

# The Development of Prosocial Tendencies in Out-of-School Students

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**Abstract:** The article highlights the results of an experimental study on the formation of prosocial behavior among out-of-school students of their teenage and adolescent years. The dynamics of development of prosocial behavior is determined; the reliability of the revealed changes is established to confirm the effectiveness of the conducted psycho-correctional work. This article is an experimental continuation of the first stage of the study of teens and adolescents' prosocial behavior.

The results of the experimental study show the dynamics of changes before and after the formative experiment on the levels of empathy, the components of altruism and selfishness in the experimental and control groups. Changes in types and norms of teens and adolescents' prosocial orientation of behavior are analyzed.

After the experiment it was found out that the level of empathy and altruism is statistically higher among the students of their teenage and adolescent years in the experimental group than in the control one. It is noted that the system of psycho-correctional measures promotes the development and increase of empathy and altruism among teenagers and adolescents.

Significant differences among the types and norms of teenage and adolescent students' prosocial behavior before and after the experiment are identified.

It is proved that teenagers and adolescents show less dominance of altruistic motives in behavior when there is a necessity to provide assistance in public. The level of altruism increases under the possibility of selfless and charitable assistance.

It is concluded that the results of the approbation have testified to the effectiveness of the developed program of prosocial behavior formation in students of out-of-school institutions.

**Keywords:** *prosocial behavior; empathy; selfishness; altruism; teenagers; adolescents.*

**How to cite:** Chaikovska, O., Posokhova, A., Melnyk, L., & Kurytsia, A. (2021). The Development of Prosocial Tendencies in Out-of-School Students. *Revista Romaneasca pentru Educatie Multidimensionala*, 13(4), 543-567. <https://doi.org/10.18662/rrem/13.4/497>

## 1. Introduction

Socio-economic processes taking place in Ukraine and, at the same time, the growth of selfishness and indifference in children and youth environments determine the interest in the problem of moral development. Modern society, in which the principles of success and personal achievements come to the fore, inevitably puts before the developing individuals the problem of choosing between what to do in a given situation and their own interests. The dilemma of making a choice between personal and public, between personal benefit and the good of another man becomes very acute. Such contradictions are the cause of conflicts that occur in modern society at both the public and individual levels. That is why the relevance of the formation of prosocial behavior is an important social phenomenon at the present stage of society development.

It should be noted that in the last decade there has been an increase in the interest of the world community in the development of prosocial trends. The growth of prosociality is an element of social competencies that are part of educational programs in many countries, among which are Ukraine, Canada, USA, India, Finland. The importance of developing prosocial behavior at the international level is shown in the programs initiated by the United Nations, in particular, the UNESCO document "Roadmap for the Implementation of the Global Plan of Action in Education for Sustainable Development". (Osvita dlya staloho rozvytku v diyi: mizhnarodnyy osvritniy proekt dlya shkil'noyi molodi ta doroslykh. Mizhnarodni dokumenty, 2013-2014).

This research intends to study the general patterns of development and functioning of prosociality in out-of-school teenagers and adolescents, as well as to develop and test a program of psychological and pedagogical support of prosocial personality development at this age. Therefore, the purposes are to theoretically substantiate and empirically study prosocial tendencies in out-of-school students of their teenage and adolescent years, to identify ways of developing prosocial personality.

The set objectives are as follows:

1) to analyze the scientific literature on the development of prosocial behavior in student youth.

2) to determine the features of dynamics of the development of prosocial behavior in teenagers and adolescents of the experimental and control groups before and after testing the system of psycho-correctional measures.

3) to conduct a comparative analysis of criteria and indicators for diagnosing the features of prosocial behavior in the experimental and control groups (before and after the formative experiment).

## 2. Literature review

A number of domestic and foreign researchers are engaged in scientific investigation on the problem of the formation of individual's prosocial behavior, in particular, teenagers and adolescents. The present work is an experimental continuation of the first stage of the study of teens and adolescents' prosocial behavior. In the previous theoretical and empirical investigation, the authors have developed a methodological basis for diagnostic and empirical research of the peculiarities of teens and adolescents' prosocial behavior and analyzed the distinctions between them (Chaikovska et al., 2020).

Kukhtova et al. (2014, p. 160) believe that prosocial behavior is based on the priority of moral norms and social interests over personal interests, and it is not innate, but results from human development.

At the same time, Ilyin (2013, p. 304) understands prosocial behavior as moral actions prescribed in a certain culture, which are defined as socially positive: generosity, helping others, cooperation, expression of compassion.

The attempt is made to identify the instruments for measuring prosocial behavior which are available today in the empirical literature, as well as to analyze their characteristics and psychometric properties (Martí-Vilar et al., 2019).

The phenomenon of prosocial behavior is described by the researchers from different points of view. The analysis of the scientific literature confirms the complexity and multidimensionality of the process of development of prosocial behavior of secondary school students and proves that it occurs during active multi-subject interaction of students with important representatives of the immediate social environment, namely parents, teachers, peers, classmates and residents of local communities. Thus, Laura M. Padilla-Walker (2014), admitting that prosocial behavior (actions intended to benefit others) has been associated with a number of positive outcomes across childhood, adolescence, and young adulthood, however, treats this complex set of behaviors as relatively unidimensional, taking a multidimensional and developmental approach to examining multiple different types, targets, contexts, and motivations for prosocial behavior at different ages. The researchers conceptualize these behaviors during adolescence, a period of age-related changes in these actions, as

global and unidimensional, and present the limits of these early conceptions (Carlo & Padilla-Walker, 2020).

A discussion is focused on individual differences in prosocial behaviors among early adolescents and middle adolescents and the need to differentiate among differing types of prosocial behaviors (Carlo et al., 2003).

