

# Cognitive- Behavioral Model of Generalized Anxiety Disorder Psychotherapy

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**Abstract:** *Among the variations of anxiety disorders, generalized anxiety disorder is considered to be one of the most problematic. In times of intense social transformation, the issue of mental health of the youth, in particular the prevalence of tendencies to generalized anxiety disorder among young people arises. For this reason, the purpose of the article is to investigate the propensity of young students to excessive experiences and propose a model of understanding and treatment of generalized anxiety disorder. Cognitive-behavioral methodology is used while the study for understanding generalized anxiety disorder, PSWQ experience questionnaire, WWS-II experience value scale, and two survey items. The results of the study show that 18% of the youth surveyed have a high level of anxiety. Such young people can be considered a risk group for generalized anxiety disorder. The results of the study indicate that respondents with a high level of worry are statistically more likely to perceive worries as those helping them to solve problems, motivate them to act and are able to prevent negative results. Such positive beliefs about the experience may reduce the perceived need to seek help from psychologists and psychotherapists. A description of the clinical case is given and the effectiveness of psychotherapeutic interventions is demonstrated. An algorithm for working with clients is proposed, which is based on a modern protocol for the treatment of generalized anxiety disorder. It includes: qualified examination; reassessment of the usefulness of the worry; assistance in a realistic understanding of ambiguous situations as such that are not clearly threatening; rethinking attitudes to situations of uncertainty; use of exposures for the purpose of deeper processing of the stimulus in a nonverbal way; skills of overcoming negative emotions without avoiding them. An attempt to combine the clinical paradigm and the scientific position is made in the article. Nowadays there are very few studies based on cognitive-behavioral methodology in Ukraine.*

**Keywords:** *generalized anxiety disorder; the youth; excessive worries; meaning of experiences; cognitive-behavioral therapy; description of a clinical case.*

**How to cite:** Kuzo, O., Posokhova, A., & Kuzo, L. (2021). Cognitive-Behavioral Model of Generalized Anxiety Disorder Psychotherapy. *BR/AIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(1), 118-135. <https://doi.org/10.18662/brain/12.1/174>

## 1. Introduction

One of the most common causes of reduced quality of life is anxiety. However, in such cases it is difficult for people to get oriented which specialists (fortune tellers, psychiatrists, psychologists, psychotherapists, somatic doctors and priests) are necessary and helpful. On the other hand, excessive propensity to experience is often not seen at all as a problem to be addressed. Among the many variations of anxiety disorders (social phobia, obsessive-compulsive disorder, panic attacks, etc.), generalized anxiety disorder (GAD) is considered to be one of the most problematic anxiety disorders (Simona, 2019; Timulak, 2018). Clients often do not seek psychological help, considering GAD as their "character trait", or may have a belief that it is necessary to worry in order to prevent danger. This disorder is considered the most resistant to psychotherapy compared to other anxiety disorders. Scientific sources (Kreih, 2017) indicate the period when the risk of GAD is the greatest (11-20 years). This age stage covers the college days as well, the age when the image of a successful person is rapidly formed, but a society dictates the requirements high enough for professional and personal realization. However, there is not much research on the mental health of young people, including students. So, the issue of epidemiological study of the tendency to excessive feelings among young students and the expediency of timely and professional psychotherapy is relevant.

Therefore, the **aim** of this article is to investigate the tendency to excessive experiences among young students and to propose a model of understanding and psychotherapy of GAD. Such an integrative approach can help to reduce the distance between researches and daily practice.

The following **tasks** are set:

- 1) To analyze the prevalence of trends in GAD among young students by identifying the level of their experiences.
- 2) To trace the attitude of students to their own excessive worries and their willingness to cope with them.
- 3) To offer an algorithm of psychotherapeutic interventions when working with GAD in the model of cognitive-behavioral therapy (CBT).

## 2. Literature review

Clinicians view GAD as an excessive experience that is difficult to control. Experience can be defined as an attempt to mentally solve a problem that is uncertain and potentially threatening (Borkovec, Robinson, Pruzinsky & Depree, 1983). These worries can affect various spheres of life,

