

Advanced Therapy of Anxiety Problems: A Mini Review

Iftear Kazim Rafi

Department of Pharmacy, Jahangirnagar University, Dhaka-1342, Bangladesh

Review Article

Abstract:

DOI: 10.62469/tmb.v02i01.005

***Corresponding Author:**

Iftear Kazim Rafi

Citation:

Iftear Kazim Rafi., (2024); Advanced Therapy of Anxiety Problems: A Mini Review. iraetc med. bull; 2(1) 16-20.



This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International license.



One of the most common mental conditions and a major contributor to disability is anxiety disorders. While a great deal of research is still being done on depression, schizophrenia, and posttraumatic stress disorder (PTSD), there aren't many new drugs being studied for anxiety disorders. Anxiety is an extreme fear-based biological warning system that gets us ready to take action. It has to be distinguished from the typical terror reaction. Among the most prevalent mental illnesses among children and teenagers, anxiety disorders frequently go undiagnosed or untreated. A variety of characteristics, such as race, sex, the kind of anxiety, and the quality of epidemiological research influences a community's anxiety prevalence. Treatments such as transcranial magnetic stimulation, medication augmentation, and novel pharmaceutical agents like vortioxetine showed mixed results when used to individuals with anxiety disorders who did not respond well to conventional therapies or only partially responded to it. The public should only be offered new anxiety disorder treatment alternatives following a careful assessment of their effectiveness. Integrative teamwork and the management of anxiety disorders in need include cognitive behavioral therapy, mindfulness-based psychotherapies, psychodynamic psychotherapies, and psychopharmacologic treatments.

Key Words: Anxiety; Pharmacologic treatment; Herbal; Behavioral.

|| © IRAETC Publisher || **Publication History** - Received: 15.01.2024 || Accepted: 14.02.2024 || Published: 21.02.2024 ||

1. Introduction:

Psychological effects include anxiety, sadness, and stress. Anxiety's pathophysiological processes are positively impacted by regular physical activity (PA), according to earlier research [1-3]. Approximately 25% of people worldwide suffer from neurological or mental disorders. Severe depression increases the risk of suicide since the sufferer often performs poorly at work, school, or in the family environment. For those between the ages of 15 and 29, depression is the second most prevalent cause of death after suicide [4]. Despite widespread disapproval, mental health issues are growing more prevalent in low- and middle-income countries like Bangladesh. An estimated 7 million people in Bangladesh experience anxiety and depression, respectively. An estimated 10,167 persons took their own lives in 2012. Of children between the ages of 13 and 17, 4% of boys and 6% of girls considered trying suicide [5-7]. Anxiety disorders are also linked to severe depression, problems with alcohol and other drinks, and personality issues [8].

The impact of anxiety disorders on the workforce is astounding; in 2010, it resulted in a loss of 74.4 billion euros [9]. Just about one in five patients with an anxiety illness receive treatment, despite the cost to society of this morbidity [10-12]. Anxiety disorders can arise at a young age, even in children. Throughout their lives, patients' functioning and interpersonal connections are profoundly impacted by their persistent waxing and waning trajectory [13]. The majority of pathological anxiety, which includes panic disorder, social anxiety, generalized anxiety, separation anxiety, obsessive-compulsive disorder, and specific phobias, is underdiagnosed, and patients seek therapy in outpatient settings, either in mental health clinics or medical settings. On the other hand, compared to serious mental disorders like hospitalized substance use disorders and psychotic diagnoses, anxiety disorders receive less attention from physicians. Additionally, compared to depression and suicide attempts, anxiety is less frequently covered in the media, which discourages individuals with anxiety from seeking assistance [14]. The majority of specialists recommend medication and/or psychotherapy to reduce or manage anxiety symptoms. For individuals with severe cases of incapacitating anxiety, a combination of psychotropic medication and psychological treatment is advised.

