Development of Volitional Qualities in Preadolescents in Experimental Conditions

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Abstract

Introduction: *Volition is considered important in achieving goals in many different contexts (in professional and academic life). Voluntary skills have proven to be particularly needful in the process of decision-making and in meeting the long-term goals. Also, volition helps us regulate behavior, refrain from activities that involve risky components and other actions that could lead to negative long-term consequences. Preadolescents are influenced by peers in some activities that may involve risky behaviors, that is why it is useful to know what the level of their volition is and how we can help them increase their will and volitional qualities level. We also suppose that by increasing volitional qualities, we can contribute to the developing of personality traits.*

Objectives: *Increasing the volition level by optimizing its expressiveness; increasing the perseverance quality level.*

Methods: *Psychological intervention program set on the basis of the Unification Experiential Psychotherapy (UEP) theory and methodology. In the retest stage, the following tests were used: Self-Assessment Volition Test after Rudensky, the Grit Scale after A. L. Duckworth (highlighting the perseverance) and the CP5F Personality Questionnaire.*

Results: *As results, it was established that the preadolescents from the experimental group increased their level of volition and perseverance in comparison with the preadolescents from the control group.*

Conclusions: *The psychological intervention program has been validated by performing the analysis of test-retest results. The research hypothesis according to which we assumed that specially organized interventions can positively influence the volition development and volitional qualities and thereby contribute to the development of personality traits was confirmed.*

Keywords: volition, volitional qualities, preadolescents, UEP intervention program, personality traits, self-regulation, conscientiousness, emotional stability, autonomy

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I. Introduction

Nowadays, the importance of studying volition and volitional qualities has increased considerably. This is determined by profound and important changes in the life of society and of the human being in particular, such as the development of modern technologies, the social media addiction, information overload, disorientation and/ or confusion, risky activities, acute experiences of loneliness and depression, social insecurity, anxiety and relationship difficulties.

In modern approaches, volition is conceived as a set of central executive processes that regulate a person's thoughts, feelings, and actions in a top-down manner, as shown by Baumeister (2008) and Kuhl (1994). Volition can be seen as a global construction behind self-regulation and self-control. In social psychology, human volition is seen by Baumeister, Gailliot, DeWall & Oaten (2006), Baumeister & Tierney (2012) as a capacity fueled by a limited common resource, or as willpower. Tasks considered to require willpower include self-control, decision making, complex problem solving, and conflict resolution, asserts Iliin (2009). Haggard (2008) states that voluntary actions are a puzzle for modern neuroscience. New research held by Haggard (2009) has identified that the networks of brain areas that underlie voluntary action include the pre-supplemental motor area, the anterior prefrontal cortex and the parietal cortex.

Susman, Dorn & Schiefelbein (2003) present in their article two theories of the puberty period development. According to the developmental contextualism model of adolescence, framed by Lerner, the experiential history of adolescents and the contexts for social interactions can interact with genes to change the timing and speed of puberty. Therefore, puberty is a process of change and the product of a complex interaction among genotype, brain behavior, and context. As from the holistic interactionism framework, it is specified that "an individual develops as an integrated organism in a dynamic, continuous, and reciprocal process of interaction with the environment [...] Each aspect of the structures and processes that are operating in the individual (perceptions, plans, values, goals, motives, biological factors, and conduct), as well as each part of environment, takes on meaning from its role in the total functioning on the individual".

The main factors that lead preadolescents to engage in risky activity are social and emotional, not cognitive, suggests Steinberg (2008). Risk-taking increases between childhood and adolescents (13-16 years), as a result of changes around the time of puberty in the brain's socio-emotional systems, which leads to increased reward seeking, especially in the presence of peers. One hypothesis is that the temporary imbalance of dopamine receptors in the prefrontal cortex creates a "reward deficiency syndrome". Preadolescents react better to peers and it is thought that this is because they have to undergo the developmental transition from dependence to independence. Risk taking declines between adolescence and adulthood because of changes in what Steinberg refers to as the brain's cognitive control system. Brain areas responsible for self-regulation competencies are anterior cingulate and lateral prefrontal cortex. The maturation of neural connections between the prefrontal cortex and the limbic system permits better coordination of emotion and cognition, impulse control and planning ahead. The maturation of the cognitive control system during adolescence is a primary contributor to the decline in risk taking seen between adolescence and adulthood. It plays a substantial role in self-regulation and in the maturation of neural connections between the prefrontal cortex and the limbic system, which permits a better coordination of emotion and cognition.

