BJMHR
British Journal of Medical and Health Research
Journal home page: www.bjmhr.com

A Cross-Sectional study on Assessment of Quality of Life in Individuals with Generalized Anxiety Disorder

A Ashwini, D Sandeep Reddy, Madeeha Mahveen, A Rama Narsimha Reddy*, A Dhananjay
Department of Pharm D, Sree Chaitanya Institute of Pharmaceutical Sciences, LMD Colony, Karimnagar, Telangana

ABSTRACT

Anxiety is an emotional state that is generally caused by perception of the real or perceived danger that threatens the security of individual. The distinguish feature of generalized anxiety disorder is uncontrollable worry that lasts longer than six months and significantly impairs functioning. There is a considerable correlation between anxiety and overall quality of life, which includes social relationships, environmental wellness, psychological health, and physical health. The QOL of GAD patients is described in this study, along with the association between HAM-A and WHOQOL-BREF. The current study was a cross sectional study, the study performed by taking 120 samples. This study includes patients aged between 18-60 years and patients having GAD. This study excludes pregnant and lactating women. The peak number (85) of participants from (n=120) the study includes the age group between 20-40 years (71%). Upon distribution of data based on gender 72 (60%) were female and 48 (40%) were males. From our study majority of the patients were having moderate anxiety 40 (33.3%) when compared to other anxiety levels. From our study most of the people were experiencing a decline in QOL in psychological domain 38(31.6%), physical domain 34(28.3%), when compared to other domains. Patients from our study has significant correlation between HAM-A and WHOQOL-BREF shows that mild-moderate anxiety primarily affects the physical domain while severe-very severe anxiety significantly impacts the psychological domain. Our study included 120 patients with GAD which predominantly affects young adults aged between 20-30 years and females being more impacted than males. Our study concluded that according to the HAM-A, most patients exhibited mild-moderate anxiety levels and whereas based on WHOQOL-BREF, majority of the patients are having impairment in physical and psychological domain when compared to other domains.

Keywords: Generalized Anxiety Disorder, Quality of Life, HAM-A, WHOQOL-BREF.

*Corresponding Author Email: anreddyram@gmail.com
Received 02 December 2025, Accepted 16 December 2025

Please cite this article as: Reddy ARN *et al*., A Cross-Sectional study on Assessment of Quality of Life in Individuals with Generalized Anxiety Disorder. British Journal of Medical and Health Research 2025.

INTRODUCTION

Anxiety disorders (AD) were described as early as the fourth century B.C. in the writings of Hippocrates, but their importance was not fully appreciated until less than 30 years ago [(1)]. The word anxiety is derived from the Latin "anxieties" and encompasses behavioural, affective and cognitive responses to the perception of danger [(2)]. The term anxiety is used to refer to more severe disorders, for which there are accepted diagnostic criteria [(3)]. Anxiety is a normal human emotion [(2)]. Generalized anxiety disorder (GAD) is often described than define as a psychological illness that is characterized by the presence of excessive, permanent, and uncontrollable worrying related to multiple aspects of life [(4,5,)]. GAD are among the most prevalent mental health conditions, associated with high healthcare costs and a significant burden of illness [(6)]. People with GAD worry on most days and have difficulties controlling it and they also experience another anxiety disorder and/or mood disorder [(7)]. The core features of GAD identified in DSM - IV that make it a recognized and distinct disorder are persistent for 6 months. The pattern of onset of GAD is slightly different to those of the other anxiety disorders. As with other anxiety disorders, GAD shows comorbidity with depression & AD [(8)].

Epidemiology:

Prevalence estimates varied widely across countries, with higher lifetime prevalence in high income countries than in middle/low-income countries [(9)]. The lifetime prevalence of DSM - IV GAD in the general population is approx. 5-6% [(8,10)]. The rate of GAD in world was around, according to a study of grownup 1,50,000 adults in 26 countries the predominance across time of GAD is 3.7%, and a 12month occurrence of 1.8% and a 30day prevalence of 0.8%[(11)]. The present proportion of GAD in India is around 0.57%. GAD owns a progressive beginning at 21years of age[(12)]. In most of the cases, anxiety is present in patients who are aged between 35 and 45 years and it is more commonly defined anxiety disorder in patients who are aged greater than 55 years[(13)]. According to a number of studies, women are at least double than as men to receive an anxiety disorder diagnosis. A study found that the lifetime prevalence of GAD is 5.3% for women and 2.8% for males[(14)].

