

META-COGNITION AND GENERALIZED ANXIETY DISORDER — A CASE STUDY

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worry

Generalized Anxiety Disorder

meta-cognition

Summary

Objectives: Cognitive-behavioural model of worries indicates the existence of meta-beliefs that play an intermediary role in sustaining the symptoms of anxiety. Patients attribute worrying twofold features. Firstly, worries are considered to be a protective factor, that prepare to deal with future problems. On the other, worry is perceived as a threat to the integrity of somatic and mental health. The importance that patients attach to their anxious thoughts determines not only the realm of undertaken emotional or behavioural strategies, but also affect the further cognitive activity. The aim of this article is to describe a useful therapeutic approach in a patient with global anxiety disorder, which provides a rapid improvement in reported symptoms.

Methods: 37-year-old patient, resident of a big city, diagnosed with global anxiety disorder, being treated psychiatrically with an SSRI with no significant effect. The chronic course of the disorder, somatic comorbidities, a small amount of psychosocial resources led to a significant degradation of patient function in many areas of life activity. Based on an interview there was developed cognitive case conceptualization of the patient. Used psychotherapeutic interventions of the protocol to work on meta-worrying.

Results: After the therapeutic intervention with using of meta-cognitive training methods a significant improvement of reported anxiety symptoms was obtained. The functioning of the patient's professional field has been significantly improved.

Conclusions: Meta-cognitive training may be a useful method in the treatment of patients with GAD.

Introduction

The Generalized Anxiety Disorder is a frequently diagnosed mental disorder characterized by an early onset, chronic course and a high degree of coexistence with other anxiety disorders and unipolar depressive disorders [1]. The annual occurrence of GAD ranges from 2 to 3%, and the lifetime disease risk is around 5% in general population [2]. Diagnostic criteria for this disorder were formulated in 1980 in the DSM-III, though its residual disorder status was overthrown with the publication of the DSM III-R in 1987 [3]. Due to its recent

history, specific cognitive models of Generalized Anxiety Disorder have been proposed for the last three decades [4].

The substantial feature of GAD is a persistent, exaggerated and subjectively uncontrollable worry about various aspects of life which has lasted for at least six months. It is manifested by a high level of anxiety accompanied by at least three somatic symptoms [5]. Worries might be considered both as a normal cognitive activity [6] and as a type of intrusive mental experience associated with various psychological dysfunctions [7]. Borkovec, Pruzinski and de Pree define worry as: „a chain of thoughts and images negatively charged and relatively uncontrollable“, it may be considered as a protective factor, induced as a coping strategy in the response to anticipated future threats [8].

Taking into account the postulate of cognitive understanding of generalized anxiety disorder, Adrian Wells has made a distinction between two types of worries:

The 1st type of worry - intrusive negative thoughts about external events (e.g. the ability to maintain work and well-being, being rejected by other people) and non-adaptive internal events such as somatic feeling (e.g. a headache equals brain cancer).

The 2nd type of worry is called a “meta-worry”, focused on the occurrence of thoughts and their character. In other words, it is “a worry about worry” (e.g. “I’m losing control over my thoughts”, “I’m going mad,” “I can start worrying and never stop”) [9].

The metacognitive model of the GAD indicates the indirect role of meta - beliefs in the maintenance of an anxiety symptoms. Patient attributes worrying twofold features. Worries are contemplated as supportive in prediction of the future problems and dealing with them. On the other hand, worry is perceived as a threat to somatic and mental health. Particularly important are meta - beliefs about uncontrollability and harmfulness of worries. Their activation initiates "worry about worry", which leads to the increased anxiety and the feeling of helplessness and affirms the belief of worrying uncontrollability. The interpretation of an intrusive negative thoughts determines emotions and coping behaviors (reassurance seeking, avoidance) and affects the cognitive activity by secondary reinforcement of meta-beliefs and schemas underlying the personality structure [10, 11].

The main goals of cognitive-behavioral therapy for GAD are: improving emotional regulation so that the patient can strengthen the ability to recognize, accept, understand and constructively use emotions and change the meta-beliefs which play an indirect role in symptoms' maintenance.

