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REVIEW ARTICLE

Generalized anxiety disorder: a review

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ABSTRACT

Generalized anxiety disorder is an anxiety subtype, it is an excessive concern and stress about complications on most days and it persists for at least 6 months. Prevalence of the disease differs among different studies according to the study population and considered criteria. Risk factors and symptoms were studied for the disease, however, it is mostly misdiagnosed with depression, hence, it is necessary to take proper history of the patient and investigate well before final diagnosis. Treatment of the disease involves drugs, several psychological therapies, out of which the most effective one is cognitive behavior therapy.

Keywords: GAD, GAD prevalence, GAD diagnosis, psychological therapies.

Introduction

Anxiety disorder is an emotion which is characterized by feelings of worried thoughts, tension, and physical changes such as increased blood pressure [1]. There are several forms of anxiety including generalized anxiety disorder (GAD), social anxiety disorder, panic disorder, and specific phobias [2]. GAD is an extravagant tension and worry about daily calamities and problems on most days, it lasts for at least 24 weeks, where the person experiences difficulty in performing day to day tasks [3]. GAD is characterized by autonomic hyperactivity, increased motor tension, and increased vigilance and scanning with lacking of panic attacks [3]. It was reported that the spread of GAD ranged from 1.5% to 3% among adults [4]. In the current review, we aimed to overview the GAD.

Materials and Methods

We searched scientific websites such as ResearchGate, Google Scholar, and PubMed. With the keywords including; GAD, prevalence of GAD, treatment of GAD, and risk factors for GAD. We collected 18 articles, six of them were included which were published between 2002 and 2017, while the other articles were excluded because they weren't focusing on the current subject.

GAD and its prevalence

GAD was first identified in the Diagnostic and Statistical Manual of Mental disorders (DSM-III). GAD was defined by DSM-III as 4 weeks of persistent anxiety which was associated with symptoms from three of four categories [5]. DSM-III-R varied the requirements of worry to make the validity of separation better from normal anxiety to 24 weeks along with 6 of 18 accompanied symptoms [6]. GAD can be defined as a constant and often intense mental disorder of the anxiety series which is characterized by continuous anxiety for 24 weeks or more, extravagant worrying, stress accompanied with symptoms of hypervigilance, and other somatic symptoms of anxiety [7]. It was reported that the prevalence of GAD was ranged from 1.5% to 3% among adults [4], and it was suggested that 38% of individuals with GAD had comorbid personality disease [8], while 17% only had GAD alone [9]. One study from the US reported that 5% of persons will suffer GAD at time during their lives [10]. GAD develops during early adulthood and late adolescent with an average of 25–30 years for the first manifestation [11]. It was stated that based on both DSM-III and DSM-III-R, the lifetime and prevalence of GAD in general population were estimated to range from 4% to 7% and the 1-year prevalence ranges from 3% to 5% [12]. Another study reported 1-year prevalence range of 0.15%–12.7% in Northern Ireland [13] and in Christchurch, New Zealand [14], respectively. Lifetime prevalence rate was 1.9% in Basle, Switzerland [15]. A study from USA reported lifetime prevalence of 5.7% in the study sample and this rate was reported in other countries [16]. Whereas lifetime prevalence was reported to be 0.8% regarding both genders [12]. The incidence of GAD among women is double than that of men [17] and it is higher in younger persons [18]. Higher prevalence of 7.7% was reported in individuals with age range of 45%–59%, with more incidence in females (7%) than in males (4%) [19].

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Risk factors and symptoms of GAD

Development of GAD is dependent on both environmental and genetic factors [20]. GAD was believed to be independent of demographic factors and was related to a growing number of a few stressors [21,22], however, this was common in individuals with other diagnoses [23]. Genetic factors have a role in GAD, one systematic review reported a significant correlation among GAD in the index cases and in their relatives of first degree [24]. In a case–control association study, it was demonstrated that polymorphic variance at the receptor gene of serotonin 1-A was linked to GAD and the common clinical display of comorbid major depression [25]. Marital status, employed status, and being a homemaker were predictors for GAD [19]. Other risk factors were reported in children-based study followed into adulthood, and these factors included internalizing problems, conduction problems in childhood, low socioeconomic status, and childhood maltreatment [26]. GAD also associated with reduced quality of life and serious disability. In an international study of disability caused by mental illness, it was found that 38% of individuals suffering from GAD had intermediate to intense occupational role impairment and they missed their work with a mean of 6.3 days per month [27]. GAD is described by increased concern and display of physiological arousals such as insomnia, restlessness, and muscle tension [20]. Besides worry, patients should suffer at least three of the six physiological arousal displays which are listed in the box and they must be caused by GAD and not by medical illness, another psychiatric issue, or the medication use. Also, the symptoms have to result in impairment or serious distress for the clinical diagnosis to be done [20]. GAD symptoms were described by the international classification of diseases, 10th revision differently. It focused on physiological arousal such as palpitations, shaking, sweating, and vertigo without any requirement for symptoms presentation for 6 months [20]. It was suggested by clinical records that less than 20% of GAD sufferers experience full reduction of their display, while typically patients will have had their symptoms for a period range from 5 to 10 years previous to their diagnosed and efficient treatment [28–30].