Particular attention to the development of prosociality in adolescent period is paid in the work of Italian scientist Kanacri (2011). According to her, the development of prosociality, in the period we are interested in, is characterized by nonlinearity and multivariability.

The correlation is highlighted between the development of prosocial tendencies, self-esteem, moral judgement and different beliefs as highly positive (Chen et al., 2020; Malinauskas & Saulius, 2019; Patrick et al., 2018; Zuffianò et al., 2014).

Undoubtedly, empathy is considered as one of the most important conditions for the manifestation of prosocial behavior (Gavrilova, 2008). Thus, the researchers hypothesize that major life events would interact with perspective taking to predict empathic concern, which would predict multiple types of prosocial behaviors among young adults (Davis et al., 2019; Lockwood et al., 2014), aim to investigate the process that leads people to offer or omit help in response to an explicit request for assistance, taking into account both emotional and cognitive factors (Paciello et al., 2013), examine the relationship between mindfulness and different types of prosocial behaviors through the mediating agent of empathy (Sunbul, 2021), analyze different psycho-educational variables of empathy and measures of prosocial tendency (Morales, 2020).

The fact is indicated that prosociality includes those intentional behaviors that are performed for the benefit of other people and evaluate the role of the attribution that an individual makes about a situation of potential help in the elicitation of prosocial behavior (Balabanian & Lemos, 2020).

Humans are a remarkably cooperative species, and one behavior thought to play an important role is that of reciprocal altruism. Recent theoretical models and empirical studies of indirect reciprocity show that individuals behave in a prosocial way in order to develop an altruistic reputation and receive future benefits from third parties (Leimgruber, 2018; Simpson & Willer, 2008). Bykov (2016) argues that it is necessary to take into account behavioral and psychological perspectives, a promising sociological approach to the study of altruism in different social contexts can be based on renewing the classical focus on the normative components of moral behavior

Thus, we consider that the high level of social significance of the problem of studying the features of prosocial behavior in teenagers and adolescents, its insufficient scientific comprehension and a lack of scientific developments in domestic and foreign science indicate its relevance and timeliness.

### **3. Research methodology**

In the course of the study theoretical methods such as analysis and generalization of psychological and pedagogical literature on the research problem were used. There was also applied a set of empirical methods as conversation, observation, testing, methods of mathematical statistics (Pearson's r-test correlation analysis, non-parametric criterion – Mann Whitney U-test).

To study the formation of prosocial behavior several techniques were exploited. We used "Measurement of prosocial tendencies" by Carlo and Rendell (Kukhtova et al., 2014) to investigate manifestations of prosocial behavior through the assessment of six different types of prosocial behavior; "Social norms of prosocial behavior" by Furmanov, Kukhtova (Kukhtova et al., 2014) for study of positions of assignment of social norms and construction of interpersonal relations on the basis of four types of norms influencing prosocial orientation of behavior; "Schwartz's value questionnaire" (Schwartz, 2008) to study the dynamics of changes in values; "Diagnosis of the level of empathic abilities" by Yusupov (Raygorodsky, 2002, p. 664) to examine the level of empathy in a wide range – from a low one, which makes it difficult to interact with those around, to too high, associated with a complex of personal guilt and painful empathy; "Diagnosis of socio-psychological attitudes of the individual in the motivational sphere" by Potemkina (Raygorodsky, 2002) for identification of attitudes aimed at "altruism-selfishness".

#### ***3.1. Research procedure***

Examining the features of prosocial behavior in out-of-school students, it is possible to note the dominance of selfish motives in teenagers and adolescents; they have a disharmony in the development of moral knowledge and moral habits, which indicates the need for corrective work directed to the formation of positive moral habits by enriching life students' experience.

The basis of the methodological support of correction was an experimental psychological program, which provided for the correctional work in the unity of such areas as cognitive, emotional-value and behavioral.

Cognitive training consisted in deepening students' knowledge of the essence of prosocial behavior, altruistic relationships, personal awareness of moral principles, knowledge, concepts, judgments; readiness to independently determine the content of these concepts and their features; awareness of the traditions of educating altruism; understanding of modern features of altruism.

The following indicators of the emotional-value criterion are determined: emotional-value attitude to the norms of morality, attitude to oneself, moral self-esteem, and emotional evaluation of interpersonal relationships.

Behavioral criterion presupposes readiness for a certain way of action, and also determines the level of personal responsibility for one's own behavior; work on one's own moral growth; showing selfless help for the sake of others; ability to successfully interact and cooperate with other people on the basis of humanism; the ability to be guided in actions by moral qualities that are components of altruism.

In order to form a prosocial orientation in teenagers and adolescents, a special program of socio-psychological training was created.

The main objectives of the program are: development of emotional sensitivity, insight and empathy of the participants; formation of humanistic and altruistic orientation to another person; development of skills of active empathic listening; formation of the ability to understand and penetrate into various psycho-emotional states of another person and to come into contact with his experiences; mastering the models of effective empathic interaction in the "psychologist-client" system; formation of a positive orientation of unconditional acceptance of oneself and others; mastering the skills of providing psychological support and empathic assistance to the client; development of reflexive abilities, self-analysis and self-knowledge.

Approbation of the proposed psycho-correctional measures aimed at the development of prosocial behavior in students of their teenage and adolescent years of the experimental group, led to changes in its structural components.

The purpose of the final stage of the experimental study was to conduct a comparative analysis of qualitative and quantitative results after the formative experiment in participants of the experimental group (EG) and control group (CG) with indicators of the observational experiment, as well as analysis of personality determinants in EG and CG after formative experiment. This made it possible to determine the dynamics of prosocial behavior, to establish the reliability of the identified changes to confirm the effectiveness of psycho-correctional work.

