

## Research of Anticipation Consistency in the Families of Drug Addicts

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**Abstract:** The article studies the influence of a family and of personal specific features of parents on the formation of anticipation inconsistency of drug addicts. A theoretical analysis of the concepts of the *anticipation consistency*, *predictive competence*, *predictive abilities* and *stochastic forecasting* concepts was carried out. The results of empirical research of predictive abilities (anticipation consistency) of drug addicts and their parents are provided, which was carried out within the anticipation concept of neurogenesis by V.D. Mendeleevich. It was stated that the strategy of parents forecasting is one of the factors of predictive competence formation with children. It was also revealed that a stable pathogenic pattern determining the maladaptive forms of behavior (including the dependent ones) exists in the families of drug addicts.

**Key words:** Family • Anticipation consistency • Predictive competence • Predictive abilities • Stochastic forecasting • Drug addiction

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### INTRODUCTION

The problem of drug addiction formation, determination of the factors, which contribute to its occurrence and reinforcement of addictive behavior, remains topical. During the recent decades, the problem of influence of the family factor (relations between parents and children, the structure of a family) on the personality development has started to be actively approached. Much attention is paid to formation of atypical (particularly, addictive) behavior forms [1]. At that, a family is considered as the most important institution of personality socialization and as the model and the form of basic training of its development [2-4].

Numerous studies convince us that any deformation of a family, violation of the system of interindividual relations and values in it greatly affect the development of a child's personality and can lead to various personal deformations – from social infancy to asocial behavior [1, 5-7].

However, the analysis of literature sources shows that the topic related to search of specific personal peculiar features of parents of drug addicts and their influence on the personal development of a teenager has not been studied to a sufficient degree.

This topic becomes especially important in view of the fact the drug addiction is a form of deviant behavior, formation of which is greatly dependent on the personal properties and types of family relations, which act as the factor of initiation and encouragement of addictive behavior [1, 8-10].

Despite the recognized fact that a special type of intrafamily relations occurs in families with chemically addicted members, we still face shortage of theoretical and practical study of the mechanisms of mutual influence of families and children who are on drugs.

Taking into account the important role of family relations and peculiar personality features of parents in the formation and setting of addictive behavior, studying the interconnections between the predictive (anticipation) abilities of drug addicts and similar abilities of their parents seems to be topical.

The concept of *anticipation* was first mentioned in the works by W. Wundt [11]. The concept of *anticipation* includes two substantial aspects: 1) forestalling as the ability of a human to imagine the possible result of an action before its accomplishment [11]; 2) the ability of the mind to imagine the problem solution method before it is really solved [12]. Besides, anticipation is associated with the ability of a human or animal organism to prepare to

react to some event before it happens, which is provided by the *action acceptor* mechanism [13] and by the image of the *required future* [14]. The problem of anticipation is many-sided and is considered in different aspects and branches of psychology. There are several works related to the research of anticipation consistency of children with special needs (Akhmetzyanova, A.I., 2013) [15].

V.D. Mendelevich determined the ability of a human to forestall the structure of the future as *anticipation consistency*. In the concept of neurogenesis by V.D. Mendelevich, *anticipation abilities* and *anticipation consistency* have equal meaning. The research carried out by the authors indicates existence of anticipation patterns in the mental premorbidity of a person who suffers neurotic disorders (V.D. Mendelevich, 1988, 1990, 1994) [16].

Multiple studies of drug addicts prove the disorder of anticipation abilities formation with them. There is no past, present and future comprising an integral continuum in the sick people's self-comprehension. According to V.T. Kondrashenko, all this evidences the weak ability of drug addicts to structure their life path and internal experience, limits their ability to adequate forecasting of the future, which in turn, decreases the chances of positive treatment outcome and increases the risk of a disease relapse [17]. This fact is confirmed by other research works, according to which drug addicts do not have personal temporal activeness and it is difficult for them to structure their time, analyze the past and plan the future [16, 18].

V.V. Guldan and V.A. Ivannikov also believe the inability to plan and forecast the future adequately to be an important characteristic of a dependent person. According to the researches' opinion, drug addicts can also show intellectual inconsistency in the form of non-critical thinking, proneness to act without understanding the efficient ways and means; non-understanding of their inconsistency despite their bad life experience [19, 20].

However, as we have noticed before, the global influence of a family, the personal peculiarities of the parents of drug addicts on the personal development of a teenager and its particular influence on the development of anticipation abilities (consistency), has not been studied sufficiently.