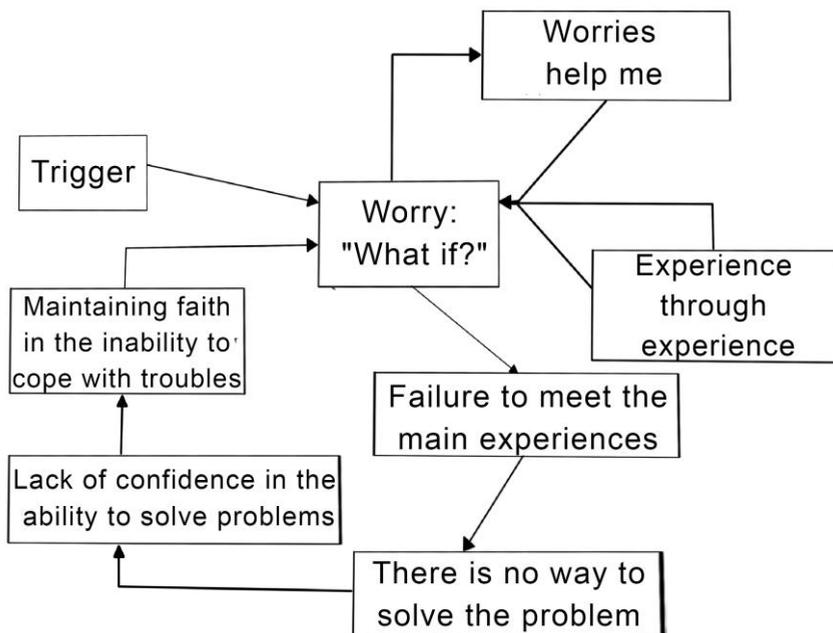
including the health of loved ones, work, study, domestic situations, etc. To diagnose GAD, such worries should cause psychological distress and impair normal functioning. This article does not aim to provide all the diagnostic criteria for GAD, but they can be found in DSM-5 and ICD-10.

Empirical studies indicate the effectiveness of implying cognitive-behavioral therapy (CBT) in dealing with many anxiety disorders, including GAD (Wells, 2006; Borkovec, 1993; Craske, 1992; Barlow, 2008; Dugas, 2007). However, conducting literature review it was found out that there are a number of studies that indicate no differences in the effectiveness of interventions of various kinds, which devalues attempts to find the most effective mechanism of psychotherapeutic effects (Butler & Booth, 1991). There are also data on behavioral therapy as one that has had minimal effect compared to cognitive interventions (Borkovec & Costello, 1993). The notion of the nature of GAD (Borkovec & Costello, 1993; Jandaghi, 2020) suggests an exposure approach as a potentially effective component of intervention (Craske, Barlow & O'Leary, 1992; King, 2020). Successful psychotherapy has reduced the need for medication. The combination of cognitive and exposure therapy more often attracts the attention of researchers and indicates its effectiveness (Aziz, 2020; Barkowski, 2020;).

Different models of GAD in CBT are singled out, in particular, T. Borkovec believes that experience is only a superficial mechanism that a person uses to avoid anxiety at a deeper level and negative emotions (Borkovec & Inz, 1990). Michel Dugas, O'Connell Kent, Ren, Lei among other scholars examined the intolerance of uncertainty and, as a result, devotion to experiences in order to gain more certainty (Dugas, 2007; O'Connell Kent, 2020; Ren, 2020). A number of empirical studies suggest that people with GAD interpret events as more threatening than they actually are (Borkovec & Inz 1990; Butler, 1991; Dugas 1998). Adrian Wells and Gerald Matthews proposed a meta-experience model where people with GAD believe that worry is something that can drive you crazy (Kreih, 2017). A cognitive model of GAD (Westbrook, 2014) given below, helps to better understand this disorder (Fig. 1).

Having analyzed most of the described models, it can be stated that these models cover 3 main components of worry:

- 1) tendency to anxiety (intolerance of uncertainty and positive beliefs about the experience);
- 2) perception of threat (biased information processing);
- 3) reinforcement of experience (experience as cognitive avoidance and meta-experience) (Kreih, 2017).



**Fig. 1.** Cognitive model of GAD according to Westbrook D.

It is worth mentioning that the CBT method is a rather recent phenomenon in the Ukrainian psychological theory and practice, therefore, the researches based on its methodology are insufficient in the domestic scientific literature. In this context, the issue of modern research to improve the quality of mental health care is particularly relevant. The problem of prevalence of tendencies to GAD among young people in the period sensitive to personal transformations remains essential and needs profound examination. It should be noted that in this study we deal only with trends, certain pre-nosological forms, excessive levels of anxiety, but not the final diagnosis of GAD.

### 3. Research Methodology

The study involved 125 students of Lviv State University of Internal Affairs and 25 students of the Ukrainian Catholic University majoring in psychology. Most of them were women (120 women and 5 men) of 19-24 age group. The average age of the persons under research was 20 years. The

respondents were asked to answer the questions of 2 techniques adapted by the Ukrainian Institute of Cognitive-Behavioral Therapy.