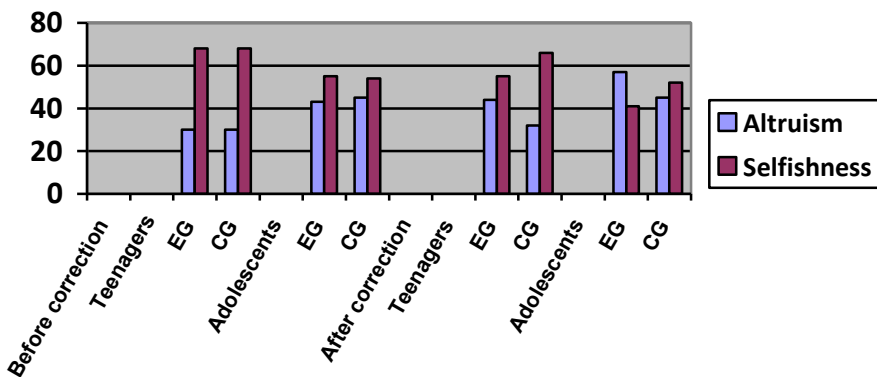
Students of the out-of-school institution from Chemerivtsi, Khmelnytsky region became the participants of the formative experiment. Experimental (EG) and control (CG) groups were formed. 50 teenagers and adolescents were selected for EG and CG, i.e. the number of subjects in EG and CG was the same.

Quota sampling (a sample that defines the exact characteristics of the object to be selected) was used to select study participants. Before the start of the experiment, in the presence of students and their parents, teachers of the out-of-school institution, interviews were held, during which all participants were informed and agreed to take part in the study.

In order to examine the effectiveness of the program for the development of prosocial behavior of out-of-school students, a control section was conducted after its implementation. The obtained results were carefully analyzed and interpreted, i.e. quantitative and qualitative analysis was performed. The accumulation of research data was achieved by generalizing theoretical sources and systematizing the data of empirical results.

#### 4. Results

The comparison of pre- and post-correctional distribution of teenagers and adolescents in EG and CG by levels of components of altruism and selfishness is presented in Fig.1.



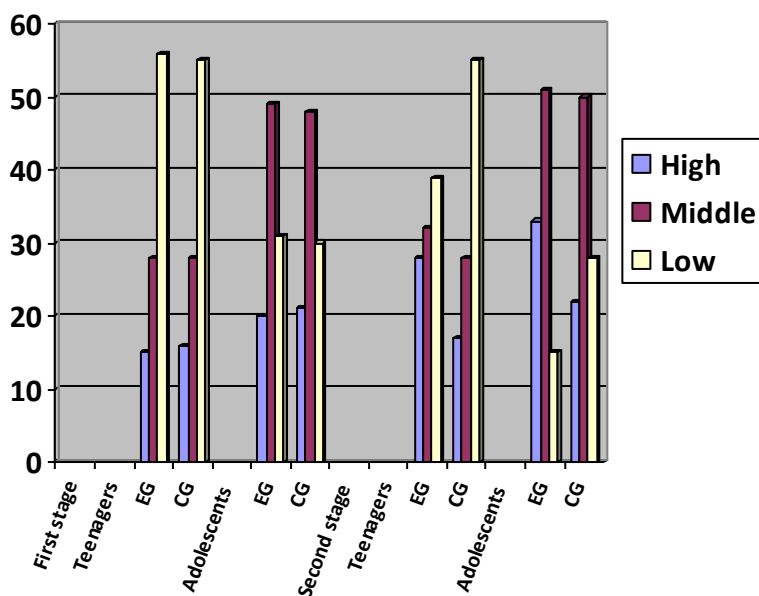
**Figure 1.** Dynamics of changes in the levels of development of altruism, selfishness of teenagers and adolescents according to the results of the formative experiment (in %).

Source: authors' own contribution

The study of data (Fig. 1) allows assessing changes in the distribution of teenagers and adolescents in relation to the pronounced altruistic and selfish tendency. It should be noted that the EG recorded a decrease in the number of teenagers (from 68.2% to 55.8%), adolescents (from 55.9% to 42.8%) with selfish orientation, an increase in the number of teenagers (from 31, 8% to 44.2%), adolescents (from 44.1% to 57.2%) with an altruistic position. There were no significant changes in the control group.

The work in the process of training on the development of empathy helped to reduce the number of teenagers and adolescents with low levels of empathy.

The dynamics of changes before and after the formative experiment on the levels of empathy in EG and CG is presented in Fig. 2.



**Figure 2.** Dynamics of changes in the levels of development of empathic tendencies in teenagers and adolescents according to the results of the formative experiment (in %)

Source: authors' own contribution

Thanks to the analysis of the received data it is possible to state the following facts. In the control group, the increase in empathy is insignificant. In the experimental group there is a certain decrease in the number of



teenagers (from 56.8% to 39.3%), adolescents (from 31.6% to 15.2%) with a low level of empathy and an increase in the number of teenagers (from 27, 5% to 32.2%), adolescents (from 49.2% to 51.1%) with medium and high in teenagers (from 15.7% to 28.5%), adolescents (from 19.2%) up to 33.7%) levels of empathic tendencies.

Comparing the experimental and control groups, it was found out that in the experimental group the indicators of the level of development of empathic tendencies changed significantly, which is the result of systematic influence; in the control group the results underwent insignificant changes.

The obtained result makes it possible to state that the empathic feelings of adolescents and teenagers progress from passive contemplation to active action: compassion-empathy. After conducting socio-psychological training with teenagers and adolescents, the following became noticeable: active expression of empathic feelings, supported by emotional responses to the experiences of others; increase of emotional sensitivity; the desire to penetrate deeper and understand the essence of the inner world of a man; to know the specifics of verbal and nonverbal spheres; approbation of active listening techniques, positive focus on interpersonal dyadic interaction.

