

# Are People Born as Murderers and Criminals?

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## Abstract

The psychobiological factors of the formation of criminals and killer organisms have been investigated. It was established that the neurochemical correlate of aggressive and killer organisms is a biogenic amine - serotonin. The content of this amine in the brain of aggressive and killer organisms is about 30-40% lower, as compared to normal ones. Five psycho-biological factors for the prevention of formation of criminals and killer organisms, comprising adequate nutrition and physical exercises have been demonstrated.

**Keywords:** Five psychosocial factors; Criminals and killer organisms formation; Prevention

**Abbreviations:** VAL: Viscum Album; PNA: Arachis Hypogaea; PSE: Pisum Sativum; TA: Triticum Aestivum; SN: Sambucus Nigra

## Introduction

During the last period confrontation between 14-16 years old teenagers resulting in murder, became very frequent all over the world. There may be given many examples of tragedies, which have 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 and are they born as criminals and killers. Several psycho-emotional factors, responsible for the formation of criminals and killer organisms have been distinguished during our multiyear neurobiological studies [1,2]. These are

1. The aggressive social atmosphere in the family
2. A defective diet
3. An increased level of sex-hormones (testosterone) in 14-16 years old boy-teenagers
4. The existence of "war" and "murder" genes, induced 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 the brain, responsible for perception of speech and behavior of surrounding people by a newborn, it becomes clear that if the postnatal development of a newborn takes place in an aggressive social environment (quarrel 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, criminal and killer organism [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 the reason for aggressive behavior and killing [3-8]. Experimentally it has been demonstrated that feeding of experimental rats with tryptophan-poor food for 8-12 days, which is the precursor of serotonin, induces a decrease in serotonin content for 30-40% in the 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 should 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 attentively observed at school [4,5].

For the prevention, it is desirable to supply school buffets with cheeseburgers, prepared of Dutch and melted cheese, rich in tryptophan - the precursor of serotonin. 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 [6]. The changes in quantitative distribution of male sex hormones are considered as the second probable factor of aggressive behavior in the young people aged 14-16. This is characteristic of transitional age and therefore our further investigations have been conducted in this direction. To this end special experiments were conducted on animals to reveal the relationship between aggression and murder and changes in male 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 the 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 killing cases, the experimental rats have been subjected to fatigue tests using swimming. The obtained 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 physical activity between-lessons of teenagers for diminishing the content of biologically active compounds in blood, among them of sex-hormones. We hope that the school leadership will do their best to improve the situation by enhancing physical loading in the direction of aggression elimination and healthy life-style introduction. Unfortunately, the reality of the existence of "war" and "murder" genes in sex chromosomes is obvious. According to the experimental data four groups of aggressive and criminal behavior persons are distinguished:

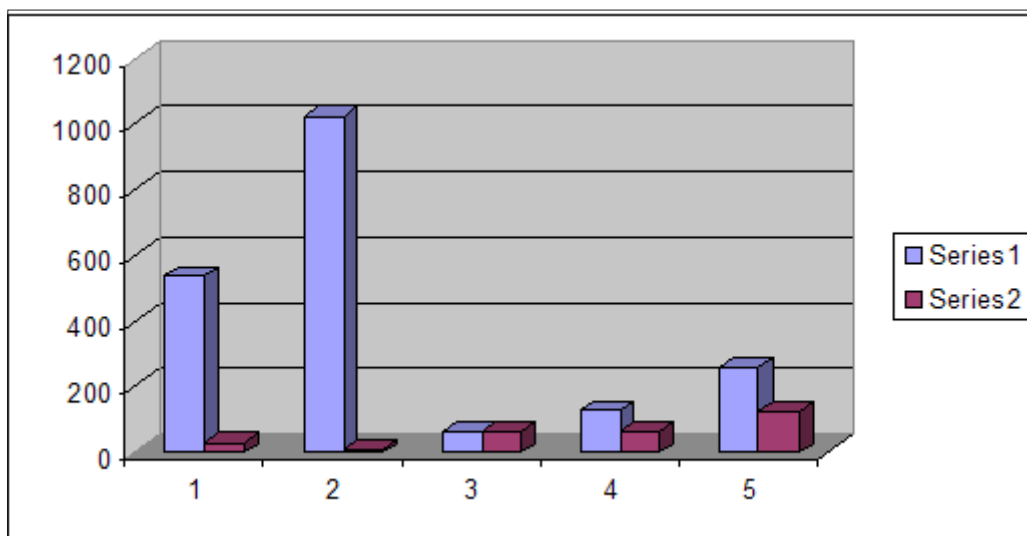
1. Young men with Klinefelter syndrome. They have XXYY set of sex-chromosomes, small testicles, are taller than average; due to mental deficiency it is easy to involve them in criminal.
2. Young males with aberrant XYY or XXYY sex-chromosomes. They are tall, with mental deficiency, are distinguished with aggression and criminal activity.
3. Young men with hereditary disorder of nervous system. They are distinguished with emotional-ethic degradation, epileptic anxiety, dogmatism, schizoid personality and alcohol-induced disorders.
4. 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 has to know deeply the genetic picture of each school-boy, to forecast their future behavior and prevent possible criminal action [3,5,6,10-12].