The supposed innocuousness of many complementary and alternative therapies for minor forms of anxiety has led to their increased popularity. Aromatherapy, acupuncture, herbal medicine, homeopathy, massage therapy, yoga, mindfulness, exercise, relaxation, and other practices are a few examples of complementary therapies. Depending on the therapist's instruction, the use of an active substance, and body manipulation, a patient may be exposed to a variety of

modalities. Complete categorization is challenging. Mental health doctors endorse the use of these modalities as an adjuvant, but they should not be used exclusively as a stand-in for well-established forms of treatment, especially when it comes to anxiety disorders [8]. These investigations show that particular biomarkers for anxiety disorders remain to be discovered, despite thorough, excellent neurobiological research in the topic. As a result, it is challenging to prescribe particular biomarkers (such as genetic polymorphisms) that may be able to help identify people who may be at risk of developing anxiety disorders.

2. Understanding Anxiety Disorders:

It is crucial to carefully screen for anxiety symptoms in children and young people with anxiety disorders, as well as to rate the severity of such symptoms and their functional impairment. A thorough evaluation of the affected kid is necessary to rule out any systemic medical diseases (such as hyperthyroidism) that could be mistaken for anxiety symptoms, as well as any associated psychological illnesses. It's important to distinguish anxiety disorders from children's typical, developmentally appropriate worries, fears, and reactions to stimuli. In order to effectively treat anxiety, it is crucial to identify the underlying stressors or traumas and their involvement in either initiating or maintaining the symptoms. This can be done by avoiding situations that exacerbate anxiety [15]. Short screening tools for social phobia/social anxiety symptoms include the Social Anxiety Scale, the Social Worries Questionnaire, and the social phobia subscale of SCARED [16]. The somatic, affective, cognitive, and behavioral domains are all affected by anxiety symptoms. Anxiety's physical manifestations, such as dyspnea, racing heartbeat, dizziness, shaking, and numbness or tingling, usually correspond to autonomic arousal. Anxiety can manifest emotionally as a spectrum of emotions, from jitters and apprehension to horror and panic.

3. Clinical features:

There is a large range in the level of anxiety. Some children and adolescents may exhibit mild symptoms of anxiety that are mistaken for age-appropriate displays of fear, worry, or shyness, or they may exhibit severe symptoms of significant distress that can significantly impair the child's functioning to the point where a disorder diagnosis is warranted. Anxiety's cognitive symptoms include concern, trepidation, difficulty focusing, and unfavorable thoughts about potential threats. Both behavioral and cognitive symptoms of anxiety frequently result in poor functioning at home, at work, or in social circumstances. Behavioral symptoms of anxiety are typically focused on reducing or preventing the perceived threat or distress through avoidance, escape, and safety-seeking behaviors.

A panic attack is an intense, unexpected wave of worry, tension, and terror. About one-third of people may experience an attack at least once in their lifetime; these typically occur during stressful situations, when they are extremely exhausted, or after consuming excessive amounts of caffeine. Beyond panic disorder, it is also a common symptom in other psychiatric disorders [17]. With the exception of infancy, panic disorder can manifest at many phases of children and adolescence. Rarely is it seen in young children. Early childhood panic attacks might manifest as severe distress, prolonged sobbing, tantrums, freezing, clinging, or keeping near to a known person during the attack. By the conclusion of adolescence, the assaults become much more frequent and impact 1–5% of teenagers [18]. During childhood, specific anxieties are very widespread and typically fleeting. When a particular object or scenario is present, or when it is anticipated to be there, it causes severe or persistent fear that lasts for at least four months [19]. In social situations, an individual or adolescent experiencing social phobia may experience physical symptoms that intensify to the point of panic. These symptoms can cause a person to avoid going to work, eating or participating in age-appropriate social events (like playing and sleepovers). Too much anxiousness causes appetite problem even gastric disorder [20].

Repetitive, bothersome, and persistent thoughts, ideas, urges, or pictures that are bothersome, inappropriate, and significantly distressing are symptoms of obsessions. Obsessive people typically try to resist or dismiss these urges or thoughts, or they try to offset them with other ideas or behaviors. Compulsions are ritualistic or obsession-driven repetitive actions (like counting, praying, or mentally repeating words) or mental acts (like washing hands, organizing, or checking) [21].

