari.com)