EFFECTIVENESS OF INTERNET-DELIVERED GROUP BRIEF COGNITIVE BEHAVIORAL THERAPY (IGBCBT) ON DEPRESSIVE SYMPTOMS AMONG UNDERGRADUATES STUDENTS IN MALAYSIA: A SINGLE GROUP STUDY

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A RESEARCH PROJECT

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Effectiveness of Internet-delivered Group Brief Cognitive Behavioral Therapy (iGBCBT) on Depressive Symptoms among Undergraduates Students in Malaysia: A Single Group Study

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This research project is submitted in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Guidance and Counselling, Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman. Submitted on APRIL 2023.

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YAP GUAN JI

EFFECTS OF INTERNET GROUP BRIEF COGNITIVE BEHAVIORAL THERAPY

APPROVAL FORM

This research paper attached hereto, entitled “Effectiveness of Internet-delivered Group Brief Cognitive Behavioral Therapy (iGBCBT) on Depressive Symptoms among Undergraduates Students in Malaysia: A Single Group Study” prepared and submitted by Yap Guan Ji in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Guidance and Counselling is hereby accepted.

_____ Date: _____

Supervisor

(Mr. Pheh Kai Shuen)

Abstract

Over the span of years, Coronavirus disease (COVID-19) has increased the rate of depression globally, with a 25% rise in incidence in the first year of COVID-19. Due to the high prevalence of major depression and depressive symptoms, there is a demand for psychological treatments that are both affordable and accessible. However, the notion of mental health is still in its infancy in Malaysia, where it suffers from a serious shortage of resources and studies on Internet-delivered Group Brief CBT (iGBCBT) on depression. To examine the effects of iGBCBT on depressive symptoms, unhelpful automatic thoughts, and dysfunctional attitudes, a purposive sampling method was used to perform a single-group study with five undergraduate students. The assessments used were Patient Health Questionnaire-9 (PHQ-9), Automatic Thought Questionnaire-8 (ATQ-8), and Dysfunctional Attitude Scale-Short Form v2 (DAS-SF2). Data were collected through Google Forms. The participants were Malaysian undergraduate students between the age of 22 and 23 (M = 22.4 years, SD = 0.548 years), with four males (80%) and one female (20%). A moderate effect size was observed in depressive symptoms (r = 0.600), unhelpful automatic thought (r = 0.500), and dysfunctional attitude (r = 0.600). Nevertheless, the outcome did not reach statistical significance ($p > 0.05$), suggesting that it may be due to a low sample size and insufficient statistical power. These findings provide a guideline for mental health practitioners and researchers in adapting it to their clinical settings and exploring the effect with a larger sample size in Malaysia.

Keywords: iGBCBT, Depressive Symptoms, Unhelpful Automatic Thoughts, and Dysfunctional Attitudes

DECLARATION

I declare that the material contained in this paper is the end result of my own work and that due acknowledgment has been given in the bibliography and references to ALL sources be they printed, electronic, or personal.

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List of Abbreviations

ATQ-8	Automatic Thought Questionnaire-8
CBT	Cognitive Behavioral Therapy
DAS-SF2	Dysfunctional Attitude Scale-Short Form Version 2
iCBT	Internet-delivered Cognitive Behavioral Therapy
iGBCBT	Internet-delivered Group Brief Behavioral Therapy
PHQ-9	Patient Health Questionnaire-9

Chapter 1

Introduction

Background of Study

Depression is a common disorder that has a significant impact on mental well-being. The World Health Organization (WHO) ranked severe depression as the third leading cause of illness burden in 2008, with projections that it would rise to first place by 2030 (WHO, 2018). Due to various appearances, vague course and anticipation, and conflicting reactions to treatment, its identification, diagnosis, and management can be hard for therapists in work (Malhi & Mann, 2018). The Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) defines depression as a mood disorder characterized by episodes of extreme depression or considerable loss of pleasure along with other mood symptoms that persist for two weeks or more (American Psychiatric Association, 2013).

The prevalence of depressive disorder among university students, as well as its severity, is on the rise (Hunt & Eisenberg, 2010; Reavley & Jorm, 2010; Ibrahim et al., 2012). According to a recent study, university students have a higher rate of depression than the general population (Ibrahim et al., 2013). A study conducted on 1023 Malaysian university students found that 30% of respondents were depressed, with 4.4% suffering from severe depression (Islam et al., 2018). Second-year students had a 2.52 times greater risk of depression than first-year students, while students who stayed off school had a 1.63 times higher prevalence of depression than those who stayed in school (Islam et al., 2018). Better educational year, poorer socioeconomic position, poor academic achievement and well‑being, heavy alcohol use, smoking, gambling, support networks, stressful events, post-traumatic stress disorder, lack of exercise, high body mass index, and sleep disturbance have all been identified as risk factors for depression among university

students (Islam et al., 2018). The depression prevalence rates in the Malaysian state of Selangor were as high as 10.3 percent (Kader Maideen et al., 2014). Among medical doctors and nurses, depression is a well-known risk factor for suicidal behavior (ideation, attempt, and suicide) (Kõlves & De Leo, 2013; Pospos et al., 2019).

