

Potential Benefits of Cognitive Behavioral Therapy, Local Wisdom and Online Counseling for the Treatment of Generalized Anxiety Disorders, and Functional Gastrointestinal Disorders in College Adolescent Girls

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Abstract Functional gastrointestinal disorders (FGIDs) and generalized anxiety disorders (GADs) are widespread chronic illnesses associated with a reduced quality of life, social burdens, and low treatment rates. They affect adults, adolescents, and children. The main objective of this study was to examine the literature on the potential benefits of using cognitive behavioral therapy (CBT), local wisdom, and online counseling approaches for the treatment of FGIDs and GADs in adolescent girls of college age. The existing research on the possible advantages of these approaches was reviewed and analyzed using a narrative-descriptive literature review methodology. The results of this review demonstrated the effectiveness of the three approaches in reducing the symptoms of GADs and FGIDs, enhancing patients' access to evidence-based care, patient self-care, and participation in therapeutic activities that improve their health. These therapeutic strategies are acceptable, possibly cost effective, and most importantly, they can help individuals, including teenage girls with

GADs and FGIDs, enhancing their overall functioning and quality of life. It can also be argued that these interventions, particularly online therapy, offer comparable levels of client satisfaction to traditional face-to-face therapies while being more dependable, offering greater program fidelity, being easier to develop, and reaching a wider audience. Treatments used in the studies evaluated, especially those that included local wisdom counseling techniques, are successful in raising overall functioning levels and, to some extent, patients' quality of life by encouraging self-care. The benefits of the three approaches in the treatment and management of GADs and FGIDs are still expanding, though, and longer-term studies with more robust sample sizes are advised to draw more reliable conclusions and clinical practice implications.

Keywords College Adolescent Girls, Cognitive Behavioral Therapy, Functional Gastrointestinal Disorders, Generalized Anxiety Disorders, Local Wisdom Counseling

1. Introduction

Excessive, ongoing worry and anxiety that are difficult to control and interfere with everyday activities might be signs of generalized anxiety disorders (GADs)[1,2]. GADs is a relatively widespread chronic condition that is associated with subpar treatment results, a burden on society, and a deteriorated quality of life. GADs can develop in both children and adults. Types of GADs are defined by excessive anxiety and are accompanied by symptoms such as restlessness, exhaustion, irritability, muscular tension, and/or sleep problems. To be diagnosed, the symptoms must have been presented every day for at least six months. Patients with GADs frequently worry excessively and occasionally uncontrollably over little things or everyday life conditions. People may feel as if they worry continually when the emphasis shifts from specific worries to general anxiety. The nature of GADs is often chronic throughout a lifetime. With a lifetime prevalence estimated at around 6% globally [1,2], it is one of the most common anxiety disorders, and the long-term management of GAD may be challenging.

Functional gastrointestinal disorders (FGIDs) are among the disorders that usually co-occur with GADs. Functional gastrointestinal disorders manifest gastrointestinal symptoms that persist for long periods without any structural or biochemical abnormalities [3]. An individual with an FGID suffers from recurrent or persistent gastrointestinal symptoms that cannot be linked to biological causes. It has been reported that CAGs may suffer from IBS, functional abdominal pain syndrome, and functional dyspepsia (FD) [3, 4]. There is evidence that FGIDs result from dysregulation of the gut-brain interaction, causing altered sensory and motor function of the gut [5-7]. Thus, disorders of the gut-brain connection are another name for them. Instead of being caused by a disease or infection, the gastrointestinal tract's sensitivity to FGIDs and a range of symptoms are brought on by improper functioning. According to Avramidou et al. [8], 40% of the world's population has some form of gastrointestinal disease. As the most prevalent type of gastrointestinal disease, FGIDs affect 9.9% of children and adolescents (including college-age adolescent girls). Some environmental FGID variables, such as stress and smoking, can be significantly impacted by changes in lifestyle. Functional gastrointestinal problems in children and adolescents are a major contributor to morbidity and a poorer quality of life when it comes to health. A child with FGIDs has not only academic challenges but also physical and emotional distress. Students affected are one year behind their peers in reading and comprehension skills, especially college-aged adolescent girls with a history of

stomach pain and discomfort [9]. With psychotherapy or drugs, GADs and FGIDs typically get better. But GADs and FGIDs, particularly their prevalence and treatments in the female adolescent college population, are often ignored while presenting an emerging public health concern. Based on available empirical studies, the current study aims to identify and evaluate the potential benefits of using cognitive behavioral therapy (CBT), local wisdom, and online counseling approaches for the treatment of GADs and FGIDs in adolescent girls of college age. The results might be helpful for future patient care and counseling for treating FGIDs and GADs in this age range.