1) Pennsylvania Experience Assessment Questionnaire (The Penn State Worry Questionnaire, PSWQ; (Meyer, Miller, Metzger & Borkovec, 1990) - the technique allows to identify the tendency to excessive experiences. This is the first technique that mental health professionals in the UK suggest using in the case of GAD. The persons under study must evaluate each of the 16 statements on a 5-point Likert scale (where 1 stands for - not typical for me at all, 5 - very typical for me). Here are some examples of the statements: "My worries overwhelm me", "It's easy for me to get rid of anxious thoughts", "I worry about projects until they are completely fulfilled", etc. This technique allows to detect low (16-39 points), medium (40-59 points) and high (60-80 points) levels of experiences. It has been proven that this is a reliable and valid tool that allows to assess the intensity of worries.

2) The Why Worry Scale (WW-II; (Freeston et al., 1994) assesses the perceived positive effects of the experience and the reasons for involving people in the experience. It is necessary to evaluate statements from 1 (not typical for me at all) to 5 (very typical for me) by the Likert scale. These are the examples of the statements: "If I were not worried, I would be frivolous and irresponsible", "I worry beforehand to be less upset if something really serious happens", "What I am worried about means that I am a sensible person" and etc. In this study, the positive values of experiences were used, because they can eliminate the feeling of need to seek help from a specialist, which makes the process of psychotherapy more complicated. As a result of data processing, it is possible to receive the results on the following subscales:

- worries help to solve problems;
- experiences help to motivate;
- experiences protect a person from heavy emotions if something negative happens;
- worries in themselves prevent negative results;
- propensity to experience is a positive quality of a personality.

3) The respondents (people under study) were also asked to answer 2 authors' questions:

1. If you were experiencing life and personal difficulties, you would most likely turn to: a) a friend; b) a priest; c) a psychologist; d) parents; e) would be left alone with your problems; f) another answers.

2. Now I feel that I need psychological help: a) yes; b) no; c) difficult to say.

The results of the survey were subjected to mathematical and statistical data processing. The second part of the article describes the clinical case and proposes an algorithm for working with GAD in the CBT model.

#### 4. Results

The results of the study show that 18% of surveyed students are characterized with a high level of worry (HLW), which is much higher than that mentioned in the scientific psychological sources. According to Kreih the incidence of lifelong GAD is 4-7% (Kreih, 2017). This difference, on the one hand, may be due to the fact that the technique used determines the level of excessive anxiety, rather than certifying the final diagnosis of GAD, but, on the other hand, the group under survey meets the age risk of this disorder developing (Kreih, 2017). 64% of the surveyed youth have a medium level (MLW) and 18% - a low level of worry (LLW).

The comparative analysis did not reveal statistically significant differences between the surveyed groups (HLW, MLW and LLW) in terms of the perceived need to seek psychological help (*the authors' question № 2*: "Now I feel that I need psychological help"). However, the percentage distribution of the results of the study still has some differences, which are presented in the Table 1. Based on the results given in the Table 1, it can be argued that despite the high level of worry, only 41% of respondents with GAD express a conscious need for psychological help. However, interestingly, only 29, 4% could seek such help from a psychologist. Most GAD respondents prefer to address their parents (65%), friends (41%) or would like to be alone with their experiences (29%).

**Table 1.** Awareness of the need to seek psychological help among the student youth (*the authors' question № 2*)

Groups of respondents	Yes	No	Difficult to answer
HLW	41 %	35 %	24 %
MLW	30 %	30 %	40 %
LLW	0 %	65 %	35 %

It would be interesting to know the reason for the lack of feeling the need for psychological help (59%) among young people if the level of worry is still high enough. In this context, it may be appropriate to hypothesize that experiences help a person to anticipate and plan for the future. This

hypothesis is consistent with current GAD research: "Among people with GAD, superstitious belief in the effectiveness of experiences is enhanced if the solution they fear does not occur or they successfully cope with the stimulus that "triggers" their experiences" (Kreih, 2017). Therefore, this pattern can be an important factor in weakening the motivation for treatment. It has been proven that the methods of treatment which take into account the effects of positive assurance about experiences on the maintenance of worry have successfully reduced anxiety and worry (as a result, 75% of individuals met the recovery criteria 12 months after follow-up) (Wells & King, 2006).