The dynamics of changes in the types of teenagers and adolescents' prosocial behavior by Carlo and Rendell method of "Measurement of prosocial tendencies" (Kukhtova et al., 2014) is presented in Tables 1 and 2.

**Table 1.** The dynamics of changes in the types of prosocial behavior of teenagers  
Source: authors' own contribution

Types of prosocial behavior	Before experiment		After experiment	
	The results of responses of teens in EG	The results of responses of teens in CG	The results of responses of teens in EG	The results of responses of teens in CG
Compliant (conformist)	20 %	20 %	16 %	20 %
Public	16 %	16 %	12%	12%
Anonymous	12%	12%	8 %	16 %
Emergency	16 %	16 %	16 %	16 %
Emotional	20 %	20 %	24 %	20 %
Altruistic	16 %	16 %	24 %	16 %

The analysis of the study before and after the experiment shows the dynamics of changes in some types of teens' prosocial behavior, namely: compliant (conformist), public and anonymous prosocial behavior in EG

decreased by 4%; emotional prosocial behavior increased by 4%, altruistic - by 8%, while in CG all indicators remained almost unchanged.

**Table 2.** The dynamics of changes in the types of prosocial behavior of adolescents  
Source: authors' own contribution

Types of prosocial behavior	Before experiment		After experiment	
	The results of responses of adolescents in EG	The results of responses of adolescents in CG	The results of responses of adolescents in EG	The results of responses of adolescents in CG
Compliant (conformist)	16 %	16 %	12 %	16 %
Public	12 %	12 %	8%	16 %
Anonymous	16 %	16 %	12 %	12 %
Emergency	20 %	20 %	16 %	20 %
Emotional	16 %	16 %	24 %	16 %
Altruistic	20 %	20 %	28 %	20 %

Such prosocial tendencies as compliant (obsequious, conformist), public, anonymous and emergency types of behavior after the formative experiment decreased by 4%, and emotional and altruistic types increased by 8%. There were almost no such changes in the CG.

Thus, it was found out an increase in the number of students of teenage and adolescent age focused on helping people in need of emotional support and on selfless and charitable help without personal gain. This indicates that the experiment on the formation of prosocial behavior has had a positive effect on the prosocial tendencies of teenagers.

The results of the method of "Social norms of prosocial behavior", developed by Furmanov, Kukhtova (Kukhtova et al., 2014) are presented in Tables 3 and 4.

**Table 3.** Types of norms of prosocial orientation of teenagers' behavior  
Source: authors' own contribution

Types of norms of prosocial orientation of behavior	Before experiment		After experiment	
	The results of responses of teens in EG	The results of responses of teens in CG	The results of responses of teens in EG	The results of responses of teens in CG
The norm of social	24 %	24 %	28 %	24 %

responsibility				
The norm of reciprocity	16 %	16 %	24 %	16 %
The norm of justice	28 %	28 %	28 %	32 %
The 'cost-reward' norm	32 %	32 %	20 %	28 %

**Table 4.** Types of norms of prosocial orientation of adolescents' behavior  
Source: authors' own contribution

Types of norms of prosocial orientation of behavior	Before experiment		After experiment	
	The results of responses of adolescents in EG	The results of responses of adolescents in CG	The results of responses of adolescents in EG	The results of responses of adolescents in CG
The norm of social responsibility	24 %	24 %	36 %	20 %
The norm of reciprocity	16 %	16 %	16 %	24 %
The norm of justice	32 %	32 %	28 %	32 %
The 'cost-rewards' norm	28 %	28 %	20 %	24 %

The study shows that teenagers after the experiment put the norm of justice and social responsibility first, whereas before the experiment it was put second and third. The norm of reciprocity is put second, whereas it was fourth earlier; and teenagers put the "cost-reward" norm third.

Among the adolescents, the norm of social justice comes first (before the experiment, this norm occupied only the third place); the norm of justice comes second, whereas before the experiment it occupied the first place; they put the "cost-reward" norm third and the norm of reciprocity – forth.

Thus, it can be stated that for teenagers and adolescents after the formative stage of the study the norm of social responsibility turned out to be typical. It is based on the fact that people should help those who need it, and includes a sense of responsibility for various social situations to avoid guilt and maintain self-esteem. This rule requires prosocial behavior in all cases where there is a need for help and depends on the person who can provide it.

The dynamics of changes in the results of the study by the Schwartz's Questionnaire (Schwartz, 2008) is presented in Tables 5 and 6.

**Table 5.** The results of the study by Schwartz's Questionnaire  
Source: authors' own contribution

Values	Before the experiment		After the experiment	
	The results of responses of teens in EG	The results of responses of teens in CG	The results of responses of teens in EG	The results of responses of teens in CG
Independence	16%	16%	16%	16%
Stimulation	8 %	8 %	8 %	8 %
Hedonism	8 %	8 %	8 %	8 %
Achievements	4 %	4 %	4 %	4 %
Power	8 %	8 %	8 %	8 %
Safety	20 %	20 %	12 %	20 %
Conformity	8 %	8 %	4 %	8 %
Tradition	8 %	8 %	8 %	8 %
Amiability	12 %	12 %	20 %	12 %
Universalism	8 %	8 %	12 %	8 %