College adolescent girls (CAGs) worry about different kinds of issues. When such worries are mild, their daily functioning may not be affected. However, severe worrying may harm CAGs' general wellbeing [10-12]. The impulsive nature of worrying is a characteristic of generalized anxiety disorder (GAD) in which patients with GADs exhibit excessive and persistent worrying that interferes with their daily routines [13-15]. Although what elicits GADs among people at different developmental stages may differ, it is seen as prolonged worries and tension that may be accompanied by bodily symptoms such as restlessness and difficulty sleeping, among others [11, 12, 15]. Some factors that may contribute to adolescents developing GAD symptoms include biological factors, posttraumatic stress, environment, substance abuse, puberty-induced stress, and irrational thinking patterns [12, 16]. To qualify as having a GAD, DSM-V requires that an individual manifest three or more symptoms: being often irritated, muscular tension, sleep discomfort, restlessness, feeling on edge, fatigue, and difficulty concentrating [13, 17]. However, an individual cannot be classified as having GADs if the worrying does not interfere with his or her daily functioning [18].

A variety of treatment options are available for GADs, including cognitive behavior therapy (CBT), local wisdom (LW), online counseling (OC), and acceptance and commitment therapy. Cognitive biases and maladaptive thought patterns are believed to contribute to anxiety disorders in CBT [19-22]. Using the cognitive model of anxiety, CBT has been reported to be a very effective intervention for GADs [23-25]. In CBT, individuals are encouraged to change their maladaptive thoughts and behaviors that contribute to anxiety through a goal-oriented, problem-solving approach. Psychoeducation, cognitive restructuring, exposure therapy, and relaxation training are generally involved in CBT for GADs [26-28]. Cognitive restructuring replaces negative and irrational thoughts with positive and realistic thoughts [27]. Patients are encouraged to participate in activities that they enjoy or give them a sense of accomplishment through behavioral activation. To reduce the physical symptoms of anxiety, some patients may benefit from relaxation techniques such as deep breathing and muscle relaxation [28]. Regarding LW, it is argued that the influence of cultural heritage of different clinical settings cannot be underestimated in

psychotherapeutic interventions. Using traditional knowledge and practices to improve wellbeing and treat psychological issues, LW relies upon indigenous cultural practices and beliefs [29, 30]. Including LW in mainstream mental health care has been popular among non-Western cultures [31]. Despite limited empirical research on using LW for GADs, some studies suggest integrating cultural values and practices into therapy may be beneficial [30, 32]. The current study assesses the clinical benefits of CBT, LW and OC approaches for treating GADs and FGIDs among CAGs.

2. Materials and Methods

2.1. Study Design

A narrative–descriptive literature review methodology was adopted in this study’s investigation of the potential benefits of using CBT, local wisdom, and online counseling approaches for the management of GAD, and FGIDs in adolescent college school girls. Ethical clearance was not required for this study because it was based on an empirical literature analysis.

2.2. Literature Search

The researchers were able to gather data from several sources, including Google Scholar, SciLit, Directory of Open Access Journals, PubMed, Scopus, and PsychINFO, on studies regarding patients with GAD and FGIDs, as well as the potential benefits of using the three approaches for the treatment of GAD and FGIDs. The researchers thoroughly searched, assessed, selected, and summarized both qualitative and quantitative publications. A Boolean search was conducted using the following search terminologies: “cognitive behavior therapy AND generalized anxiety disorder among adolescent college girls OR female students”; “cognitive behavior therapy AND FGIDs among adolescent college girls OR female students”; “LW AND generalized anxiety disorder among adolescent college girls OR female students”; LW AND FGIDs among adolescent college girls OR female students”; “Cultural CBT AND generalized anxiety

disorder among adolescent college girls OR female students”; “Cultural CBT AND FGIDs among adolescent college girls OR female students”; and “online/digital CBT AND generalized anxiety disorder FGIDs among adolescent college girls OR female students”.

2.3. Screening and Eligibility

The researchers of this study examined the title/abstract of the initial search results after duplicates had been eliminated, and wholly off-topic papers were disqualified. The remaining articles’ eligibility was evaluated by reading the whole texts, and the reasons for exclusion were noted following a predetermined hierarchy. Two authors independently evaluated eligibility, and any differences in study selection were resolved by discussion and consultation with a senior researcher. First, eligibility standards were created to only include studies that exclusively examined the potential benefits of using CBT, local wisdom, and online counseling approaches for the treatment of GAD, and FGIDs. Other criteria were that study participants in the overall literature must be diagnosed with GAD or FGIDs; studies must be published in a peer-reviewed journal in English; and studies must include reliable and valid data. The counseling approach must involve the use of CBT, local wisdom, and/or an online counseling approach.

2.4. Data Extraction and Analysis

The data extraction included the article title, information about the authors, measures employed, study duration, study objectives, research method, intervention and study results. Following this, we were able to characterize the chosen literature and provide its implications for research and practice through the narrative–descriptive literature review technique.

3. Results

A summary of some studies highlighting the potential benefits of using CBT, local wisdom, and online counseling approaches for the treatment of FGIDs and GADs based on the available literature is shown in Table 1.

