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INTERNET-BASED COGNITIVE BEHAVIORAL THERAPY FOR SOMATIC SYMPTOM DISORDER

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REVIEW **OPEN ACCESS**

ABSTRACT

Introduction – Somatic symptom disorder (SSD), before known as somatoform disorder (SD), is characterized by a preoccupation that is nondelusional and general with fears of having, or the idea that the body has a serious disease based on his or her misinterpretation of bodily symptoms in six or more months. In SSD management there is a multifaceted approach that is tailored to each patient. Psychological interventions specifically cognitive behavioral therapy reported can improve the symptoms and reduce the healthcare cost significantly. Internet-delivered cognitive behavior therapy (ICBT) has an accepted evidence base for a range of psychiatric problems, especially for SSD treatment also has been suggested as one possible approach that could adapted to this situation.
Methods – In this article, researchers used the review method by collecting several kinds of literature from 2011-2021 that discuss somatic symptom disorder, cognitive behavioral therapy, and internet-based cognitive behavioral therapy for somatic symptom disorder.
Results – A referral system for patients with SSD to a mental health expert is needed if they do not find any progress when handled by the physician in primary care. Proven therapies for SSD such as CBT and mindfulness-based therapy. ICBT was approved and increased usage within the pandemic of COVID-19 and brought some highly standardized courses consistent across patients.
Discuss – The effectiveness of ICBT has been evaluated in the management of generalized anxiety disorder (GAD), depression, panic disorder, post-traumatic stress disorder (PTSD), obsessive-compulsive disorder (OCD), adjustment disorder, chronic pain, bipolar disorder, and phobias. CBT in multicenter randomized controlled trials reported effectiveness in the treatment of SSD and medically unexplained symptoms, "Health anxious" patients get over two years of sustained symptomatic benefit, without any different impact on total costs, and also decreased the physical symptoms, disability, and psychological distress.
Conclusion – Internet-based Cognitive Behavioral Therapy (ICBT) can be highly effective in the treatment of somatic symptom disorder (SSD). ICBT can provided in therapist-guided, unguided, or as a bibliotherapy. This tool is already recommended as a treatment of choice during the pandemic. Although wider RCT on the use of ICBT in clinical practice, particularly in SSD therapy, with a variety of demographic characteristics to provide additional evidence of the effectiveness of this technique, as well as increased awareness among clinicians and the general public.

Keywords: SSD, somatic, CBT.

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INTRODUCTION

Somatic symptom disorder (SSD), as familiar by somatoform disorder (SD), is characterized by a preoccupation that is nondelusional and general based on his or her misreading of bodily symptoms for six or more months, with worries of having, or the concept that the body has a major ailment. That causes significant impairment and distress in life, not explained by another medical or psychiatric disorder, and frequently individuals with this problem have poor insight into the existence of this disorder.[1] The somatic symptom could be one or multiple and frequently make the individual disproportionately dysfunctional. Recognizing SSD is the initial step. Research by Sherry and Smuca found there were frequent reports of 20-30 symptoms in their population along with marked dysfunction and pain, also amplification analogy told to help validate the patient's symptoms. When the body receives a sense, it is amplified, resulting in abdominal discomfort, disorientation, and strong and disabling touch, which leads to malfunction. That phenomenon, can resulting overmedicalization, which also perpetuates the somatic symptom.[2]

Among all mental disorders, SSD and related disorders are categorized as the most frequent ones, especially in primary care settings, with prevalence rates like affective disorders and anxiety[3]. In the general population, SSD is found in prevalence around 5%-7%.[4] Meanwhile, in primary care settings, there is a wide range of SD prevalence between 5%-35%. And reported that SD is still underdiagnosed in both inpatient and outpatient settings. This wide range in primary care SD prevalence indicates that there are various diagnostic approaches, recognition, or labels.[5] Females tend to present

SSD more often than males, with the estimated ratio between females-to-males is 10:1.[6] Even though SSD could occur at any age, it found that SSD mostly appears in ages between 20 to 30 years. Similar complaints of disorder are recorded by about 3% of medical students, most typically in the first two years, but they may be temporary.[1]

Apart from the often founding, SSD also hurts the patient's quality of life, health care use, and cost. The diagnosis and treatment reported in primary care settings, which are crucial to SSD management, tend to be delayed. Because of the significant risk of suicidal behavior, early detection and treatment of SD patients is critical.[5] When the clinicians incorrectly think the probability of any biological disorder in SSD patients, that may experience harm or called iatrogenic harm from the unnecessary treatment and test.[6] And also, the improper diagnosis and treatment guide to the increase of society's financial burden.[5]

