

Anxiety problem with various treatments including cognitive behavioral therapy (CBT) and attention bias modification (ABM)

Bando H^{a*} and Yokoyama T^b

^aTokushima University and Medical Research, Tokushima, Japan

^bDepartment of Advanced Technology and Science, Tokushima University, Tokushima, Japan

Article Info

Article History:

Received: 04 December, 2022

Accepted: 10 December, 2022

Published: 13 December, 2022

***Corresponding author:** Bando H,

Tokushima University /Medical

Research, Nakashowa 1-61, Tokushima

770-0943 Japan; Tel: +81-90-3187-2485;

E-mail: pianomed@bronze.ocn.ne.jp

DOI:

<https://doi.org/10.36266/GJIDIT/127>

Abstract

From medical and social points of view, anxiety has been one of the crucial problems. Some associations or guidelines have been involved in this matter, including American Psychological Association (APA), US Preventive Services Task Force (USPSTF), Diagnostic and Statistical Manual of Mental Disorders (DSM-5), and others. Several treatments have been applied in clinically actual situations, such as cognitive behavioral therapy (CBT), acceptance commitment therapy (ACT), cognitive bias modification (CBM), attention bias modification (ABM), approach or avoidance training, and so on. Clinical efficacy of these various interventions for depressive and anxious status will become useful reference in the future.

Keywords: Anxiety; US Preventive Services Task Force (USPSTF); Cognitive Behavioral Therapy (CBT); Acceptance Commitment Therapy (ACT); Cognitive Bias Modification (CBM); Attention Bias Modification (ABM)

Copyright: © 2022 Bando H, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Commentary

The influence of COVID-19 has spread all over the world [1]. Several types of lockdowns for COVID-19 have begun in many cities worldwide. From a social point of view, adults at work, children in normal school life, all people, both individually and at home, are subject to all sorts of restrictions on their behaviors [2]. These cause various social unrest. According to a survey by the American Psychological Association (APA), most adults report that COVID-19 is causing significant stressful events in their lives on a daily basis [3].

Anxious social issues are also influenced by climate changes [4]. In a recent report, approximately 60% of young people felt insecure for daily lives, according to a survey in the Lancet. Furthermore, there have been lots of school shootings observed in the United States as unreasonable incidents. Based on a survey by the view research center, about 60% of parents and teenagers feel anxious for current society [5]. The on-going economic situation has been also huge source of stressors for various people. Deeply related to this would be the Russian invasion of Ukraine, which causes a variety of stresses for many adults.

The US Preventive Services Task Force (USPSTF) is an independent agency of the United States government and consists of primary care and preventive medicine experts. A key screening method was announced in Sept 2022 [6]. By utilizing

this, all people under the age of 65 can be screened for anxiety disorders conveniently.

In recent years, there have been mental health concerns about world-class athletes such as tennis star Naomi Osaka and gymnast Simone Biles. Some research have revealed that parenting style is closely related to child-rearing anxiety, although genetic factors also exist for familial-onset anxiety [7]. If the parents help their child deal with the factors adequately that make him anxious, he will gradually become better at coping with various matters. By no means, anti-anxiety drugs are not recommended or so clinically effective, and it is better not to use them.

For primary care physicians, we ask patients about the five factors of diet, exercise, sleep, alcohol, and smoking [8]. Everyone has own anxiety in the heart. In the future, medical doctors may always check for anxiety situation as the 6th factor. The perspective of the anxiety includes working, meeting with people, interrelationship and tension in ordinary daily life. On the other hand, there is situation associated with excessive anxiety. According to the latest 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), anxiety disorder has been characterized for its excessive anxiety and worry, which is often lasting more than 6 months [9]. In the guideline of the USPSTF, the category of anxiety includes seven types. Results from the USPSTF show that two out of three people with depression have an anxiety disorder [10] As a related interview manual, the manual developed by Barlow is used [11]. Subsequently, Silverman published appropriate manuals and