Preadolescence is marked by the transition to the gymnasium cycle and the adaptation to the new school requirements, which are imposed with this change. Under these conditions takes place the development of a new level of volition, which is characterized by the ability to set goals, to analyze and select the most appropriate of them. However, the manner of making decisions is a prompt one in preadolescence, and only later, in adolescence, a deeper reflection will appear on the ways of carrying out the action and the consequences deriving from it.

The initial findings (from a sample of 239 preadolescents in our pre-study) showed a large number of pre-teenagers with a low and medium level of self-reported volition, perseverance, as well as related personality traits (conscientiousness, emotional stability, and autonomy).

From the above, we consider it absolutely necessary to develop and implement a psychological intervention program aimed at developing volition and volitional qualities in preadolescents.

The main goal of this research was the elaboration and implementation of a model of psychological intervention program oriented towards the development of volition and volitional qualities, such as the ability to achieve a goal and perseverance.

From the purpose of the research, we formulated the following hypothesis: we assume that

specially organized interventions can positively influence the development of volition and volitional qualities and thereby contribute to the development of personality traits.

In accordance with the goal and the hypothesis formulated for the formative approach, the psychological intervention program comprises the following objectives:

- ✓ increasing the level of volition by optimizing its expressiveness;
- ✓ increasing the perseverance quality level.

Socially, preadolescents tend to be more independent in relation to their parents, but without completely breaking off their connection with them. They spend more time with their peers, and this can lead to conflicts with parents. Also, in preadolescence the ideal of life is outlined, which is why it is very important to support their development through building a strong volition and strong personality traits. We believe that the proposed psychological intervention program can be useful for specialists in the field of school psychology, psychological counselors and psychotherapists working with preadolescents and their families.

II. Method

Prior to the training experiment, the finding experiment was performed with the participation of 239 preadolescents aged between 10 and 15 years old. The training experiment included the participation of 24 preadolescents: 12 in the experimental group and 12 in the control group. The participants are students at Colegiul Tehnologic "Spiru Haret" in Piatra-Neamț ("Spiru Haret" Technological College, in Piatra-Neamț). Previously written consent to participate in the training experiment was given by their parents. The psychological intervention program included 12 sessions. The frequency of psychological interventions was once a week. The duration of a meeting ranged from 100 to 120 minutes.

The psychological intervention program contained techniques derived from the theory and methodology of the Experiential Unification Psychotherapy. According to Mitrofan (2004), the UEP is the strategy of facilitating, unblocking, healing and developing self-awareness, awareness of others and of the environment, and involves a structural and creative process of transforming the Ego through the reintegration of the Self. UEP is a holistic therapy, interested in the healthy functioning of the whole organism – senses, body, emotions and intellect. That is why we consider it a suitable approach through which one can conceive and develop a model of development and optimization of volitional qualities.

The techniques used were specific to the experiential-unifying approach and were intertwined in the proposed method, so as to support the main goal, that of stimulating the volition. These included: expressive-creative exercises with individual and group artistic support, body movement techniques, role-playing games, psycho-dramatic games, creative games, writing poems, narration, relaxation and meditation exercises.

At the same time, were used some cognitive-behavioral techniques, in order to facilitate the self-construction of analytical and decision-making skills. According to the cognitive-behavioral theory, as shown by Gîrlașu-Dumitru (2004, p. 139), the goal of the psychotherapist is to help the beneficiary to understand the way he represents and creates his personal reality. "In a problem-solving manner, cognitive-behavioral psychotherapy explores what patients might do, to change their own irrational beliefs and maladaptive behaviors". Some strategies of cognitive-behavioral inspiration were: "Presentation of objectives", "What I want?", "A Day in my life", and others.