Etiology:

The etiology of GAD is unknown. A combination of genetics, environmental factors such as adverse childhood experiences, somatic, alcohol and substance use [(9)]. There is a complex interlace of multiple factors which includes genetic, biological, environmental, and psychological contributes to the development of this disorder[(6)]. GAD is moderately regulated by genetic factors, with about 30% of variance due to heritability such as neuroticism, negative affectivity, and anxiety significantly correlate with anxiety and anxiety disorder[(15)].

Specifically, recent research indicates that dysfunctions in the areas of physiology, information processing, and interpersonal functioning interact in the development of GAD[16]. Social modelling may also be a strong contributing factor to learned anxious behaviour. In fact, studies do show that children of parents with an anxiety disorder are more likely to be anxious compared to children of nonanxiety disorder parents. A possible factor that contributes to the maintenance of worry and GAD may be associated with its flexible physiological. Experimental studies of the emotional impact of worry some thought show inherited emotional processing. Higher level of worry also associated with less emotional clarity and more difficulty identifying and describing emotions[17,18,19,20].

Clinical presentations:

A person who has a diagnosis of GAD has high levels of anxiety and worry at least six months, occurring on more days than not[7]. Excessive worry was specified as the core symptom [21]. The symptoms are majorly divided into psychological, physical, and other impairment [22].

Physiological symptoms	Excessive anxiety
	Worries that difficult to control
	Feeling keyed up or on edge
	Poor concentration or mind going blank
Physical symptoms	Restlessness
	Fatigue, irritability
	Muscle tension, sleep disturbances
Impairment	Social, occupational, or other Poor coping abilities

Diagnosis:

ICD-10 criteria along these lines:

- **Fear:** Concerns about unforeseen misfortune, a sense of unease, trouble focusing
- **Motor pressure:** inability to relax, shaking, tension headaches, and restless wriggling
- **Autonomic hyperactivity:** which manifests as dizziness, dry mouth, tachypnoea, tachycardia, light-headedness, sweating and epigastric discomfort [23].

Treatment:

Benzodiazepines:

Benzodiazepines remain the most widely used medications for GAD. Benzodiazepines work by potentiating the effects of $GABA_A$ receptors, which are inhibitory, via the entry of chloride ions into the cell [24]. The cell is then hyperpolarized, reducing its ability to generate an action potential. Although some of the benzodiazepines have more data supporting their use in treating the anxiety disorders (e.g., clonazepam, diazepam, lorazepam, and alprazolam), as a class the benzodiazepines have roughly equivalent efficacy for anxiety. Monotherapy with benzodiazepines is thus contraindicated in the presence of depression.

Benzodiazepines are favoured for their rapid actions, but they may cause undesirable side effects. The most common are sedation, motor impairment. Memory problems, and other cognitive impairment [25,26,27,22].

Antidepressants:

Tricyclic antidepressants are least as effective as benzodiazepines in treatment of GAD [28]. tricyclics have a greater impact on the psychic symptoms rather than somatic symptoms [29]. The most common side effects of tricyclics are anticholinergic effects (dry mouth, blurred vision, and constipation), hypotension, edema, sexual side effects. Tricyclics are no longer considered first line pharmacotherapy for the anxiety disorders [30,31.22].

Selective serotonin reuptake inhibitors:

These became the first line options for pharmacotherapy for GAD as well as other anxiety disorders because of their tolerability and safety profiles. Paroxetine has been found to be safe and effective in several large treatment trials. Paroxetine has Food and Drug Administration (FDA) approval for GAD. The longer-term use of SSRIs for GAD may also result in improvement in some temperament and character variables such as self-directedness and cooperativeness. SSRIs are commonly recommended as the first line treatment for anxiety disorders. Treatment can be benefited from the combination of an SSRI and benzodiazepines [32,33.22].