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Table 1. Empirical literature on potential benefits of using Cognitive Behaviour Therapy, Local Wisdom and Online Counselling Approaches for Treatment

Studies	Measures	Duration (weeks/number of module)	Study objective	Method	Intervention (n)	Results
Bell et al. [33]	GADI BDI-II	12/4	To assess the efficacy of wait list control (WLC) and computerized cognitive behavior therapy (CCBT) in treating patients with anxiety disorders (social phobia, panic disorder, and generalized anxiety disorder) who have been referred to a specialized, publicly funded outpatient anxiety program.	Randomised control group design.	Disorder-specific cCBT (14)	The study's effect sizes were average. The findings indicate that CCBT may be helpful in treating GADs in individuals receiving secondary treatment in this secondary care context.
Brodwall and Brekke [34]	FGIDs	Not specified	To learn more about children's and adolescents' experiences with, and reflections on, the causes of their abdominal pain and what could possibly help them.	The study has a qualitative design.	Local wisdom counselling approach (12)	The FGIDs for children and adolescents were lowered by altering how one views the symptoms. The youngster needs assistance from the treating doctors, parents, and teachers to concentrate on altering their perception of pain.
Dahlin et al. [35]	GAD-7	9/7	To examine the effects of therapist-guided internet-delivered acceptance-based behaviour therapy on symptoms of GAD and quality of life.	randomized controlled trial (RCT) design	Disorder-specific Internet delivered Acceptance based behavior therapy (103).	According to the study, acceptance-based behavior therapy provided via the Internet may be useful for easing GAD symptoms.
Hirsch et al. [36]	GAD-7 PHQ-9	4/10	To examine how theory-driven experimental research guided selection and refinements of CBT technique originally developed by Borkovec and Costello, to target key cognitive processes that maintain worry in GAD.	Waitlist Control group trial	Multi-arm trial: Transdiagnostic iCBM-I (44)	For all measures, there were significant variations between the pre- and post-treatment questionnaires, with the PSWQ, GAD-7, and PHQ-9 showing the largest impacts. and moderate WSAS effects (small.20, moderate.50, large.80; 93). Most instances showed consistent improvement on the PSWQ and GAD7, but no consistent change on the PHQ9.

Table 1 Continued

Newby et al. [37]	GAD-7 PHQ-9	10/6	To investigate a primary care randomized controlled trial and data supporting the efficacy of online cognitive behavioral therapy for mixed anxiety and depression.	The study design was a six-lesson therapist-assisted iCBT programme for mixed anxiety and depression.	Transdiagnostic iCBT (46)	The combined findings demonstrate that iCBT is successful and has high adherence in research settings, but that adherence suffers when applied to the "real world."
Paxling et al. [38]	GAD-IV MADRS-S	8/8	To assess the effectiveness of a wait-list control group in a controlled trial of guided Internet-delivered CBT for GAD.	Randomised control group trial	Transdiagnostic iCBT (89)	Results from 1- and 3-year follow-up studies showed that the treatment's effects either became better or stayed the same. The authors come to the conclusion that CBT provided online and supported by a therapist helps lessen GAD-related symptoms and issues.
Lalouni et al. [39]	FGIDs	10/10	To assess acceptability, feasibility, and potential clinical efficacy of Internet-CBT for children with P-FGIDs.	feasibility study with a within-group design	Internet-CBT	The findings demonstrate that parents and children with long-standing P-FGIDs view exposure-based Internet-CBT as a beneficial and workable treatment. Although they had experienced gastrointestinal discomfort for a very long time prior to the intervention, the included youngsters considerably improved. For P-FGIDs, the therapy has the potential to be very beneficial.
Richards et al. [40]	GAD-7 PHQ-9	8/7	To investigate the effectiveness and cost-effectiveness of iCBT when fully integrated within IAPT stepped care settings.	A pragmatic randomized controlled trial with a 2:1 (iCBT intervention: waiting-list) allocation.	Transdiagnostic iCBT (134)	Results show that iCBT for depression and anxiety (GADs) is efficient and could be economical over time when used in IAPT.

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Table 1 Continued

Robinson et al. [41]	GAD-7 PHQ-9	10/6	To find out whether support from a technician during internet-based cognitive behavioural therapy (iCBT) for generalized anxiety disorder (GAD) is as effective as guidance from a clinician.	Randomized controlled non-inferiority trial comparing three groups: Clinician-assisted vs. technician-assisted vs. delayed treatment.	Multi-arm trial: Disorder specific iCBT clinician assisted (150)	Both clinician- and technician-assisted treatment resulted in large effect sizes and clinically significant improvements comparable to those associated with face-to-face treatment, while a delayed treatment/control group did not improve.
Titov et al. [42]	GAD-7 PHQ-9	8/6	To investigate if internet-based cognitive behavioural therapy (iCBT) for depression is effective when guided by a clinician, less so if unguided.	Randomized controlled non-inferiority trial comparing three groups: Clinician-assisted vs. technician-assisted vs. delayed treatment. Community-based volunteers applied to the Virtual Clinic	Transdiagnostic iCBT (18)	Large effect sizes and clinically meaningful improvements were produced by both clinician- and technician-assisted therapy, while the delayed treatment control group showed no change.
Titov et al. [43]	GAD-7 PHQ-9	10/8	To examine the efficacy of a transdiagnostic iCBT protocol to treat three anxiety disorders and/or depression within the same program (the Wellbeing Program)	Waitlist Control group design	Cognitive behavioural therapy programs delivered over the Internet (iCBT) with clinician guidance (77)	Participants rated the procedure as highly acceptable, and gains were sustained at follow-up. These results provide preliminary support for the efficacy of transdiagnostic iCBT in the treatment of anxiety and depressive disorders.
Mewton et al. [44]	GAD-7	Not specified	To determine whether these efficacy findings, established under controlled research conditions, translate into effectiveness in practice.	The study design involved Routine data collection including demographics, GADs symptomatology (GADs-7), psychological distress (K-10), and disability (WHODAS).	Computerised CBT (588)	The results showed that computerized CBT for GADs is successful in producing favorable, clinically meaningful results in typical individuals treated under typical primary care situations.
Szigethy et al. [45]	General Anxiety Disorder-7	Not specified	To evaluate the feasibility and impact of a coached digital CBI (dCBI) as a first-line intervention in a prospective cohort of emotionally distressed patients with FGIDs.	Descriptive study design with the use of Personal Health Questionnaire Depression Scale	Cognitive behavioral techniques are enhanced by within-app text messaging with a health coach (364).	Patients with FGIDs and moderately severe anxiety and depressive symptoms are willing to use dCBI tools recommended by their providers.