In SSD management there is a multifaceted approach that is tailored to each patient. Primary clinicians should consider the psychological, cultural, and social factors that may impact the somatic symptoms before taking the appropriate treatment plan[6]. Psychological interventions specifically cognitive behavioral therapy can improve the symptoms and reduce healthcare costs significantly.[5]

In recent years, internet-based cognitive behavioral therapy has grown in popularity. Psychological self-help programs are offered via the Internet, and patients can communicate with therapists via e-mail. The therapy commonly consists of psychoeducation, exercises, and prevention of the symptom's recurrence. Given modules in the network program as the key to "live" cognitive-behavioral therapy[7]. The effectiveness of Internet-delivered cognitive behavior therapy (ICBT) for a variety of mental and somatic health conditions has been reported.[8] And this method of therapy could provide an opportunity to overcome the access problem of traditional therapy by extending therapeutic services.[7]

Especially nowadays, in the pandemic era, COVID-19 brings many negative psychological consequences. Despite in general health system problem, there is an obstacle in providing psychological services that cannot be offered like before. During the Italian COVID-19 lockdown, there was a cross-sectional observational study from 9 March to 4 May 2020, that evaluated the 13-18 in aged adolescents with and without SSD, and found that the majority of SSD patients had not got any psychological treatment during the lockdown, even though they routinely get the treatment before.[9]

Some adaptation should be done to optimize what we can do in this pandemic. Despite social distancing, there is a requirement to adapt psychological treatment components including exposure to prevent the enhancement of infection spreading. ICBT has an accepted evidence base for a range of psychiatric problems, especially for SSD treatment also has been suggested as one possible approach that could adapted to this situation.[9]

METHOD

The author used the review method by collecting several kinds of literature that discuss somatic symptom disorder, cognitive behavioral therapy, and internet-based cognitive behavioral therapy for somatic symptom disorder. The literature used is limited from 2011-2021.

RESULT

With the introduction of the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (*DSM-5)*, the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition, text revises (*DSM-IV-TR)* section of somatoform disorders (SD) has been changed to a new terminology of somatic symptom and related disorders (SSD). The new classification emphasizes the positive symptoms which are distressing somatic symptoms plus abnormal behavior, feelings, thoughts, and behaviors as the response of the symptom to be the major diagnosis of SSD.[4]

There are some challenges in the assessment of SSD in older adults caused by somatic multimorbidity. The systematic review study by Van Driel, et, al, used Patient Health Questionnaire–15 (PHQ-15) and the somatization subscale of the Symptom Checklist 90-item version (SCL-90 SOM) as a helping tool in SSD assessment.[10]

In Indonesia, where primary care is the center of SD management, during anamnesis primary physicians can use PHQ-15 to help in screening for SD. Besides DSM-5 SSD categories, physicians can categorize SD with *Panduan Penggolongan dan Diagnosis Gangguan Jiwa III (PPDGJ III)* which refers to ICD-10 criteria.[11]

Proven therapies given by mental health care professionals are cognitive behavioral therapy (CBT) and mindfulness-based therapy.[6] Despite this, SSD patients frequently oppose psychiatric treatment, even if some patients will accept it if it is provided in a medical context and focused on stress reduction and chronic illness education. One of often benefits of psychotherapy for SSD patients is group psychotherapy such patients, which offers social interaction and social support to alleviate their anxiety. While psychotherapy in another type, including individual insight-oriented psychotherapy, cognitive therapy, behavior therapy, and hypnosis, may be useful[1].

DISCUSS

Treatment for Somatic Symptom Disorder

The general premise of SSD treatment for primary care clinicians is to maintain a regular schedule of short-interval visits to avoid the patient's requirement for symptoms to make an appointment; develop with the patient a collaborative and also therapeutic alliance; acknowledge and legitimize the symptoms after the patient has been evaluated for other medical and psychiatric diseases; diagnostic testing limitation; reassure the patient that serious medical illness already ruled out; educate patients about how to coping with physical symptoms; set a goal of the treatment as a functional improvement rather than cure; and make necessary referrals to subspecialists and mental health providers. If primary care management is unsatisfactory, the SSD patient may need to be referred to a mental health expert. To help physicians in primary care effectively manage SSD patients, a CARE MD treatment approach abbreviation (**C**onsultation/cognitive behavior therapy, **A**ssessment, **R**egular visits, **E**mpathy, **M**edical/psychiatric interface, **D**o no harm).[6]

In CBT physicians put themself as a partner that could help patients. The first step in CBT is reviewing the patient's problem appropriately and helping the patient identify the predisposing and aggravating factors related to their physical symptoms, such as cognitive distortion, unrealistic beliefs, worries, or other specific actions. The next step is helping the

patient identify and try alternative actions to reduce and prevent the emergence of physical symptoms called behavioral experiments.[11] The identification and correction of dysfunctional automatic thoughts, as well as behavioral experiments aimed at breaking the vicious cycle of symptoms and their consequences, are the guiding principles of CBT treatment techniques. The number of weekly sessions varies depending on the severity of the problem and the number of long-term implications.[13]