GAD diagnosis, assessment tools, and co-morbidities

GAD patients were found to frequently use primary care purses instead of rational health specialist settings and they were related to excess usage of general health care resources [31–34]. GAD sometimes is mistaken in diagnosis in primary care as there might be a misdiagnosis of anxiety as depression [20]. In a large research [34], the primary care physicians misdiagnosed GAD in 66%, another report showed that 27% of patients who had false positive diagnosis of depression, had actually an anxiety disorder [35]. Patients suffering from GAD often have physical presentations, and it may be hard to recognize the symptoms which are associated with medical diseases from that which are related to anxiety [28]. Practitioners have to record a history and make a physical check before making a diagnosis of GAD to set aside medical reasons of anxiety. Laboratory investigations have to be guided by the clinical symptoms [36]. Assessing GAD requires considering of medical conditions (pulmonary, neurologic, cardiac, or endocrine disorders), usage of drugs such as cocaine or stimulants such as caffeine, prescribed and over-the-counter drugs (corticosteroids and herbal medicines) and drug withdrawal (stopping the use of opiates, alcohol, or benzodiazepines) for the individuals [37,38]. It was found that 90% of individuals suffering from GAD had a comorbid diagnosis involving depression, dysthymia, bipolar disorder, substance abuse somatization, and other anxiety disorders [39]. It was found that psychiatric comorbidity was common in GAD, where 29%–62% of patients were found to complain major depression [19,34]. Social anxiety disorder represented 34%, while alcohol abuse represented 38% of GAD co-morbidities [40]. Complaining of GAD assess in the progression of major depression [20], where it was reported from large prospective research of adults and adolescent that GAD resulted in an increasing odds of depression progression within four years to a 4.5-fold [41]. Patients with comorbid psychiatric disorders are less prone to have effective reaction to treatment and more impaired than those with GAD alone [40].

GAD treatment

The treatment strategies involve drugs and psychological therapies [20]. Drugs include antidepressants, the anticonvulsant pregabalin, and benzodiazepines, while psychological therapies include behavioral therapy, cognitive behavioral therapy (CBT), relaxation response, and mindfulness meditation training [20]. It isn't known what should be tried first either psychotherapy or drugs, one study showed priority of CBT over drugs [42], while another showed an advantage of drugs such as sertraline, over CBT [43]. Also, it is unclear whether the combination of the two strategies or using only one of them is better, discussion with patients will help to choose the best option regarding patient's values, attitudes, beliefs, and resources [20]. In the current review, psychological therapies will be focused. Behavioral therapy is hard to be applied on GAD patients than in patients with simple phobias as it is more difficult to target worry of GAD [20]. CBT is the most commonly used and well studied therapy, it is provided by a specially trained psychotherapist [20], this therapy depends on teaching patients to replace positive ideas for anxiety-provoking ones, it usually involves 6–12 individual periods at week's intervals [36]. Significant benefit of CBT was reported in several meta analyses [44–46], and one randomized controlled study showed that 32% of patients who received CBT had significant

clinical improvements in 3 months, while 42% had significant improvements in 6 months [47]. This strategy traditionally combines both cognitive therapies with behavioral therapy, cognitive therapy focuses on understanding self-perpetuated cognitive distortions, monitoring thoughts, and habitual thought patterns as well as ulterior behaviors, while behavioral therapy aims to present the patient to feared situations [20]. It was suggested that CBT can be provided via the Internet, and there was an evidence of the effectiveness of Internet-based CBT managed by a non-clinician [48]. CBT can be combined with several other psychotherapeutic approaches such as relaxation response training in the form of diaphragmatic breathing or progressive muscle relaxation [20]. Relaxation therapy involves patient imagination to calm situations to stimulate both muscular and mental relaxation [36]. Two randomized controlled studies with small to medium size compared cognitive therapy alone with relaxation training alone and it was demonstrated that both equally and significantly reduced anxiety displays in GAD [49,50]. Mindfulness was introduced out of meditation training ways such as mindfulness-based stress reduction in mental health treatment settings. Mindfulness educates individuals to raise their knowledge about the present minute situations, such as emotions and thoughts, without striving or judgment to make the experience last or vanish [20].

Conclusion

GAD differs in prevalence according to the studied population. There are several environmental and genetic factors that act as risk factors for the disease. Misdiagnosis was found in primary care settings, so it is important to perform enough tests and take patients' history before confirming the case. The most effective psychological treatment approach for the disease was CBT.

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None.

List of abbreviations

CBT	Cognitive behavioral therapy
DSM	Diagnostic and Statistical Manual
GAD	Generalized anxiety disorder

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