Table 1 Continued

Owusu et al. [46]	FGIDs	12/7	To assess the feasibility of a web-delivered CBT program among adults with IBS to apply to a future clinical trial.	Randomised control group trial design	unguided web-based, CBT (25)	3-month follow-up gastrointestinal symptom scores were large and 63.6% experienced a clinically meaningful improvement. At the 2-month follow-up, unhelpful IBS safety behaviors dramatically decreased along with gastrointestinal-specific anxiety symptoms and cognitions. At a 3-month follow-up, a clinically significant reduction in depression and anxiety symptoms was seen in individuals who had symptoms at baseline that were higher than the clinical threshold.
Hunt et al. [47]	FGIDs	8/8	To evaluate the effectiveness of Zemedi, a revolutionary mobile digital therapy tool, in providing people with IBS, including those with FGIDs, with a thorough CBT program.	Crossover Randomized Controlled Trial.	internet-CBT (62)	The internet-CBT group saw a substantial improvement in gastrointestinal symptoms, IBS-related quality of life and cognition, visceral sensitivity, and fear of foods.

Abbreviations: BDI-II, Beck Depression Inventory-II; cCBT, computerized cognitive behavioral therapy; GAD-IV, Generalized Anxiety Questionnaire-IV; GAD-7, Generalized Anxiety Questionnaire-7 item; iCBT, Internet-delivered cognitive behavioral therapy; MADRS-S, Montgomery-Asberg Depression Scale; PHQ-9, Patient Health Questionnaire-9 item; FGIDs, functional gastrointestinal disorders; IBS, irritable bowel syndrome; APT, affect-phobia therapy; WHODAS-II, World Health Organization disability assessment schedule II; WHOQOL-BREF, World Health Organization Quality of Life Instrument; WSAS, Work and Social Adjustment Scale; P-FGIDs, pain-related functional gastrointestinal disorders.