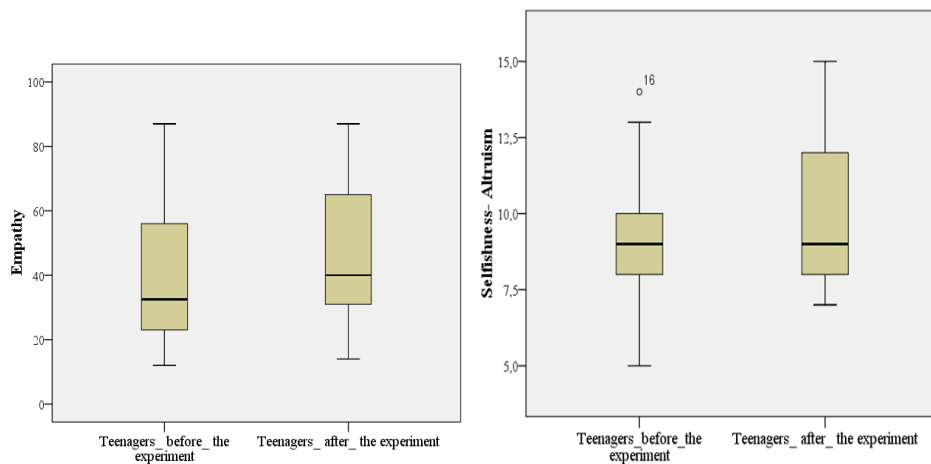
The analysis of the data makes it possible to state that before the experiment at the individual level the teenagers in EG and KG occupied the following blocks of values: 20% of respondents - safety (stability, security and harmony of society, family and the individual), 16% - independence (freedom of thought and action) and 12% - amiability (maintaining and improving the well-being of people with whom a person is in contact). After the experiment on the formation of prosocial behavior, indicators in EG have changed significantly, namely the hierarchy of value blocks has become as follows: amiability (maintaining and improving the well-being of people with whom a person is in contact) occupies the first place among 20% of teenagers, the second place occupies independence (freedom of thought and actions) among 16% of respondents, safety (stability, security and harmony of society, family and the individual) and universalism (understanding, gratitude, tolerance and maintaining the well-being of all people and nature) are in priority among 12% of responses, respectively. In the CG, the indicators remained almost unchanged.

**Table 6.** The results of the study by Schwartz's Questionnaire  
Source: authors' own contribution

Values	Before the experiment		After the experiment	
	The results of adolescents' responses in EG	The results of adolescents' responses in CG	The results of adolescents' responses in EG	The results of adolescents' responses in CG
Independence	20%	20%	20%	20%
Stimulation	12 %	12 %	8 %	12 %
Hedonism	4 %	4 %	4 %	4 %
Achievements	8 %	8 %	8 %	8 %
Power	8 %	8 %	8 %	8 %
Safety	4 %	4 %	4 %	4 %
Conformity	4 %	4 %	4 %	4 %
Tradition	8 %	8 %	4 %	8 %
Amiability	16 %	16 %	24 %	16 %
Universalism	16 %	16 %	16 %	16 %

Among the adolescents in EG, such blocks of values as independence (freedom of thought and action), and universalism (understanding, gratitude, tolerance and maintaining the well-being of all people and nature) remained in their positions in the answers of respondents, but amiability (maintaining and improving the well-being of people with whom a person is in contact) increased by 8%, that confirmed the effectiveness of the experiment.

In order to determine the characteristics of the dynamics of prosocial behavior of teenagers and adolescents in the experimental and control groups before and after testing the system of psycho-correctional measures, the results of the study were subjected to statistical analysis. At the first stage, it was used Wilcoxon T- nonparametric criterion for dependent samples. Different categories were analyzed. The following statistically significant differences were found in the experimental group of teenagers before and after psycho-correctional measures.



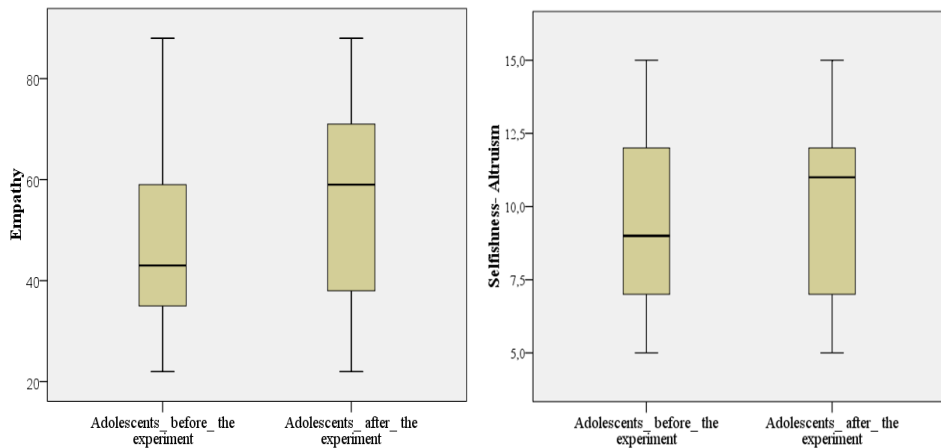
**Figure 3.** Indicators of significant differences by the scale of altruism-selfishness and empathy according to the Wilcoxon T- criterion among teenagers before and after the experiment

Source: authors' own contribution

It is ascertained that the teens' level of empathy increased after the experiment ( $z = 3.409$ ;  $p = 0.001$ ), there is also a statistically significant rise by the "selfishness-altruism" scale after the experiment ( $z = 5.313$ ;  $p = 0.000$ ).

There is a positive trend of significant changes after the experiment among adolescents (Fig. 4) by the "altruism-selfishness" scale ( $z = 3,075$ ;  $p = 0,002$ ) and empathy ( $z = 4,174$ ;  $p = 0,000$ ).