Non-pharmacological:

Nonpharmacologic treatments for GAD include physical activity, meditation, alleviating stress, psychotherapy, short-term relaxation, or psychological education. Psychoeducation provides knowledge on the origin and management of GAD [22]. The term cognitive behavioral therapy (CBT) can be seen as umbrella term, generally used to refer a group of related therapies that have theoretical basis in behavioristic learning and cognitive psychology [34,35]. CBT fundamentally aims to ameliorate GAD symptoms, which stem from habitual, inflexible, and spiraling systems of interaction between somatic, cognitive and emotional responses to appraised threats [36]. CBT has 10 sessions [37]. As with most CBT protocols the first few sessions of treatment are devoted to psychoeducation [38]. GAD is a chronic disorder with out of control worry as a defining characteristic and is associated with significant impairment. While metanalysis have shown CBT to be effective treatment for GAD. CBT has many types of models [39,40].

Quality of life

It is often said that the cost of human suffering cannot be measured [41]. This concept developed in the social sciences was first applied on cancer treatment patients, later on the concept of quality of life (QOL) was applied to compare several antihypertensive medications

in terms of functioning, well-being, and life satisfaction [1,42]. The term QOL is the degree to which the experience of an individual's life satisfies that individual's wants and needs both physical and psychological [43]. The world health organization (WHO) defines QOL as an individual purpose-aligned cultural and value system by which a person lives, relative to their aims, hopes, living standards and interests [44]. The HAM- is still used by doctors even though it was one of the first anxiety assessment scales to be published. Max Hamilton released it in 1959 with a clinical focus. This scale, which is computed for those who are "already diagnosed with anxiety neurosis," is regarded as a clinical rating of the severity of anxiety. The scale's 14 items are designed to measure the intensity of a care seekers anxiety. Each pair of symptoms 14 things are graded on an index of zero to four for each of it, whereas 4 is the most severe. An exhaustive score that indicates a person's level of anxiety is calculated using all of these scores. Each item is graded from 0 (not present) to 1 (minor), 2 (medium), 3 (serious), and 4 (critical) [45,46,47]. WHOQOL-BREF collaborated with fifteen international field centres to develop the WHOQOL100 in an effort to develop a QOL analysis that would be applicable across cultural borders. The creation of this has been extensively covered by the group. This article provides a conceptual framework for the definition of quality of life and details the development of this scale, a streamlined version of the WHOQOL-100. Included are scoring rules, potential uses for this shortened WHOQOL form, and a generic English language version of this scale.

The scale contains 26 questions. These questions are grouped into four domains that represents various aspects of QOL [48,49,50].

METHOD

This study is a cross-sectional observational study, which is conducted in a tertiary care hospital, Karimnagar. The study includes 120 patients. The present study was conducted for a duration of 6 months from July to December, 2024.

Inclusion criteria:

- Individuals aged 18-60 years.
- Patients diagnosed as GAD and including other psychiatric disorders.
- Patients ready to provide consent.

Exclusion criteria:

- Patients unwilling to permit the consent
- Pregnancy and lactating women
- Patients below age 18 Patients above age 60.

Study procedure:

A Data collection form is designed to collect the data which includes patient demographics. The intensity of anxiety will be assessed through the use of HAM-A scale and scoring will be based on the standards of the scale providing the outcomes as either mild/ moderate/ severe/ very severe.

Quality of life of patients will be estimated by using WHOQOL-BREF which comprises 4 domains to depict the quality status of patients with GAD.

Source of data:

All the relevant and necessary data will be collected from:

- Patient interview.
- Patient prescription.
- Patient past medical history
- Patient family history

RESULTS AND DISCUSSION

A total of 120 patients included in this study 40% were males and 60% were females. Based on the age people aged between 20-30 years (37.5%) were most affected. Based on marital status married people most affected (79 (65.8%). Based on socioeconomic status upper middle were most affected 49 (40.8%).