4. Management and pharmacotherapy

4.1 Cognitive Behavioral Therapy: A class of psychotherapy procedures known as cognitive behavior therapy (CBT) tries to change cognitive processes in order to lessen psychological suffering and maladaptive behavior. Its foundation is the idea that affect and behavior are essentially byproducts of cognition, and that altering thinking, feeling, and behavior can be achieved by behavioral and cognitive interventions [22]. Relapse prevention plans are part of cognitive behavior therapy, which also includes psychoeducation of the child and caregivers about the nature of anxiety, methods for managing somatic reactions such as diaphragmatic breathing and relaxation training, cognitive restructuring by identifying and challenging anxiety-provoking thoughts, practice problem-solving to cope with upcoming challenges, and systematic exposure to feared situations or stimuli, including simulated, in vivo, and imaginary methods [23].

4.2 Psychodynamic Psychotherapies: Another therapeutic approach used in clinical practice for a variety of common mental problems in young people, including anxiety, is psychodynamic psychotherapy. Since the 1940s, it has been used to treat children who are apprehensive. According to several reports, psychodynamic psychotherapy significantly improves phobias or separation anxiety disorder [24].

4.3 Principles of general therapy: The current summary of product characteristics includes information regarding potential side effects, interactions, safety alerts, and contraindications that patients should be aware of. Patient compliance may increase if they are informed about the prospect that some initial adverse effects may lessen in severity over time. Psychotropic medication use is frequently resisted by patients with anxiety disorders due to concerns about side effects. Patients with PDA (panic disorder with or without agoraphobia) in particular may find it easy to stop using antidepressants due to the jitteriness and anxiousness that first accompany the medication. Doses in the lower range of the therapeutic range are adequate in about 75% of cases. It could be necessary to change the dosage or use drugs like pregabalin, which are mostly eliminated by the kidneys, in patients with severe hepatic impairment. There is a widespread belief that individuals receiving drug treatment exhibit an instantaneous relapse upon discontinuing their medication, while the benefits of psychological therapies are sustained for several months or even years following the end of treatment. This would provide psychological therapies a significant edge over medication-assisted therapy. Pregnant women need to consider the risks of treating their anxiety problem versus the possibility that doing so could harm the unborn child. Antidepressant usage throughout the first trimester did not appear to significantly raise the incidence of heart abnormalities, according to a major study.

4.4 Pharmacologic treatment: When someone has an anxiety problem, serotonergic antidepressants are used to reduce their terror reactions. For the acute treatment of anxiety disorders, such as separation anxiety disorder and generalized anxiety disorder, selective serotonin reuptake inhibitors (SSRIs) are both safe and effective [25].

For kids and teenagers with mixed anxiety disorders, fluvoxamine (an SSRI) considerably reduces anxiety symptoms. It is well tolerated, and patients getting fluvoxamine and those receiving a placebo did not experience side effects that differed statistically significantly [26]. An effective medication for anxiety disorders is (SSRI). Although widely accepted, paroxetine can result in nausea, vomiting, sleeplessness, irritability, and thoughts of suicide [27]. Anxiety symptoms can be considerably reduced by fluoxetine (SSRI), which is also generally well-tolerated. Headaches, sleepiness, nausea, and abdominal pain are among the side effects that have been observed. Compared to youths with multiple anxiety disorders, individuals with only one anxiety disorder seemed to respond to lower dosages of fluoxetine [28]. While certain other medications have been proved in randomized controlled trials to be effective in treating anxiety disorders, most nations do not currently have licenses to treat anxiety disorders. When medications that have not been licensed for use in the treatment of anxiety are prescribed off label, medicolegal considerations must be taken into account.

When treating anxiety disorders, imipramine and clomipramine, the classic tricyclic antidepressants (TCAs), are just as successful as second-generation antidepressants. Adverse effects are generally more common with TCAs than with SSRIs. Thus, before using TCAs, these medications should be attempted. It is recommended to gradually increase the dosage until it reaches the levels used to treat depression. Because TCAs can be fatally poisonous after overdosing, individuals who are thought to be suicidal should use them with caution [29].

Benzodiazepines are psychoactive medications that attach to the GABAA receptor to increase the effects of the neurotransmitter GABA at the receptor. This results in a range of effects from sedative to hypnotic to anxiolytic to anticonvulsant to muscle relaxant. Notwithstanding the paucity of randomized, controlled trials involving few patients, it was used for almost 20 years to treat anxiety symptoms in young people [30].

