



## Five Psychosocial Factors of the Formation of Killer and Self-Killer Organisms and their Prevention

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### Abstract

The psychobiological factors of the formation of killer and self-killer organisms have been investigated. It was established that the neural correlate of aggressive and killer organisms is serotonin. Its content in the brain of aggressive and killer organisms is about 50% lower compared to normal ones. Five psychobiological factors of the prevention of killer and self-killer organisms' formation, comprising adequate nutrition and physical exercises have been demonstrated.

**Keywords:** Killer and self-killer organisms; Serotonin; Tryptophan

### Introduction

During last period confrontation between 14-16 years old teenagers resulting in murder, became very frequent. There may be given many examples of tragedies which happened in different countries, when young people have died of multiple wounds. Parents, teachers, representatives of police, school supervisors, psychologists hold active debates by TV-shows and radio transmissions about the necessity to increase vigilance and activity, to conduct additional trainings for supervisors; but nobody asks what is the reason for such cruel behavior among the youth. Several psycho-emotional factors, responsible for the formation of aggressive and killer organisms have been distinguished during our multiyear neurochemical studies [1,2]. These are: 1. the aggressive social surrounding in the family; 2. wrong diet; 3. increased level of sex-hormones (testosterone) in 14-16 years old boy-teenagers; 4. Existence of "war" and "murder" genes, caused by chromosomal disorders; and 5. TV transmissions,

demonstrating and favoring killing and suicide, speculating for the emphatic appreciation of the information by young people.

Since the Italian neurobiologist Giacomo Rizzolatti has discovered mirror neurons in brain, responsible for perception of speech and behavior of surrounding people by a newborn, it becomes clear that if the post natal development of a newborn takes place in an aggressive social surrounding (fight between family members, violence, usage of narcotics alcohol), the aggressive behavior will be encoded in his genetic apparatus. This information stays in the organism of a person during the whole life and may be revealed in the form of aggressive behavior of a young person [1,2]. Incomplete nutrition is the second factor for murder. We have established that the biogenic amine serotonin is one of the correlates for the formation of aggressive and killer organisms. Its deficiency in young organisms may become reason for aggressive behavior and killing [3-8]. Experimentally it was demonstrated that feeding of experimental rats with tryptophan-poor food during 4-6 days, which is the precursor of serotonin, caused decrease of serotonin content for 50% in experimental animals. As a result these organisms turned into killers. If the diet was enriched with tryptophan (100mg), rat-killers turned into peaceful ones, tolerant to frogs and mice. Diversely from normal rats not a single case of murder was mentioned during contact with them. It must be taken into account that in aggressive to animals children content of serotonin, as a rule, is essentially low, as well as in those monkeys, who have lost the leader's function in their group. Accordingly the behavior of prestige-lost children must be observed attentively at school [4,5].

For the prevention purposes supplying school buffets with cheeseburgers, prepared of tryptophan-rich Dutch and melted cheese, which is the precursor of serotonin, is desirable. 100g

of Dutch or melted cheese contains 790 and 500g of tryptophan respectively. This amount of the substance is able to raise the content of serotonin in a young organism and essentially decrease his aggressive behavior. It is well known that isolation from the society is one additional powerful factor for the formation of an aggressive person. That's why the single-child families must take care for social formation of a child with friends in kinder-gardens, to prevent aggression [6].

14-16 years is the crucial age for teenagers and serious changes are mentioned in hormonal balance at this period. Special experiments were conducted on animals to reveal the relationship between aggression and murder and changes of masculine sex-hormones. The experimental rats were castrated. As a result no cases of aggression or killing have been revealed from castrated animals towards mice and frogs. While injection of test animals with testosterone changed the situation in the opposite direction – cases of mice and frogs killing by rats became evident. For the prevention of the facts of killing the fatigue tests using swimming has been done with experimental rats. The result was interesting: killer rats became again tolerant toward mice and frogs and no case of aggression or murder has been revealed [6,8,9]. Accordingly, our recommendation to school supervisors is to increase the between-lessons physical activity of teenagers for diminishing the content of biologically active compounds in blood, among them of sex-hormones. It must be mentioned that the notice about intensification of sports enterprise at schools was made at the session of Georgian Parliament. We hope that the government will try all the best to improve the situation to the direction of aggression elimination and healthy life-style introduction.

Unfortunately existence of “War” and “Murder” genes in sex-chromosomes is reality. According to experimental data four groups of aggressive and criminal behavior persons are distinguished:

- Young men with Klinefelter syndrome. They have XXYY set of sex-chromosomes, small testicles, are taller than average; due to mental deficiency it is easy to involve them in criminal.
- Young males with aberrant XYY or XXYY sex-chromosomes. They are tall, with mental deficiency, are distinguished with aggression and criminal activity.
- Young men with hereditary disorder of nervous system. They are distinguished with emotional-ethic degradation, epileptic anxiety, dogmatism, schizoid personality and alcohol-induced disorders.
- 1/4 of the single-egg twins are inclined to criminal activity. These children must be under the permanent observation of psychologists for evaluation of their behavior.

All above mentioned indicates that school psychologist have to know deeply the genetic picture of each school-boy,

to forecast their future behavior and prevent possible criminal prevention [3,5,6]. It must be mentioned that some changes in distribution of the terminal sugars of membrane glycoproteins on the level of erythrocytes of aggressive animals was discovered. This made possible to elaborate the biochemical method of revealing the aggressive organisms by means of lectins [10]. Unfortunately similar experiments on human blood are not done yet. Though we hope it becomes possible in future to reveal pathologically aggressive children in time by means of lectins and their psychotherapeutic and pharmacological treatment.