In the context of the above, the suggestion about the existence of interrelations between the predictive abilities of drug addicts and the relevant abilities of their parents served the basis of the study of anticipation abilities of drug addicts and those of their parents.

**Methodology:** The study of anticipation abilities was carried out within the concept of V.D. Mendelevich's neurogenesis using the *Test of Anticipation Consistency* methodology (by V.D. Mendelevich). The ability of a human to forestall the structure of the future within this theory is called *anticipation consistency*. In the structure of anticipation abilities, V.D. Mendelevich identified three types of forecasting: personally contextual forecasting, spatial forecasting and time forecasting [21].

The research was carried out with respect to drug addicts (60 persons between 16 and 25 years of age) and their parents (60 persons between 35 and 55 years of age). The control group included 11<sup>th</sup> graders of secondary schools of Kazan between 16 and 18 years of age, students of the Tartar Institute of Business (TISBI) between 17 and 25 years of age (60 persons totally) and their parents (60 persons).

**The results:** Of the carried out research confirmed the assumption. According to the results provided in Figures 1-4, we can notice differences between the predictive abilities of drug addicts and their parents. The drug addicts' showed slightly higher indexes of personally contextual, spatial, temporal and general anticipation consistency if compared to those of their

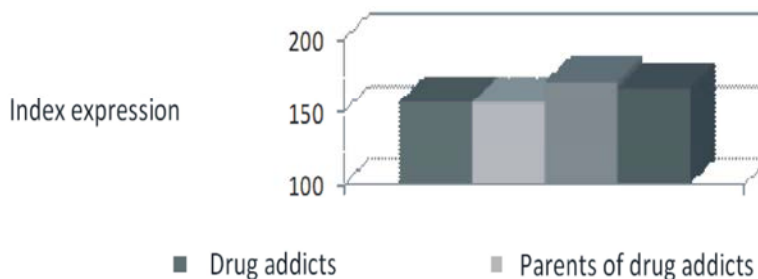


Fig. 1: Personally contextual predictive competence

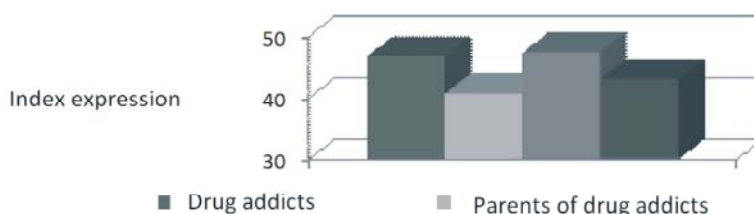


Fig. 2: Spatial predictive competence

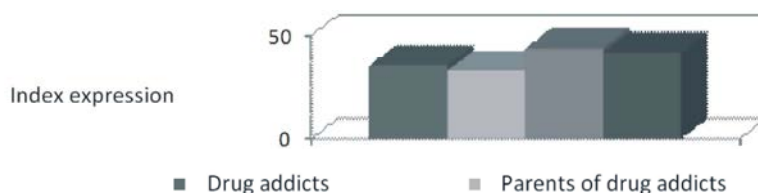


Fig. 3: Temporal predictive competence

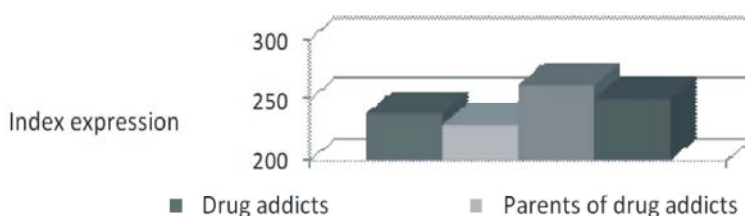


Fig. 4: General anticipation consistency

parents. The only statistically valid differences (by the Student's t-criterion) were revealed by the indexes of spatial forecasting ( $t=4.79$ , at  $p < 0.001$ ): the values of spatial forecasting of drug addicts turned out to be higher than those of their parents.

The control group showed that children had slightly higher values of predictive competence than their parents did with respect to all parameters. However, no statistically valid differences between the indexes of predictive competence were revealed.

When comparing the results of parents in both studied groups, we noticed significant differences in all indexes of anticipation consistency. Parents of drug addicts, when compared to the parents from the control group, showed statistically valid lower values of general anticipation consistency ( $t=5.34$  at  $p < 0.001$ ), the personally contextual ( $t=3.68$  at  $p < 0.001$ ), spatial ( $t=3.36$  at  $p < 0,01$ ) and temporal forecasting ( $t=4.36$  at  $p < 0.001$ ).