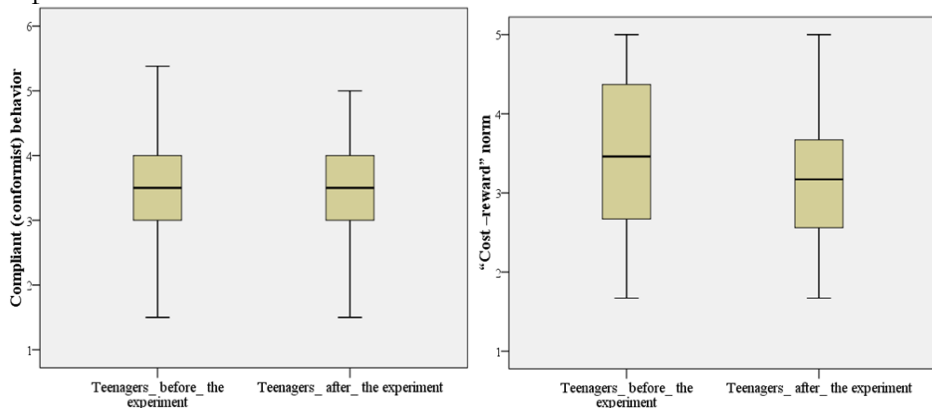
This indicates that the system of psycho-correctional measures promotes the development and increase of empathy and altruism among teenagers and adolescents.



**Figure 4.** Indicators of significant differences by the “altruism-selfishness” scale and empathy according to the Wilcoxon T-criterion among adolescents before and after the experiment

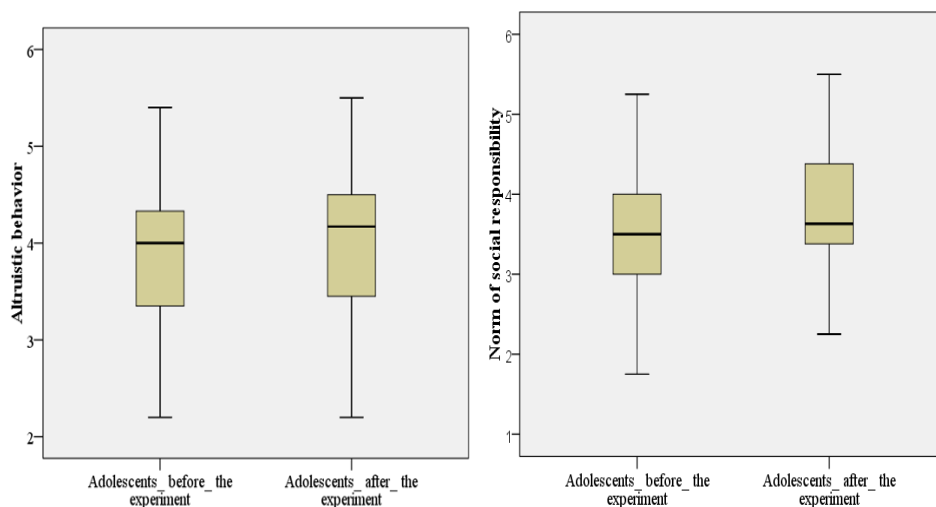
Source: authors' own contribution

Significant statistical differences before and after the experiment were found in the types and norms of teens' prosocial behavior. According to the results of the study, shown in Figure 5, the "Compliant (conformist) behavior" scale ( $z = -2,023$ ;  $p = 0,043$ ) and the "cost-reward" norm show a negative trend, indicating a significant decrease in performance after the experiment.



**Figure 5.** Indicators of significant differences in types and norms of prosocial behavior according to the Wilcoxon T-criterion among teenagers before and after the experiment

Source: authors' own contribution



**Figure 6.** Indicators of significant differences in types and norms of prosocial behavior according to the Wilcoxon T-criterion among adolescents before and after the experiment

Source: authors' own contribution

Significant differences among adolescents in the types and norms of prosocial behavior before and after the experiment are determined (Fig. 6). Thus, positive indicators are obtained by the "Altruistic behavior" scale ( $z = 2,197$ ;  $p = 0,028$ ). Positive statistical changes are indicated by the Wilcoxon T-criterion according to the norm of social responsibility ( $z = 2.383$ ;  $p = 0.017$ ) among adolescents.

At the second stage of the research, in order to more broadly study the differences between the samples and the results of the impact of the formative experiment, the experimental and control groups were compared. To determine the statistical differences between the independent samples, U-Mann-Whitney nonparametric criteria were used at the first and second stages of the experiment.

Prior to the experiment, no statistical differences are found between the experimental and control groups among teenagers and adolescents. Instead, significant statistical differences are found among teenagers between the experimental and control groups after the experiment on the "selfishness-altruism" criterion ( $U = 879.0$ ;  $p = 0.010$ ), "empathy" ( $U = 916.0$ ;  $p = 0.021$ ).



It is established (Table 7) that the level of empathy and manifestation of altruistic personality traits is statistically higher among the teenagers in the experimental group than in the control group after the experiment.

**Table 7.** Statistically significant indicators of differences between teenagers' control and experimental groups after the experiment

Source: authors' own contribution

Parameter	The mean of the ranks for EG	The mean of the ranks for CG	Value of Mann-Whitney U-criterion	p-level of significance
Selfishness-Altruism	<b>57,92</b>	43,08	879,00	0,010
Empathy	<b>57,18</b>	43,82	916,00	0,021

The study revealed differences in the manifestation of prosocial behavior among adolescents after the experiment (Table 8) by the "Public behavior" criterion ( $U = 1553.50$ ;  $p = 0.036$ ), where the values are statistically higher in the control group comparing with the experimental group by the "Altruistic behavior" scale ( $U = 872.00$ ;  $p = 0.009$ ), where higher rates are observed in the last one.