Indeed, there are many perspectives on the root cause of depression. Acute life events and trauma experienced as a child has also been linked to the development of depression later in life, as such patients with depression who have experienced childhood trauma had poorer remission and recovery rates, a longer period of depression, a more chronic illness course, and earlier development of depressed symptoms (Saveanu & Nemeroff, 2012). Stressful life events are thought to be the root of most severe depressive episodes (Hammen, 2005; Kessler, 1997; Mazure, 1998). The majority of major depression onsets happened during the first month after a substantial unpleasant life event. There is evidence of a usually linear relationship between the intensity and quantity of unpleasant experiences and the likelihood of developing depression (Kendler et al., 1998). The "severity" of an acute life event's impact, on the other hand, is determined not just by the event's real conditions, but also by the individual's subjective interpretation of the experience (Saveanu & Nemeroff, 2012). Thus, one person may suffer from melancholy only in extreme cases of loss and deprivation, whereas another may suffer from depression as a result of exaggerating the significance of an acute occurrence that is objectively minor due to personal vulnerabilities (Saveanu & Nemeroff, 2012).

From the viewpoint of the neuroendocrine system, cortisol hypersecretion is common in depressed people (the major adrenocortical stress hormone) (Hellman et al., 2015). The current stress-diathesis theory of depression was founded on the fact that people with Cushing illness or syndrome frequently experience depression and anxiety. A healthy person subjected to stress

increases glucocorticoid production and secretion (Saveanu & Nemeroff, 2012). Excess cortisol and other hypothalamic-pituitary-adrenal (HPA) axis play a critical role in depression pathophysiology (Saveanu & Nemeroff, 2012).

From a pathophysiology standpoint, depression is characterized as a classic GxE interaction model, identical to other complicated diseases such as cancer, hypertension, and diabetes (Saveanu & Nemeroff, 2012). Serotonin (5-hydroxytryptamine, 5HT), norepinephrine (NE), and dopamine are the three primary monoamine systems studied in the model (DA) (Saveanu & Nemeroff, 2012). According to the serotonin deficit hypothesis, amine dysregulations are well-established and provide a solid framework for pharmacological therapy (Stahl, 2000; Oei & Dingle, 2008). Antidepressants, such as Selective Serotonin Reuptake Inhibitors (SSRIs) and tricyclic antidepressants (TCAs), have a long track record of effectiveness (Robinson et al., 1990; Thompson et al., 2001). In the West, psychological ideas like Beck's cognitive theories are well-articulated and widely accepted (Mukhtar & Oei, 2011). Biological theories, and hence pharmacological therapy of depression, are widely utilized in clinical practices in Malaysia, both in community settings and in hospitals; this is the most frequent method of depression treatment in Malaysia (Signs & Press, 1997).

Treatment of Depression

The first historical reports of what is now known as depression came around the second millennium B.C.E., near Mesopotamia. These works treated it as a spiritual rather than a physical affliction (Reynolds & Wilson, 2013). It was thought to be caused by demonic possession, just like other mental disorders. As a result, priests, instead of doctors, dealt with it (Reynolds & Wilson, 2013). This concept was frequently treated with treatments including beatings, physical constraint, and starving to force the demons out (Reynolds & Wilson, 2013). However,

gymnastics, massage, nutrition, song, showers, and medication are made from opium extract and donkey's milk to treat their patients (Tipton & Tipton, 2014).

In ancient China, the first recorded record of mental disorders dated from 1100 B.C (Chinese Culture and Mental Health, 1985*)*. Mental illness was treated mostly under Traditional Chinese Medicine using herbs, acupuncture, or "emotional therapy" (Aung et al., 2013). The Yellow Emperor's Inner Canon addressed clinical mental signs, causes, and treatments, stressing the links between physiological organs and emotions (NEI et al., 1975). During this time, the ancient Chinese claimed that demonic possession had a part in mental disorder and that emotional responses in places like funeral homes may open up the Wei Chi, allowing spirits to inhabit an individual (Liu et al., 2011).

In 1895, a German psychiatrist named Emil Kraepelin was the first to define manic depression, now recognized as bipolar disorder, as a separate illness from schizophrenia (Mondimore, 2005). Then, cognitive theories of depression began to develop in the 1960s and 1970s. Aaron Beck, a cognitive theorist, argued that how people interpret unpleasant experiences may play a role in depression symptoms; they immediately perceive situations in a negative manner and see themselves as helpless and incompetent (Beck, 1961).

The development of cognitive behavioral therapy (CBT), which is helpful in the treatment of depression, was aided by the emergence of these cognitive models of depression (Origin & P, 2017). CBT combines cognitive and behavioral treatments that encourage patients to become more aware of their thoughts to modify unhelpful thought habits. The treatment that will be employed in this study is informed by Cully et al. (2021). Several significant improvements and revisions have been made in this version of the Cognitive Behavioral Treatment manual MyBriefCBT. It is a skills-based program that aims to enhance mental and

physical health. The skills in the module can be selected that most suit the participants. It entails a tailored course of action.

