

The Influence Of Maladaptive Cognitive Schemas Of Adolescents With Vision Impairments On Their Affective Sphere

OlenaLytvynenko

Abstract: Cognitive schemas determine the nature of a person's attitude to himself, to people around him and to the whole world. The emotional sphere of a person and his typical behavioural patterns are formed under the influence of core beliefs. Most cognitive schemas are formed in childhood and adolescence. Therefore, a fundamental study of this phenomenon is required. The aim of the study was a theoretical analysis and empirical research of maladaptive beliefs and cognitive schemas of adolescents with visual impairments. The methods of empirical research were the Dusseldorf Illustrated Schema Questionnaire for Children (Loose, Meyer & Pietrowsky), the Individual Typological Questionnaire (L. Sobchik), the Anxiety Scale (A. Beck) and the Depression Scale (A. Beck). The study sample included two groups of respondents: adolescents with visual impairments and their peers who do not have such impairments. This allowed us to compare the results and establish how the functional defect of the analyser determines the appearance of certain cognitive schemas. The obtained results indicate that knowing which cognitive schemas are typical for a teenager, allows us to predict with a high degree of probability that he has a tendency to increased sensitivity, emotional instability, anxiety or depressive manifestations. In addition, there are described recommendations for psychologists on working with the adolescent's core beliefs.

Index Terms: maladaptive core beliefs, depressive manifestations, anxious manifestations, emotional modality, affective sphere.

1 INTRODUCTION

Adolescence is the period of person's active formation, his individual development and the formation of his behavioural patterns. In the period of adolescence a person actively establishes and defends his limits, builds his own systems of relations with the surrounding objective and subjective world. At the same time this period is sensitive for the formation of stable beliefs and so-called cognitive schemas that determine the specifics of an individual's perception of himself, his achievements, life events and people around him. Cognitive schemas are inextricably linked with self-consciousness, self-concept and other personality structures. The formation and specification of cognitive schemas is traditionally determined by exogenous and endogenous factors. Exogenous factors usually include peculiarities of object and social environment in which the adolescent develops. Endogenous factors include peculiarities of his nervous system, general cognitive organization, as well as individual physiological characteristics. Particularly, such physiological features that influence the formation of cognitive patterns may include the specifics of the analysers' functioning, and therefore the subject's perception of information from the outside world. So the impairments in the work of the visual analyser significantly limit the amount of information that comes to the subject from the outside world. At the same time, the need for information is not reduced, but may remain deprived. The deprivation of this need, in turn, leads to all sorts of cognitive distortions and decreases the objectivity of information, which forms personal's maladaptive core beliefs.

Thus, we hypothesized that the process of core beliefs forming in adolescents with visual impairments is characterized by specific features and significantly differs from the similar process in their peers who do not have such impairments. According to this, the aim of our study was to establish which core beliefs are most typical for adolescents with visual impairments, and also how certain maladaptive cognitive schemas may affect their affective sphere. In addition, our task was to determine the presence and the nature of correlation between individual schemas and depressive and anxious manifestations.

2 LITERATURE REVIEW

Actual results of empirical studies of personal formation of adolescents with visual impairments indicate that during the formation of person's general orientation and his individual moral, volitional, intellectual and social manifestations, visual impairments may cause significant deviations from the norm. This, in turn, complicates human interaction with the objective and social world and slows down the accumulation of individual experience (Moschos, 2014). The data obtained as a result of empirical studies suggest that the general dynamics of personal qualities development of visually impaired adolescents corresponds to the logic of development of their sighted peers (Bilyk&Vasilenko, 2012). On the other hand, M. Pinkart and J. Pfeiffer note that blind persons are characterized by specific traits, such as: personality passivity, dependence on others, addiction to others, as well as emotional instability, low level of impulse control and general authenticity (Pinquart& Pfeiffer, 2011). Similar results were obtained in another large-scale study of the personality traits of blind adolescents conducted under the direction of B. Kogan. The purpose of the study was to identify fundamental differences in the personal sphere of adolescents with visual impairment and their sighted peers. With this aim there was used a 16-factor questionnaire as diagnostic tool. However, the obtained results indicated the absence of statistically significant differences, which is the evidence that personal development of such adolescents