We should mention that some of the techniques were taken over and adapted according to the objectives of the psychological intervention program, while others were created by us.

The psychological intervention program which aimed at developing volition and volitional qualities was based on the following principles:

- Promoting group cohesion, which invokes feelings of trust, belonging and acceptance. Cohesion is achieved by carrying out group preparation activities, identifying participants' expectations, defining group rules and instructing members on their roles, establishing clarity on group processes and rules in early sessions, as stated by Kaklauskas & Greene (2021).
- According to Rogers' person-centered theory, the key element of the therapeutic process is the authenticity of the psychotherapist. Authenticity, as shown by Mitrofan (2000), refers to the correct representation of the immediate experience in the psychotherapist's consciousness, in other words, all the feelings experienced by the psychotherapist are available to their consciousness, so they are able to be themselves and act accordingly, regardless of the nature of their feelings and attitudes.
- Equality and uniqueness, another principle of group psychotherapy specified by Vladislav (2009), shows that each participant will gradually learn, will exercise confidence, will have the opportunity to be

recognized and accepted by others with all their important and less important aspects.

After we held the psychological intervention program aimed at developing volition and volitional qualities in preadolescents in the experimental group, we repeatedly applied the following tests and questionnaires to both preadolescents in the experimental group (EG) and preadolescents in the control group (CG): Self-Assessment Volition Test after Rudensky, the Grit Scale after A. L. Duckworth (highlighting the perseverance) and the CP5F Personality Questionnaire. For statistical data processing, we used the U Mann-Whitney and Wilcoxon tests.

The investigation of the effectiveness of the psychological intervention program was carried out in the following directions: comparing and highlighting the differences obtained by EG test and EG retest preadolescents, by preadolescents in CG test and CG retest and by preadolescents in EG retest and CG retest.

III. Results

The results of EG test and EG retest, of CG test and CG retest and of EG retest and CG retest are presented in the following graphic illustrations.

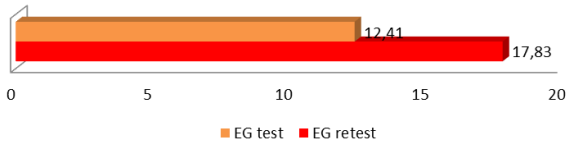

Figure 1. Average of the results for Self-Assessment of Volition in preadolescents in the EG test and EG retest

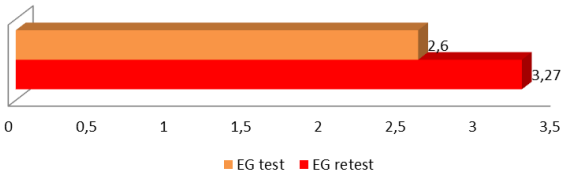

Figure 2. Average of the results for Grit Scale in preadolescents in the EG test and EG retest

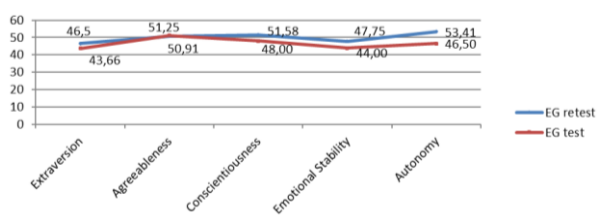

Figure 3. Average of the results for personality traits in preadolescents in EG test and EG retest

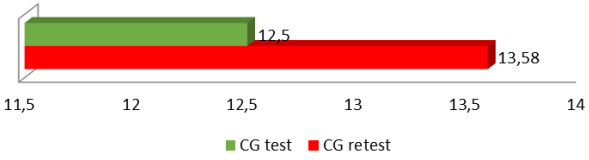

Figure 4. Average of the results for Self-Assessment of Volition in preadolescents in the CG test and CG retest

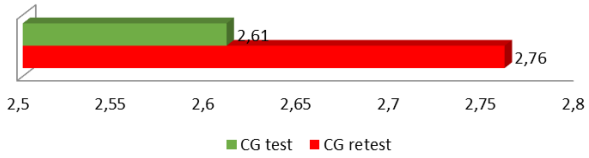

Figure 5. Average of the results for Grit Scale in preadolescents in the CG test and CG retest