Information about the patient

The 39-year-old patient voluntarily applied for the therapy, two weeks after having been employed as a deliverer. As a stimulus to seek psychological help he reported high level of anxiety and related somatic problems (insomnia, concentrating and remembering difficulties) and persistent worrying about future events. The patient has been pharmacologically treated with SSRIs for generalized anxiety disorder (F 41.1). He remains under constant neurological care due to the childhood age epilepsy. He has been repeatedly advised to get psychological support. So far he has been consulted by a psychologist but has not decided to start psychotherapy.

Cognitive conceptualization

The man lives with his 60-year-old mother, he is single and he doesn't have children. He claims to have an insufficient social support. He has secondary education completed. The patient received the pension due to a moderate level of disability. After several years of unemployment he started working in a delivery company, which contributed to a significant rise in anxiety symptoms and subsequently to considerable difficulties in the professional life and a decline in life quality.

The man comes from a full family, he is an only child. He was strongly connected with his parents. He claims to have received care and commitment from them. After the appearance of epileptic seizures, he was regularly brought to school by his father. His mother paid great attention to son's health. Parents agreed on upbringing methods. Because of the fear of recurrence, parents didn't make high educational demands for their son. They didn't engage him in household duties because he shouldn't have overworked. Among the family rules, the danger affairs came out first: "You never know what may happen," "You have to take care of yourself." Mother created catastrophic views, emphasized the role of caution, carefulness and insurance in case of misfortune.

The man describes himself as a timid child in the past. He was strongly attached to his mother and reacted anxiously to being separated from her. The patient claims that he has never succeeded in creating extensive social support. Until the adolescence he identified himself with the peer group. At the age of 15, the patient experienced an epileptic seizure on the school corridor. He recalls the shame he felt in front of his peers since the incident. Since then the strong fear of recurrence appeared. The patient began to experience panic attacks, most often in school or in the street. Being unattended by parents was associated with the increased anxiety symptoms. At the moment of panic attacks, the patient was allowed to come

back home by his parents. As a result of frequent absences, he didn't finish one term at school. Therefore he started to attend meetings with a psychiatrist and took alprazolam for year. After the medicine's withdrawal panic attacks didn't return. During the adolescence he was afraid of mates' criticism, he felt different, worse. Due to health problems, he didn't take up sports activities, colleagues perceived him as a "weaking". He also didn't feel attractive to his girlfriends in comparison to healthy friends. The man had difficulty with initiating social contacts, he was withdrawn and preferred to spend his time alone. He finished secondary school and didn't continue further education.

In the early adulthood he still lived with his parents. The patient didn't manage to maintain any relationship except for a few romances. After several years of work, he had an accident that resulted in the fibular nerve damage and subsequent infection which led to life threatening systemic inflammatory reaction. Despite the long-term rehabilitation, he never fully recovered. This event strengthened patient's basic beliefs about his weakness and vulnerability to diseases. As he alleges, he resigned from looking for a girlfriend, significantly reduced social contacts and still remained dependent on his parents. He took a job as a doorman. 12-hours standby duty generated worries about the epileptic seizure recurrence. After several months he resigned from his job and remained unemployed for several years. During this period, the generalized anxiety disorder symptoms were present.

In the summary, the patient during his childhood and adolescence developed the basic schemas about his own deficits, weakness and a tendency to being harmed. On account of the key beliefs' activation, he usually chose avoidance and schema-confirmation strategies: cautiously approached the new, unfamiliar situations, avoided challenges, withdrew from social contacts and remained in a dependent relationship with his parents. The health problems, numerous medical consultations and parents overprotection strengthened his beliefs of his own weakness and the vision of an unpredictable and dangerous world. The presence of cognitive distortions, i.e. disastrous, filtering, dichotomous reasoning, increased the tendency to choose non-adaptational coping strategies like avoidance or withdrawal.