• OlenaLytvynenko, PhD in Psychology, Associate Professor of the Chair of Practical Psychology BorysGrinchenko University of Kyiv, Ukraine, o.lytvynenko@kubg.edu.ua

occurs according to general algorithms and does not depend on the efficiency of visual analyser (Kogan B. & Yakovleva A., 2012). That is why in our work we conducted a parallel study among adolescents with visual impairments and their peers who do not have such problems. The presence of a control group of respondents in the study allowed us to determine the general trends typical for adolescents without taking into account the specifics of their visual analyser, as well as to establish the specific features of early maladaptive cognitive schemas in subjects with visual impairments. The so-called early maladaptive schemas are broadly defined as general patterns of life that affect cognitions, emotions, memories, behaviour and the perception of social interactions and relationships with other people. Maladaptive schemas are formed in childhood. The peculiarities of their formation depend on the life situation, the experience of relationships, individual coping strategies, that are the ways of difficulties overcoming. These schemas can change in the process of life, and are often supported by exogenous factors (Bateman & Fonagy, 2009). In the case when the subject's scheme is activated, strong negative emotions such as anxiety, sadness or feeling of loneliness appear. J. Young and co-authors identified 18 schemas, which are combined into five groups. Such groups of schemas include: 1) schemas of disconnection and rejection (abandonment/instability, mistrust/abuse, emotional deprivation, defectiveness/shame, social isolation/alienation); 2) schemas of impaired autonomy and performance (dependence/incompetence, vulnerability to harm or illness, enmeshment/underdeveloped self, failure); 3) schemas of impaired limits (entitlement/grandiosity, insufficient self-control/self discipline); 4) schemas of others-directedness (subjugation, self-sacrifice, approval-seeking/recognition-seeking) and 5) schemas of over-vigilance and inhibition (negativity/pessimism, over-control/emotional inhibition, unrelenting standards/hyper-criticalness, punitiveness) (Young, Klosko & Weishaar, 2003). Despite the fact that scientific studies confirm their existence, these definitions of maladaptive patterns were formed primarily as a result of clinical observations, but not as a result of empirical studies. Therefore, their further scientific study is advisable. Any person may have one scheme or a combination of several schemas. As a rule, people have more or less stable schemas. The schema is considered maladaptive only when it is associated with pathological emotional experiences and symptoms or impaired social functioning. Individuals with severe personality disorders usually get high scores on many of the schemas of the Young Questionnaire (Bateman & Fonagy, 2009). On the other side, individuals who experience only certain life difficulties, but whose symptoms do not meet the diagnostic criteria for personality disorders and who have a high level of social functioning, usually get high scores only in one or two schemas (Arns & van Genderen, 2009). Obviously, schemas affiliation to the cognitive subsystem of personality determines their nature and specifics of manifestation. They actualize on the level of behaviour and determine the emotions of the individual. Maladaptive schemas are formed in mind and reflect person's ideas about the world and his place in it. At the same time, we can classify the schemas according to their focus on person himself (egocentric) and on his social

environment (socio-centric). Egocentric schemas (entitlement/grandiosity, insufficient self-control/self discipline, etc.) determine a person's self-image, his level of claims, and the specifics of perception of a probable future. At the same time, socio-centric schemas (subjugation, approval-seeking/recognition-seeking, etc.) affect the specifics of human behaviour in society and the nature of his interaction with others (Lozova & Lytvynenko, 2019). Analysing personal manifestations of the respondents, we relied mainly on the theoretical postulates of the factor approach in personology. That is why, the empirical part of the study was built on the basis of L. Sobchik's theory of leading personality trends, which in general is factorial, but also meets the positions of the functional and etiological approaches in psychology (Sobchik, 2007). According to the theory of leading trends, a person is a unity of biological, psychological and social factors. A leading trend is broader and more dynamic concept than a trait, feature, or condition. It unites all these categories and determines the direction of their transformation at different stages of life, as well as at various levels of personal organization. The leading trend is a cross-cutting characteristics that forms an individual style of motivational and emotional sphere, cognitive activity and interpersonal interaction. The structure of individual personality characteristics described by L. Sobchik includes eight main trends. In general terms, they represent extreme points of four continuums opposed to each other, such as: introversion–extraversion, anxiety–aggressiveness, sensitivity–spontaneity, lability–rigidity (Sobchik, 2007). The determination of individual's leading trends makes it possible to describe the structural characteristics of his personal sphere quite broadly. Thus, the analysis of the theoretical field of the problem allowed us to determine the theoretical and methodological base for empirical research, on the basis of which a specific methodological toolbox was selected.