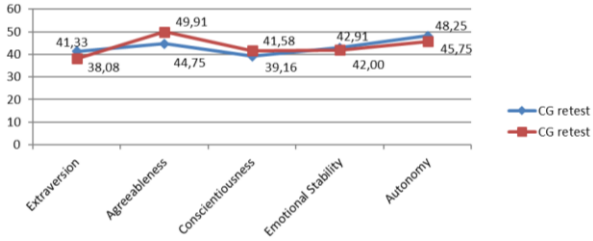

Figure 6. Average of the results for personality traits in preadolescents in CG test and CG retest

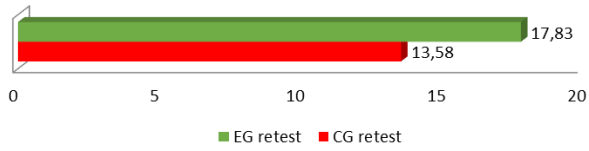

Figure 7. Average of the results for Self-Assessment of Volition in preadolescents in the EG retest and CG retest

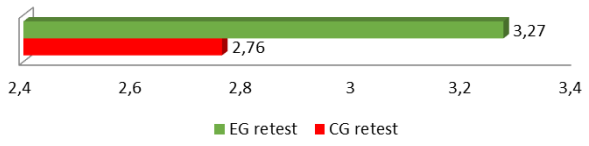

Figure 8. Average of the results for Grit Scale in preadolescents in the EG retest and CG retest

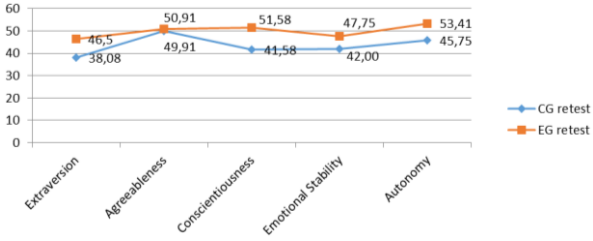

Figure 9. Average of the results for personality traits in preadolescents in CG retest and EG retest

IV. Discussions

According to *Figure 1*, which illustrates the averages of preadolescents' results in EG test and EG retest, we highlight the fact that preadolescents in EG test have a lower average for self-assessment of volition, namely 12.41 (Unit of Average). The preadolescents in the EG retest report a higher average of 17.83 (UoA). Statistical analysis, according to the Wilcoxon test, shows the presence of significant differences between the results of preadolescents in the EG test with those in the EG retest ($T = 9$, $p \leq 0.01$). The changes in the self-assessment of volition in preadolescents are due to the psychological interventions implemented, which were aimed at increasing the level of volition by optimizing its expressiveness.

In *Figure 2*, we attest the following averages for perseverance in preadolescents: the average of 2.6 (UoA) is characteristic for preadolescents in EG test, while in EG retest we identify an increase of the average: 3.27 (UoA). After the Wilcoxon test, we establish statistically significant differences between the results of preadolescents in the EG test and those in the EG retest ($T = 3$, $p \leq 0.01$). Changes in perseverance in preadolescents are explained by the psychological interventions implemented, which were aimed at increasing the level of perseverance and the ability to withstand effort.

According to the averages in *Figure 3*, we observe distinct averages for the preadolescents from EG test and the preadolescents from EG retest. For Extraversion in preadolescents in EG test, we identify the average 43.66 (UoA), while in preadolescents in EG retest the average is 46.50 (UoA).

There is a slight decrease in the average values of Agreeableness. In preadolescents in EG test, the value of 51.25 (UoM) is present, while in preadolescents in EG retest, we identify a lower average of 50.91 (UoA) for the same personality trait.

In terms of Conscientiousness, the average for preadolescents in the EG test is lower and it is 48.00 (UoA) compared to the average for preadolescents in the EG retest, which is 51.58 (UoA). In parallel, after the Wilcoxon test, we establish the existence of statistically significant differences between the preadolescent results in the EG test and the preadolescent results in the EG retest ($T = 10$, $p \leq 0.05$). The changes in the values of the analyzed personality traits were determined by the participation in the psychological intervention program focused on increasing the volitional qualities, which had an impact on the increase of conscientiousness in preadolescents.

