# Cognitive Behavior Therapy (CBT) Intervention in Chronic Illness: A Systematic Review

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## **ABSTRACT**

#### Introduction

A Chronic disease can lead to mental health disorders such as cognitive impairment, instability of feeling, mood disorders, decrease in daily activities and difficulties in connecting with others. Patients who have one chronic disease are at risk of suffering 2.6 times greater emotional mental disorders. Chronic illness can also cause anxiety and depression. Cognitive behavior therapy (CBT) is one of the recommended interventions for mental health problems including anxiety and depression. This systematic review aims to identify the impact of Cognitive Behavior Therapy (CBT) against mental health problems associated with chronic diseases.

#### Method

This study is a systematic review derived from related literature on mental disorders due to chronic illness with the management of CBT. Relevant studies were identified through EBSCO Host, Proquest and Science Direct from 2010 through 2018 using the keywords CBT and chronic diseases

#### Result

The study provides a clear picture of how CBT influence on mental health problems associated with chronic diseases. CBT was an effective psychotherapy to reduce depression, anxiety, fatigue and pain felt by clients suffering from chronic diseases. Detection of depression in chronic diseases mostly using BDI II and HADS (Hospital Depression and anxiety scale) and Chalder Fatigue Questionnaire for fatigue assessment.

## **Conclusions**

Individual psychotherapy using CBT Was one of many psychotherapies that can be used in the management of depression, anxiety and comorbidities of chronic disease itself.

# **Keywords**

Cognitive Behavior Therapy (CBT); Chronic Illness

## INTRODUCTION

Mental health disorders are conditions of changes in thinking feelings, mood, changes in abilities and functions in dealing with others. Many people with a diagnosis of mental disorders are associated with symptoms of the disease that are needed for treatment by psychologists and psychiatrists [1]. This mental health disorder is often related to one's coping ability with daily activities, work and family support. Kristiyaning said that the greater a person's physical illness, the greater is a mental disorder [2]. The most common physical ailments that cause mental

disorders are neurological diseases, lung, heart, arthritis, cancer and physical disabilities. The above diseases are included in chronic diseases.

Chronic disease is a very serious health problem, which requires a long treatment time, a large cost and the biggest cause of death in the world. This chronic disease causes death and disability. In the United States chronic illness causes 7 deaths from 10 each year and is very important for prevention and treatment of this chronic disease [1]. Pudiarifanti's research shows that 20-40% of CHF patients will experience symptoms of depression, thus increasing morbidity and mortality and decreasing quality of life [3]. Depression prevalence and anxiety are high in both chronic obstructive pulmonary disease (80% depression, 6-74% anxiety) and chronic heart failure (10-60% depression, 11-45% anxiety) [4]. In some chronic diseases also cause fatigue and pain such as cancer and chronic kidney failure patients.

Anxiety and depression often occur in patients with chronic disease [2]. Depression affects estimates of one in patients with chronic heart failure. This can affect self-care and concordance with treatment. Therefore, it is important to filter every year for depression and to begin a treatment plan if the patient is depressed. It is very important that patients realize that psychological problems may occur during a sick condition and they must seek help if they feel their psychological health deteriorates.

According to Kaplan and Saddock the therapy needed for depressed patients can be psychosocial therapy, such as cognitive therapy, interpersonal therapy, behavioral therapy, psychotherapy, and family therapy; drug therapy (antidepressant administration) and Electro Compulsive Therapy (ECT) action with indications that drugs are less effective or patients cannot receive medication [6]. Therapy therapy is currently widely used such as medical therapy and psychotherapy. Psichotherapy that can be used is Cognitive Behavior Therapy. Cognitive behavioral therapy (CBT) is very effective as a treatment for depression and anxiety [7]. From the background above the author wants to conduct a review related to the effectiveness of CBT on depression, anxiety and fatigue as an effect of chronic disease.

# **METHOD**

This study was a systematic review obtained from the literature related to several chronic diseases, both physical and mental health problems with CBT management. Relevant studies were identified through PubMed and Ebsco Host searches from 2012 to 2018 using the keyword CBT, a chronic term search term. A list of references from relevant reviews, chapters and articles taken has been selected according to criteria. There are 56 journal articles that have been found. After the selection process is done by using the prism flow diagram, 6 journal articles are used in this review. In the review journal used BDI II, HADS for depression, Chalder Fatigue Questionnaire for fatigue as a detection of anxiety and depression and fatigue in clients with chronic disease. The use of psychotherapy and psychopharmaceuticals is used as a treatment for depression and fatigue. Psychotherapy used by CBT.

#### RESULTS

The results of the journal review found that patients with chronic disease suffered anxiety, depression, fatigue and pain. It was said that CBT was an effective psychotherapy to reduce depression, anxiety, fatigue and pain felt by clients suffering from chronic diseases. Detection of depression in chronic diseases mostly using BDI II and HADS (Hospital Depression and anxiety scale) and Chalder Fatigue Questionnaire for fatigue assessment.

Garsen and Lee said the study was conducted on cancer patients who were fatigued with 59 respondents that Mindfulness-based cognitive therapy (MBCT) was effectively used to reduce fatigue in cancer patients. In osteoarthritis patients there is also pain that can be done by CBT intervention [8]. This is in accordance with Nielsen and Mandy namely 8 physiotherapists do CBT in these patients with the main goal that how patients understand psychological, social and environmental causes pain, function changes and in their quality of life. CBT reduces pain in osteoarthritis patients [9].