Table 1: Data based on gender:

Gender	No. Of patients	Percentage
Male	48	40%
Female	72	60%

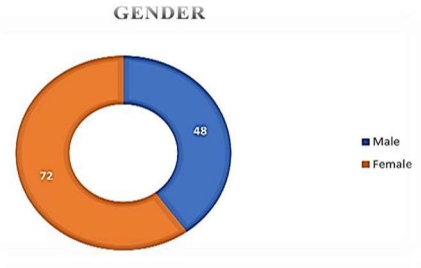

Figure 1: Graphical representation of data based on gender

Table 2: Data based on HAM-A:

Severity	Total number	Percentage
Mild	20	17%
Moderate	40	33%
Severe	24	20%
Very severe	36	30%

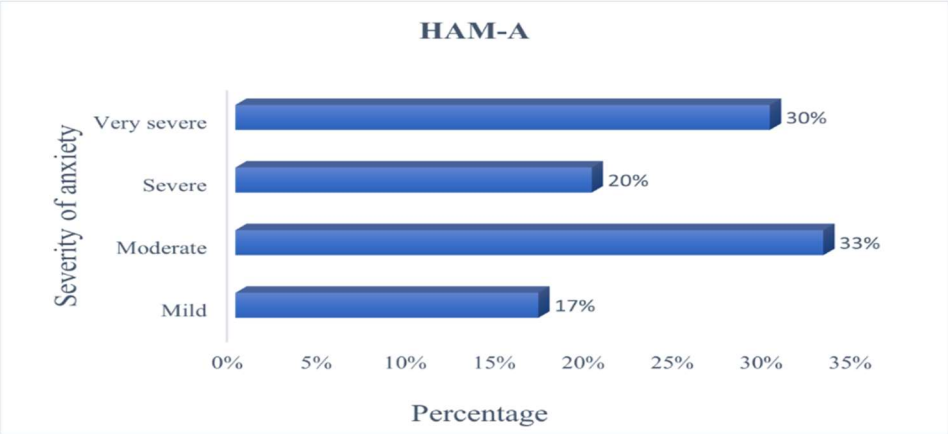

Figure 2: Graphical representation of data based on HAM-A

Table 3: Data based on WHOQOL-BREF:

Domain	Total	Percentage%
Physical	34	28%
Psychological	38	32%
Social	30	25%
Environmental	18	15%

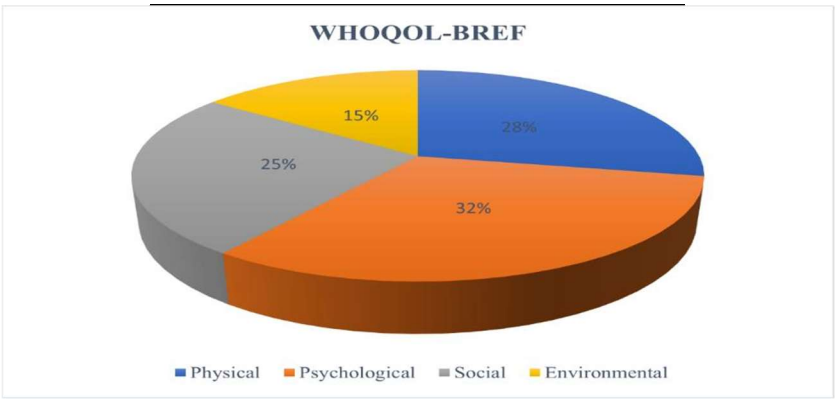

Figure 3: Graphical representation of data based on WHOQOL-BREF

Table 4: Data based on correlation between ham-a and WHOQOL-BREF:

Severity	Physical	Psychological	Social	Environmental	Total	Percentage
Mild	7	4	5	4	20	16.6%
Moderate	14	8	11	9	42	35%
Severe	5	6	5	2	18	15%
Very Severe	7	18	13	2	40	33%