Problem Statement

According to the WHO (2013), depression is one of the most commonly diagnosed mood disorders in the world today, affecting up to 350 million people. Depression has a triple mortality rate (15–18%), indicating that major depressive disorder is common, with approximately one out of every five people experiencing an episode at some point in their lives (Bromet et al., 2011). Over 2.3 million Malaysians are at risk of developing depression during their lifetime (National Health Morbidity Survey, 2011). Another study revealed depression, stress, and anxiety were shown to be substantially related to being uncertain about COVID-19 infection risk via work exposure to COVID-19 patients and residing in communities with high transmission rates among a sample of Malaysian healthcare workers (Woon et al., 2020). Therefore, it is important to treat depression to prevent individuals that may be choosing suicide as a method to end their pain (Sinniah et al., 2014).

As mentioned above, acute life events, trauma experience, stress intolerance, endocrine system, and personal vulnerabilities have the potential to be the root cause of depression. Unsurprisingly, in Malaysia, the development of psychotropic medication has tended to overlook the psychological factors above in the process of disease diagnosis and comprehension, notably in the case of depression (Deva, 2006). Despite pharmacology treatment, a significant portion of patients is suffering from Treatment-resistant depression (TRD). TRD is defined as an insufficient response to at least one antidepressant treatment with appropriate dosage and duration (Fava, 2003). TRD is a rather typical occurrence in clinical practice, with up to 50% to 60% of patients failing to achieve a sufficient response to antidepressant medication (Fava,

2003). Furthermore, sexual problems, excess weight, insomnia, dizzy, vomiting, fatigue, headache, anxiety, and irritability are just a few of the medication's negative effects (Ferguson, 2001). According to a meta-analysis, the findings showed that, when compared to standard antidepressant medication, CBT had a higher likelihood of having an obvious impact and a better mid-term and long-term prognosis (Li et al., 2018). Therefore, group CBT can be an adjunct to those already receiving pharmacology treatments and an alternative for those who do not prefer medication treatment for depression.

In Malaysia, mental health concepts are still very much in infancy and struggle from a severe lack of resources (Low et al., 2017). Considering that the number of people suffering from depression is anticipated to rise, it is critical to access quality healthcare (National Health Morbidity Survey, 2011). However, there are only two studies conducted that shows the effectiveness of group CBT in Malaysia, and two studies revealed that group CBT together with treatment as usual (TAU) patient could significantly alleviate depressive symptoms, as well as unhelpful thoughts and beliefs (Mukhtar & Oei, 2011; Low et al., 2017). Unfortunately, no research has been conducted to investigate the effectiveness of Internet-delivered Group Brief Cognitive Behavioral Therapy (iGBCBT) in Malaysia. And because of the current COVID-19 pandemic, a social distancing policy may restrict in-person services. Thus, iGBCBT can be a preferred choice for people to deal with their depression. Therefore, this study aims to investigate the effectiveness of an iGBCBT on depression symptoms among undergraduate students.

Research Objectives

1. To examine the effects of Internet-delivered Group Brief Cognitive Behavioral Therapy on depressive symptoms among undergraduate students in a group.

2. To examine the effects of Internet-delivered Group Brief Cognitive Behavioral Therapy on unhelpful thoughts among undergraduate students in a group.
3. To examine the effects of Internet-delivered Group Brief Cognitive Behavioral Therapy on dysfunctional attitudes among undergraduate students in a group.

Research Questions

1. What is the effect of Internet-delivered Group Brief Cognitive Behavioral Therapy on depressive symptoms among undergraduate students in a group?
2. What is the effect of Internet-delivered Group Brief Cognitive Behavioral Therapy on unhelpful thoughts among undergraduate students in a group?
3. What is the effectiveness of Internet-delivered Brief Group Cognitive Behavioral Therapy on dysfunctional attitudes among undergraduate students in a group?

Research Hypothesis

H_1: There is a significant effect of Internet-delivered Group Brief Cognitive Behavioral Therapy on depressive symptoms among undergraduate students in a group controlling for time

H_2: There is a significant effect of Internet-delivered Group Brief Cognitive Behavioral Therapy on unhelpful thoughts among undergraduate students in a group controlling for time

H_3: There is a significant effect of Internet-delivered Group Brief Cognitive Behavioral Therapy on dysfunctional attitudes among undergraduate students in a group controlling for time

Significance of Study

This research may provide empirical evidence on utilizing iGBCBT on depressive symptoms among undergraduate students in Malaysia. The study's discoveries can provide

information and thoughts for other researchers hoping to embrace evidence-based intervention with individuals who are at risk of having depression. Furthermore, this research may support psychological intervention as an important component of treating depression. It is also due to the clinical practice guideline supporting CBT-based methods, which is a non-pharmacotherapy, to deal with depression with fewer adverse effects. When compared to medications and intervention treatment, iGBCBT may have fewer adverse effects for people with depression.

