

## FAMILY DYNAMICS, DEATH OF PARENTS AND CHILD HEALTH

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It is well known among health professionals, especially those working in Primary Health Care (PHC), the configuration and dynamics directly influence family health conditions of each component of the nuclear family and vice versa<sup>1</sup>. Some events during the family's life cycle are crucial in this regard, including: birth of a new child, unemployment, divorce, change of residence, violence and the presence of family members with chronic health conditions. One particular event is extremely important: a family member's death, and the death of a parent seems to be one of the worst sceneries accordingly.

In this issue of RBCDH, Atrash's article<sup>2</sup> brings scientific evidence on this issue, examined in a comprehensive and rigorous form, focused on

the consequences of the fathers' or mothers' death to their young children's health and survival. The article covers relevant information to public health in general and to the area of child health in particular.

From the review of a series of papers that combine parental mortality historical data to the children's survival<sup>2</sup>, the author reaches the conclusion that the mother's death increases significantly the risk of the children's death, especially if it occurs in the first months or years of a child's life. The father's death would bring less impact on the children's survival, but would also have negative consequences. Other factors were identified as relevant for the children's survival, especially for children up to five years of age: mothers'

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socioeconomic status, education and health, environmental conditions, children's nutritional status and use of health services<sup>2</sup>.

According to Atrash<sup>2</sup>, the most consistent article on the subject was published in 2010, with data from a cohort study in Bangladesh<sup>3</sup>. The study reviewed retrospectively all maternal and under 10-year children's deaths in rural Bangladesh, from 1982 until 2005, and included the following 144,861 live births, with 14,868 deaths of children and 1,385 maternal deaths recorded.

It was concluded that children whose mothers died in the neonatal period had an eight times greater chance of dying compared to children whose mothers remained alive. The mother's death between the first and sixth months of life increased the chance of child death in 27.6 times. The positive association between maternal mortality and increased risk of the children's death remained in all ages, reducing the impact by increasing the child's age at maternal death<sup>3</sup>: 18 times, 8.2 times and 2.1 to 5.1 times higher if the mother dies when the child is between six and 11 months, 12 and 23 months and 24 to 119 months, respectively. The proportion of children whose mothers have died, and who also died before reaching 10 years of age, was 86%, 61%, 32%, 19% and 2% for maternal deaths occurring at birth, from zero to one months, from one to six, six to 12 and 12 to 60 months, respectively; significantly higher than the mortality of children whose mothers

remained alive<sup>3</sup>. The numbers are quite impressive.

Atrash's review<sup>2</sup> focused predominantly the relationship between the parents' deaths and the children's mortality rate, but other studies have also addressed aspects of morbidity related to the parents' death, highlighting the importance of the topic to health in general, not just children survival. A recent article studied the prevalence of bipolar disorder in patients eligible for bariatric surgery, and identified a positive association between the loss of a parent in childhood and increased risk for bipolar disorder<sup>4</sup>. It is likely that the same phenomenon is occurring in other health conditions, which should be systematically verified in scientific studies in the health field.

In Brazil, studies are scarce on the subject of the influence of family dynamics on the health-disease process<sup>5,6</sup>, and there are no studies published up to that point specifically to verify the association between the death of one parent and children survival, similar to those analyzed by Atrash<sup>2</sup>. A literature review conducted by Oliveira and cols<sup>6</sup>, with articles published between 1955 and 2005 found only 415 articles produced in the period, with 401 international and 14 national, a very low number in relation to the relevance of the subject, even internationally.

Despite the lack of studies, it is likely that the association between parental death and child health is important for the Brazilian public health, given

the still high mortality of young adults, for example, from complications of HIV infection and external causes<sup>7,8</sup>, a not so severe situation, but similar to African countries reminded by Atrash in his review<sup>2</sup>. If the Brazilian numbers were similar to Bangladesh, would be expected a death (related to maternal death) of children under 10 years for every 100 live births. Probably the Brazilian rate is lower, for the better socioeconomic conditions, but should not be negligible, with considerable impact against the population size.

On the other hand, the good coverage of the population (over 60%) by staff from the *Estratégia Saúde da Família* (ESF) may enhance the identification of families and children at risk, and enhance integral health actions on the problem. The ESF teams' characteristics allow a privileged approach to family dynamics and problems, compared to a known territory<sup>9</sup> and can be configured in an important public health strategy for the proper management of children

whose families have lost one or both parents, or components which are from families with poor family dynamics. In this sense, the kind of knowledge discussed here should be part of training and continuing education for professionals from the ESF teams, coupled with the skills to deal with such situations.

Finally, the information systematized by Atrash<sup>2</sup>, coupled with other studies that examine this fundamental aspect of child health, should guide public policy and research agendas in countries around the world, especially in countries with high mortality rates of young adults as is the case in some Brazilian regions and from many African countries. Another relevant aspect that should also be pointed out<sup>2</sup>, would be the application of this knowledge to achieve the Millennium Development Goals (MDGs), especially the number 4 (reduce child mortality), whose priority actions should especially include the guarantee of good levels of mothers' health and education (current and future).

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