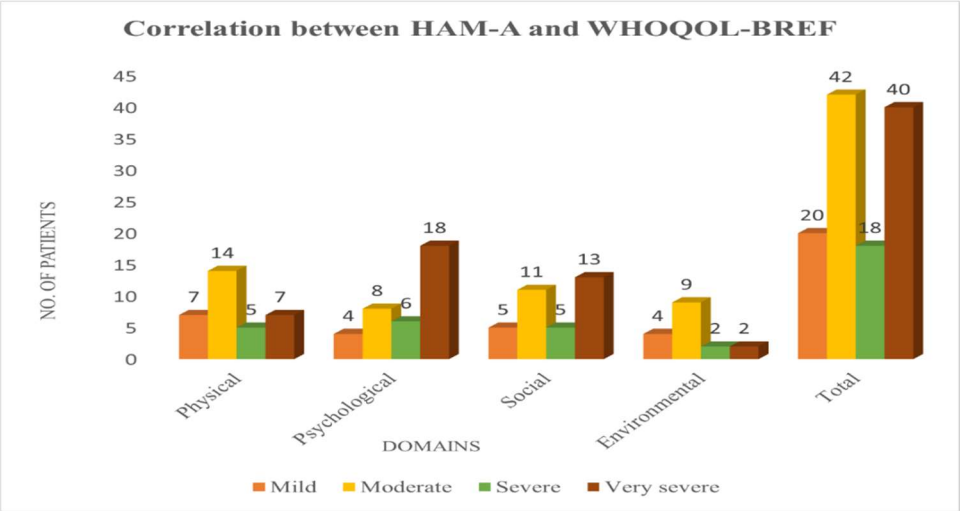

Figure 4: Graphical representation of data based on correlation between HAM-A and WHOWOL-BREF

From 120 patients, in physical domain patients with mild anxiety were 7, moderate anxiety were 14, severe were 5 whereas very severe anxiety were 7. In psychological domain, mild anxiety patients were 4, moderate anxiety were 8, severe anxiety were 6 whereas patients with very severe anxiety were 18. In social domain, patients with mild anxiety were 5, moderate anxiety were 11, severe anxiety were 5 and with very severe anxiety were 13. In environmental domain, patients with mild anxiety were 4, moderate anxiety were 9, severe anxiety were 2 with very severe anxiety were 2.

DISCUSSION:

Generalized Anxiety Disorder is identified by unmanageable solicitude which will remain more than 6 months. The solicitude should have to be related with not less than 3 of the 6 indications. This study describes quality of life in GAD patients and finding correlation between HAM-A and WHOQOL-BREF.

This study was conducted by taking 120 samples of GAD. This study estimates QOL and severity of anxiety based on WHOQOL-BREF and HAM-A. Out of patients, the data collected based on age and gender. Based on age in which of patients are aged between 20-40 years (71%) were more affected than other age groups. Based on gender in which females 72 (60%) were more affected than males 48 (40%). This parameter is parallel to the study performed by Prashanth Bora et al., 2021, in which they have taken 53 patients with GAD in which patients aged between 18-34 years 34 (61%) were more affected than patients aged 35-50 years 14 (35.8%).

Based on gender females 28 (52.2%) were more affected than males 25 (47.1%).

From our study majority of the patients were having moderate anxiety 40 (33.3%) when compared to other anxiety levels. This study almost comparable to the study carried out by

Khalid Osman Mohamad et al., 2024, they came to conclusion that majority of medical students were having moderate anxiety levels 41.2%.

From our study most of the subjects were having incapacity in quality of life in physical domain 34 (28.3%), and psychological domain 38 (31.6%), when compared to other domains. This study was similar to the Marian Freidl et al., 2022 and Farzad Ghaderi et al., 2022.

Patients from this study has significant correlation between HAM-A and WHOQOL-BREF shows that mild-moderate anxiety primarily affects the psychological domain while sever everya severe anxiety significantly impacts the psychological domain. This Results were corresponding to the study conducted by the Taylor et al., 2021, they concluded that enhanced anxiety symptoms severity is associated with lower QOL.