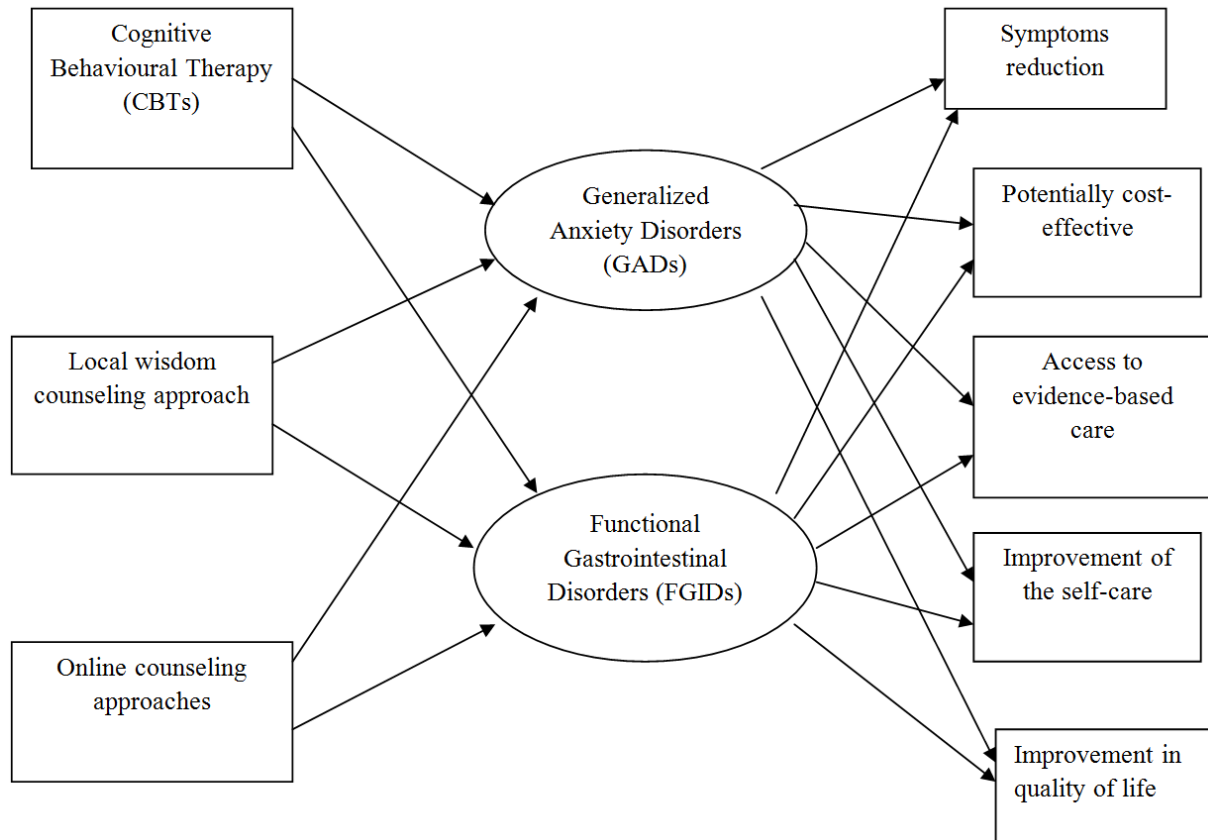


Figure 1. Conceptual Framework demonstrating the Potential Benefits of using Cognitive Behavior Therapy, Local Wisdom, and Online Counseling Approaches for the treatment of generalized anxiety disorder (GAD) and functional gastrointestinal disorders (FGIDs)

Figure 1 is the conceptual framework developed by the researchers to further elucidate the potential benefits of using CBT, local wisdom, and online counseling approaches for the treatment of FGIDs and GADs in adolescent girls of college age based on the available literature.

4. Discussion

Both FGIDs and GADs are prevalent illnesses that affect many children and adolescents globally. Children and teenagers with GADs have difficulty focusing. To take little moves and stay out of many uncertain circumstances, they want encouragement and approbation. Perfectionism, a severe dread of making mistakes, and a fear of criticism are all possible symptoms. They also demonstrate metacognitive bias by thinking that the act of worrying would prevent tragedies. According to Borza [48], an adolescent with GADs may look melancholy, but the real problem is more likely to be inhibition and resignation. Controlling these anxieties is quite challenging for GADs patients. In addition, they can have agitation or restlessness, trouble sleeping, difficulty focusing, and experience an increase in musculoskeletal pains or discomfort. The major negative effects that GADs has on relationships or functioning are typically a burden for GADs patients

[48,49].

However, in general and specialist clinics, FGIDs account for the majority of gastrointestinal (GI) consultations [50,51]. The pathophysiological basis of FGIDs is thought to be dysregulated interactions within the brain–gut–microbiota axis [52,53]. Indeed, this idea has caused FGIDs to be reframed as disorders of gut–brain interaction [54]. It is generally known that people with FGIDs struggle with concomitant psychiatric issues as well as severe stress loads and GI symptoms [55]. According to Petersen et al. [50], up to two-thirds of patients with FGIDs suffer anxiety or depression symptoms at some point. People with irritable bowel syndrome (IBS) have a risk of these symptoms, which is more than three times that of the general population [56]. Patients with FGIDs who have higher psychological burdens have been observed to have a worse quality of life and more severe GI symptoms [55, 57]. According to Brodwall and Brekke [34], FGIDs are common in children and adolescents. In addition, Lalouni et al. [39] noted that children are more likely than adults to suffer from pain-related functional gastrointestinal disorders (P-FGIDs; for example, IBS), which are linked to a poorer quality of life, anxiety, and missed school days. Thus, the use of one’s imagination a lot when working with children and teenagers falls under this category and clinicians often have to develop instructional resources and modify psychiatric categorizations to fit their needs.

It is important to know that currently, several treatments for GADs and FGID are advised, including taking an antidepressant [58]. Psychotherapy comes in a variety of forms, many of which have scientific backing, especially iterations of CBT [59]. It is also possible to apply therapies like conventional wisdom and internet counseling techniques. These treatments include a range of therapy tactics that focus on the worry- and emotion-avoidance-related beliefs held by patients with GADs and FGIDs, particularly female teenage college students [48]. Furthermore, using therapies like CBT, local wisdom, and online counseling approaches can significantly help treat and manage people with GADs, FGIDs, and related psychological problems. For instance, the study by Titov et al. [43] examined the efficacy of a transdiagnostic internet-delivered (iCBT) programs which are successful in treating some anxiety disorders and forms of depression; gains were maintained during the follow-up, and participants appreciated the therapy. Szigethy et al. [45] indicated that although FGID patients with standard CBT have improved mood and gastrointestinal symptom severity, these therapies encounter significant implementation challenges. Mewton et al. [44] studied the efficacy of computerized CBT for GADs and indicated that it can produce beneficial, clinically meaningful benefits in individuals who are typically treated in primary care settings.

Although few studies are available, the application of local wisdom counseling techniques in GADs and FGIDs has also been demonstrated to be effective. Local wisdom counseling techniques have become a larger element of the treatment for GADs and FGIDs, even if there are various ways to seek therapy for GADs and eventually, many people build a hybrid strategy of professional counseling and self-coaching to manage their GADs and FGID. Local wisdom is a paradigm, idea of knowledge, and way of living that is reflected in the morals and conduct of a country [60]. According to Susanto et al. [61], teenagers who can filter modernization with the value of local knowledge can reduce juvenile delinquency and adolescent deviant behavior. As a consequence, in reaction to environmental changes, national values such as cooperation and harmony might be employed without compromising national identity [62]. With the incorporation and internalization of the value of local wisdom into the family, especially for the female population, adolescent psychological issues like GADs and FGIDs that will impede their growth physically, psychologically, socially, culturally, and spiritually can also be overcome.

