Kelly’s Repertory Grid to Study Chemical Addictions in Young Students

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**Abstract:** In the last decade, due to the increase in the proportion of behavioral addictions, the problem of dependent behavior has become particularly relevant. It is seen as a challenge to modern society, which is entering a fundamentally new era of world civilization. Any addiction that occurs in adulthood has difficulty in overcoming. However, early interventions could prevent serious consequences. The article presents the results of theoretical analysis and practical studies of the authors devoted to the problem of chemical addictions among students. The researchers note the lack of a common point of view on the problem of forming attitudes toward a healthy lifestyle. The method of personality constructs by J. Kelly was chosen as a reliable method for studying the attitude of teenagers to alcohol and tobacco smoking. This allowed determining the system of subjective categories through the prism of which the subject exercises interpersonal perception. In other words, we are talking about effective ways of forming value attitudes in students in relation to their health. The results of the study made it possible to trace age changes in young people’s attitudes towards tobacco smoking and alcohol, as well as to draw conclusions on aspects where addiction and dependence are the basis for the development of stable personality formations.

1. **Introduction**

The modern paradigm of education in Russia identifies the health-saving of students as one of the priorities in both the system of general and higher education. At the same time, there is a tendency of constant deterioration in the health of students, especially among schoolchildren. During the period of study at school, among children, the number of disorders of the musculoskeletal system increases 5 times, and it is 1.5-2 times with neuropsychiatric abnormalities. Unfortunately, the modern school does not contribute to strengthening the health of the younger generation, both from the point of view of material and organizational (school furniture, educational literature), and organizational and methodological (educational ecology, lessons) activities. Researchers note that “modern mass school doesn’t provide compensation for the typical state of physiological and psychological immaturity for modern children” [1]. Thus, it can be stated that the existing contradictions in the education system between the needs of society and the state in preserving and strengthening the health of children and the inability of the educational system (educational organizations) to realize them fully is one of the factors of deterioration of the health of students.

The intensification of the educational process, together with adverse environmental factors and the lifestyle of the modern younger generation (the emergence of chemical addictions) in total do not contribute to strengthening the health of young people. According to some researchers, the health-damaging behavior of young people is the result of shoddy preventive work to promote a healthy lifestyle, schoolchildren's ignorance of the effects of tobacco, alcohol, drugs, and chemicals on the young person's body. The data of scientists indicate that already at the age of 14-15 years, 20% of teenagers consumed alcohol, and by 16-17 years, 80% of them became systematic [2]. Such depressing statistics are confirmed by the data of the Federal State Statistics Service of the Russian Federation: among teenagers aged 15-19 years, the share of drinking alcoholic beverages is 37.7%. Overcoming the age limit on the purchase of alcohol and tobacco products contributes to an increase in the percentage of young people (20-24 years old) who drink alcohol up to 74.2% [3].
Tobacco-smoking is another form of addictive behavior of youth, and this form of narcotism is most common among minors. In particular, 44.8% of teenagers smoke regularly. A. V. Lyakhovich and T. I. Shirokova revealed the following patterns. In the 8th grade, 25.2% of students smoke; it is 31% in the 9th grade. Then in the 10th grade, the share of smokers reaches 40.9%. Such statistics reflect the general negative situation in the country.

The increasing proportion of smokers among young people, especially minors, promotes by the emergence and development of electronic cigarettes, as well as the strengthening of the myth of their harmless effects on the human body. The fashion for electronic cigarettes among young people is one of the factors of subsequent involvement in tobacco smoking. The demonstration by minors of pseudo-maturity through tobacco smoking is the manifestation of maladaptation, i.e., the unsuitability for changing living conditions, unpreparedness for solving complex life problems [4].

Thus, it is during school years that children are involved in tobacco and alcohol consumption, and health-destructive attitudes are formed. At the same time, the school is the social institution through which the entire population passes. This is intended to create positive health-saving motives through a purposeful and systematic impact on the consciousness and feelings of the younger generation. However, as noted by N. P. Abaskalova, the contemporary school lacks a holistic, integrative theory and technology for the formation of a healthy lifestyle [5].