CONCLUSION:

This study included 120 patients with GAD predominantly affects young adults aged between 20-30 years and females being more impacted than males. Based on severity of anxiety by HAM-A, most patients exhibited very severe anxiety levels. Based on WHOQOL-BREF, majority of the patients having impairment in psychological domain when compared to other domains. The correlation between HAM-A and WHOQOL-BREF shows that mild-moderate anxiety primarily affects the physical domain, while severe-very severe anxiety significantly impacts the psychological domain. This study highlights the significance of both physical, psychological aspects in the management of GAD to prevent further complications and improve overall quality of life.

REFERENCE:

1. Mendlowicz MV, Stein MB. Quality of life in individuals with anxiety disorders. American Journal of Psychiatry. 2000 May 1;157(5):669-82.
2. Trivedi JK, Gupta PK. An overview of Indian research in anxiety disorders. Indian Journal of Psychiatry. 2010 Jan 1;52(Suppl1):S210-8.
3. Ganesh A, Al-Shamli S, Mahadevan S, Chan MF, Burke DT, Al Rasadi K, Al Saadoon M, Al–Adawi S. The frequency of neuropsychiatric sequelae after traumatic brain injury in the Global South: a systematic review and meta-analysis. Sultan Qaboos University Medical Journal. 2024 May 27;24(2):161.
4. Aljurbua FI, Selaihem A, Alomari NA, Alrashoud AM. A cross-sectional study on generalized anxiety disorder and its socio-demographic correlates among the general population in Saudi Arabia. Journal of family medicine and primary care. 2021 Oct 1;10(10):3644-9.

5. López de la Parra MD, Mendieta Cabrera D, Munoz Suarez MA, Diaz Anzaldua A, Cortes Sotres JF. Quality of life and disability in generalized anxiety disorder. Salud mental. 2014 Dec;37(6):509-16.
6. Alipour F, Rafiey H, Sarmadi S, Dost Karamooz N, Mardani M, Gholamy G, Noroozi M. Exploring generalized anxiety disorder symptoms: key insights from a population-based study in Iran. BMC psychiatry. 2025 Dec;25(1):1-7.
7. Dalgleish T, Taghavi R, Neshat-Doost H, Moradi A, Canterbury R, Yule W. Patterns of processing bias for emotional information across clinical disorders: A comparison of attention, memory, and prospective cognition in children and adolescents with depression, generalized anxiety, and posttraumatic stress disorder. Journal of clinical child and adolescent psychology. 2003 Feb 1;32(1):10-21.
8. Nutt DJ, Ballenger JC, Sheehan D, Wittchen HU. Generalized anxiety disorder: comorbidity, comparative biology and treatment. International Journal of Neuropsychopharmacology. 2002 Dec 1;5(4):315-25.
9. Preti A, Demontis R, Cossu G, Kalcev G, Cabras F, Moro MF, Romano F, Balestrieri M, Caraci F, Dell'Osso L, Di Sciascio G. The lifetime prevalence and impact of generalized anxiety disorders in an epidemiologic Italian National Survey carried out by clinicians by means of semi-structured interviews. BMC psychiatry. 2021 Jan 20;21(1):48.
10. Mohamed KO, Ahmed AA, Zaki EA, Soumit SM, Ali WA, Abbas AM. Prevalence of generalized anxiety disorder and associated risk factors among medical students in sudan: a cross-sectional study at Omdurman Islamic University. International Journal of Medical Students. 2024 Apr 12;12(1):14-21.
11. Ibrahim D, Ahmed RM, Mohammad AZ, Ibrahim B, Mohammed T, Mohamed ME, Abdelgadir T, Mohammed B, Ibrahim M, Shaaban KM. Prevalence and correlates of generalized anxiety disorder and perceived stress among Sudanese medical students. BMC psychiatry. 2024 Jan 23;24(1):68.
12. Trivedi JK, Gupta PK. An overview of Indian research in anxiety disorders. Indian Journal of Psychiatry. 2010 Jan 1;52(Suppl1):S210-8.
13. Jayasankar P, Suhas S, Nirisha LP, Philip S, Manjunatha N, Rao GN, Gururaj G, Varghese M, Benegal V. Current prevalence and determinants of generalized anxiety disorder from a nationally representative, population-based survey of India. Indian Journal of Psychiatry. 2023 Dec 1;65(12):1244-8.
14. Manjunatha N, Jayasankar P, Suhas S, Rao GN, Gopalkrishna G, Varghese M, Benegal V. Prevalence and its correlates of anxiety disorders from India's National Mental Health Survey 2016. Indian Journal of Psychiatry. 2022 Mar 1;64(2):138-42.