CBT in multicenter randomized controlled trials was reported effective in the treatment of SSD and medically unexplained symptoms, "Health anxious" patients get over two years of sustained symptomatic benefit, without any different impact on total costs, and decreased physical symptoms, disability, and psychological distress. While mindfulness-based therapy was found to be effective in several aspects of SSD treatment in a meta-analysis of randomized controlled trials (RCT), it also found significant and sustained refinement in clinical outcomes (overall anxiety, depression, and symptom severity) when compared to control groups.[6]

Another study done by Tamas et al. also got results that unequivocally recommended CBT as the SSD treatment. The goal of this therapy is to reduce health anxiety, psychosocial stressors, and catastrophizing thinking in the family while exercising effective communication and coping skills and maintaining an activity level appropriate for the patient's age. Therefore, CBT is thought to be the treatment of choice for young people and children with SSD[12]. While in a prospective pilot study that compared SSD in adults and the elderly, reported that CBT is practicable as a therapy for elderly SSD patients, although a replication study in RCT is needed.[13]

Medication alleviates SSD only if the patient has an underlying drug-responsive condition, including a depressive or anxiety disorder. If there is another primary mental disorder which is SSD becomes secondary, that problem should be managed specifically. When the illness is a transient situational reaction, physicians need to help that person in stress management with no strengthening his or her illness behavior also the sick role is used for the solution of the problem.[1] Antidepressants, antiepileptics, antipsychotics, and natural products are the drugs of choice in SSD. However, the medications' efficacy has limited their popularity.[6]

Internet-based Cognitive Behavioral Therapy for Somatic Symptom Disorder

Cognitive behavioral therapy (CBT) is a skill-focused, manualized, and standardized treatment, that makes it an ideal treatment for online delivery adaptation. Due to these features, ICBT as a part of computerized psychological treatment courses become the most extensively tested online psychological therapy, which also gives evidence for their use that strongly supports it.[14]

Individualized telepsychology, telephone-based, or Skype-based CBT treatment, which is identical to face-to-face CBT but delivered through a different method of communication media, is not the same as ICBT. ICBT is a website based which provides a self-management skills program that is delivered in written instructions and accompanying any audio and/or visual illustration in several modules or lessons. The skills program includes cognitive and behavioral therapy which is the component in cognitive therapy such as thought monitoring, styles/cognitive distortions, education-related unhelpful thinking, challenge of belief and thoughts, also behavioral experiments to test and challenge unhelpful cognitions. In behavioral therapy, the component includes behavioral stimulation to upgrade engagement in achievement-related activities, pleasurable activities, also graded exposure to decrease experiential avoidance such as avoidance of emotions, situations, thoughts, or sensations.[14]

And reported that the program gives some strength in ICBT such as the highly standardized courses and consistency across clients (that makes high treatment fidelity, and minimizes therapist drift). However, that automated approach also brings some drawbacks in decreasing the potential for tailoring for the individual's specific concerns. But the tailoring principle still can be maintained by minimal assessment of the person's history also minimal tailoring of the content based on personal case conseptualisation.[14]

There is still a lack of research that studies ICBT specifically for SSD treatment. But already known that ICBT is effective in the treatment of a range of psychiatric problems and somatic health problems.[8] The effectiveness of ICBT has been evaluated in the management of generalized anxiety disorder (GAD), depression, panic disorder, post-traumatic stress disorder (PTSD), obsessive-compulsive disorder (OCD), adjustment disorder, chronic pain, bipolar disorder, and phobias. According to the research by Kumar, et.al, ICBT is beneficial in the treatment of mental health also medical illnesses accompanied by psychiatric comorbidities.[15]

ICBT programs may be provided as pure self-help or delivered with supervision from a physician. Reported that therapist-guided ICBT compared to face-to-face therapy is identically effective and tends to have larger effects compared with unguided one.[8]