The results of the correlation study in the general group show that there are correlations between the level of experiences and the attitude to the worries as those helping to solve problems (e.g.: "The fact that I experience helps me to plan my actions in order to solve the problem"(r = 0.25; p <0.05), motivate (e.g.:" Experiences stimulate me and make me more effective" (r = 0.28; p <0.05) and protect from heavy emotions if something negative happens (e.g.: "I'm worried in advance to be less upset if something serious really happens" (r = 0.27; p <0.05). These figures are low but statistically significant. While considering respondents exclusively from the HLW group, it was found that in this group there is a correlation between the level of experiences and the attitude to their worries as those that can prevent negative results (e.g.: "Excitement itself can prevent failure" (r = 0.76, p <0.05). Such a correlation is not observed in the MLW group.

The Mann-Whitney U-test (Statistica 8.0) was used to assess the differences between the two independent samples. The smaller is the area of intersection values, the more likely it is that the differences are reliable.

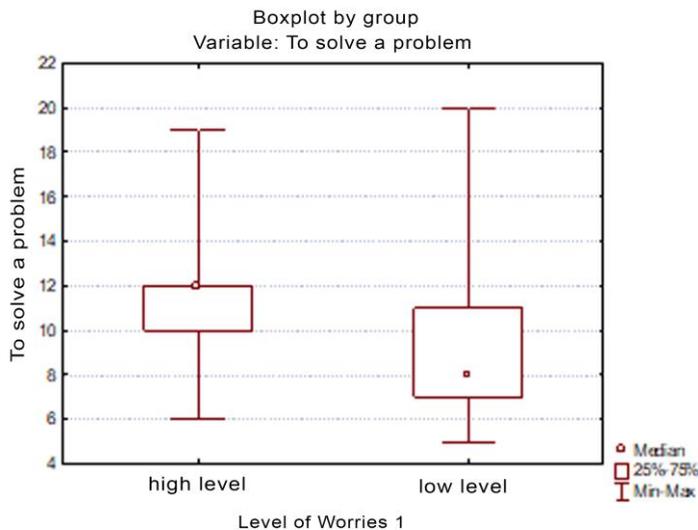
**Table 2.** Statistically significant differences between groups of respondents with high and low levels of worries on the indicator "experiences help to solve problems."

Variable	Mann-Whitney U Test									
	Marked tests are significant at p <.05000									
	Rank Sum High level	Rank Sum Low level	U	Z	p-level	Z adjusted	p-level	Valid N high level	Valid N low level	*1side Exact level
<b>PSWQ</b>	442,000 0	153,000 0	0,0000	<b>4,97709 0</b>	<b>0,00000 1</b>	<b>4,98624 1</b>	<b>0,00000 1</b>	27	27	0,00000 0
<b>Solving problems</b>	360,500 0	234,500 0	81,500 0	<b>2,16994 3</b>	<b>0,03001 2</b>	<b>2,19920 2</b>	<b>0,02786 4</b>	27	27	0,02867 0

Comparative analysis by the Mann-Whitney test confirms the differences in HLW and LLW groups in terms of "problem solving", namely, in the HLW group the respondents are statistically more likely to perceive experiences as those helping them to solve problems and motivate to action (as opposed to MLW). The results of the conducted analyses are presented in Table 2, Fig. 2 and Table 3.

**Table 3.** Statistically significant differences between groups of respondents with high and medium levels of worries on the indicator "experiences help to motivate".

Variable	Mann-Whitney U Test									
	Rank Sum high level	Rank Sum medium level	U	Z	p-level	Z adjusted	p-level	Valid N high level	Valid N medium level	2*1-sided Exact level
PSWQ	1173,000	1830,000	0,0000	6,26347	0,00000	6,269796	0,00000	27	96	0,000000
Solving problems	774,500	2228,500	398,500	1,369361	0,170887	1,377049	0,168498	27	96	0,172442
Motivation	822,000	2181,000	351,000	1,952722	0,050853	1,962601	0,049693	27	96	0,050984



**Fig. 2.** Comparison of the indicator "worries help to solve problems" in the group with high and low levels of experiences

Thus, the worries in the HLW group are perceived ego-syntonistically, which complicates the process of awareness of GAD and reduces the motivation for psychotherapy.

A description of a clinical case of a client's treatment who has had excessive anxiety is presented in the study. The CBT was held within 27 sessions, once a week.

A female, 26 years old, married, has 1 child (3 years old), is on maternity leave, a psychologist by profession. She lives in the village with her husband, son and parents.