4.5 Herbal approach: Herbal medicine is becoming popular day by day among less privileged people [31]. It is imperative for family physicians to inquire about their patients' use of herbal treatments, as this practice is on the rise. Positive evidence demonstrates the efficacy of some of these products, especially kava and, to a lesser extent, isosorbide. The potential for benefit appears to outweigh the risk of harm, despite the fact that none of these supplements or products are without side effects. Omega-3 fatty acid supplementation has limited therapeutic efficacy for anxiety disorders; instead, it should be discouraged in favor of more potent therapies.

5. Conclusion:

There is a significant global burden of anxiety disorders. Thus, in today's worldwide world, having access to trustworthy health care services is a fundamental necessity. It is advisable to recommend direct-to-consumer universal access to developing treatments for anxiety only once substantial proof of their usefulness has been demonstrated. More proof of the efficacy of novel biological or pharmaceutical treatments for anxiety disorders is still required. Therefore, in order to

provide the community with access to all known effective therapies for anxiety disorders, further research should be done on them.

Competing interest: None

References

1. Brailovskaia J, Cosci F, Mansueto G, et al. The association between depression symptoms, psychological burden caused by Covid-19 and physical activity: An investigation in Germany, Italy, Russia, and Spain. *Psychiatry Res* 2021;295:113596
2. Anderson E, Shivakumar G. Effects of exercise and physical activity on anxiety. *Front Psychiatry* 2013;4:27
3. Hoque, M et al., Anxiety levels of young people in Gazipur, Bangladesh, with different physical activity levels. *GSC Advanced Research and Reviews*, 2023, 17(02), 104–111. DOI: <https://doi.org/10.30574/gscarr.2023.17.2.0440>
4. World Health Organisation (2001). Mental disorders affect one in four people. World Health Organization. <https://doi.org/10.1192/bjp.180.1.29>
5. World Health Organization (2020b) Mental Health: Current mental health situation in Bangladesh. Available at: <http://www.searo.who.int/bangladesh/mental-health/en/>.
6. Hoque, M et al. (2023). A Survey Study on Disease Rate and Tendency of Taking Treatment of Urban and Rural People in Gaibandha District, Bangladesh. *Middle East Res J Biological Sci*, 3(3): 29-36. Doi: 10.36348/merjbs.2023.v03i03.001
7. Yasmin, M. F et al., Anxiety, mental pressure and stress frequency among Bangladeshi university students: A questionnaire study. *GSC Biological and Pharmaceutical Sciences*, 2024, 26(01), 283–290. DOI: <https://doi.org/10.30574/gscbps.2024.26.1.0029>
8. Craske MG, Stein MB. Anxiety. *The Lancet*. 2016; 388(10063):3048–59. [https://doi.org/10.1016/s01406736\(16\)30381-6](https://doi.org/10.1016/s01406736(16)30381-6)
9. Wittchen HU, Jacobi F, Rehm J, Gustavsson A, Svensson M, Jönsson B, et al. The size and burden of mental disorders and other disorders of the brain in Europe 2010. *Eur Neuropsychopharmacol*.2011;21(9):655-79. <https://doi.org/10.1016/j.euroneuro.2011.07.018>
10. Alonso J, Liu Z, Evans-Lacko S, Sadikova E, Sampson N, Chatterji S, et al. Treatment gap for anxiety disorders is global: Results of the World Mental Health Surveys in 21 countries. *Depress Anxiety*. 2018;35(3):195-208. <https://doi.org/10.1002/da.22711>
11. Wang YP, Chiavegatto Filho AD, Campanha AM, Malik AM, Mogadouro MA, Cambraia M, et al. Patterns and predictors of health service use among people with mental disorders in São Paulo metropolitan area, Brazil. *Epidemiol Psychiatr Sci*. 2017;26(1):89-101. <https://doi.org/10.1017/S2045796016000202>
12. Hoque, M et al., The impact of physical activity on students' thinking: A cross sectional study. *International Journal of Medical and All Body Health Research*. 2023;4(3):47-50.
13. Bandelow B, Michaelis S. Epidemiology of anxiety disorders in the 21st century. *Dialogues Clin Neurosci*. 2015;17(3):327-35.
14. Gale C, Oakley-Browne M. Anxiety disorder. *BMJ*. 2000;321(7270):1204-7. <https://doi.org/10.1136/bmj.321.7270.1204>
15. Wehry AM, Beesdo-Baum K, Hennelly MM, Connolly SD, Strawn JR. Assessment and treatment of anxiety disorders in children and adolescents. *Curr Psychiatry Rep*. 2015; 17(7):52. doi: 10.1007/s11920-015-0591-z.
16. Möller EL, Majdandžić M, Craske MG, Bögels SM. Dimensional assessment of anxiety disorders in parents and children for DSM-5. *Int J Methods Psychiatr Res*. 2014; 23(3):331-44. doi: 10.1002/mpr.1450.
17. Allan NP, Oglesby ME, Short NA, Schmidt NB. Examining the Panic Attack Specifier in Social Anxiety Disorder. *CognBehavTher*. 2016:1-5.
18. Gallo KP, Chan PT, Buzzella BA, Whitton SW, Pincus DB. The impact of an 8-day intensive treatment for adolescent panic disorder and agoraphobia on comorbid diagnoses. *BehavTher*. 2012; 43(1):153-9. doi: 10.1016/j.beth.2011.05.002.
19. Kim SJ, Kim BN, Cho SC, Kim JW, Shin MS, Yoo HJ, et al. The 80 prevalence of specific phobia and associated co-morbid features in children and adolescents. *J Anxiety Disord*. 2010; 24(6):629-34. doi: 10.1016/j.janxdis.2010.04.004.
20. Hoque, M. (2023). A Review on Different Dietary Sources of Important Vitamins and Electrolytes. *International Journal of Research Publication and Reviews*, Vol 4, no 8, pp 731-736, <https://doi.org/10.55248/gengpi.4.823.50408>
21. Carter AS, Pollock RA. Obsessive compulsive disorder in childhood. *Curr Opin Pediatr*. 2000; 12(4):325-30.
22. Sukhodolsky DG, Bloch MH, Panza KE, Reichow B. Cognitive behavioral therapy for anxiety in children with high-functioning autism: a meta-analysis. *Pediatrics*. 2013; 132(5):e1341-50. doi: 10.1542/peds.2013-1193.
23. Sawyer MC, Nunez DE. Cognitive-behavioral therapy for anxious children: from evidence to practice. *Worldviews Evid Based Nurs*. 2014; 11(1):65-71. doi: 10.1111/wvn.12024.