The metacognitive model

The patient's key convictions ("I am weak", "The world is threatening"), which were set during the childhood and adolescence and strengthened by the interaction with critical events (i.e. health and educational problems), affected the development of anxiety disorders. The early onset and the chronic course of the disease caused significant distress and impaired the patient's functioning in many areas of life. The man's situation (dependent relationship with

his mother, little social support and a low socioeconomic status) and his non-adaptational coping strategies have prompted the therapist to reflect on the choice of the appropriate therapeutic techniques to prevent man's withdrawal from psychotherapy and to reduce the anxiety symptoms on the initial stage of cooperation. The pharmacotherapy of SSRIs, affecting the so-called injury avoidance mechanism was supposed to limit the anxiety symptoms, worry, uncertainty and shyness in social contacts.

The two initial sessions were devoted to an interview which provided the detailed patient's information. Next, a developmental and cognitive profile was developed. It included the interaction of life events and man's key beliefs, his coping strategies and compensations, underlying psychopathological mechanisms and personal resources supporting psychotherapeutic work.

Wells's metacognitive model of worries was used during the psychotherapy. The patient performed self-assessment with Wells Anxious Thoughts Inventory. Through a socratic dialogue technique, the therapist elicited the patient's beliefs about the process of worry.

The information gathered showed that in man's conviction, worrying regulates the level of safety. This may be caused by the presence of potential, positive beliefs about worrying like "worry prepares to deal with future problems", "worry protects against the worst". When the routine anxiety disappears over time, the negative beliefs about anxiety are activated. The patient claims that "the worry will never end", "he can make himself sick with worrying". These convictions increase the level of anxiety, tension and somatic symptoms and force the man to undertake various actions to protect himself from the imagined and disastrous consequences of worry. Mainly, these are attempts of controlling thoughts or distraction, which usually end in subjective sense of failure and losing control. Consequently the patient strengthens his beliefs about his own weaknesses, defects and vulnerability to disease, accompanied by a sense of helplessness and inability to make any change.

Psychotherapeutic implications

Assuming that the change in beliefs about the worry may contribute to the reduction of the generalized anxiety disorder symptoms, three further psychotherapeutic sessions were devoted to the metacognitive model's working strategies.

Using the protocol developed by A. Wells, the following psychotherapeutic interventions were conducted:

Psychoeducational experiment concerning suppressing thoughts

Aim: Indication of the negative effects of controlling cognitive activity in relation to the patient's coping strategies.

T.: *You say that when you begin to worry that it will never end and you will always be so afraid of the future then you try to suppress your thoughts, turn them away.*

P: *Yes, but it doesn't work. I thought that the boss had been dissatisfied with me due to my slowness and mistakes that I had made. Over and over again. Then I thought I would go crazy at last.*

T: *So you thought that your worry could lead to insanity?*

P: *[nods]*

T: *I would like to encourage you to check what happens when you try very hard not to think about something. When you put all the effort into suppressing your thoughts. What do you think?*

P: *Let's try it.*

T: *I will give you a piece of paper. You can draw on it whatever you want. You will have 3 minutes to do it. I only ask you to do everything that is possible to not think about a white bear during this time. (Patient receives a sheet of paper and a pencil)*

P: *[laughs] No, it is impossible. I've already seen him three times!*

T: *Oh, so if you try to avoid thinking about something and the effect is reversed, what could happen if you try not to worry?*

P: *Well that's exactly the same thing, then I always have my head full of bad thoughts.*

As a result of the above experiment, the patient has become aware of the effects of his attempts to inhibit cognitive activity. His conclusions were a prerequisite for understanding the vicious circle of worry and subsequently the motivating factor to change his current coping strategies.

The next step in the therapy was verbal reattribution, aimed at undermining the validity of the 2nd type of worry and pointing out its non-adaptational character. The first attempt was made to normalize worrying, perceived by the patient as an extremely pathological cognitive process. The therapist reported the results of the Wells and Morrison's experiment indicating that over a period of two weeks, 79% of the study participants had been worried at least once. The patient, still surprised by the information provided, claimed that in his case worrying continued incessantly. Looking for the evidence that undermines his conviction "I am being worried all the time," patient diverted his attention to periods when he had been worried less or not at all, which enabled him to identify resources to cope with the generalized anxiety

symptoms. The next therapeutic intervention was focused on the search for the proofs of positive consequences of worrying.