3 Methodology

An empirical research of the influence of maladaptive cognitive schemas of visually impaired adolescents on their affective sphere was carried out on the basis of Kyiv secondary schools and the boarding schools for visually impaired and blind children. The control group consisted of adolescents who did not have visual impairments. The total sample size was 112 people, while the experimental group included 55, and the control group included 57 people. The age of the respondents ranged from 12 to 15 years. Instrumentally the research was carried out using the Dusseldorf illustrated schema questionnaire for children (Loose, Meyer & Pietrowsky, 2018), the Individual typological questionnaire (Sobchik, 2007), Beck anxiety inventory (Beck, Epstein, Brown & Steer, 1988) and Beck depression inventory (Beck, Ward, Mendelson, Mock & Erbaugh, 1961). The Dusseldorf illustrated schema questionnaire for children, is based on the general theory of early maladaptive schemas and allows determining core beliefs of adolescents about life, world around them and their place in this world. Detailed explanations for each question greatly facilitate the process of completing assignments by the person. The individual typological questionnaire is a personal psycho-diagnostic technique based on the theory of leading trends. With its help, it is possible to determine the representation in the personality

structure of one of eight trends. In our study, considering the specifics of the sample, we used an adolescence version of the questionnaire. The inventories of depression and anxiety are, first of all, clinical instruments designed to screen these disorders and determine the level of their manifestation. But we considered it rational to use these tools in our study. Our hypothesis was that the presence of certain maladaptive schemas in visually impaired adolescents might indicate their predisposition to depressive disorders, as well as to increased personal anxiety.

4 Research results

The study of adolescents' maladaptive schemas allowed us to determine the level of manifestation of these schemas. As it was noted, if a person does not have any pathologies he may demonstrate high rates in 1 to 3 schemas or not demonstrate such rates at all. A high level of manifestation of four or more schemas may indicate a violation of mental well-being and particularly the presence of personality disorders. On the other hand, such data may appear due to the measurement error. Therefore, the diagnostic value of maladaptive schemas should not be levelled. On the other hand it is also irrational to talk about mental disorders relying solely on the results of a standardized psychodiagnostic questionnaire. In the course of our study 2 respondents from the experimental group out of 55 showed high and very high rates in four or more schemas. Since such indicators are outside the normal range, they were excluded from the general sample and school psychologists were encouraged to conduct additional psycho-diagnostic work with these students. The results of 3 of the 57 representatives of the control group, on the contrary, indicated that they did not have any maladaptive schemas, which is an indicator of their psychological well-being, but makes such results unsuitable for further statistical processing. Therefore, for statistical analysis we used the data of 53 subjects from the experimental and 54 subjects from control group, who demonstrated high rates in no more than three schemas. To assess the accuracy of the results, a correlation analysis with the help of Spearman's correlation coefficient was used. To avoid illogical or random correlations only data with a significance of <0.01 was analysed. As affective manifestations, we took indicators on the clinical scales of depression and anxiety, as well as on the scales of anxiety and emotional lability of the Individual typological questionnaire. The results of the statistical analysis are presented in Figure 1. As it is seen, the strongest correlation can be observed between anxious manifestations and the cognitive schema of vulnerability ($r=0.41$). This is fairly predictable and suggests that visually impaired adolescents, prone to experience increased anxiety. As a rule, they are deeply distrustful to the world around them and usually live with an expectation of troubles and problems.

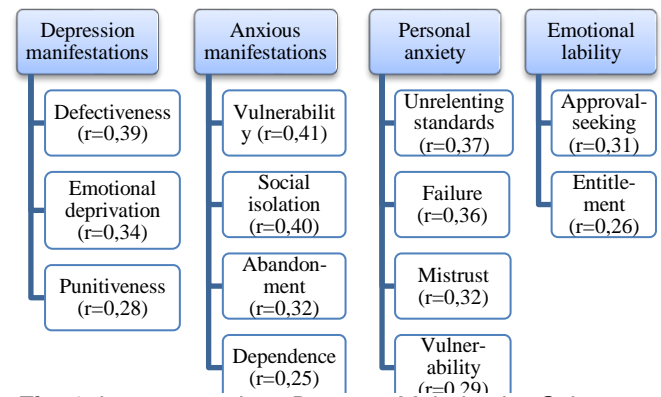


Fig. 1. Interconnections Between Maladaptive Schemas and Affective Manifestations in Visually Impaired Adolescents