Hence, this study has the potential to fill the knowledge gap of the effectiveness of iGBCBT in Malaysia. Internet-delivered psychology therapies have a huge potential to develop since they are highly accessible, minimized geographical barriers, cost-efficient, and can be safely delivered during the COVID-19 pandemic. The therapy session can be recorded for the client if the client requests a recording; this helps the client revise the coping skills that they learned in the session. It may be suitable for a client who is having an acute case that needs to resolve immediately with the therapist.

Furthermore, the scalability of iGBCBT may greatly increase the care system's functional capacity, overcoming current challenges such as insufficient availability of care. Furthermore, individuals may be hesitant to seek therapy because of the stigma associated with seeking help from a mental health professional for a depressive disorder. Access to internet-delivered therapy from the comfort of one's own home may improve access to care and thus close the treatment gap. On top of that, access can be significantly improved since the time elapsed from screening/referral to before the first iGBCBT session can be as little as one day, whereas wait times for face-to-face therapy can be on the order of weeks.

Assuming that the findings of this study support the research hypotheses. As a result, it has the potential to lead to a better path in the therapy sessions for therapists to deal with students

who suffer from depression. In that scenario, therapists would be able to conduct an iGBCBT to students in need, which may even improve students' overall psychological well-being. Therapists are encouraged to conduct the iGBCBT in society as well. This study can benefit the therapist by providing an evidence-based intervention to deal with people who do not prefer physical interaction treatment with the therapist. At the same time, since the intervention is conducted in a group, more people can be benefitted from the intervention. Consequently, the mental health of the people in the community can be improved.

Conceptual Definition

Depression

According to American Psychiatric Association (2013), the symptoms of depression that constitute a syndrome and cause functional impairment are used to define depression as a disorder. Anhedonia (a reduced capacity to enjoy pleasure); depressed mood; suicide ideation; a sense of worthlessness; neurogenerative symptoms; no appetite; tiredness; weight loss or gain; sleeplessness; and less concentration symptoms of depression (American Psychiatric Association, 2013). Five or more symptoms must have been present for at least two weeks, reflect a change in functioning, and at least one of the symptoms must be depression or lack of interest are diagnostic criteria for depression (American Psychiatric Association, 2013).

Automatic Unhelpful Thought

Automatic unhelpful thought is identified into three categories: negative attitudes about oneself, the world, and the future. The cognitive triangle, he claimed, was made up of such cognitions (Beck, 1997).

Dysfunctional Attitude

Dysfunctional attitude is defined as a depressed person's chronic pessimistic attitudes towards himself, the outside world, and the future (Weissman & Beck, 1978).

Internet-delivered Group Brief Cognitive Behavioral Therapy (iGBCBT)

A group strategy that utilizes behavioral, cognitive, relational, and group processes to improve individuals' coping abilities and alleviate relational and intrapersonal issues (Rose, 1999).

Operational Definition

Depression

In this study, depression will be identified by using Patient Health Questionnaire (PHQ-9). The scoring of this instrument is based on the score, and scores range from 0 to 27; the higher the score, the higher the depression severity. 0-4 represent none or minimal depression; 5-9 represent mild depression; 10-14 represent moderate depression; 15-19 represent moderate, severe depression; 20-27 represent severe depression (Sherina et al., 2012).

Automatic Unhelpful Thought

In this study, Automatic unhelpful thought is operationally defined as scoring from 8 items from the Automatic Thoughts Questionnaire (ATQ-8). Scores range from 8-40, where higher scores indicate experiencing more negative thoughts during the course of the week (Hollon & Kendall, 1980).

Dysfunctional Attitude

In this study, dysfunctional attitude is operationally defined as scoring from 9 items from Dysfunctional Attitude Scale short form (DAS-SF2). Scores range from 9-36, where higher scores indicate greater dysfunctional attitudes (Beevers et al., 2007).

Internet-delivered Group Brief Cognitive Behavioral Therapy (iGBCBT)

In this study, iGBCBT refers to a group of 5 participants receiving 1.5 hours of GBCBT through the internet for 6 sessions. The iGBCBT will utilize several interventions and techniques, which entails cognitive restructuring, behavioral activation, relaxation, physical wellness and relapse prevention. The interventions and techniques will be taken from the manual "MyBriefCBT" (Cully et al., 2021).

Chapter 2

Literature Review

Cognitive Behavioral Therapy (CBT) for Depression

Psychological therapies for adult depression therapy have been developed to make effects identical to pharmaceutical interventions and are inclined to maintain longer (Cuijpers and Gentili, 2017). According to Serfaty et al. (2009), CBT is an effective treatment for depression in adults of all ages and is connected with consistent improvement over time. CBT is a therapy that focuses on changing one's thought habits which the therapist supports in the identification of problematic thinking patterns as well as their behavioral reactions to unpleasant and hard situations (Beck et al., 1979). It is among the most comprehensively studied psychosocial interventions for depression in adulthood. In fact, CBT is a widely used and reliable psychological psychotherapy for depression (López-López et al., 2019). Furthermore, in a setting where CBT is frequently inaccessible to clients who might benefit from therapy (Shafran et al., 2009; Wiles et al., 2012), multimedia therapy provides intriguing alternatives for increasing coverage for depressive adults (Cuijpers and Kleiboer, 2017). In the last 20 years, there has been a tremendous technological revolution in the mental health therapy available for depression. CBT and other psychological therapies are increasingly being given through the internet (iCBT) (Andersson et al., 2019).