**Description of the main complaints (disorders) or problems with which the client applied for therapy, the history of this problem:** the client addressed with a complaint "I have a lot of feelings: anxiety, guilt, low self-esteem, panic about my own health, the child's health, rigidity, selfishness, dependence on the others' opinions, fear of self-expression... I do not know how I came to this way of life. I was always anxious, but this condition worsened when I was forced to wean the 6 months baby because of taking medication incompatible with feeding. I often hesitate whether I dress the child warmly enough, whether or not he eats harmful food".

Initially, a thorough survey was conducted (clarifying questions were used to diagnose situational triggers: "In what situations do you notice that you are experiencing more / less? Are you managing your experiences?"; ways of processing information: "Do you think you are overly worried about insignificant things? Do you worry about world events or what you see in the news?"; cognitive avoidance strategies: "Does it happen you switch over from worry to worry; behavioral avoidance: "Are you doing something to be safe when you are worried about something? Are there any situations that you avoid because you are worried that something might happen?"

At first, Olha's cognitive model of problems was as follows: *Cognitions ("I'm bad" / "I'm incompetent", "Life is a disaster", "If I don't worry, I'll not be able to control anything, I'll be a bad mother") - Emotions (anxiety) - Physiology (rapid heartbeat, tremors) - Behavior (avoidance of information related to children's diseases; excessive control; inconsistent behavior; problems in interaction with relatives).*

**Related disorders / problems** - no other possible comorbid disorders (including depression) have been identified, although depressed mood is observed. Low self-esteem and perfectionism significantly affect the quality of Olha's life and were mentioned by her as problems.

**Diagnosis:** A generalized anxiety disorder was diagnosed based on a clinical interview with Olha.

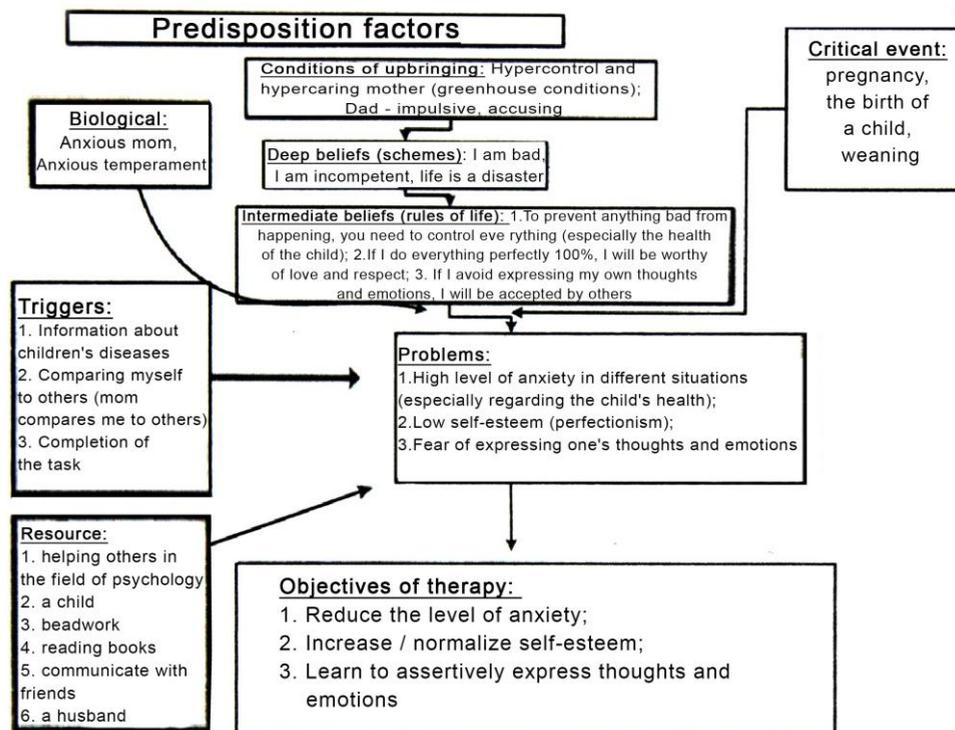
**Case definition:** on the basis of this survey, which lasted 2 sessions, the following case definition was constructed together with Olha (Fig. 3).

Based on the main problems and goals of Olha's therapy, as well as on the modern protocol of GAD therapy, an appropriate treatment plan has been developed (Wells, 2006; Borkovec, 1993; Craske, 1992; Barlow, 2008; Dugas, 2007), which is close to the below described chronology of sessions.