The technique of LW therapy is straightforward but has a significant impact on the quality of life and health. Additionally, the function of local knowledge may be utilized to understand preferences for how to manage teenage girls who have better lives with less anxiety and depression, such as the incidence of GADs and FGIDs. According to studies, spirituality as a component of traditional knowledge was the chosen therapy strategy for

West African children who had unpleasant childhood memories [63]. The significance of spirits and the use of conventional healers and prayer houses as therapeutic approaches are acknowledged by research [61]. A sense of consciousness and moral direction is provided by the spirits. The prayer rooms are a popular location for treating stress- and anxiety-related disorders, including GADs and FGIDs, as well as seeing indications of hope during trying times [61]. Prayers serve as a moment of brief pleasure and thought since people who frequently visit prayer rooms support one another while being guided by a priest. This behavior is analogous to guided group therapy. Conventional healers were selected to serve as the groups' facilitators when they were formed in the prayer homes.

It is important to note that a local-wisdom-based counseling approach, like Ebigbo's Harmony Restoration Therapy, acknowledges the significance of spirituality in the healing techniques of the Igbo people in the eastern part of Nigeria by recognizing the need for mending and healing within oneself and one's relationships with others [63]. Also, Lo and Dzokoto's study [64] acknowledged the need to address spirituality and the balance of methods in counseling. In this study, counseling sessions with clients using the Ideal Master (IM) approach are discussed in terms of their ramifications. The methods used by the IM are linked to their goal of eradicating cognitive distortion brought on by traumatic events, such as genital shrinking, and learning stress management techniques including self-talk encouragement, anxiety reduction, and prayer. Similarly, it takes cultural sensitivity and familiarity with indigenous groups' worldviews to introduce contemporary counseling techniques to them. In traditional African culture, community leaders including village chiefs, elders, traditional healers, and ancestors are highly respected and revered for their knowledge. They serve as one's "counselors" since they are the ones to whom one turns for direction, guidance, and atonement [65]. Traditional healers have an impact on children and adolescents even if many of their therapies may not be appropriate for them because of their environment, culture, and the influence of the family [64].

From a spiritual and artistic perspective, existing literature highlights the significance of indigenous psychological practices. To achieve this, Marlina et al. [66] conducted participatory action research to put Aceh's traditional knowledge into practice to raise the quality of life as a fresh approach to the early prevention of stroke illness. The outcome demonstrates that the primary driver of changing societal behavior can be local knowledge. The use of local knowledge might become the answer since the community, particularly those with a family history of hypertension, can strengthen family health issues by giving them a great deal of attention. In addition, local knowledge encourages the population to monitor their health as a preventive measure, whereas the majority of participants only attend the health facility when they are unwell. The outcome demonstrated that local knowledge may spur

society to change its environment, demonstrating the growing understanding of the significance of environmental cleanup. Although the focus of this research was not on using local wisdom to treat GADs and FGIDs, it did discover that controlling high preoccupation, which is thought to be a symptom of mental disorders, can benefit from local wisdom. As a result, it may also be helpful in the treatment and management of FGIDs and GADs. In addition, Brodwall and Brekke [34] conducted a qualitative study with 12 children and adolescents (10–18 years old) who had FGIDs to better understand how they experienced and thought about the causes of their abdominal pain as well as possible treatments. The outcome showed that they were upset by the lack of a diagnosis and treatment options. Some students who missed school for weeks or months felt lonely and dejected. It has been suggested that concentrating on good things might reduce discomfort. This finding demonstrates that altering how one views the symptoms decreased FGIDs in children and adolescents. Therefore, medical professionals, together with parents and teachers, must assist in modifying the child's perspective on pain. Only one study out of the studies evaluated employed local wisdom counseling as a strategy for the treatment of GADs and FGIDs, hence, prior research on the efficacy of local wisdom in the treatment of GADs and FGIDs is limited. This lack of information in the field raises the possibility of further study.

The use of online counseling services has grown in recent years as technology, trust, and daily life obligations have all increased. For persons who battle with the difficulties of GADs and FGIDs, such as uneasiness, irritability, panic, tiredness, and GI issues, online counseling services may provide some potentially significant advantages. These advantages include (a) Complete accessibility—there are not many obstacles to using Internet counseling services. The majority of individuals have access to the internet, video conferencing applications are often cost-free (or at the absolute least, economical), and scheduling and traveling for appointments are almost eliminated; (b) Accessibility—since your therapist does not have to pay for a physical space to operate from, they may often charge their clients less; (c) No waiting—waiting for things to happen can be extremely difficult for many people with GADs and/or FGIDs. Due to this, what should be a useful experience instead becomes quite stressful in waiting rooms and traffic. These hazards are eliminated by online counseling services; (d) Comfort—choose your favorite room in the house and relax knowing that the sights, sounds, scents, and surroundings will all be familiar, safe, and welcoming while you engage with your online counselor from the convenience of your own home [67]. It has been demonstrated that using Internet therapy as a treatment for addiction and dependency might be an incentive [68]. It can also lessen the emotional and physical stress related to GADs and FGIDs. In particular, a growing body of research indicates that technology-based interventions