A randomized controlled trial was conducted to examine the effectiveness of iCBT and found 158 depressed individuals had substantial and significant decreases in depressive (g = 0.89–1.53), anxiety (g = 1.04–1.40), and distress (g = 1.25–1.76) symptoms, as well as moderate to dramatic declines in functional impairment (g = 0.53–0.98) (Kladnitski et al., 2020). Similar findings were found from another study by Flygare et al. (2020), 95 participants with depression

were being tested, an effect size of *d*=1.4 was found in the study. Furthermore, Palacios et al. (2018) found 31 participants had a significant reduction in PHQ-9 at the eighth week (*d*=0.84) and third month (*d*=0.84) during the iCBT program. One initial meta-analysis of 12 iCBT (2 offline) with 2446 participants indicated a significant post-treatment effect size (*d* =.56), indicating higher clinical improvement compared to control groups. Surprisingly, how such programs were therapist-assisted (*d* =.61) or non-therapist-assisted (*d* =.25) influenced overall effect size (Andersson et al., 2009). Another meta-analysis revealed there was only a medium effect size of iCBT (*g*=0.66) on 3113 children and adolescents with depression and anxiety (Grist et al., 2019).

Nevertheless, according to a meta-analysis of iCBT trials from 65 studies with total 10570 participants, more than half (57%) of patients allocated to therapy drop out (Richards & Richardson, 2012). iCBT programs also include psychotherapist or administrative assistance through an attempt to minimize dropout but also promote patient compliance. Short weekly telephone conversations or texts from researchers were utilized by Christensen and colleagues to touch in with respondents and address queries concerning program details (Christensen et al., 2006). From its meta-analysis, they discovered that dropout rates in stand-alone iCBT programs (74%) were substantially higher than dropout in therapist-assisted (28%) or administrative-assisted programs (38%) (Richards & Richardson, 2012). Therefore, some forms of reminders will be utilized to prevent dropout in this study.

Besides that, CBT is not only reduced current depressive symptoms but also lower the risk of depression relapse (Andersson et al., 2019; Flygare et al., 2020; Grist et al., 2019; Kladnitski et al., 2020; Palacios et al., 2018). One of the benefits of traditional, face-to-face CBT is its ability to lower the risk of relapse following treatment termination. In fact, a meta-analysis

found that face-to-face CBT was associated with a lower risk of depression relapse than antidepressant medication treatment (Cuijpers et al., 2013). Therefore, similar relapse prevention studies might be beneficial in promoting the adoption of iCBT. Furthermore, it is obvious that iCBT has a significant effect on depressive symptoms, however, those participants were having the treatment individually with the therapist, more research needs to be tested for iCBT treatment which is conducted in a group.

Cognitive Behavioral Therapy (CBT) for Automatic Unhelpful Thought

According to Furlong & Oei (2002), improvements in automatic thoughts are expected to get a direct influence on improvements in depression symptoms. A similar study was found by Oei et al. (2006), a total of 168 outpatients with clinical depression were enrolled in a 12-week group cognitive behavior therapy program. There is a significant decrease in the Automatic Thought Questionnaire (p<0.001, d= 1.10). Besides that, a randomized controlled trial has been conducted in Malaysia to investigate the efficacy of GCBT for the treatment of unipolar depression (Low et al., 2017). Negative automatic thoughts were significantly reduced in the GCBT with TAU treatment group between pre-treatment and mid-treatment, and post-treatment negative automatic thoughts were significantly reduced between mid-treatment and post-treatment with a significant effect of $\eta^2_{Partial}$= 0.14. It has been proven to have significant effect in terms of automatic unhelpful thought for physical-delivered GCBT, further studies need to be done whether similar significant effect can be found for Internet-delivered GCBT.

Cognitive Behavioral Therapy (CBT) for Dysfunctional Attitude

Variations in dysfunctional attitudes are influenced by automatic thoughts and are claimed to have had an indirect impact on variations in depression symptoms (Furlong & Oei, 2002). Automatic thoughts are generally defined at a shallow level and hence easily change than

underlying dysfunctional attitudes. Automatic thoughts are also the major focus of cognitive therapy in the initial phase of therapy, whereas dysfunctional attitudes are addressed later (Jacobson et al., 1996). A study has been conducted by Ezawa et al. (2020) to investigate the impact of dysfunctional attitudes and excessive positive reaction styles in predicting relapse following guided iCBT, and they initially intended to look at dysfunctional attitudes as evaluated by total DAS scores as relapse predictors. There are 31 iCBT participants in the study. The results revealed that higher Intensity of Dysfunctional Attitudes Relapse was predicted by higher scale scores (hazard ratio = 1.98). The relationship remained significant when high style (dysfunctional) or content (functional) answers were controlled for. Having a higher proportion of extreme positive reactions on style than on content items did not indicate the likelihood of relapse. Another study has been conducted by Oei et al. (2006) to examine a 12-week group CBT on 168 outpatients with clinical depression, and there is a significant decrease in the Dysfunctional Attitude Scale (d= 1.10). It has been proven to have a significant effect in terms of dysfunctional attitude for physical-delivered GCBT, further studies need to be done on whether a similarly significant effect can be found for Internet-delivered GCBT.