Another scheme closely related to the same anxious manifestations is social isolation ($r=0.40$). It means, that increased anxiety leads to difficulties in social interaction and determines the development of self-doubt and a tendency to avoid interpersonal interactions. Also, anxious manifestations are typical for visually impaired adolescents with the schemas of abandonment ($r=0.32$) and dependence ($r=0.25$). It can be seen, that two of the four named schemas belong to the group of limited autonomy, which may indicate the difficulties that individuals with high anxiety have building their own self-concept and defending their personal boundaries. Anxious manifestations as a situational anxiety are closely associated with anxiety, as a separate personal characteristic. Empirical evidences suggest that personal anxiety, as well as specific anxious manifestations, correlates with the schema of vulnerability ($r=0.29$). However, in this case, the correlation is not so strong and it is more advisable to talk about individual trends. In addition, high personal anxiety is observed in adolescents with schemas of unrelenting standards ($r=0.37$) and failure ($r=0.36$). This may indicate their destructive perfectionism. This perfectionism prompts adolescents to put forward excessive demands, which helps them to compensate their self-doubt and a sense of inferiority. The last scheme, which correlates with personal anxiety, is mistrust ($r=0.32$), which is also rather expected and explainable. A person living in constant expectation of troubles and difficulties is naturally unable to relax and trust the world and other people. According to the results of the study, depressive manifestations were interconnected with schemas of defectiveness ($r=0.39$) and emotional deprivation ($r=0.34$). Both of these schemas belong to the group of disconnection and rejection. So we can say that visually impaired adolescents who are keen on isolation and rejection are more prone to depression. Thus, the real or imaginary lack of warm trusting relationships with others is a modifying factor that provokes the appearance of depressive symptoms. In addition, depressive manifestations are typical for adolescents with a leading punitiveness schema ($r=0.28$), which provokes their ideas about the fatal consequences of their own actions and which, in turn, causes individual manifestations of depression. Finally, emotional lability correlates with schemas of approval-seeking ($r=0.31$) and entitlement ($r=0.26$). Therefore, the adolescents to whom the recognition of their abilities and advantages by their surrounding is extremely important are prone to increased

impulsiveness, spontaneity in the manifestation of their own feelings, instability, and switching moods. The study within a control group revealed similar trends. At the same time, the correlations typical for adolescents without visual impairments, qualitatively repeating the correlations of the experimental group, differ slightly in quantity, most often being less strong. So depressive manifestations were typical for adolescents with cognitive schemas of punitiveness ($r=0.27$) and defectiveness ($r=0.24$). Anxious manifestations were observed in subjects with schemas of vulnerability ($r=0.31$) and dependence ($r=0.26$). Personal anxiety correlated with schemas of mistrust ($r=0.34$), failure ($r=0.30$) and unrelenting standards ($r=0.24$). In turn, adolescents prone to increased emotional lability showed high rates in schemas of entitlement ($r=0.32$) and insufficient self-control ($r=0.31$). It is noteworthy that the last scheme was not typical for representatives of the experimental group. But generally it is quite consistent with the general logic of psychological organization of adolescents. Namely, insufficient self-control, as a deep cognitive schema, may be a result of high emotional lability and at the same time a prerequisite for its development. Thus, adolescents who have visual impairments are characterized by fairly strong and consistent correlations between cognitive schemas and individual characteristics of affective sphere, such as depressive and anxious manifestations, personal anxiety, and emotional lability. Their peers, who do not have corresponding impairments, show similar trends, although they are less pronounced.

5 Conclusion

The correlations between cognitive schemas and characteristics of the affective sphere of adolescents with visual impairments that were established during an empirical study allow to talk about the cognitive conditionality of emotional manifestations of adolescents. The individual's deep beliefs about himself, about the world and the other people determine the formation and manifestation of his typical emotional reactions, the dominant emotional modality and general affective background. Thus, some adolescents' emotional manifestations may indicate the presence of one or another maladaptive cognitive schemas. So depressive manifestations are typical for adolescents with schemas of defectiveness, emotional deprivation and punitiveness; anxiety manifestations and high personal anxiety are observed among respondents who have schemas of vulnerability, social isolation, abandonment, dependence, unrelenting standards, failure and mistrust; while depressive manifestations are typical for subjects with schemas of approval-seeking and entitlement. Thus, having determined a cognitive schema typical for adolescents, it is possible to predict with high probability the presence of specific characteristics of the affective sphere. On the basis of this, it is rational to assume that psycho-correctional and psychotherapeutic work with cognitive schemas can have a beneficial effect on the affective sphere of adolescents. Therefore, the prospects for further researches within the framework of this problem lie in the search for algorithms of practical work with adolescents with visual impairment aimed at working with their deep cognitive schemas and at harmonizing their psycho-emotional state.

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