outperform conventional face-to-face therapies in terms of reliability, program fidelity, ease of development, ability to reach a wider audience, cost-effectiveness, and client satisfaction [69, 70]. To achieve this, Christensen et al. [68] investigated the advantages of supplementing motivational incentives and buprenorphine with an internet-delivered therapy. The outcomes demonstrated that an internet-based CRA+ therapy is efficient and enhances the therapeutic advantages of an opioid dependency contingency management/medication-based program. Furthermore, in a controlled experiment with a wait-list control group, Paxling et al. [38] evaluated the efficacy of guided iCBT for GADs, and the findings at 1- and 3-year follow-ups revealed that treatment results had either improved or been sustained. The authors, therefore, concluded that CBT delivered online with therapist support can minimize symptoms and difficulties associated with GADs. A different investigation by Lalouni et al. [39] looked at the acceptability, viability, and possible treatment efficacy of iCBT for P-FGIDs in children between the ages of 8 and 12. This study demonstrates that parents and children with long-standing P-FGIDs view exposure-based iCBT as an effective and practical treatment. Although the children in this study had experienced gastrointestinal discomfort for a very long time before the intervention, they improved considerably. In research by Sagawa et al. [49], the incidence of FGIDs in teenagers was shown to be rather high. For these teenagers to enhance their QOSL, medical intervention and/or therapy using online counseling techniques were required. In addition, Hunt et al. [47] conducted crossover randomized controlled research to evaluate the effectiveness of Zemedy, a cutting-edge mobile digital therapy that offers a thorough CBT program to people with IBS, including FGIDs. The study's findings showed that the iCBT group improved considerably in terms of gastrointestinal symptoms, IBS-related quality of life and cognition, visceral sensitivity, and fear of foods.

From the currently accessible literature, few studies have concentrated on the potential benefits of online counseling techniques in the management of GADs and FGIDs. Only one of these studies employed conventional online counseling as a form of treatment or intervention for GADs and FGIDs, whereas others used iCBT. This shows a lack of empirical research on the possible advantages of other forms of online counseling techniques for the treatment of GADs and FGIDs. In other words, additional research is needed to determine the possible advantages of other online counseling techniques for the treatment of GADs and FGIDs.

Based on the following empirical evidence, Figure 1 demonstrates that CBT, local wisdom, and online counseling approaches can be helpful, particularly to teenagers with GADs and FGIDs. First, CBT intervention is successful in easing the symptoms of GADs and FGIDs and has the potential to help treat GADs in patients. In research settings, studies have also shown that iCBT is effective and that adherence is high, however, there is an

issue with adherence when applied to the “real world.” Therefore, increased iCBT adherence in primary care settings has to be the focus of future initiatives. Second, prior findings suggest that online counseling approaches, including iCBT may be cost effective for treating FGIDs and GADs [39-41].

5. Limitations and Suggestion for Further Research

The conclusions from existing research based on narrative-descriptive reviews can pose limitations in inferring the actual benefits of CBT for GADs and FGIDs. While a narrative-descriptive review gives a panoramic view and helps researchers find the gaps in their field and create a theoretical framework or context for meaningful research and research questions, it is susceptible to bias in selecting, appraising and combining studies to answer questions. Therefore, a systematic review should be designed for alternative studies.

6. Critical Reflections and Recommendations

In the counseling literature, it has been shown that CBT intervention can be successful in easing GADs symptoms in patients and has the potential to help treat GADs in patients. CBT and both internet-based and local-wisdom-based coaching can assist a person with GADs or FGIDs in improving their feelings of excessive anxiety and concern as well as accompanying symptoms such as restlessness, exhaustion, irritability, muscular tension, and/or sleep disturbance. This is crucial for the care of GADs and FGIDs patients. The effectiveness and possible cost-effectiveness of CBT, conventional wisdom, and online counseling techniques have been established as well. Various counseling techniques, particularly those accessed online, can serve as incentives for motivation and be used to treat conditions such as GADs and FGIDs [67]. It can also be argued that these interventions, particularly online therapy, offer comparable levels of client satisfaction to traditional face-to-face therapies while being more dependable, offering greater program fidelity, being easier to develop, reaching a wider audience, and being more cost effective [69,70]. Treatments used in the studies evaluated, especially those that included local wisdom counseling techniques, are successful in raising overall functioning levels and, to some extent, patients’ quality of life by encouraging self-care. They also work together to remove cognitive distortion brought on by traumatic events [64]. To manage GADs and FGIDs, counseling techniques, such as CBT, local wisdom, and online counseling approaches/interventions, have thus far proven to be beneficial and effective.