We also notice an increase in the average values of Emotional Stability in preadolescents in the EG test, this being 44.00 (UoA), while in preadolescents in the EG retest it is 47.75 (UoA).

Regarding the average values in Autonomy, we will mention that the preadolescents in the EG test register an average of 46.5 (UoA), and for the preadolescents in the EG retest we attest an average of 53.41 (UoA). According to the Wilcoxon test, we identified statistically significant differences between the results of preadolescents in the EG test and the results of preadolescents in the EG retest ($T = 0$, $p \leq 0.01$). These changes in the values of personality qualities were determined by psychological interventions made with the aim of improving the qualities of volition, having also an impact on increasing the level of autonomy.

The analysis of the averages in *Figure 4* allows us to mention that the preadolescents in the CG test demonstrate a lower average for the self-assessment of the will, namely 12.50 (UoA). In preadolescents in the CG retest, we identify a higher average of 13.58 (UoA). Statistically, according to the Wilcoxon test, there are no differences in the self-assessment of will between the results of preadolescents in the CG test and those in the CG retest.

In *Figure 5*, we highlight the following averages for preadolescents in the CG test: 2.61 (UoA) and for preadolescents in the CG retest: 2.76 (UoA). Statistically, according to the Wilcoxon test, there are no differences in perseverance between the results of preadolescents in the CG test and the results of preadolescents in the CG retest.

According to the results in *Figure 6*, we see that the preadolescents in the CG test have a higher average for Extraversion, namely 41.33 (UoA). In preadolescents in CG retest, we have a lower average of 38.08 (UoA) for the same personality trait.

We identify the fact that preadolescents in the CG test have a lower average for Agreeableness, namely 44.75 (UoA). We observe an increase in the average values of Agreeableness in preadolescents in the CG retest, being present the value of 49.91 (UoA). After the Wilcoxon test, we establish statistically significant differences between the results of preadolescents in the GC test and those in the GC retest ($T = 12$, $p \leq 0.05$). In the case of these preadolescents, whose results have increased in terms of Agreeableness, we can speak of an attempt at self-preservation and

safety, a means of adapting to the needs of others and a response somewhat to their own detriment, deployed in order to obtain something or to overcome a conflict or a difficult situation.

For Conscientiousness, the averages of preadolescents are different: preadolescents in the CG test: 39.16 (UoA) and preadolescents in the CG retest: 41.58 (UoA).

In the case of Emotional Stability, preadolescents from the two groups, test and retest, present similar averages – preadolescents in the CG test: 42.91(UoA), preadolescents in the CG retest: 42.00 (UoA).

Regarding the average values obtained by preadolescents in Autonomy, we attest distinct averages: thus, in preadolescents in the CG test, we find an average of 48.25 (UoA), while in preadolescents in the CG retest, we observe an average of 45.75 (UoA).

For the personality traits Extraversion, Conscientiousness, Emotional Stability and Autonomy, there are no differences after the Wilcoxon test between the preadolescents' results in the CG test and CG retest.

The averages of preadolescents for self-assessment of volition in *Figure 7* are distinct: preadolescents in the EG retest have a higher average, namely 17.83 (UoA), while for preadolescents in the CG retest there is a lower average of 13.58 (UoA). According to the U Mann-Whitney test, we establish statistically significant differences between the results of preadolescents in the EG retest and the results of preadolescents in the CG retest ($U = 19$, $p \leq 0.01$). The changes in the self-assessment of will in preadolescents in EG appeared due to the participation in the program of psychological interventions, focused on improving the level of will.