Theoretical Framework

The case formulation tool is based on a Beckian case conceptualization technique (Beck, 2011; Beck et al., 1979). Its purpose is to assist therapists in deriving core beliefs from past and current events and understanding compensating assumptions and behaviors. The therapist may be able to create a personalized formulation to explain and comprehend the situation and a highly personalized treatment plan. This diagram can be utilized to help participants comprehend dysfunctional emotions and behaviors. The CBT framework was schematically shown in Figure 2.1.

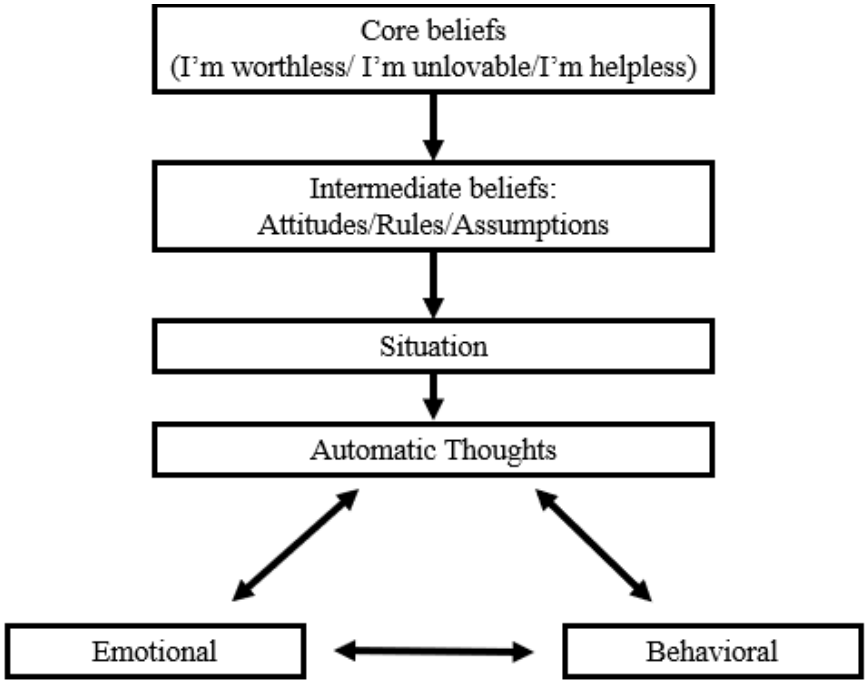
According to the CBT framework, there are several aspects to understanding depression. The sequence is from Core belief(s) (I am worthless, I am helpless, I am unlovable) to Intermediate beliefs (rules, attitudes, assumptions), to the situation, and leads to Automatic thoughts. It will further interrelate with emotions and behaviors. Assuming that the Core belief is "I am worthless", it may lead to Intermediate beliefs of "It is useless to continue (attitude)", "I should not continue to fight for such challenging task (rule)", and "If I continue to do it, I will fail again and get hurt. If I stop trying, I will not be hurt (assumption)".

The situation represents the trigger event; for example, the situation is thinking about participating in a badminton competition. The automatic thought derived from the core and Intermediate beliefs are "What if I fail or get disqualified?". And this automatic thought can cause a feeling of sadness and lead to the behavior of not participating in the competition.

It is believed that the CBT framework will give a model for understanding the changes of core beliefs, and Intermediate beliefs can help to modify the automatic thoughts, behaviors, and emotions in a triggered situation. Participants would be able to understand their 'flow of condition' by illustrating their framework.

