

FAMILY AS A PREDICTOR OF RISK OF FORMATION OF DISEASES IN ADOLESCENCE

Omarova A.O., Kuzgibekova A.B., Sultanov A.K.

Karaganda state medical university, Karaganda, e-mail: alua_1912@mail.ru

We presented the results of study of influence of medical and social predictors, including the psychological ones, on formation of diseases in children being brought up in incomplete families. It is established that higher educational level, professional employment of women cause reevaluation of significance of family institute. The prevailing predictors of risk were revealed: irregular doctor supervision during pregnancy, lack of proper preventive actions, mothers' addictions in the antenatal period, high morbidity rate, including the diseases of nervous system of teenagers in the post-natal period. Among children from incomplete families the high level of hyperthymic, disturbing and timid, emotive and excitable types were found more often, which under adverse conditions can serve as «substratum» for formation of «marginal» psychopathies.

Keywords: incomplete family, teenagers, medical and social factors

Now in the Republic of Kazakhstan there is a stable tendency to increase in number of incomplete families, which is caused by various reasons. Among them are: family disintegration due to divorce of spouses, illegitimate birth rate, death of one of parents (in most cases the father) and others [1].

According to statistical researches, in the Republic of Kazakhstan the annual increase in number of divorces is registered: in 2009 – 2,45%, 2010 – 2,55%, 2011 – 2,71%. The number of marriages registered in 2012 made 9,88%, while the number of divorces of 2012 made 2,91% [2]. According to literature, in situations of divorce children suffer in the first place. Incidence of children from incomplete families is definitely higher, and their physical and neuropsychic development is worse compared with children from complete families [1, 3, 4, 5]. Current situation testifies to relevance of studying of health state of children from incomplete families. In the literature available, the number of the researches devoted to this problem is limited.

Research objective was studying of influence of the medical and social predictors, including the psychological ones, on formation of diseases in children being brought up in incomplete families.

Materials and methods of research

We surveyed 70 children (36 boys and 34 girls) from incomplete families at the age of 11–17. All children were studying in a grammar school of Karaganda. The comparison group was presented by 50 children from complete families, comparable by sex and age.

Inclusion criteria of children for research: teenagers of both sexes at the age of 11–17 being brought up in incomplete families.

Exclusion criteria of children from research: children being brought up in complete families, children from incomplete families with chronic somatopathies in a stage of subcompensation and decompensation, and orphans.

For all the children surveyed the following valid and reliable psychological methods of inspection were used: characterologic questionnaire (K. Leonhard, 2005), depression scale (S. Hathaway, J. McKinley, 2005), scale

of attachment of the child to the members of the family (E.S. Schaefer, R.K. Bell, 2005), personal scale of anxiety manifestations (J. Teylor, 2005), and projective drawing techniques. For the purpose of detection of detailed and complete information on risk predictors we developed and approved the questionnaire «Social and hygienic problems of the modern family».

Studying of incidence of the surveyed contingent was carried out by means of the retrospective analysis of history of a child development (form 112/y).

Statistical processing was carried out on the basis of the applied program of statistical processing «Statistica 6.0».

Results of research and their discussion

Received data testify that $45 \pm 7,9\%$ of studied families were incomplete because of the divorce of parents, in $27,5 \pm 7,1\%$ cases children were brought up by single mother, and the same number of families became incomplete due to the death of father ($p < 0,05$).

Peculiarities of social position of women nowadays are as follows: increase of educational level, professional occupation, independence and autonomy from men has led to reevaluation of marriage institute. This is testified by obtained data. $82,6 \pm 5,6\%$ of single women had a high level of education ($p < 0,05$). In the comparison group this index amounted to $66,7 \pm 9,6\%$. Secondary education prevailed in the comparison group ($20,8 \pm 8,3\%$; $p < 0,05$), compared to the basic group ($6,5 \pm 3,6\%$).