This can be explained by the fact that parents of drug addicts are actually in a stressful situation, which arose quite unexpectedly and has indefinite results and uncontrollable course. Consequently, the lasting state of stress can lead to exhaustion of adaptive potential of a personality, which, in turn, is accompanied by decline of predictive functions.

On the other hand, the decline of anticipation abilities can serve a powerful premorbid factor of neurotization of the drug addicts' parents (V.V. Korolev, V.D. Mendelevich, E.T. Sokolova, A.T. Back, P.R. Casey, P. Tyrer, H.A. Witkin). V.D. Mendelevich in his works represents neurosis as the result of a person's inability to forestall the course of events and his own behavior and imagine the structure of the future based on previous experience. The ability of a human to forestall the structure of the future within this concept is called *anticipation consistency* [6].

Unfortunately, within this work, it is impossible to state reasonably, what we are dealing with – the cause or the consequence in the form of declining anticipation abilities of the drug addicts' parents. But, within this work, this phenomenon is considered as a premorbid factor influencing the stress resistance of parents and, in a certain manner, the upbringing of children.

When comparing the results of drug addicts and the tested persons in the control group, we observed significant differences: in personally contextual forecasting ( $t=3.41$  at  $p < 0.001$ ); in spatial forecasting ( $t=4.85$  at  $p < 0.001$ ); in general anticipation consistency ( $t=6.64$  at  $p < 0.001$ ).

By the scales of anticipation consistency, we can break up the results of the tested persons into those below normal and those equal or above normal. A comparative analysis of the percentage ratio of the results was carried out. The Fisher's criterion of angular transformation ( $\varphi^*$ ) was applied to detect statistically significant differences. The personally contextual forecasting of 69.5% of drug addicts was below normal. In the control group, the values of 28.3% of teenagers were below normal and the values of 71.7% of teenagers were equal to or above normal. Parents had similar results: 70.1% of the drug addicts' parents had the results below normal. At that, the parents in the control group with the below normal value numbered 25.4% ( $\varphi^*=5.08$  at  $p < 0.001$ ). The majority of drug addicts (80%) had low results by the scale of spatial forecasting according to the results of the Test for Anticipation Consistency; and 20% of them showed spatial forecasting above normal.

Teenagers in the control group showed the following values of these indexes: the results of 39.4% of the tested persons were below normal ( $\varphi^*=4.960$  at  $p < 0,001$ ), the results of 60.6% of them were above normal ( $\varphi^*=4.962$  at  $p < 0.001$ ). For 96.7% of parents in the experimental group and 45.7% of parents of the control group, these results were below normal ( $\varphi^*=7.07$  at  $p < 0.001$ ). The temporal forecasting index turned out to be below normal for 73.3% of drug addicts and for 10.5% of the tested persons in the control group ( $\varphi^*=7.65$  at  $p < 0.001$ ).

The parents showed the following results for this index: 83.3% of drug addicts' parents showed the forecasting index below normal and 16.7% – above normal. In the control group, 12.3% of parents had results below normal ( $\varphi^*=8.36$  at  $p < 0.001$ ) and 87.7% of the parents – above or equal to normal ( $\varphi^*=9.20$  at  $p < 0.001$ ).

Thus, on the scale of anticipation consistency, the results below normal prevail in the group of drug addicts. This statement relates to the scale of spatial forecasting and temporal forecasting. In other words, among drug addicts, there are more persons with motor incoordination and chronorhythmologic anticipation inconsistency.

The control group showed more results above normal on the personally contextual and temporal forecasting scales, which evidences the fact that among the tested persons, the percentage of those whose results are estimated as *polystochastic forecasting* and *chronorhythmologic anticipation consistency* is higher.

Similar results were shown by the parents. Among the drug addicts' parents, there were more tested persons with chronorhythmologic inconsistency and values,

which can be interpreted as motor incoordination. In the control group, there were more parents prone to polystochastic forecasting and having chronorhythmologic anticipation consistency.

However, the received results evidence the fact that the parents of both tested groups have lower level of anticipation consistency than their children do. This phenomenon can be explained through both the age factor and the peculiarities of the social situation, in which the formation and development of the parents' personalities took place.

## CONCLUSION

The provided empirical research gives reason to state that the strategy of parents forecasting is one of the factors of predictive competence formation with children. This, in turn, points out the existence of a stable pathogenic pattern in the families of drug addicts, rendered by the parents in the course of upbringing and determining the maladaptive (including the dependent) forms of behavior.

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