**Brief history of sessions and description of applied interventions:**

**Stage-I**

Sessions 1-2: diagnostic (examination + installation of hope). The client described her problems openly and in detail, was a little embarrassed ("It's a shame to tell how I've got to such a life"), it was obvious that the intensity of worries negatively affects her quality of life, but helps to make these problems Ego-dystonic.



**Fig. 3.** Formulation of Olha's case.

At the end of the sessions, Olha constantly asked if psychotherapy could help her, seeking assurances from a psychotherapist. Upon completion of the examination she agreed to psychotherapy.

Sessions 3-4: joint work on formulation of the case was carried out. Simultaneously, psychoeducational work on anxiety (3 components of

anxiety: physiological, cognitive and behavioral), its possible origin (nature of adaptive and non-adaptive anxiety), the role of childhood in shaping patterns of perception of the world and self and the relevant rules of life (LR) was conducted. Attention was paid to the lately experienced by the client case. This psychologized understanding of relationships complemented the understanding of collaborative support cycles. Socialization was also carried out into the CBT model, where Olha easily grasped the Situation-Thought-Emotion mechanism. When the client expressed her emotions and worries to the full extent, it became evident that the CBT corresponds to Olha greatly; she easily accepted its structure and goal orientation. As a homework, Olha had to recognize her inherent cognitive distortions. According to Olha's point of view, almost all of cognitive distortions were familiar for her (catastrophization, selective attention, emotional thinking, reading thoughts, self-blaming, etc.). She mentioned that recognition and understanding of these distortions brought relief. Thus, an acquaintance with the model of GAD therapy has taken place at this stage. It became possible to understand that frequent prayers were a form of protective behavior. Normalization and motivational work were important components of the initial stage of psychotherapy.

Sessions 5-8 (awareness of symptoms, tolerability of uncertainty, metacognition of worries, problem solving): during these sessions Olha learned to notice the symptoms of intensified experiences, the common theme of worries (assess their usefulness-uselessness, examined current or probable danger). Olha wrote down the results of homework twice a day in her diary ("What am I thinking / experiencing at the moment?").

**(A) Situation:** premature weaning.



**(B) And what if:** the child will be sick more often (low immunity), will lag behind in development, etc.



**(C) Anxiety:** tension, rapid heartbeat, hot flushes / exhaustion, fatigue, depressed mood. (*Source: authors' own contribution*)

Olha realized that due to the high level of anxiety she avoids a lot of situations in life or conducts frequent rehearsals (attempts to control everything, searching for information on the Internet, etc.). However, this does not deprive her of the feeling that her decision is not the right one.

It was not difficult to notice that the client's anxieties were nourished by deep convictions (DC) "I am bad" (mother, daughter, wife...). However, we planned to work in this direction in the subsequent stages of therapy. An important task of therapy was to understand the process, not just the content of experiences.

The next step was to work on understanding the difficulties of tolerance of uncertainty ("Allergy to uncertainty"). Olha already knew that most of her experiences concerned hypothetical situations of the future and that catastrophic predictions are especially intensely produced in situations of uncertainty. Olha's task was to notice (between sessions) situations of uncertainty, to observe what is happening with anxiety at these moments and to hunt for such situations ("Long live uncertainty !!!"). Such situations included potential illnesses of the child, the possibility of transmitting a throat infection to a child, husband's working long hours, etc. Olha avoided talking about children's illnesses or, conversely, searched the Internet for the necessary information, visited doctors, changed the child's clothes several times, doubted whether she gave food of the right temperature, called back to her husband several times. She often changed her mind depending on who said what, for which she blamed herself (there was a feeling that she was ready to live the lives of strangers, but not her own). Subsequently, a hierarchy of situations of uncertainty was built, psychoeducational work on exposure and specific steps in this direction was conducted. The client did her homework systematically and bravely, but sometimes continued to look for assurances: "Is there a guarantee that my son will not get sick more often than he should?" In the process of therapy, we were forced to return to the fact that there are no guarantees and 100% assurances in life and that "it is impossible to control the weather." It became less scary for her to hear such information, and the "muscle of uncertainty" became stronger.

The belief "For nothing bad to happen, everything must be controlled" (90%) has reduced its strength (up to 30%) and undergone transformation. Belief in a new persuasion has strengthened (70%): "There are things I can influence, and there are things I can't influence. It is not possible to control everything. The health of the child does not always depend on me.