During the research we analysed the index of professional employment of parents of the surveyed families. It was established that 100% of women from the basic group were professionally occupied whereas in the comparison group $54,2\% \pm 10,2$ mothers ($p < 0,05$) had a job. At the same time, when surveying $17,4 \pm 5,6\%$ mothers, who are not married, the low level of the income was pointed out ($p < 0,05$). It can be explained by the fact that the main source of the income in complete families was father's salary ($41,7 \pm 10,1\%$) and father's salary + mother's salary ($37,5 \pm 9,9\%$), while in incomplete families it was only mother's salary ($85 \pm 5,6\%$; $p < 0,05$).

According to the researchers, children from incomplete families are subject to acute and chronic diseases considerably more often than children from the complete ones [1, 3, 4, 5]. It is connected not so much with stress influence, but also with low alertness of mother about a state of health of children. Apparently, having become single, mother is bound to take care of the material aspect of wellbeing of a family to the detriment of traditional maternal duties of education and strengthening of health of children [3, 5].

After the poll of mothers it became clear that $4,4 \pm 3,0\%$ single women during pregnancy were not followed up by a doctor at all ($p < 0,05$). $82,6 \pm 5,6\%$ mothers from a basic group were followed up regularly during pregnancy whereas this index among the married women made $95,8 \pm 4,1\%$ ($p < 0,05$). In spite of the fact that the preventive direction in our country was and remains the fundamental principle of health protection of mother and child, it was established that in incomplete families $47,8 \pm 7,4\%$ addressed the doctor with the pre-

ventive purpose, while in complete families this index made $79,2 \pm 8,3\%$ ($p < 0,05$).

According to the research, in the antenatal period among future mothers the most common addiction was smoking, which, as we know, provokes a number of adverse effects: small-for-date fetus, increase in risk of premature birth, premature placental detachment [6]. During research it was revealed that presence of addictions, including smoking, is definitely higher among single women ($15,2 \pm 5,3\%$ against $8,3 \pm 5,6\%$; $p < 0,05$). From them $14,3 \pm 13,2\%$ could not give up smoking during pregnancy ($p < 0,05$).

The analysis of data of ante-, intra- and postnatal periods points to disorder and disturbance of central nervous system in the form of perinatal encephalopathy ($46,6 \pm 9,1\%$ against $20 \pm 10,3\%$; $p < 0,05$), residual cerebral organic insufficiency ($20 \pm 7,3\%$ against $6,7 \pm 6,4\%$; $p < 0,05$) and vegetovascular dystonia ($6,7\% \pm 4,6$, $p < 0,05$) which were authentically more often found in children from incomplete families in comparison with children from complete families (Fig. 1).

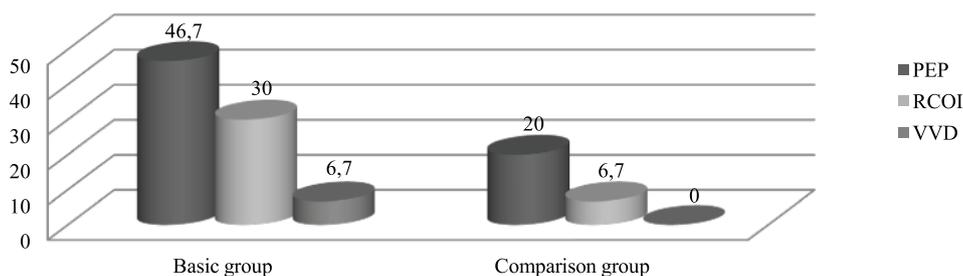


Fig. 1. Comparative index of disorder and disturbance of central nervous system (%)

One of the problems of our research was studying of accentuation of character among the surveyed children. It is well-known that accentuation, being intensively shown in teenage age, over time can be compensated and, under adverse conditions, – develop and be transformed to «marginal» psychopathies [7]. Therefore by means of K. Leonhard's characterologic questionnaire we tried to find out the prevailing accentuation of character of children in our selection. Results of the questionnaire (Fig. 2) show high percent of demonstrative type of character both in the basic group ($32,9 \pm 5,6\%$), and in the control group ($40,6 \pm 8,7\%$; $p < 0,05$). This results from the fact that in the majority of families, regardless of their type, children were brought up by the «family idol» type. Therefore, since childhood they got used to be the focus of attention, were extremely egocentric, felt the need for attention to themselves, sought to achieve admiration, recognition and sympathy by all means, and sometimes preferred hatred and indignation to indifference [7, 8].