15. Brennan MD, Miner KM, Rizza RA. The Mayo Clinic. The Journal of Clinical Endocrinology & Metabolism. 1998 Oct 1;83(10):3427-34.
16. Patel G, Fancher TL. Generalized anxiety disorder. Annals of internal medicine. 2013 Dec 3;159(11):ITC6-1.
17. Culpepper L. Generalized anxiety disorder and medical illness. Journal of Clinical Psychiatry. 2009 Jan 1;70(2):20-4.
18. Telman LG, Van Steensel FJ, Maric M, Bögels SM. What are the odds of anxiety disorders running in families? A family study of anxiety disorders in mothers, fathers, and siblings of children with anxiety disorders. European child & adolescent psychiatry. 2018 May;27(5):615-24.
19. Fox-Gaffney KA, Singh PK, SINGH PK. Genetic and Environmental Influences on Anxiety Disorders: A Systematic Review of Their Onset and Development. Cureus. 2025 Mar 6;17(3).
20. Pine DS, Klein RG. Anxiety disorders. Rutter's child and adolescent psychiatry. 2008 Jul 4:628-47.
21. Stein MB, Sareen J. Generalized anxiety disorder. New England Journal of Medicine. 2015 Nov 19;373(21):2059-68.
22. DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM, editors. Pharmacotherapy: a pathophysiologic approach.
23. Harrison JE, Weber S, Jakob R, Chute CG. ICD-11: an international classification of diseases for the twenty-first century. BMC medical informatics and decision making. 2021 Nov 9;21(Suppl 6):206.
24. Edinoff AN, Nix CA, Hollier J, Sagrera CE, Delacroix BM, Abubakar T, Cornett EM, Kaye AM, Kaye AD. Benzodiazepines: uses, dangers, and clinical considerations. Neurology international. 2021 Nov 10;13(4):594-607.
25. Fernandes H, Novais C, Sousa-Pinto B, Soares-da-Silva P, Azevedo LF. Comparative efficacy and safety of benzodiazepines in the treatment of patients with generalized anxiety disorder: a systematic review and network meta-analysis. Psychotherapy and Psychosomatics. 2025 Oct 20;94(5):373-88.
26. Martin JL, Sainz-Pardo M, Furukawa TA, Martin-Sanchez E, Seoane T, Galan C. Benzodiazepines in generalized anxiety disorder: heterogeneity of outcomes based on a systematic review and meta-analysis of clinical trials. Journal of Psychopharmacology. 2007 Sep;21(7):774-82.
27. Offidani E, Guidi J, Tomba E, Fava GA. Efficacy and tolerability of benzodiazepines versus antidepressants in anxiety disorders: a systematic review and meta-analysis. Psychotherapy and psychosomatics. 2013 Sep 20;82(6):355-62.