Smoking, as the most common form of chemical addiction, has irreparable harm to health, especially if it is attached to adolescence, when a person’s physiological systems, including reproductive, are finally formed. Adverse ecology, increased stress factors, together with the early addiction of young people to bad habits, led to a significant decrease in the average age of cardiovascular and oncological diseases, the manifestation of mental disorders at teenage age.

In this regard, the prevention and fight against the health-destroying behavior of young people are of particular relevance. In the scientific community, the works of the following authors are devoted to the problems of the spread of addictions among the younger generation: A. V. Basova, M. A. Kovalchuk, N. Ya. Kopyta, A. V. Martynenko, V. G. Zaporozhchenko, and E. N. Skvortsova. At the same time, a significantly smaller number of scientific papers reflect the prevention of bad habits among young people at the level of practical recommendations on the formation of personality traits in boys and girls. They contribute to the development of stress resistance in the event of difficult life situations without resorting to various forms of narcotism.

In our opinion, special attention should be paid to the search and use of reliable methods for studying the attitude of teenagers to alcohol consumption and tobacco smoking. They will ultimately help identify effective ways of forming value attitudes in this age group concerning their health.

2. Materials and Methods

The Kelly construct method is one of these methods, which is aimed at studying the attitudes of teenagers, i.e., their readiness and predisposition to concrete actions or reactions to concrete stimuli.

From the earliest childhood, through constant contacts with family members, classmates and acquaintances, opinions, assessments, and beliefs are formed in a person as a product of sociocultural influence micro and macro environments as an experience of personal interaction at various levels. Moreover, the parental behavior model initially lays the foundation for further child attitudes. The structural basis of attitude is formed in a period of 12-20 years when the family model begins to be supplemented by external "prescriptions." A formed person with already “established” attitudes forms his behavior model. Changing attitudes during this period occurs with great difficulty.

Thus, it is meant a three-level measurement of cognitive, affective, and behavioral attitudes. The opinions and beliefs of personal judgments about the surrounding sociocultural reality form the basis of the cognitive component of attitudes. The emotions associated with these beliefs and judgments, in their positive and negative connotations, constitute the affective component of attitudes. Beliefs and corresponding human experiences determine the vector of behavior as a response to an external stimulus. Such an action is the behavioral component of attitudes.
The success of a person's sociocultural adaptation is determined to a greater extent by central (basic) attitudes that form the basis of a belief system. They determine the degree of adaptation of the individual to the requirements of society. At the social and domestic level, a person is more guided by peripheral attitudes that are easier to change than central ones.

The change in personality attitudes is carried out under the influence of various agents and institutions of socialization: family, mass media, friends, teachers, cyberspace. They consciously or unconsciously attempt to change attitudes by using new information, affecting fear corresponding to compensation. The methods used to change attitudes are both constructive and destructive direction.

Based on the mechanism of formation of attitudes, it should be noted that health-saving is developed in humans due to a certain impact and doesn't appear as a matter of course. The sociocultural environment at the micro and macro levels creates a belief about the determinants of behavior, including concerning alcohol and tobacco, from absolute refusal to frequent smoking and drinking.

The person makes a first physical contact with alcohol and tobacco already being ready to do so, as he/she has previously had the corresponding attitudes laid down. This means that human behavior is probabilistically predictable in various situations of time and place, but only if we know these attitudes. Prediction of behavior should take into account the emotional component of the attitude since the irrational principle can overshadow the rational and combine the most opposite concepts. Things inexplicable from the point of view of rationality are explained using the laws of emotional phenomena. Particular personality formations, and entire systems of a person's ideas about the surrounding social reality, about him/herself, are built on an emotional basis. Emotional cognition fills traditional concepts with new meaning, forming a variety of new relationships between them. At the same time, for different people, the same idea can be filled not only with different content but also with the completely opposite meaning.