**Table 8.** Statistically significant indicators of differences between adolescents' control and experimental groups after the experiment

Source: authors' own contribution

Parameter	The mean of the ranks for EG	The mean of the ranks for CG	Value of Mann-Whitney U-criterion	p-level of significance
Public behavior	44,43	<b>56,57</b>	1553,50	0,036
Altruistic behavior	<b>58,06</b>	42,94	872,00	0,009

No significant statistical differences between the control groups before and after the experiment are discovered.

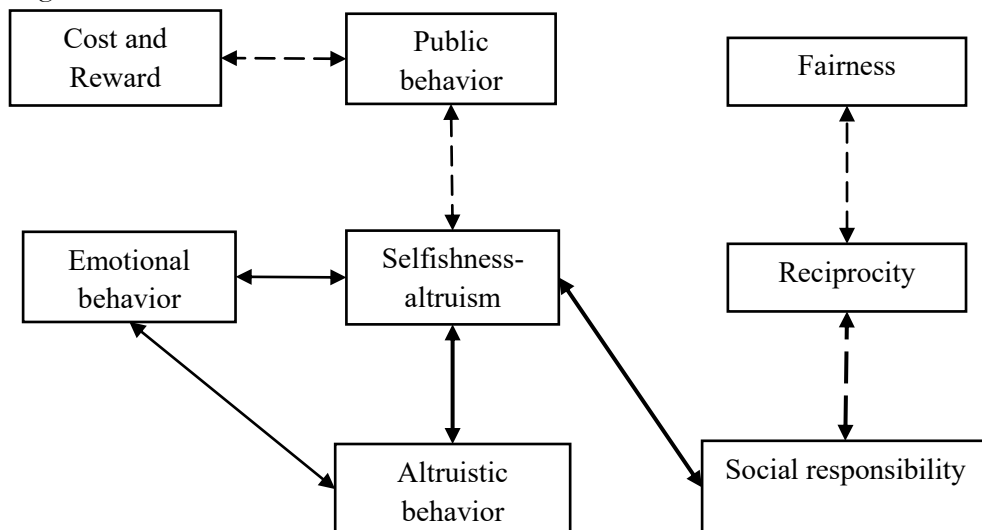
**Table 9.** Statistically significant indicators of differences between teenagers' and adolescents' experimental groups after the experiment  
Source: authors' own contribution

Parameter	The mean of the ranks for teens	The mean of the ranks for adolescents	Value of Mann-Whitney U-criterion	p-level of significance
Empathy	44,01	<b>56,99</b>	1574,50	0,025

In the course of study, the experimental groups of the two samples, teenagers and adolescents, after the experiment were compared. According to the results, which are covered in Table 9, a statistical difference is revealed between the samples by the "Empathy" parameter ( $U = 1574.50$ ;  $p = 0.025$ ), where there is a higher level of development of empathy among adolescent students than among teens. No significant differences among other traits in these groups are found.

In order to identify the features of prosocial behavior of out-of-school students, a correlation analysis by Pearson  $r$ -criterion was used. According to the obtained results, a number of features are established in the group of adolescents and in the group of teenagers after the experiment.

The analysis of the features of teens' prosocial behavior is given in Fig. 7.



**Figure 7.** Features of correlations in the group of teens after the experiment.  
Source: authors' own contribution

Thus, it is found that the “selfishness-altruism” indicator among teens is associated with altruistic behavior ( $r = 0.534$ ;  $p \leq 0.01$ ), emotional behavior ( $r = 0.339$ ;  $p \leq 0.05$ ) and the norm of social responsibility ( $r = 0.391$ ;  $p \leq 0.01$ ). Direct correlations indicate that teen altruism increases in the situations where they help others in need; assisting people who need emotional support and includes a sense of responsibility for different social situations to avoid guilt and maintain self-esteem.

It is statistically confirmed that the level of altruism-selfishness of teens is inversely related to their public prosocial behavior ( $r = -0.288$ ;  $p \leq 0.05$ ). Thus, when help is needed in the presence of others, teens show less dominance of altruistic behavioral motives.

In the further analysis of the existing relationships, the following features were noted: altruistic behavior of teens is directly related to emotional prosocial behavior ( $r = 0.347$ ;  $p \leq 0.05$ ); anonymous behavior directly correlates with compliant behavior ( $r = 0.298$ ;  $p \leq 0.05$ ).

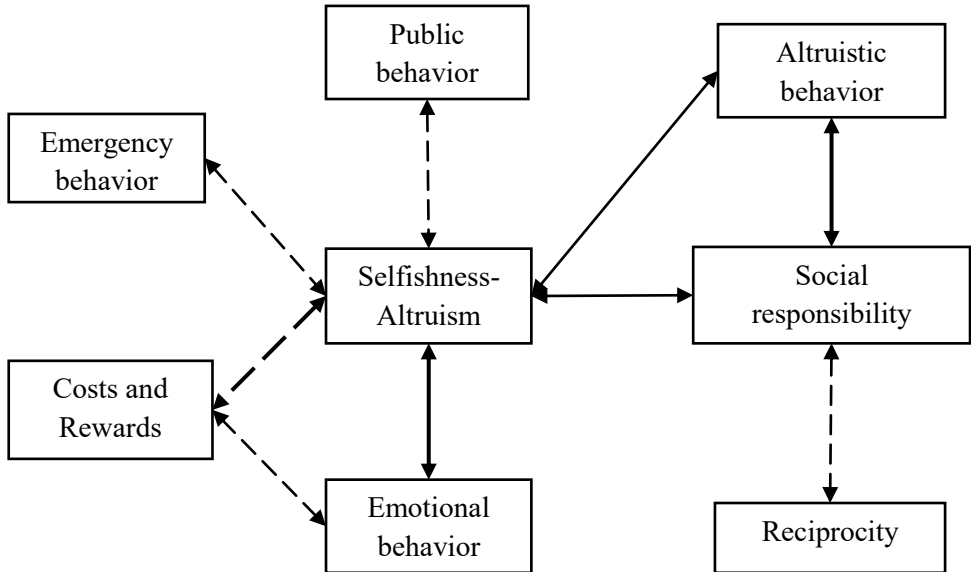
It is found out that the norm of reciprocity is inversely interrelated with the norm of social responsibility ( $r = -0.309$ ;  $p \leq 0.01$ ) and the norm of justice ( $r = -0.308$ ;  $p \leq 0.05$ ). This indicates that a higher manifestation of different responses to exchange assistance of different motivations (altruistic, selfish) reduces prosocial behavior, which includes a sense of responsibility for different social situations and satisfaction with the distribution of rewards among teen group members.