24. Herbst A, Fernholz JM, Strothe KS, Schlund S. Psychodynamic multisystemic Therapy of School Phobia due to Separation Anxiety in Day Clinic. *Prax Kinderpsychol Kinderpsychiatr.* 2015; 64(7):545-62. doi: 10.13109/prkk.2015.64.7.545.
25. da Costa CZ, de Morais RM, Zanetta DM, Turkiewicz G, LotufoNeto F, Morikawa M, et al. Comparison among clomipramine, fluoxetine, and placebo for the treatment of anxiety disorders in children and adolescents. *J Child Adolesc Psychopharmacol.* 2013; 23(10):687-92. doi: 10.1089/cap.2012.0110.
26. Research Units on Pediatric Psychopharmacology Anxiety Study Group. Fluvoxamine for the treatment of anxiety disorders in children and adolescents. *N Engl J Med.* 2001; 344(17):1279–1285.
27. Wagner KD. Paroxetine treatment of mood and anxiety disorders in children and adolescents. *Psychopharmacol Bull.* 2003 Spring; 37Suppl 1:167-75.
28. Fairbanks JM, Pine DS, Tancer NK, Dummit ES 3rd, Kentgen LM, Martin J, et al. Open fluoxetine treatment of mixed anxiety disorders in children and adolescents. *J Child Adolesc Psychopharmacol.* 1997 Spring; 7(1):17-29.
29. Thanacoody HK, Thomas SH. Tricyclic antidepressant poisoning: cardiovascular toxicity. *Toxicol Rev.* 2005;24(3):205-214.
30. Zullino DF, Hättenschwiler J, Mattia M, Stankovic M, Khazaal Y, Borgeat F. Pharmacotherapy of generalized anxiety disorder: state of the art. *Praxis (Bern 1994).* 2003; 92(42):1775-9.
31. Hoque, M. (2023). Centella asiatica: A mini review of its medicinal properties and different uses. *World Journal of Advanced Research and Reviews*, 19(02), 1185–1191. <https://doi.org/10.30574/wjarr.2023.19.2.1699>