Figure 2. 1

Theoretical Framework of CBT



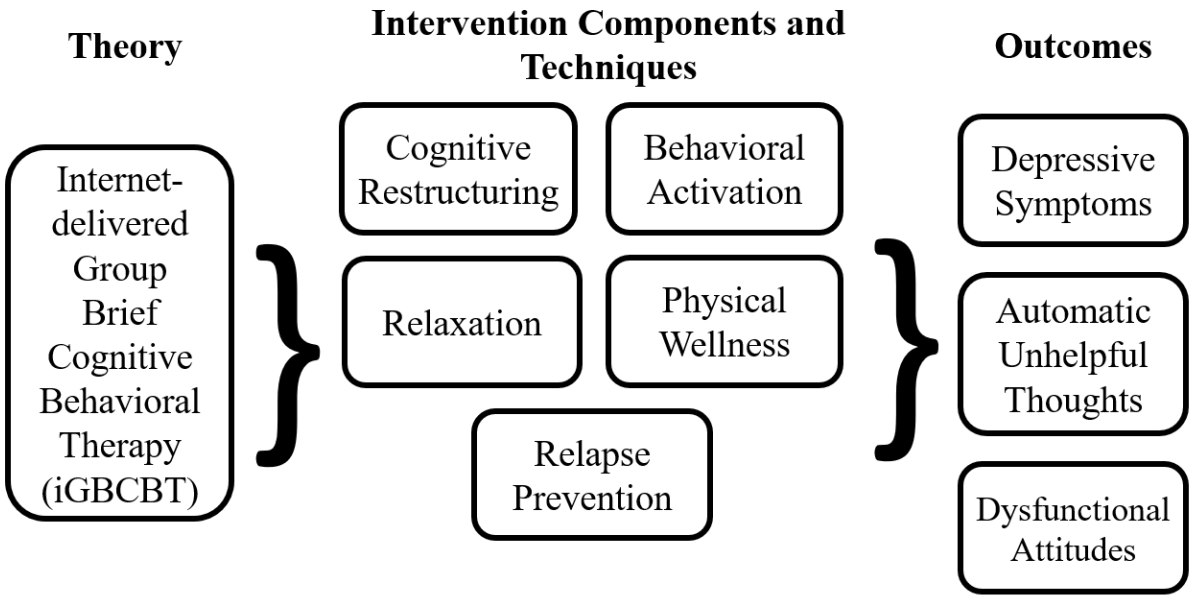
Conceptual Framework

The theoretical framework of the Cross-Sectional Formulation of Depression guides the conceptual framework for this study (Figure 2.1). According to the theory, the goal of this study is to reduce participants' automatic unhelpful thoughts and dysfunctional attitudes. Cognitive restructurings, behavioral activation, relaxation, physical wellness and relapse prevention are some of the intervention components and techniques used in iGBCBT.

This study proposes a conceptual framework (Figure 2.2) that aims at the effects of iGBCBT interventions on depressive symptoms, automatic unhelpful thoughts, and dysfunctional attitudes toward depression. The main variables of this study are iGBCBT interventions, depressive symptoms, automatic unhelpful thoughts, and dysfunctional attitudes toward depression. This study hypothesized that iGBCBT intervention affects depressive symptoms, automatic unhelpful thoughts, and dysfunctional attitudes of depression.

Figure 2. 2

Conceptual Framework of the Effects of iGBCBT on Depressive Symptoms, Automatic Unhelpful Thought, and Dysfunctional Attitude



Chapter 3

Methodology

Research Design

A single-group study was utilized to determine the effects of iGBCBT with a small number of participants with depressive symptoms in a group. The quantitative technique was used to collect data for this study. The instruments used to measure the variables were the Patient Health Questionnaire-9 (PHQ-9), Automatic Thought Questionnaire-8 (ATQ-8), and Dysfunctional Attitudes Scale-Short Form 2 (DAS-SF2), which were all based on a quantitative model.

Sampling Procedures

Sampling Method

The study's sample consisted of five Malaysian university undergraduate students. Students enrolled in any Malaysian institution pursuing their higher degree were eligible to participate in the study. It was a single-group study, with 5 participants per group by referring to American Psychological Association (American Psychological Association, 2019). In this study, judgmental or purposive sample techniques were used. This sampling approach was sometimes referred to as selective or subjective sampling since the researcher selected the participants. The participants in this study had to meet the requirements when they were screened using PHQ-9.

Inclusion and Exclusion Criteria

To be eligible, the participant had to be (1) a Malaysian citizen, (2) an undergraduate student, (3) above the age of 18, (4) able to speak and converse in English, (5) have a PHQ-9 score of in between 4 to 14, which indicates subthreshold, mild, or moderate clinical depression,

(6) have a functional microphone and camera, and able to use it during intervention session, and (7) have a private place to receive the intervention.

Exclusion criteria entail: (1) history of serious mental illness (severe depression, schizophrenia, etc.), (2) attempted suicide in the last 6 months (medical record, self-reported), (3) receiving counselling or psychotherapy services or practices of any kind. The purpose of these exclusion criteria is to exclude any external factors that may affect the participant's depression state.

Location of Study

The study was placed in Malaysia because the participants were Malaysian university students. Due to the post-COVID-19 pandemic, the intervention was conducted online through Google Meet in accordance with Malaysia's Personal Data Protection ACT (PDPA). The online intervention followed American Psychological Association (APA) and Lembaga Kaunselor for Telepsychology guidelines (American Psychological Association, 2013; Lembaga Kaunselor, 2020).

Ethical Clearance Approval

The ethical clearance protocol was sent to the University Tunku Abdul Rahman Scientific and Ethical Review Committee and gained approval from the University Tunku Abdul Rahman Scientific and Ethical Review Committee. Before launching the process of data gathering, it is to make sure that there are no ethical violations. After the current research proposal was finished, the application procedure for ethical clearance instantly began. Following the present research's ethical approval (Re: U/SERC/271/2022)., the data collection process was carried out.