It is also determined that public prosocial behavior is inversely related to the “cost-reward” norm ( $r = -0.330$ ;  $p \leq 0.05$ ), which suggests that the higher the provision of assistance to adolescents in the presence of others is, the lower the quality of cost estimates, costs and rewards become.

In the group of adolescents there are some other statistically significant interdependencies (Fig. 8).

There are direct correlations between the "selfishness-altruism" indicators of adolescents and altruistic prosocial behavior ( $r = 0.496$ ;  $p \leq 0.01$ ); emotional prosocial behavior ( $r = 0.405$ ;  $p \leq 0.01$ ); the norm of social responsibility ( $r = 0.300$ ;  $p \leq 0.05$ ), as well as the inverse correlation with public prosocial behavior ( $r = -0.326$ ;  $p \leq 0.05$ ); emergency prosocial behavior ( $r = -0.315$ ;  $p \leq 0.05$ ) and the of "cost-reward" norm ( $r = -0.537$ ;  $p \leq 0.01$ ). There is also a significant direct correlation between the norm of social responsibility and altruistic prosocial behavior ( $r = 0.419$ ;  $p \leq 0.01$ ). Thus, adolescents have a reduced level of altruism in situations of rapid emotional response in emergencies and difficult situations, in cases where help needs to be provided in public. Instead, the level of altruism increases with the possibility of selfless and charitable assistance to people in need of

emotional support, which forms a social rule that is based on the idea that people should help those who need it.



**Figure 8.** Features of correlations in a group of adolescents after the experiment.  
Source: authors' own contribution

In addition to these relationships, it is noted that the norm of social responsibility is negatively correlated with the norm of mutual support ( $r = -0.308$ ;  $p \leq 0.05$ ), and emotional prosocial behavior is inversely correlated with the "cost-reward" norm ( $r = -0.350$ ;  $p \leq 0.05$ ). Thus, in emotionally charged situations, adolescents tend to be less likely to value their own losses and rewards.

Thus, it can be concluded about the positive results of the proposed program for the development of prosocial behavior in students of a non-school institution.

The control phase of the study showed the effectiveness of the program of corrective influence, which clearly demonstrates a positive dynamics of prosocial behavior in the experimental group against the background of insignificant and sometimes adverse changes in the control group, which confirmed the effectiveness of the formative experiment program.

The implementation of the corrective program contributed to the formation of the necessary components of prosocial orientation in out-of-school students, namely: humanistic attitudes to interaction, empathic abilities, cooperative behavior; development of mechanisms of self-regulation and self-control, endurance and balance; development of traits and qualities that provide activity and conflict-free in the process of interaction with others.

It should be noted that a chosen form of a group work contributes to the effective implementation of the main goal and objectives of the study, as it provides optimal conditions for positive changes in the formation of prosocial behavior, promotes the actualization of participants' desire to constructively resolve conflict situations, develop the ability to accept and respect the partner's point of view, taking into account his needs and interests. The program for the development of prosocial behavior is focused on expanding the repertoire of models of constructive social interaction.

## **Conclusions**

Thus, the analysis of the results of the experimental study of the peculiarities of the development of prosocial behavior, presented in the article, gives the possibility to formulate the following conclusions.

The results of the experimental study showed that the level of empathy among students of their teenage and adolescent years increased significantly after the experiment, and also significantly changed the percentage of those who belonged to persistent altruists. It was found out that the level of empathy and altruism is much higher among students in the experimental group than in the control group after psycho-correctional classes.

Analyzing the data obtained, it should be noted that among teenagers and adolescents the "selfishness-altruism" indicator is associated with altruistic behavior, emotional behavior and the norm of social responsibility. Teen altruism increases when they help others in need. Adolescents have reduced levels of altruism in situations of rapid emotional response in emergencies and difficult situations, in cases where help needs to be provided in public. The level of altruism increases when it is possible to selflessly and charitably help people in need of emotional support.

Comparing the experimental and control groups, it was found out that in the experimental group the indicators of the level of development of empathic tendencies changed significantly, which is the result of systematic influence. In the control group the results underwent insignificant changes.

The study allowed the authors to expand and supplement information about the features of prosocial tendencies of the individual and their determination during the teen period and adolescence. The author's program of psychological and pedagogical support of the development of prosocial tendencies in teen and adolescent students made it possible to determine the age patterns of prosocial development of the individual and his prosocial self-realization. As a result of the implementation of this program, significant positive changes in the functioning of prosocial tendencies were recorded in both teen and adolescent students.

The relevance of the study for the world community lies in revealing the features of prosocial behavior in teen and adolescent age, in the effectiveness of the organization of psychological and pedagogical support of the process of stimulating and developing prosocial personality. The study of the problem opens up new perspectives in the formation of the spiritual potential of the individual, the harmonization of his relationships with others.

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