As we can see in the chart, among children from incomplete families the percent of hyperthymic type of character was high ($21,4 \pm 4,9\%$; $p < 0,05$), for which characteristic is the reaction of emancipation, showing in the conflicts with parents and teachers, and especially amplifying at hyperguardianship and authoritative style of the treatment of the teenager [8]. The specified type of upbringing could often be found in incomplete families as mother, trying to be both mother and father for a child, chose the dominating hyperprotection upbringing type. The dominating hyperprotection also negatively affected children of disturbing–timid type ($5,7 \pm 2,8\%$; $p < 0,05$) because superguardianship aggravated their feeling of insecurity and feeling of insolency [7, 8]. Along with it, we observed the emotive type of accentuation in children from incomplete families ($10 \pm 3,6\%$; $p < 0,05$), which manifested in high sensitivity and deep reactions in the field of emotional reactions.

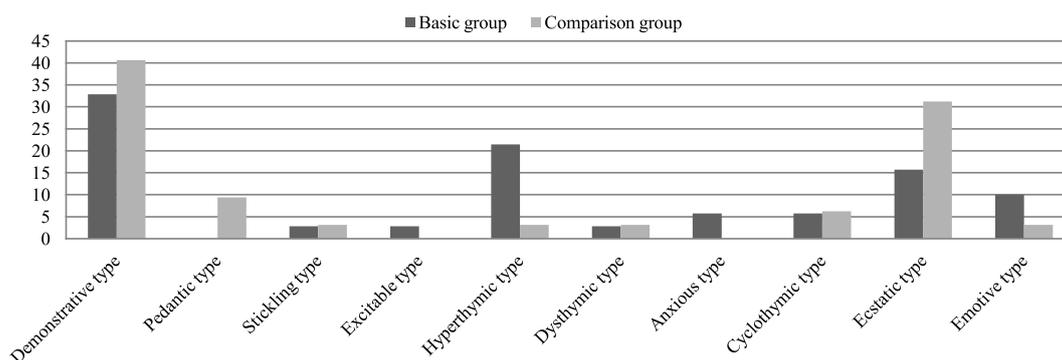


Fig. 2. Types of character accentuation of studied children (%)

It should be noted that, according to the researchers, children with the emotive type of accentuation have inconsistency between external «image» and «internal contents». Making an impression of «fragile, gentle and naive», emotive teenagers are more often in comparison with other types of accentuation were characterized by asocial behavior, making 36% [7]. At the same time, the group of an extra risk of asocial behavior includes excitable type of accentuation, this selection by results of our research was made by $2,9 \pm 2,0\%$ children of the basic group ($p < 0,05$) [7, 8].

According to the analysis of depression scale, personal scale of anxiety manifestations and projective drawing tests, it was revealed that in the basic group subdepression ($5,7\% \pm 2,8$; $p < 0,05$) and true depression ($5,7 \pm 2,8\%$; $p < 0,05$) were present, whereas in the comparison group only in $3,1 \pm 3,1\%$ children the slight depression (Table 1) was observed. The reason of it was the conflicts in a family, «superguardianship» by mothers, absence of care from parents, sense of guilt, inferiority complex, and all this was aggravated in the period of adolescent [9, 10].

Table 1

Presence of depression in children.

	No depression	Slight depression of situational or neurotic genesis	Subdepression or masked depression	True depression
Basic group	$81,43 \pm 4,65\%$	$7,14 \pm 3,08\%$	$5,71 \pm 2,77\%$	$5,71 \pm 2,77\%$
Comparison group	$96,88 \pm 3,08\%$	$3,13 \pm 3,08\%$	0	0

These children respectively have a higher level of anxiety compared to their peers, brought up in complete families (Table 2). High anxiety level in comparison group was observed in $9,4 \pm 5,2\%$ children, while in the basic

group anxiety level made $15,7 \pm 4,3\%$, and in $1,4 \pm 1,4\%$ children anxiety level was very high ($p < 0,05$). The reason for this was parting with one of parents, swift change of habitual situation, uncertainty in the future [8, 11].

Table 2

Anxiety level for children from incomplete and complete families.