Depression and anxiety often happened in clients with chronic disease. The review of literature conducted by Leupoth said that the psychosocial effects of clients suffering from COPD are very high psychological disorders, especially depression and anxiety (from 8% to 80% for symptoms of depression and from 6% to 74% for symptoms of anxiety) [10]. CBT is an effective self-management. CBT is used in COPD clients who experience cognitive distortion of their physical, emotional, anxiety because of the cycle of tightness and activity that is disrupted due to their illness. CBT is usually carried out in several sessions, one session usually in 12 weeks. CBT can have a positive effect on reducing symptoms of depression and anxiety, improve the quality of life of COPD clients and activity tolerance and some CBT studies provide support when they are congested. Systematic review conducted by Picarelo also said that in chronic patients experiencing depression, CBT performed ten sessions and showed improvement [11].

Gottberg K, et al said in his study the prevalence of depression in clients with multiple schlerosis was around 20-40% in the general population. Psychological care is needed for treatment and recovery processes for example through pharmacology and psychotherapy or a combination of both. CBT is used as a pshicoteraphy depression [12]. This is in line with Kootker J that CBT therapy for post-stroke depression can be effectively added with occupational therapy or movement to support patients in setting goals and achieving goals, taking into account their physical and cognitive abilities [13]. Tovote also said that MBCT and CBT significantly improve well-being and reduce anxiety and reduce distress associated with diabetes [14].

## **DISCUSSION**

Widodo said that in ten patients suffering from chronic illnesses, two to five will experience emotional mental disorders. In addition, the risk of emotional mental disorder is getting higher as the number of chronic diseases suffered. The findings in several journals say that CBT is effective for depression, anxiety and fatigue and pain experienced by patients with chronic

disease [14]. Depression is a significant public health problem and is one of the major causes of disability worldwide [15]. Depression is associated with higher rates of morbidity, mortality, and medical costs, especially among those with a medical illness, whose risk of mortality is up to twice that of the general population [16]. CBT is not only a technique set. CBT also contains a comprehensive theory of human behavior. CBT provides a Biopsychosocial explanation to explain how human beings feel and act as they do, a combination of biologois, psiocologist and social factors involved. CBT is short-term psychotherapy that combines components of cognitive therapy and behavioral therapy, the first of which aims to identify and eliminate distorted thinking, while the latter focuses on learning techniques and skills to modify negative patterns of behavior.

The Medications used to treat depression are effective for only about 60% of individuals [18] and appear to be minimally effective for those with mild to moderate depression [19]. This CBT is a combination of psychotherapy and behavioral therapy that is carried out by means of counseling. CBT is a combination of two approaches in psychotherapy namely cognitive therapy and behavior therapy. Cognitive therapy focuses on thoughts, assumptions and beliefs [20]. Cognitive therapy facilitates individuals learning to recognize and change errors. Cognitive therapy is not only related to positive thinking, but also related to happy thinking. While behavioral therapy helps to build relationships between problem situations and the habit of reacting to problems. Individuals learn to change behavior, calm the mind and body so they feel better, think more clearly and help make the right decisions. Cognitive-Behavior Theory basically believes that human thought patterns are formed through the Stimulus-Cognition-Response (SKR) process, which are interrelated and form a kind of SKR network in the human brain, where cognitive processes are the determining factors in explaining how humans think, feel and act [21]. The main goal is to change the mindset or behavior that causes various problems in one's life. CBT turns one's negative thinking into a positive one by using what the person has. Postpartum depression often occurs in mothers with mental unpreparedness in facing birth, less support from families given CBT so that they with the ability to become independent and have positive thinking so that the mother's behavior becomes positive.

In cognitive and behavioral therapy sessions, the client is given the opportunity to reveal the problem at hand, realize the feelings and thoughts that arise, manage a negative mindset and form a wrong or negative mindset. The CBT approach is based on cognitive formulations, disruptive beliefs and behavioral strategies. The counseling process is based on the conceptualization or understanding of the counselee for the specific beliefs and behavior patterns of the counselee. The hope of CBT is the emergence of deviant cognitive restructuring and a belief system to bring emotional and behavioral changes in a better direction.

## **CONCLUSION**

Depression, anxiety, fatigue and pain as a concomitant chronic condition could have a worse effect on these patients. Chronic illness requires treatment both physically and psychologically to improve the quality of life of patients. A form of psychotherapy was needed that could overcome changes in mood and feelings of inadequacy in clients with chronic diseases.

Individual psychotherapy using CBT Was one of many psychotherapies that can be used in the management of depression, anxiety and comorbidities of chronic disease itself. From several journals CBT is effective for dealing with depression, anxiety, fatigue and pain due to chronic conditions.

However, this study requires further research where this study was a systematic review limited to several journals.

#### **Declarations**

## **Author's Contributions**

The author contributed in the whole process of main this article.

# **Ethics Approval and Consent to Participate**

Not applicable

## **Consent for Publication**

Not applicable

# **Availability of Data and Materials**

Not applicable

## **Competing Interest**

There are no conflicts of interest.

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