How an anxious child grows up depends greatly on how their parents raise them [13]. It would be effective for children simply to enter to nursery schools and kindergartens. If parents help their children excessively, the children's anxiety will tend to increase in the future, and they will not acquire problem-solving skills [14]. Anxiety has been usually produced by avoidance behavior [15]. Therefore, once a child overcomes avoidance behavior and confronts its causes, it is thought that anxiety usually disappears during growing-up. These standard treatments include cognitive behavioral therapy (CBT). It has been found to be most effective for relieving anxiety [16]. The method first reveals the irrational and unproductive preferences and beliefs that underlie the symptoms. Then, the case was advised for overcoming it and changing the associated behavior little by little. About CBT performance, about 60-70% of young people's anxiety disappears in 3-4 months. Thus, CBT-based exposure methods would be adequate for the treatment of choice for children and adults [17].

Other treatments include acceptance commitment therapy (ACT) [18]. Difference exists between CBT and ACT [19]. CBT may focus on re-evaluating cognitions and then changing behavior and avoidance, in order to decrease anxiety levels. In contrast, ACT can promote acceptance-oriented emotion regulation and important engagement in our lives [20]. ACT accepts clinical and psychological problem or situation that causes anxiety as it is. Furthermore, it encourages to stick to the values they always hold in the mind. For example, it is to live peacefully without having extreme anxiety.

As to the usual use of cannabis and its legalization, various medical concerns have been observed. They have benefits and risks for medical marijuana card (MMC) for clinical outcomes. For evaluating the effect of MMC, clinical influence and cannabis use disorder (CUD) symptoms were studied [21]. A randomized clinical trial (RCT) was conducted. Subjects were 186 cases with depression, anxiety, insomnia and chronic pain. For the protocol, cases in group A have MMC from 0 weeks, and cases in group B have MMC after 12 weeks. The former showed no significant improvement in anxiety, depression, or pain, and cannabis use disorders were found 3 times of the latter. It means that the former cases could not quit or reduce the use of the agent. This tendency was particularly pronounced among those suffering from anxiety and depression. The situation would be similar to alcohol use. In other words, drinking alcohol every night may reduce the anxiety, but it does not mean a medical agent [21].

Related to CBT and ACT, some Cognitive bias modification (CBM) therapies have been provided to various patients [22]. They are prototypical methods, including interpretation bias modification, attention bias modification (ABM) and approach or avoidance training. Clinical efficacy of several CBM interventions have been assessed for depressive and anxious

symptomatology.

In summary, anxiety has been one of the crucial problems in this society. For the management and treatment, CBT, ACT, CBM, ABM and others have been applied for various patients. This article will become hopefully an useful reference in the future research.

References

1. Nishimi K, Borsari B, Marx BP, Tripp P, Woodward E, Rosen RC, et al. Posttraumatic stress disorder symptoms associated with protective and risky behaviors for coronavirus disease 2019. *Health Psychol.* 2022; 41:104-114.
2. Cunningham TJ, Fields EC, Garcia SM, Kensinger EA. The relation between age and experienced stress, worry, affect, and depression during the spring 2020 phase of the COVID-19 pandemic in the United States. *Emotion.* 2021; 21: 1660-1670.
3. Gruber J, Prinstein MJ, Clark LA, Rottenberg J, Abramowitz JS, Albano AM, et al. Mental health and clinical psychological science in the time of COVID-19: Challenges, opportunities, and a call to action. *Am Psychol.* 2021; 76: 409-426.
4. Hickman C, Marks E, Pihkala P, Clayton S, Lewandowski RE, Mayall EE, et al. Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *Lancet Planet Health.* 2021; 5: e863-e873.
5. Cunsolo A, Harper SL, Minor K, Hayes K, Williams KG, Howard C. Ecological grief and anxiety: the start of a healthy response to climate change? *Lancet Planet Health.* 2020; 4: e261-e263.
6. US Preventive Services Task Force, Mangione CM, Barry MJ, Nicholson WK, Cabana M, Coker TR, Davidson KW, et al. Screening for Anxiety in Children and Adolescents: US Preventive Services Task Force Recommendation Statement. *JAMA.* 2022; 328: 1438-1444.
7. Siu AL; US Preventive Services Task Force (USPSTF), Bibbins-Domingo K, Grossman DC, Baumann LC, Davidson KW, Ebell M, Garcia FA, et al. Screening for Depression in Adults: US Preventive Services Task Force Recommendation Statement. *JAMA.* 2016; 315: 380-387.
8. Ministry of health, labor and welfare (MHLW), Japan. A Basic Direction for Comprehensive Implementation of National Health Promotion.
9. Graham AK, Minc A, Staab E, Beiser DG, Gibbons RD, Laiteerapong N. Validation of the Computerized Adaptive Test for Mental Health in Primary Care. *Ann Fam Med.* 2019; 17: 23-30.
10. Antony MM, Barlow DH. Handbook of assessment and treatment planning for psychological disorders. Guilford Publications. 2020; 638.
11. Brown TA, Barlow DH. Anxiety and Related Disorders Interview Schedule for DSM-5 (ADIS-5) - Adult and Lifetime Version: Clinician Manual: Treatments That Work. Oxford University Press, 2014.
12. Anticich SAJ, Barrett PM, Silverman W, Lacherez P, Gillies R. The prevention of childhood anxiety and promotion of resilience among preschool-aged children: a universal school based trial. *Advances in School Mental Health Promotion.* 2013; 6: 93-121.
13. Perry NB, Dollar JM, Calkins SD, Keane SP, Shanahan L. Childhood self-regulation as a mechanism through which early overcontrolling parenting is associated with adjustment in preadolescence. *Dev Psychol.* 2018; 54: 1542-1554.
14. Ventola P, Lei J, Paisley C, Lebowitz E, Silverman W. Parenting a