	Low anxiety level	Medium anxiety level	High anxiety level	Very high anxiety level
Children from incomplete families	$52,86 \pm 5,97\%$	$30 \pm 5,48\%$	$15,71 \pm 4,35\%$	$1,43 \pm 1,42\%$
Children from complete families	$31,25 \pm 8,19\%$	$59,38 \pm 8,68\%$	$9,38 \pm 5,15\%$	0

Application of projective techniques of inspection allowed to obtain the following data (Fig. 3). In $14,3 \pm 4,2\%$ cases teenagers lived in an extremely adverse situation, that is the child

not only felt unnecessary, but really was rejected by parents ($p < 0,05$). The child constantly felt that he is a burden in life of parents, that without him they would feel easier and more free [7, 10].

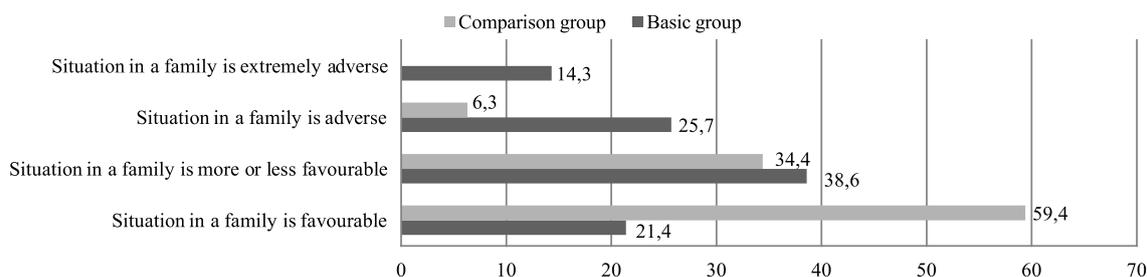


Fig. 3. Degrees of rejecting the child in a family (%)

One of important factors defining a state of health of the child in the postnatal period is being wanted [4]. During the research it was revealed, that among children from incomplete families $10,9 \pm 4,6\%$ were unwanted ($p < 0,05$). According to the researchers, the higher the isolation degree is, the deeper the spiritual wounds become and the more readily a person starts rejecting in order not to feel pain and humiliations. Desire to hide, feeling of uncertainty in society, discomfort from attention to his personality make him self-contained and unsociable [8, 9].

Also the fact that draws attention is that children being brought up without father since birth or since some moment later, were more attached to fathers ($5,7 \pm 2,8\%$), than children from complete families ($3,1 \pm 3,1\%$; $p < 0,05$). If a child continues to see the parent who left, or just remembers him well, he can communicate with this parent in his imagination in intervals between visits. And if a child does not remember the parent who left, he can reconstruct his image from what he heard about him, from what he admires in adults of the same sex he knows, and from those traits he would like to see in this missing parent [11].

Thus, in this work we presented the results of studying of influence of medical and social predictors, including the psychological ones, on formation of diseases of children who are being brought up in incomplete families. We established that the education level and, respectively, the professional occupation of single women are higher in comparison with the married women. Common incidence, as well as disorder and disturbance of central nervous system of children from incomplete families are definitely higher than in their peers from complete families. Probably it is caused by influence of various factors: the irregular doctor's supervision during pregnancy, absence of due attention to preventive actions, presence of addictions in mothers in the antenatal period, as well as unplanned pregnancy with the child. During research we established that among children from incomplete families there is a high level of hyperthymic, disturbing-timid, emotive and excitable types, which under adverse conditions can develop and be trans-

formed to «marginal» psychopathies. Teenagers from incomplete families are also notable for depression and high anxiety level. Probably that is connected with the feeling of inferiority, conflict situations in a family, sudden change of the dynamic environment after the divorce of the parents. Along with it, poor amount of mother's free time for the child owing to high business lead to formation of isolation of the child in incomplete families, and probably to formation of a certain «virtual» attachment to fathers. Proceeding from the abovementioned, we believe that the family not only remains an important significant predictor of risk of formation of somatopathies in adolescence, but also causes change of personal features, forming prevailing accentuation which in the absence of well-timed correcting actions can provoke formation of a «marginal» psychopathy.

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