The significance of the affective component of the attitude predetermined the choice of a method for studying changes in the emotional part of attitudes towards a healthy lifestyle in teenagers. The method of constructs developed by J. Kelly allows us to explore the world of individual human representations. Concepts or constructs used by humans in the process of perceiving the world determine their behavior. As a researcher of the world, people use their special subjective means, not only designed by themselves but also tested by in the course of practical activities, contributing to the facilitation of perception and understanding of the world, evaluation, and forecasting of events. Thus, a construct is a certain bipolar sign, alternative ways of behavior. To avoid cognitive dissonance, construct systems strive for consistency, as a result of which there is a constant restructuring of this system.

According to F. Franzell and D. Bannister, the technique of repertory grids, developed by J. Kelly as a way to study the system of personal constructs, is a way to “get into the skin of another, see the world through his eyes, enter his position” [6].

The physical and mental health of a person is the result of his inner world. A person does not seek to open this world to other people, including psychological defense mechanisms. Verbal communication does not always allow us to understand the true essence of attitudes, so the use of constructs must be accompanied by an understanding of what it is aimed at, which enables us to identify.

J. Kelly suggested using bipolar constructs that are in individual hierarchical relationships: now-then, white-black. The bipolarity of the constructs was used by us to compose triads, with the help of which the attitudes of youth in relation to smoking and drinking alcohol were studied.

3. Results

The research platform was the secondary schools and universities of Yaroslavl, Russia. The survey was conducted among 160 people, of which 101 schoolchildren (5th grade students – 29 people; 7th grade – 25 people; 9th grade – 23 people; 11th grade – 24 people) and 59 university students (1st year students – 20 people; 3rd year – 21 people; 5th year – 18 people) [7].

The processing of the results was carried out using the calculation of extensive indicators, comparison of indicators, a graphic image of statistical quantities. The results obtained by us are presented in Table 1.
TABLE 1. THE DISTRIBUTION OF TEENAGERS AND STUDENTS DEPENDING ON THE PREVALENCE OF BAD HABITS

| Bad habits          | 5th grade | 7th grade | 9th grade | 11th grade | 1st course | 3rd course | 5th course |
|---------------------|-----------|-----------|-----------|------------|------------|------------|------------|
| Never tried alcohol| 41%       | 4%        | 13%       | 4%         | 5%         | 0          | 0          |
| Tried alcohol       | 59%       | 96%       | 87%       | 96%        | 95%        | 100%       | 100%       |
| Total               | 100%      | 100%      | 100%      | 100%       | 100%       | 100%       | 100%       |
| Smoke               | 3%        | 0         | 16%       | 33%        | 40%        | 33%        | 50%        |
| Don't smoke         | 97%       | 100%      | 84%       | 67%        | 60%        | 67%        | 50%        |
| Total               | 100%      | 100%      | 100%      | 100%       | 100%       | 100%       | 100%       |

Since the study involved teenagers and young people aged 11 to 22 years, it is possible to trace the dynamics of changes in their ideas and the evolution of the construct system.

The consistency of the construct system increases with age. D. Bannister showed that less meaningful relationships are defeated by stronger emotional bonds, leading to agreement and harmony.

4. Discussion

Changing attitudes toward smoking among young people can be traced separately for some leading constructs.

According to the “cigarette-stupidity” construct, most schoolchildren believe that smoking is just stupid. However, with age, supporters of this opinion are significantly reduced.

With increasing age, the percentage of respondents who believe that smoking inevitably causes harm to health decreases. Representatives of older ages of respondents consider cigarettes as a drug to a lesser extent. The differences in indicators are reliable (t=2,8; P<0,05).

In student survey groups, most associate smoking with a company of friends. The differences in indicators are reliable (t=5; P<0,01).

The idea of smoking as a rest and a simple pastime is characteristic of the older ages of young people. The differences in indicators are reliable (t=2,5; P<0,05).