- Child with ASD: Comparison of Parenting Style Between ASD, Anxiety, and Typical Development. *J Autism Dev Disord.* 2017; 47: 2873-2884.
15. Bas-Hoogendam JM, Bernstein R, Benson BE, Buss KA, Gunther KE, Perez-Edgar K, et al. ENIGMA-Anxiety Working Group. Structural Brain Correlates of Childhood Inhibited Temperament: An ENIGMA-Anxiety Mega-analysis. *J Am Acad Child Adolesc Psychiatry.* 2022; 61: 1182-1188.
 16. Ratnayake S. It's Been Utility All Along: An Alternate Understanding of Cognitive Behavioral Therapy and The Depressive Realism Hypothesis. *Philosophy, Psychiatry, & Psychology.* 2022; 29: 75-89.
 17. Hollocks MJ, Wood JJ, Storch EA, Cho AC, Kerns CM, Kendall PC. Reward Sensitivity Predicts the Response to Cognitive Behavioral Therapy for Children with Autism and Anxiety. *J Clin Child Adolesc Psychol.* 2022:1-8.
 18. Dijkstra JM, Nagatsu T. Cognitive behavioral therapy (CBT), acceptance and commitment therapy (ACT), and Morita therapy (MT); comparison of three established psychotherapies and possible common neural mechanisms of psychotherapies. *J Neural Transm (Vienna).* 2022; 129: 805-828.
 19. Witlox M, Garnefski N, Kraaij V, de Waal MWM, Smit F, Bohlmeijer E, et al. Blended Acceptance and Commitment Therapy Versus Face-to-face Cognitive Behavioral Therapy for Older Adults With Anxiety Symptoms in Primary Care: Pragmatic Single-blind Cluster Randomized Trial. *J Med Internet Res.* 2021; 23: e24366.
 20. Hayes SC. Acceptance and Commitment Therapy, Relational Frame Theory, and the Third Wave of Behavioral and Cognitive Therapies - Republished Article. *Behav Ther.* 2016; 47: 869-885.
 21. Gilman JM, Schuster RM, Potter KW, Schmitt W, Wheeler G, Pachas GN, et al. Effect of Medical Marijuana Card Ownership on Pain, Insomnia, and Affective Disorder Symptoms in Adults: A Randomized Clinical Trial. *JAMA Netw Open.* 2022; 5: e222106.
 22. Fodor LA, Georgescu R, Cuijpers P, Szamoskozi S, David D, Furukawa TA, Cristea IA. Efficacy of cognitive bias modification interventions in anxiety and depressive disorders: a systematic review and network meta-analysis. *Lancet Psychiatry.* 2020; 7: 506-514.