#### Sessions 9-12

The next module addressed the isolation of metacognitions about experiencing and solving problems that Olha had accumulated due to disbelief in her own ability to solve them. Olha was aware that she needed excessive feelings and largely believed that "If you worry in advance, you can at least avoid unpleasant surprises," "A good mother should worry." With

the help of Socrates' questions, after writing the "advantages" and "disadvantages" of constant experiences, Olha's positive beliefs about experiences began to acquire an ego-dystonic character. The client began to understand that not all benefits are achieved only through worries, but the negative impact of experiences is more significant.

It has become clear for the client that when solving problems it is very important how you perceive them: as a threat or as an opportunity; how much you believe in your own abilities and what results you expect (catastrophization). The client got acquainted with problem-solving techniques.

### **Stage-II**

Sessions 13-15 (Exposure to the worst case scenario / overcoming cognitive avoidance). Olha continued to show a strong motivation for psychotherapy, which was supported by previous successful steps. The most disturbing situations for her were the child's potential illness and her own operation to remove the tonsils. At the 2nd exposition session, Olha herself expressed a desire to raise concerns about the possible transmission of the infection to a child. The client imagined the consequences of the situation: "What are the worst consequences of this event? If this still happens, then what's next? Why is it so awful? What is the probability that this will happen? What are the possible ways out of this situation?" On non-verbal grounds, it was noticeable how unpleasant it was to see all this (lack of avoiding and protective behavior). Olha showed a very rich imagination and an extraordinary level of trust. At the beginning of the work the anxiety reached 90%, and at the end - 40%. At home, Olha listened to a conversation recorded on a dictaphone, which lowered her anxiety level. Under a similar scenario, exposure was performed in the preoperative period (for tonsillectomy).

Life itself created natural exposures as well (e.g.: the child got sawdust in the eye), and the client, in turn, allowed them to happen (did not run immediately for help, tried to realistically assess the situation and track the dynamics of the level of anxiety). She gladly shared her success at the sessions.

### **Stage-III**

Sessions 16-25 were aimed at working with intermediate and deep convictions), but their analysis is beyond the scope of this article.

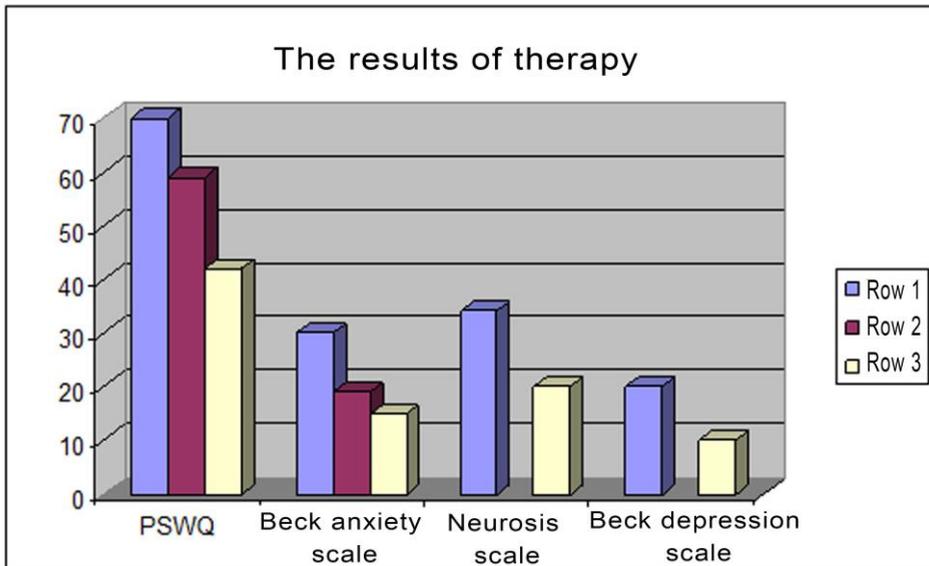
Sessions 26-27 (summarizing and focusing on relapse prevention): therapy was coming to an end, however, Olha needed further support because she was waiting for surgery. Some detailed work on self-esteem and perfectionism had to be completed, that is expressed in more in-depth study

of profound conviction. It has been singled out that therapy is a finite process and in the end the main task is to become a therapist for yourself; what has been achieved at this stage, and what else is worth working on was cleared out. Periodically techniques that have been mastered were recalled and possible ways for their application were distinguished.

Further task was outlined as follows: to strengthen the belief that the expositions could be conducted independently, and not only under the guidance of a therapist; the awareness that "life is a set of experiences" was gradually integrated, and no one gives 100% guarantees, and so on. It is worth paying attention to individual personal components, such as hyper-responsibility, hyper-control, the need for 100% certainty in future.