T: *You said that when the boss had assigned you the first independent task which was picking up the company's car from the car showroom, the symptoms of anxiety were intensified.*

P: *Yes, I didn't sleep all night before that day, I was thinking about the bad things that could happen.*

T: *Maybe you'll find my question a bit strange, but I wonder if those thoughts were really necessary at that moment?*

P: *I don't know. I just wanted to be prepared for the worst.*

T: *And did the worrying help you to prepare for the worst?*

P: *Probably a bit. When I think pessimistic, it's nice to be surprised later.*

T: *Can I express it in other words?: "When I'm worried, nothing can go wrong"*

P: *There is something about it!*

T: *How much do you believe in these words? From zero to one hundred percent.*

P: *I believe a bit, about 70%. Or maybe even 80%.*

T: *It's a strong conviction. Why do you think the saying that "when you are worried, nothing wrong will happen", is right?*

P: *Well, for example, I was worried and nothing happened to the car, there was no accident. Often worries just remain worries. Besides, it is better to be pleasantly disappointed.*

T: *Oh. So do you want to say that it is less painful than being unpleasantly surprised? And may we differently understand the fact that you didn't have an accident then?*

P: *Well, I was driving the car carefully. The weather was good. The car was brand new and efficient.*

T: *So, could various factors, including your skills, have mattered? Not just an early worrying?*

P: *Yes, it is probable. I don't think that I've had any influence on it.*

The descriptions of different situations helped the patient notice that worry wasn't a determinant of the future challenges' success. The acceptance of alternative explanations reduced the subject's anxiety level and the confidence in positive meta-beliefs that interfere in choosing worry as a coping strategy.

The last step of work with the metacognitive model was a behavioral experiment aimed at undermining the negative thoughts of uncontrollability and insanity ("I'll go crazy because

of worry"). The proposed experiment was based on trying to "lose control" over worrying. The man was asked to maximize catastrophic scenarios on purpose and allow them to take control over his mind. The patient wrote down his belief and its strength. He also defined his expectations concerning the results of the experiment: "I can lose my mind". The experiment was conducted during a therapeutic session to provide patient a sense of security. The man was asked to worry intensely about his work for 15 minutes. He summed up his attempt to lose control in such words: "When I am trying to go crazy, it doesn't work out". Despite the results of "losing control" experiment, he was concerned about what might happen when the thoughts take control over him. Therefore, he was advised to repeat the experiment several times to increase his sense of control over the negative thoughts.

Recapitulation

The interventions described above have been crucial for further psychotherapeutic process. At the beginning of the therapy, attention was focused on reducing generalized anxiety disorder symptoms because of the passive-dependent traits and the patient's lack of conviction about the improvement. The effectiveness of the metacognitive training in working with the symptoms of GAD [12] led to the selection of an appropriate therapeutic intervention.

Factors that might have had a significant impact on understanding the mechanism of reported problems included familiarizing the patient with cognitive conceptualization [13]. By recognizing and understanding the underlying mechanisms of worry, the patient managed to achieve an improvement in "worry about worry". The psychoeducational experiments and the normalization of anxiety allowed the man to create an alternative picture of his mental health. This resulted in an increase of motivation to continue psychotherapy and a hope for improvement.

By questioning the validity of both positive and negative meta - beliefs and testing them on the basis of behavioral experiments, the patient had the opportunity to experience taking control over the worries. The man was gradually gaining the conviction that he wasn't helpless in the face of symptoms, which was a contrary experience to his basic schemas.