It must be mentioned that some changes in the distribution of the terminal sugars of glycoproteins erythrocytes membrane were discovered on the level of aggressive animals. It made possible to elaborate the biochemical method of revealing the aggressive organisms by means of plant lectins [1,2,5]:

1. VAL - Viscum Album
2. PNA - Arachis Hypogaea
3. PSE - Pisum Sativum
4. WGA -Triticum Aestivum
5. SN - Sambucus Nigra

As seen from the below Figure, the binding of peanut lectin (PNA) (series 2) to blood erythrocytes of the stressed rats, unlike other lectins (series 1) is reduced about 128-times, which may be used for timely revealing of aggressive organisms and, in future for their treatment [5] (Figure 1).

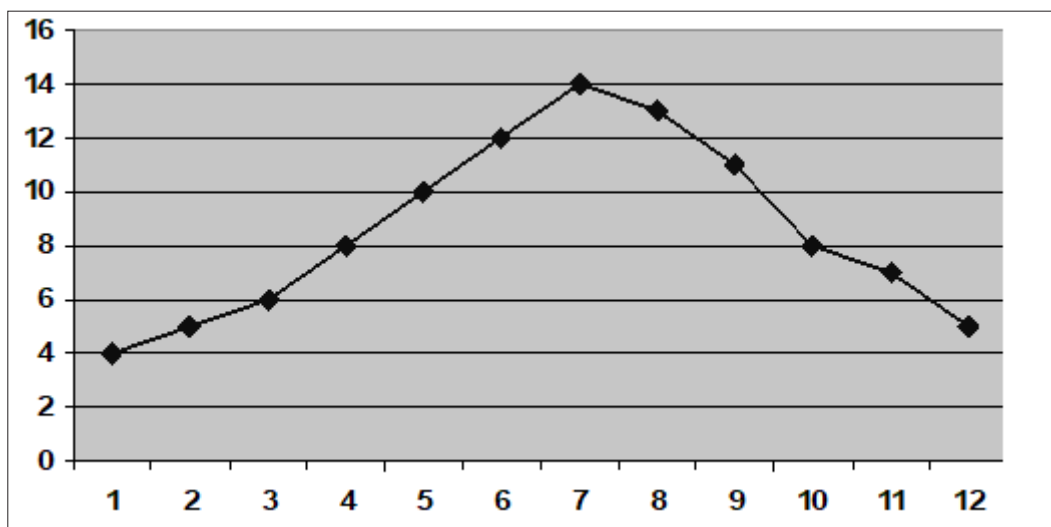


**Figure 1:** On the ordinate – the activity of lectins in conditional units, on the abscissa-lectins.

Unfortunately, similar experiments on human blood have not been conducted yet. However, we hope that in future the timely identifying pathologically aggressive children will be possible by means of lectins and their psychotherapeutic and pharmacological treatment. According to the latest data, the lack of serotonin was mentioned in self-killers people as well. According to the statistical information of the World Healthcare Organization, about one billion people commit suicide every year. This means that in the world one person dies in every 40 minutes. It should be mentioned that 30-70% of suicide cases 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 the choice, but there is no doubt that because of depression victims have some psychical disorders.

That's why it is necessary to reveal the psycho-emotional disorders and morbid mood and carry out psychotherapeutic treatment in time [6,13,14].

Mainly cases of suicide take place in warm months of the year – in May, June and in July. The data are in accordance with the investigations of foreign scientists [13,14]. This may be explained by an inadequate increase of serotonin synthesis in winter, under the influence of sun rays, accordingly the stress and psycho-emotional tension significantly decrease, and cases of murder and suicides reduce, too (Figure 2). So, our recommendations are to walk and take children to walk with you in sunny winter. Thus, you'll improve the child's psycho-emotional mood and health.



**Figure 2:** The impact of temperature on aggressive behavior of living organisms. On the abscissa-the months of year; on the ordinate-aggressive behaviors in conditional units.

It is necessary to note that some data prove the 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]. The attention should be paid to TV shows, which affect the mirror neurons and emphatically increase disposition to murder and suicide. American scientists have investigated the influence of information on 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 for 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 spheres, 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 has 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 Belarus. Among the 107 countries of South Caucasus Georgia occupies 88<sup>th</sup> place.

## Conclusion

Five neurobiological factors of murder, suicide and criminal formation have been established. It was demonstrated that one of the neurochemical correlates in killer's organism is serotonin, the content of which is by 30-40% lower in brains of aggressive organisms. The ways of prevention of aggressive behavior by adequate diet and physical activity are recommended.

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