28. Fernandes H, Novais C, Sousa-Pinto B, Soares-da-Silva P, Azevedo LF. Comparative efficacy and safety of benzodiazepines in the treatment of patients with generalized anxiety disorder: a systematic review and network meta-analysis. Psychotherapy and Psychosomatics. 2025 Oct 20;94(5):373-88.
29. Schmitt R, Gazalle FK, Lima MS, Cunha Â, Souza J, Kapczinski F. The efficacy of antidepressants for generalized anxiety disorder: a systematic review and meta-analysis. Brazilian Journal of Psychiatry. 2005; 27:18-24.
30. Thiwan S, Drossman DA, Morris CB, Dalton C, Toner BB, Diamant NE, Hu JB, Whitehead WE, Leserman J, Bangdiwala SI. Not all side effects associated with tricyclic antidepressant therapy are true side effects. Clinical Gastroenterology and Hepatology. 2009 Apr 1;7(4):446-51.
31. Baldwin DS, Waldman S, Allgulander C. Evidence-based pharmacological treatment of generalized anxiety disorder. International journal of neuropsychopharmacology. 2011 Jun 1;14(5):697-710.
32. Ansara ED. Management of treatment-resistant generalized anxiety disorder. Mental Health Clinician. 2020 Nov 1;10(6):326-34.
33. Hyttel J. Pharmacological characterization of selective serotonin reuptake inhibitors (SSRIs). International clinical psychopharmacology. 1994 Mar 1;9:19-26
34. Beck JS. Cognitive behavior therapy: Basics and beyond. Guilford Publications; 2020 Oct 7.
35. Thoma N, Pilecki B, McKay D. Contemporary cognitive behavior therapy: A review of theory, history, and evidence. Psychodynamic psychiatry. 2015 Sep;43(3):423-61.
36. Newman MG, Zainal NH, Hoyer J. Cognitive-behavioral therapy (CBT) for generalized anxiety disorder (GAD). Generalized anxiety disorder and worrying: A comprehensive handbook for clinicians and researchers. 2020 Aug 19:203-30.
37. Salartash V, Yekta MA, Zabihi R. The Effectiveness of Cognitive Behavior Therapy on Anxiety, Physical Symptoms, Worry, and Attention Deficit in Women with Generalized Anxiety Disorder. The Open Public Health Journal. 2022 Nov 4;15(1).
38. Robichaud M, Koerner N, Dugas MJ. Cognitive behavioral treatment for generalized anxiety disorder: From science to practice. Routledge; 2019 May 8.
39. Hirsch CR, Beale S, Grey N, Liness S. Approaching cognitive behavior therapy for generalized anxiety disorder from a cognitive process perspective. Frontiers in Psychiatry. 2019 Nov 4;10:796.
40. Craske MG, Rapee RM, Jackel L, Barlow DH. (1989). Qualitative dimensions of worry in DSM-III generalized anxiety disorder subjects and non anxious controls. Behav Res Ther. 27: 397-402.

41. Spitzer WO, Dobson AJ, Hall J: Measuring the quality of life of cancer patients: a concise QL-index for use by physicians. J Chronic Dis 1981; 34:585–597
42. Croog SH, Levine S, Testa MA, Brown B, Bulpitt CJ, Jenkins CD, Klerman GL, Williams GH: The effects of antihypertensive therapy on the quality of life. N Engl J Med 1986; 314:1657–1664
43. Kerce EW. Quality of life: Meaning, measurement, and models.
44. Akranavičiūtė D, Ruževičius J. Quality of life and its components' measurement. Engineering economics. 2007 Apr 18;52(2).
45. Thompson E. Hamilton rating scale for anxiety (HAM-A). Occupational Medicine. 2015 Oct 1;65(7):601-.
46. Aben I., Verhey F., Lousberg R., Lodder J., Honig A.(2002) Validity of the Beck Depression Inventory, Hospital Anxiety and Depression Scale,SCL-90, and Hamilton Depression Rating Scale as screening instruments for depression in stroke patients. Psychosomatics, 43, 386–393.
47. Clark D.B., Donovan J.E. (1994) Reliability and validity of the Hamilton Anxiety Rating Scale in an adolescent sample. Journal of the American Academy of Child and Adolescent Psychiatry, 33, 354–360.
48. Skevington SM, Lotfy M, O'Connell KA. The World Health Organization's WHOQOL-BREF quality of life assessment: psychometric properties and results of the international field trial. A report from the WHOQOL group. Quality of life Research. 2004 Mar;13(2):299-310.
49. Wong FY, Yang L, Yuen JW, Chang KK, Wong FK. Assessing quality of life using WHOQOL-BREF: a cross-sectional study on the association between quality of life and neighborhood environmental satisfaction, and the mediating effect of health-related behaviors. BMC public health. 2018 Sep 12;18(1):1113.
50. Melo-Neto VL, Valença AM, Nascimento I, Lopes FL, Nardi AE. Quality of life assessment by WHOQOL-BREF in panic disorder patients during treatment. Archives of Clinical Psychiatry (São Paulo). 2008;35:49-54.