However, the limitations of the above interventions, are worth noting. Without the proper knowledge of the symptom's causes, the reduction of the generalized anxiety disorder, can only be a short-term solution. According to the assumptions of multidimensional diagnosis, clinical symptoms should always be considered in relation to the personality characteristics and its possible disorders, somatic disorders (diagnosis of epilepsy), as well as

the stress intensity throughout the lifetime (in this case childhood and early adulthood). Chronically persistent neurotic symptoms induce to reflect on their function in the patient's life. It can be assumed that the GAD is a manifestation of avoidant and dependent personality disorder. According to this hypothesis, in order to maintain the improvement in patient's functioning, further psychotherapeutic process should focus on an extended understanding of psychological problems taking into account the early maladaptive schemas, an introduction of emotional regulation techniques [14], strengthening the therapist-patient relationship, recognizing and changing non-adaptive coping styles [15]. On the basis of patient's cognitive conceptualization, it can be assumed that dependent relationship with his mother, excessively protective family environment, the transmission of beliefs about a dangerous world and the inability to cope with threats have influenced the development of early maladaptive schemas in the area of weakened autonomy and lack of achievement. The patient constantly experiences himself as incompetent and incapable of leading a fully-fledged life and has the feeling that he can function properly only by staying under his mother's care. In addition, he perceives himself as weak and vulnerable. The man permanently awaits the forthcoming catastrophes, in the face of which, he expects to remain helpless. The further goal of psychotherapy - developing patient's competence and independence, was based on the paradigm of Young's schema therapy. The empirical strategies (e.g. imaginative work with breaking behavioral patterns, avoiding part dialogues), behavioral strategies and less direct therapeutic relationship that actively engages the patient in the therapeutic process, may be helpful in achieving the above assumptions [15]. Owing to the presence of neuropsychological deficiencies, cognitive strategies will be less important at this stage of psychotherapy [16].

References

1. Kessler RC, Keller MB, Wittchen HU. The epidemiology of generalized anxiety disorder. *Psychiat. Clin. N. Am.* 2001; 24(1): 19–39.
2. Weisberg RB. Overview of generalized anxiety disorder: epidemiology, presentation, and course. *J. Clin. Psychiat.* 2009; 70 Suppl 2: 4–9.
3. Norton PJ. Toward a clinically-oriented model of anxiety disorders. *Cogn. Behav. Ther.* 2006; 35(2): 89–91.
4. Wells A. *Terapia poznawcza zaburzeń lękowych*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego 2010, s. 234–235.
5. World Health Organization. *ICD-10, the ICD-10 Classification of mental and behavioural disorders: diagnostic criteria for research*. Geneva: World Health Organization, 1993.
6. Trapnell PD, Campbell JD. Private self-consciousness and the five-factor model of personality: Distinguishing rumination from reflection. *J. Pers. Soc. Psychol.* 1999; 76(2): 297–300.

7. Chelminski I, Zimmerman M. Pathological worry in depressed and anxious patients. *J. Anxiety Disord.* 2003; 17(5): 533–546.
8. Borkovec T, Robinson E, Pruzinsky T, DePree J. Preliminary exploration of worry: some characteristics and processes. *Behav. Res. Ther.* 1983; 21(1): 9–16.
9. Wells A. A multidimensional measure of worry: Development and preliminary validation of the Anxious Thoughts Inventory. *Anxiety Stress Copin.* 1994; 6: 289–299.
10. Wells A. Meta-cognition and worry: A cognitive model of generalized anxiety disorder. *Behav. Cogn. Psychoth.* 1995; 23: 301–320.
11. Wells A. *Cognitive therapy of anxiety disorders: A practice manual and conceptual guide.* Chichester, UK: Wiley; 1997.
12. Van der Heiden C, Muris P, van der Molen HT. Randomized controlled trial on the effectiveness of meta-cognitive therapy and intolerance-of-uncertainty therapy for generalized anxiety disorder. *Behav. Res. Ther.* 2012; 50(2): 100–109.
13. Wells A. *Meta-cognitive therapy for anxiety and depression.* London: The Guilford Press; 2009, s. 102–104.
14. Mennin DS, Fresco DM, Ritter M, Heimberg RG. An open trial of emotion regulation for generalized anxiety disorder and co-occurring depression. *Depress. Anxiety* 2015; 32: 620–621.
15. Young JE, Klosko JS, Weishaar M. *Terapia schematów. Przewodnik praktyka.* GWP; 2014.
16. Gugała-Iwaniuk M, Bochyńska A. Funkcjonowanie poznawczo-behawioralne osób z padaczką. *Przegląd literatury. Post. Psychiatr. Neurol.* 2014; 23(3): 142–144.

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