As in the case of self-assessment of volition, the averages in perseverance *(Figure 8)* of preadolescents in the EG retest and CG retest are also different: 3.27 (UoA) is the characteristic average in preadolescents in the EG retest and 2.76 (UoA) is the average we find in preadolescents in the CG retest. Statistical analysis, after the U Mann-Whitney test, shows the presence of significant differences between the results of preadolescents in the EG retest and the results of preadolescents in the CG retest ($U = 37.5$, $p \leq 0.05$). The results in terms of perseverance in preadolescents in the EG have changed due to the fact that they have followed a program of psychological interventions, aimed at increasing the level of volition and perseverance.

For Extraversion *(Figure 9)*, preadolescents in the EG retest demonstrate a higher average, namely 46.5 (UoA), while preadolescents in the CG retest have a lower average of 38.08 (UoA) for this personality trait.

In preadolescents in the EG retest, there is a higher value for Agreeableness, namely 50.91 (UoA), in contrast with preadolescents in the CG retest, which has a slightly lower average of 49.91 (UoA) for the same trait.

For Conscientiousness, the average for preadolescents in the EG retest is higher and it is 51.58 (UoA), compared to the average for preadolescents in the CG retest, which is 41.58 (UoA). According to the U Mann-Whitney test, there are statistically significant differences between the results of preadolescents in the EG retest and the results of those in the CG retest ($U = 33.5$, $p \leq 0.05$). The changes in the values of Conscientiousness analyzed in preadolescents in the EG retest are justified by the participation in psychological activities focused on increasing the volitional qualities with an impact on personality traits.

We identify a higher value of the average Emotional Stability in preadolescents in the EG retest, namely 47.75 (UoA), while in preadolescents in the CG retest it is 42.00 (UoA).

With regard to Autonomy, preadolescents in the EG retest show an average of 53.41 (UoA), compared to that of preadolescents in the CG retest, which is 45.75 (UoA). According to the U Mann-Whitney test, we establish statistically significant differences between the results of preadolescents in the EG retest and those in the CG retest ($U = 42$, $p \leq 0.05$). The values of Autonomy in preadolescents in the EG retest changed due to psychological interventions carried out with the aim of increasing the level of volitional qualities.

The psychological intervention program was validated by performing the analysis of test-retest results. The preadolescents' results in the EG test and EG retest, CG test and CG retest as well as in the EG retest and CG retest were compared. The research hypothesis: "we assume that specially organized interventions can positively influence the volition development and volitional qualities and thereby contribute to the development of personality traits" was confirmed.

The studies led by Hudson & Frailey (2015) suggest that people are able to change their self-reported personality traits through volitional means, and it represents a first step towards understanding the processes that enable people to do so. Our study is a step

forward in the process of understanding volition in younger age and developing a program which can help preadolescents boost their volition level, as well as their personality traits. We also consider linking anxiety and volition in preadolescents in our future studies.

V. Conclusions

Preadolescents in the EG retest have a higher level of volition self-assessment (17.83 UoA) compared to preadolescents in the EG test, where the average reaches 12.41 (UoA). Significant differences are also identified between the preadolescent results in the EG test and EG retest in perseverance ($T = 3$, $p \leq 0.01$). Another personality trait, Autonomy, increased in preadolescents in the EG retest. Statistically speaking, we indicate the coefficient $T = 0$, $p \leq 0.05$. In these cases, the psychological intervention program has proven its effectiveness, influencing the development of personality traits.

From a statistical point of view, no significant differences were established between the CG test and CG retest results in volition self-assessment and perseverance. Therefore, we recommend that preadolescents in the CG as well follow the psychological intervention program in order to improve their volition level.

Regarding the personality traits, we observe in preadolescents in the CG retest a higher level of Agreeableness compared to the CG test ($T = 12$, $p \leq 0.05$). This may be related to the need to please those around them, as a manifestation of a self-preservation mechanism. For the other personality traits, we did not identify statistically significant differences between the results of preadolescents in the CG test and CG retest.

Between the results of preadolescents in the EG retest and those in the CG retest, we found significant differences in volition self-assessment ($U = 19$, $p \leq 0.01$), in perseverance ($U = 37.5$, $p \leq 0.05$) and in Conscientiousness ($U = 33.5$, $p \leq 0, 05$). We will note that these changes to the EG retest were generated by the development of the psychological intervention program, focused on optimizing volition and volitional qualities.

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