**The result of therapy:** Although therapy is still considered incomplete, the intermediate results at its final stage are worth discussion. Olha often says: "It seems that I am completely different: I do not panic as it used to be, I can more confidently defend my own position, be myself." Although the relationship with the husband was not the direct focus of therapy, it can be considered a good marker of positive process: "I began to think about how my husband feels in all this" (a way out of neurotic egocentrism), and thus a relationship with him improved. Uncertainty tolerance "muscle" works well, making anxiety manageable. Olha made an independent decision about the operation, although her position is different from her mother's.

The number of points according to the PSWQ method has changed from 70p. (at the beginning of the survey) to 59p. (10th session), 42p. (25th session), which indicates a significant reduction in the level of anxiety; according to the Beck anxiety scale, the dynamics are as follows: 30p. (2nd session), 19p. (10th session), 15p. (average level of anxiety / 25 session), respectively, according to the method of rapid diagnosis of neurosis by K. Heck and H. Hess (34p. – 20p.), which indicates a significant reduction in the likelihood of neurosis. Although the Beck Depression Questionnaire showed a lower limit of the average level of depression (20 points), at the time of the survey it dropped to 10 points. (absence of depression as such) (Fig. 4). Measurements on the neurosis scale and the Beck depression scale were performed twice, in the initial and final stages, because these scales were used in the study as an aid in assessing the effectiveness of the results of psychotherapy. Whereas measurements of the results by the PSWQ method and the Beck anxiety scale have their intermediate results in tracking the level of anxiety, which is a direct subject of research interest.



**Fig. 4.** Dynamics of psychotherapeutic results of client Olha.  
Note: Row1 – session 2; Row 2 - session 10; Row 3 – session 25.  
(Source: authors' own contribution)

At the end of therapy on a subjective scale of anxiety from 0 to 10, Olya pointed to 3 p. (beginning-9p., with max-10p.), and on the subjective scale of faith in Profound Conviction "I'm bad" / "Life is a catastrophe" - 20% (beginning-85%, with max-100%). Many changes have taken place in self-esteem, the Rules of Life have been reformatted and now Olha believes in 85% that "I am good enough in myself, I can express my own thoughts and feelings the way I feel", "There are things in this life that should not be controlled."

## 5. Discussion

The percentage of respondents who are prone to excessive anxiety in the study is slightly higher than indicated in the psychotherapeutic literature (Wells, 2005). The possible reasons for such results were mentioned above. A comparative analysis of the data obtained with the results of other scientists (Purdon, 2000) on positive beliefs about anxiety confirms that the presence of such beliefs may be associated with low motivation to get rid of these experiences. In such cases, people may be less likely to seek professional help. In addition, existing empirical studies suggest that if

anxiety is reinforced by various mechanisms, such as cognitive avoidance or negative reinforcement, then positive beliefs about anxiety are also reinforced (Kreih, 2017). However, treatments that have taken into account the effects of positive beliefs about experience have been shown to be successful (Wells & King, 2006).

Checking the effectiveness of the results of psychotherapy in this case shows the feasibility of using the proposed protocols for the treatment of GAD in CBT, but also requires a flexible approach to each individual client.

## 6. Conclusions

The results of the study show that 18% of young people have a high level of anxiety, which may be associated with age, genetic predisposition, social situation in Ukraine, high levels of stress in times of shortage, etc. Such a group of student youth is a potential risk group for generalized anxiety disorder. The presence of a qualified psychological aid in educational institutions is essential.

The results of the study indicate that in the group with a high level of anxiety (HLA), respondents are statistically more likely to perceive anxiety as helping them to solve problems, motivate them to action and are able to prevent negative results. Such positive beliefs about the anxiety may reduce the perceived need to seek help from psychologists and psychotherapists. Only 41% of respondents with a high level of anxiety express the need for psychological help, 59% – do not express such a need.

The algorithm of work with clients having generalized anxiety disorder in the cognitive-behavioral therapy model is based on:

- 1) reassessment of the usefulness of anxiety as a strategy and awareness of the problems that come with excessive worries;
- 2) assistance in a realistic understanding of ambiguous situations as such that are not clearly threatening;
- 3) assistance in rethinking the client's attitude to situations of uncertainty;
- 4) use of exposures for the purpose of deeper processing of the stimulus in a nonverbal way;
- 5) learning that clients can overcome negative emotions and that they can cope with difficult situations without avoiding them.

Cognitive and behavioral strategies help to change the way of thinking through the study of objective data and the change of thoughts that provoke worries to more realistic and balanced thoughts.

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