Future research on the advantages of employing CBT,

local wisdom, and online counseling approaches for the treatment of GADs and FGIDs in adolescent college girls will be impacted by the findings of this study. These therapies have been shown to help treat GADs in patients and have the potential to be both successful and cost effective in lowering GADs and FGIDs symptoms in patients. The number of people with GADs and FGIDs is escalating every day, and these conditions are common in young girls and women. It is crucial to recognize the significant impact of CBT, local wisdom, and online counseling approaches on the management of these girls’ restlessness, fatigue, irritability, muscle tension, and/or sleep disturbance given that these intervention approaches are affordable and simple to integrate into the medical setting.

CBT, local wisdom, and online counseling approaches are helpful in the management of GADs and FGIDs by increasing patient access to evidence-based care, enhancing patients’ self-care, increasing people’s participation in some activities that improve their health conditions, and improving overall levels of functioning and quality of life. These benefits were highly acceptable, sustained at follow-up, and highly effective. The use of CBT, particularly internet-based CBT, for the treatment of GADs and FGIDs was the main focus of the bulk of the empirical investigations in this counseling intervention literature. This does not imply that the use of other counseling interventions, such as local wisdom and other online counseling approaches, has not been tested in the management and treatment of GADs and FGIDs; rather, it simply indicates that few studies address local wisdom in the context of GADs and FGIDs specifically. Even studies in the field of online counseling methods focused mostly on the application of iCBT for the management of GADs and FGIDs. Because of this, the next research should look at proving the value of leveraging local wisdom and other online counseling approaches in addition to iCBT for the treatment and management of GADs and FGIDs.

7. Theoretical Implications

GADs is a common comorbid condition among adolescents, the symptoms of which are similar to those of FGIDs. There is a significant gap in knowledge concerning this issue since comorbidity affects a significant proportion of clinical populations, and effective treatment is essential to improving the outcomes for adolescent girls from culturally diverse backgrounds with comorbid GADs and FGIDs. Therefore, this study provides a synthesis of existing investigations to guide further research. There is also considerable theoretical significance to the diagnosis and treatment of FGIDs since they challenge the traditional biomedical model of illness, which posits that symptoms are caused by organic pathologies [3,7,71]. Diagnosing and treating FGIDs requires a biopsychosocial approach because they usually present as chronic or recurrent

gastrointestinal symptoms [72]. It has been proposed that the biopsychosocial model explains why FGIDs develop and persist. According to this model, genetics, stress, anxiety, and early life experiences interact to cause FGIDs [3, 7, 72]. Symptoms can affect psychological and social functioning, which in turn affects gastrointestinal physiology.

Both the brain–gut axis theory and the brain–gut axis framework can be used to explain FGIDs. Due to the belief that FGIDs are caused by disruptions in the gut–brain axis, this model proposes that the gut and the brain are tightly connected [73]. Stress and other psychological factors are considered to cause symptoms associated with abnormal gut function, and the brain–gut axis model suggests that stress and other psychological factors can adversely affect gut function. In contrast with the traditional biomedical model of illness, FGID researchers advocate using a biopsychosocial approach to diagnosis and treatment. To provide vital and comprehensive care for individuals with FGIDs, healthcare providers must understand the sensitive interaction between genetic, behavioral, and social factors.

To comprehend the development and persistence of GADs, the cognitive-behavioral model has been proposed as a theoretical framework. According to this model, GADs result from a combination of cognitive, behavioral, and physiological factors, including negative thinking patterns, avoidance behaviors, and physiological arousal [74]. According to this model, CAGs with GADs tend to excessively worry and engage in catastrophic thinking, while maintaining their anxiety symptoms over time. Therefore, CBT for GADs focuses on changing these negative thinking patterns and teaching CAGs to manage their anxiety symptoms through relaxation techniques, problem-solving, and exposure therapy [74, 75].

Another theoretical framework that can be used to understand GADs is the emotion dysregulation model. This model proposes that GADs result from difficulties regulating emotions, particularly anxiety [76, 77]. According to this model, CAGs who have GADs tend to experience heightened levels of anxiety and have difficulty downregulating their anxiety once it is activated. Emotional-focused interventions aim to assist CAGs with GADs by improving their ability to tolerate and control their anxiety symptoms. A biopsychosocial approach to diagnosis and treatment is critical to the theoretical significance of GADs because it challenges the traditional biomedical model of illness. Healthcare providers can offer more effective and comprehensive care to CAGs with GADs by recognizing the complex interplay between cognitive, behavioral, physiological, and emotional factors.

8. Conclusions

The use of CBT, conventional wisdom, and online counseling techniques as a form of treatment for GADs and FGIDs has been demonstrated to be effective means of

reducing the symptoms of GADs and FGIDs, enhancing patient access to evidence-based care, enhancing patient self-care, and enhancing people's participation in some activities that improve their health conditions. These therapeutic strategies are acceptable, possibly cost effective, and most importantly, they help people with GADs and FGIDs enhance their overall functioning and quality of life. In other words, they assist in transforming abnormal anxieties into unhealthy ones. Based on the available empirical studies, the potential benefits of using CBT, local wisdom, and online counseling approaches for the treatment of GADs and FGIDs are still being explored. The results to date indicate that much more research is needed in this area, particularly regarding the use of local wisdom and other types of online counseling approaches.

Ethical Approval

Ethical issues are not involved in this paper.

Conflicts of Interest

All contributing authors declare no conflicts of interest.

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Data Availability Statement

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

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