The respondents among the main determinants that contribute to smoking include: joint rest, drinking alcohol, listening to music, dancing. Moreover, with age, this construct chooses a larger number of young people surveyed. The differences in indicators are reliable (t=2,5; P<0,05).

Representatives of older youth ages who participated in the survey identify smoking as a factor in effective communication. The differences in indicators are reliable (t=3; P<0,01).

Loneliness, as one of the main determinants of smoking, is distinguished by younger teenagers, but already at older ages, this attitude is significantly reduced. The differences in indicators are reliable (t=2; P<0,05).

Alcohol use among young people is another form of addictive behavior. We also examined the change in attitudes of schoolchildren and students to drink alcohol in several constructs. The survey revealed that the perception of alcohol as a source and cause of delinquency in the youth environment decreases with age. The differences in indicators are reliable (t=4; P<0,01).

Upon reaching student age, the number of young people who consider alcohol joy increases by four times. The differences in indicators are reliable (t=4; P<0,01). The number of respondents associating alcohol with pleasure with growing up almost ten times. The differences in indicators are reliable (t=5; P<0,01).

The number of respondents who believe that drinking alcohol is nonsense with growing up is significantly reduced. The differences in indicators are reliable (t=2; P<0,05). At the same time, with age more than two times, the number of people associating alcohol with a holiday increases, i.e., who chose the construct “wine-holiday.” The differences in indicators are reliable (t=3; P<0,01).

As they grow older, less and less young people associate alcohol consumption with the disease. The number of people who chose the construct “wine-disease” with age decreased by almost two times. The differences in indicators are reliable (t=2,5; P<0,05).
Also, with age, the number of respondents who believe that alcohol is a poison decrease by more than two times. The differences in indicators are reliable (t=2.5; P<0.05).

Also, with age, the number of young people who believe that drinking alcohol can be addictive as a drug has decreased by almost two times. The differences in indicators are reliable (t=2.6; P<0.05).

5. Conclusion

Thus, the results obtained during the study allow us to draw the following conclusions:

1. To study changes in the attitudes of teenagers and youth regarding tobacco smoking and alcohol consumption, it is advisable to use the repertoire test of role constructs by J. Kelly.

2. As they grow older, the attitude of young people to smoking and drinking alcohol changes significantly towards the formation of addictions dictated by various determinants of pseudo-socialization.

3. Using the construct method allowed us to trace age-related changes in the attitudes of young people regarding smoking and alcohol. In particular, at the older ages of the demographic group under study, the proportion of those who identify smoking and alcohol with a drug is significantly reduced, considers these addictions stupid, and associates them with disease and crime. On the contrary, the number of young people who associate smoking with communication, who believe tobacco to be an integral attribute of communication, especially among friends during leisure, is significantly increasing. The use of alcohol in a student environment is associated with joy, celebration, and pleasure, an integral attribute of a friendly company.

4. The results obtained during the study of the factor on the age-related changes in the attitudes of young people concerning smoking and drinking alcohol contribute to the development of effective preventive and corrective measures in educational institutions.

Besides, the data obtained allow us to formulate some general recommendations for preventive anti-alcohol and anti-tobacco educational work.

First, taking into account that the formation of individual attitudes towards alcohol and tobacco in children begins at the age of 10, anti-alcohol and anti-smoking education should start from elementary school. It should have the character of a warning rather than a re-educational effect.

Second, the process of preventing the use of tobacco and alcohol should have the character of a targeted and consistent impact, using not only stories about the destructive consequences of these types of addictions for humans but also with a clear demonstration of these effects with complicating the information provided.

Third, the planning of this kind of preventive work should take into account and be based on the laws governing the formation of appropriate attitudes to alcohol and tobacco in teenagers, based on the psychological characteristics of different age groups of young people.

Fourth, the prevention of alcohol and tobacco use should be comprehensive, involving parents, medical specialists, police officers, students, and high school students themselves to participate in events of this kind.

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