According to latest data the lack of serotonin was mentioned in self-killers and suicidal people as well. Following the statistical information of the World Organization of Health-care, about one billion people commit suicide every year. This means that one person dies in the world in every 40 minute. It must be mentioned that 30-70% of suicide in Europe and USA is conditioned by depression, while in Asia the reasons for suicide are psychological, social, biological, cultural and environmental. According to psychologists, suicide is choice, but there is no doubt that victims have some psychical disorders, because of depression. That's why it is necessary to reveal the psycho-emotional disorders and morbid mood and carry out psychotherapeutic treatment in time. Following the information of National state Department of Statistics totally 113 cases of suicide were mentioned in Georgia in 2010. Among the victims 15 were women and 98 – men. Moreover, one was 15 years old teen and 6 were between 15-19 years men; above 20 years old were 15 women and 81 men. In 2011 number of committed suicide was 98 [6]. It must be taken into account that males prefer committee suicide by hanging, gunshot or vertical drop, while females prefer soporifics, venoms, gases etc.

Cases of suicide in Georgia in 2006-2009 mainly took place in warm months of the year – in May – 36 cases, in June – 38, and in July – 32. The data are in accordance with investigations of foreign scientists [13,14]. This may be explained by an inadequate increase of serotonin in winter, under the influence of Sun rays, accordingly stress and psycho emotional tension significantly decreases and cases of murder and suicides decrease. So, the recommendation is to walk and take children to walk with you in sunny winter. Thus you'll improve the child's psycho emotional mood and health. The psychologists confirm that people committee suicide in case of deficiency of the social relations; especially when the problem arises unexpectedly, e.g. discharge from office, divorce, or lose money.

According to observations there exist some relation between suicide index and profession. It turned out that the highest cases of suicide happens among physicians. About 300-400 doctors committee suicide during years. This index is almost equal among male and female individuals of the given profession. On the second place between specialties by suicide are representatives of legal profession. Some data prove correlation between smoking and suicide; e.g. the risk of

suicide increases two times among those smokers who smoke 24 cigarettes per day, while the risk is 4-times higher among those who smoke more than 25 cigarettes [5,6].

Attempts to commit suicide (infinite suicide) are not correspondingly investigated. The psycho-emotional condition of the person and motivation for suicide stays unclear. Unfortunately such cases are not registered in official medical institutions, though all signs of suicide attempts are present: sorrowful mood, sadness, melancholy, physical and psychical condition, a number of diseases, disorders in the quantitative distribution of hormones and neurotransmitters, etc. [5,7,8].

It is about 40 years as the psychiatry of suicide exists as a separate branch of psychiatry. This fact clears that cases of suicide became quite often and turned into a serious problem for medics and psychologists. Regrettably our desires and possibilities do not correspond to each other. When a person is unable to realize his possibilities he is disappointed, dejected, feels dissatisfaction, internal constraint, which is the permanent source of depression. It becomes deeper and ends with suicide. The Christian self-killer must clearly realize the relation of the church to self-killers. The life is given to us by God and he decides when it will be the time to leave this world. When a person intervenes in God's affair, he becomes His opponent. The church does not mention self-killers in prayers; no church ceremonies are done for them. According to church that intervenes in God's affair he deserves hell. Rely on Christian Orthodox Church and it will protect you. Is a suicide analogous to kamikaze or other terrorists' behavior? Any activity directed to self-life damaging may be called suicide. In spite of Japanese kamikaze opinion, his action is a ritualized suicide. Japanese people believe that committing suicide by this action liberates their souls.

Attention must be paid on TV transmissions, which affect the mirror neurons and emphatically increase disposition to murder and suicide. American scientists have investigated the influence of information about murder or suicide, transmitted by TV, on the psycho-emotional state and suicidal activity of people. The investigations have demonstrated that after transmitting the information about suicide, cases of suicidal activities increased 58 times during two months. After demonstration of "student's death" under a train wheels by TV in 80-ies of the XX century, cases of suicide among 15-19 years old youth increased by 200%! After the demonstration of the fact by TV was forbidden, cases of suicides decreased 3 times [5]. Suicidal activity correlates with mood. If the transmitted information about suicide concerned people in age, cases of suicidal activities enhanced among aged people. If suicide was committed by a person of different social sphere, the cases of suicide increased among the people of the same sphere. That's why CNN banned demonstration of dead corps and bloody steel by TV. It's high time that other televisions have received analogous decision as well, because such type of transmissions destroy a person's mentality, especially of youth's [3,5,6].

On the international day of mental health the world organization of health care have published the registration scale of suicides. According to this scale by the frequency of suicides Lithuania is on the first place. Among the leading ten countries are South Korea, Japan, Russia, Ukraine and Belorussia. Among the 107 countries of South Caucasus Georgia occupies 88-th place. In connection with the existing situation I have prepared lectures on murder and suicide for school children and teachers, which will help them to get acquainted with the psychological basics of the question and use this knowledge for the prevention of aggressive activity of youth.

## Conclusion

Five psycho-social factors of murder and suicide formation have been established. It was demonstrated that one of the neural correlates in killer's brain is serotonin, which content is by 50% lower in brains of aggressive organisms. The ways of prevention of aggressive behavior by adequate diet and physical activity is offered.

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