In the RCT done by Hedman et.al, somatic symptom disorder (SSD) and illness anxiety disorder (IAD) patients were randomized to guided internet treatment (ICBT), unguided internet (U-ICBT), unguided bibliotherapy or a control condition. The treatment model of the three methods was just same, but the difference was in the mode of delivery. Systematic exposure to situations related to health anxiety combined with response prevention was the basic intervention. Mindfulness training was also used, to the possibility enhancement of highly anxiety-provoking exposure exercises. The duration of all treatments done is 12 weeks and given in 12 text modules, that equal to the conventional treatment session. Every module contains 5-15 pages which include important information related to change of behavior, and are followed by a set of assignments as homework that expected the participants to work working every day. The whole module was given on the first day, and the participants were instructed to complete the module consecutively. Introduction to the CBT approach and mindfulness training are included in Modules 1 and 2. The significance of cognitive processes to health anxiety is covered in Module 3. Exposure and response prevention were the focus of Modules 4-10. In therapist-guided ICBT, patients accessed the modules via a secure internet-based treatment platform. The same therapist would guide each patient during the treatment and interact by email-like communication, and they freely send messages or contact the therapist. The therapist could monitor the participant, if the participant was inactive (no any logged in one week) they will send a message or call to the contact of the participant. Despite that, at least once a week, the participant was also directed to report to their therapist related to the progress of their homework assignments. In the homework reports, give theoretical questions like "Why is avoidance problematic?"

also applicative questions like “Describe what exposure exercises you have planned for next week”. The therapist would give feedback after the participant completed their homework and the modules, and the participant would be encouraged to continue to the next module. Three licensed psychologists and one resident psychologist were involved, all of whom have substantial expertise with ICBT. Therapists spent an average of 63,6 minutes per treated patient and sent 18,4 text messages.

Unguided CBT (U-CBT) is the same as guided ICBT but differs in not providing support from a therapist. The participant was also given homework and there was instruction to give the answers to the questions and save them in the online storage of the online treatment platform. In bibliotherapy, given a comprehensive booklet with 154 pages as modules. Those mailed to each patient include a brief cover letter that explains the booklet usage and instruction during the treatment period in completing assessments weekly.

After 12 weeks, that research got the result when compared to the control patient, which is exposure-based CBT delivered in guided or unguided internet treatment or bibliotherapy produced significant and large improvements in outcome. All three generated the same effects with not found any significant differences in the improvement of health anxiety measures between them all. So concluded that exposure-based ICBT guided or unguided can be highly effective in SSD and IAD treatment.[16]

The same result was also shown in RCT by Newby et. al, that randomized IAD or SSD patients with health anxiety to a 6-lesson clinician-guided ICBT program for health anxiety or as an active control group who get clinical support, anxiety psychoeducation, and monitoring along 12 weeks. This RCT got results when compared to the control, on the Short Health Anxiety Inventory (SHAI) there were larger improvements in health anxiety in patients treated by ICBT. And concluded that ICBT is more effective if compared with psychoeducation, clinical support, and monitoring, also reports an accessible and efficacious treatment of choice for health anxiety as the core symptom of IAD and SSD.[17] Another research has also shown that therapist-guided internet-delivered exposure-based cognitive behavioral therapy (ICBT) could be highly effective in the treatment of hypochondriasis which was previously SSD diagnosis in DSM-IV.[18]

ICBT as a psychological intervention is a potential tool with technological application that may be useful during a pandemic. To minimize the risk of infection spreading, the patient can get intervention via the internet or their smartphone. And this therapy is already recommended as a treatment of choice during the pandemic.[19] While there are some advantages and disadvantages in ICBT used for routine care settings that are shown in the table 1.[14]

Table 1. Advantage and Disadvantage in the used of ICBT for Routine Care Settings.[19]

Advantages	Disadvantages
• Reach people in large numbers, including rural also remote areas, or careers and full-time workers • Cost-effective • Affordable or free • Overcome the lack of trained clinicians • Highly equality and standardization • Information can be more readily available than face-to-face meetings with time constraints. • Repeatedly revise material options • Detect symptom changes by routine outcome monitoring • Allows to spread out a set number of sessions over the year. • Decrease waiting list • Accessible any time	• Client motivation dependent • The majority of current programs are rigid or do not allow for case formulation. • Low adherence (U-ICBT) • Model-specific abilities will be difficult to develop unless multimedia is well exploited. • Avoid tough components as much as possible. • There are not enough face-to-face interactions with the therapist. • Technological difficulties • Some computer knowledge is required. • Barriers to communication and accessibility • Due to a lack of established accrediting systems, quality monitoring is inadequate. • Privacy risk

While more systemic empirical research related to the mechanisms and effective treatment options (both pharmacotherapy and psychotherapy) for SSD.[3] Also, a wider RCT on the use of ICBT in clinical practice, particularly in SSD therapy, with a variety of demographic characteristics to provide additional evidence of the effectiveness of this technique, as well as increased awareness among clinicians and the general public.[15]

CONCLUSION

Internet-based Cognitive Behavioral Therapy (ICBT) can be highly effective in the treatment of somatic symptom disorder (SSD). ICBT can provided in therapist-guided, unguided, or as a bibliotherapy. This tool is already recommended as a treatment of choice during the pandemic. Although wider RCT on the use of ICBT in clinical practice, particularly in SSD therapy, with a variety of demographic characteristics to provide additional evidence of the effectiveness of this technique.

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