Procedure of Obtaining Consent

The researcher briefed the participants through the informed consent form and the treatment program's concept. Participants' consent was obtained after the history intake process. The researcher also discussed the purpose of the study, flow of program, risks and benefits, confidentiality, data storage, cost and payment, contact information, and voluntary participation. The information provided by participants was used solely for research purposes. When participants were uncomfortable, they had the option to withdraw from the study. However, in order to prevent withdrawal, participants received a message from WhatsApp as a reminder. A sample of Participant Information Sheet and consent form is available in Appendix A.

Instrumentation

Patient Health Questionnaire (PHQ-9)

The PHQ-9 was developed by Spitzer and other researchers in 1999, which is utilized to assess and monitor the severity of depression (Spitzer et al., 1999). PHQ-9 is a self-administered or clinician-administered questionnaire that measures depression severity for the past 2 weeks. It consists of 9 items determined by assigning scores of 0 to 3, to the response categories of not at all, several days, more than half of the days, and nearly every day. PHQ-9 total scores range from 0 to 27, where higher scores indicate higher severity of depression. Scores of 5, 10, 15, and 20 are the cut points for mild, moderate, moderately severe, and severe depression. In a Malaysian validation study, the PHQ-9 has an 87% sensitivity and an 82% specificity at a cut-off value of 10 and above (Sherina et al., 2012).

Automatic Thought Questionnaire (ATQ-8)

ATQ is a scientific questionnaire developed by Steven D. Hollon and Phillip C. Kendall in 1980, which was utilized to monitor Automatic negative thoughts (Hollon & Kendall, 1980).

ATQ-8 is a shortened version of the ATQ, which consists of 8 items which are determined by assigning scores of 1 (not at all) to 5 (all the time) (Netemeyer et al., 2002). ATQ-8 total scores range from 8 to 40, where higher scores indicate more frequency of negative thoughts. ATQ-8 revealed high reliability in terms of internal consistency with a score of.92 (Netemeyer et al., 2002).

Dysfunctional Attitude Scale (DAS-SF2)

DAS is a 100 items psychometric instrument developed by Weissman and Beck to measure pervasive negative attitudes towards self, outside world and future (Weissman & Beck, 1978). DAS-SF2 is a 9 items psychometric instrument from 40 items DAS version A, originally from a 100 items scale (Beevers et al., 2007). DAS-SF2 consists of 9 items determined by assigning scores of 1 to 4 to the response categories of totally agree, agree, disagree, and disagree. Scores range from 9-36, where higher scores indicate a greater dysfunctional attitude. DAS-SF2 showed high internal consistency reliability with coefficient alpha .93. According to Beevers et al. (2007), the earlier version of the program has been proven to be effective when delivered through telephone.

Intervention

Internet-delivered Group Brief Cognitive Behavioral Therapy (iGBCBT)

The manual used for this study is ‘MyBriefCBT’ developed by Jeffrey Cully and his colleague (Cully, J. et al., 2021). The MyBriefCBT program was created to facilitate the delivery of evidence-based psychotherapies (EBP) in clinical settings when quick or time-constrained interventions are required. Brief CBT can be administered in 3-6 sessions and was created to manage depressive symptoms. Using measurement-based care and varying treatment intensities, brief CBT speeds up psychotherapy while still honoring patients' requirements. The program's

use of an adaptable skills-based approach, which enables patients and providers to choose and influence their care process, whichis another example of the patient-centered approach to care. Several Veterans Health Administration Integrated Service Networks (VISNs) across the United States are currently putting the MyBriefCBT program into practice. (Barrera et al., 2017)

A patient workbook and provider manual for the MyBriefCBT program are each divided into six sections that each focus on a distinct skill for mood and well-being. Every skill area can be the focus of a session's work. There is no requirement that all skill areas be finished. Clinicians and clients can concentrate on the areas that will be most helpful. Additional copies of the exercises and monitoring forms that will be provided for each skill area are included in the workbook's final part. In these six sessions, participants will be exposed to Engaging in Activities to Improve Mood, Managing Unhelpful Thoughts, Using Relaxation Skills to Manage Stress Tension, Improving Health Wellness and Relapse Prevention. Participants will also be required to complete a certain task after each session, such as implementing the techniques they have learned in the sessions and decide whether to continue or modify the action plan. Table 3.1 shows the flow, components, and descriptions of the sessions.

Table 3. 1

The flow of sessions, components, and descriptions of the sessions

Session	Component	Description
1	Getting Started	Introduction on the facilitator, group considerations and ground rules for group intervention.
	Ice-breaking	Have an ice-breaking activity among the participants.

	Session Roadmap and Check-in	Give details about the program, and how the facilitator plan to assist. Create an agenda with the participants. Complete the PHQ-9 assessment.
	Identifying Areas to Improve mood and well-being	Discuss the patient's objectives for their emotional and physical wellness. Discuss how thoughts and behaviours interact with mood and offer justification for self-management. Describe Dave's process for setting goals to enhance his well-being and mood. Introduce the SMART framework for goal-setting. Create an action plan for the following session. Introduce the skill modules in brief, then choose one for the following session. Engaging in Activities to Improve Mood; Managing Unhelpful Thoughts; Using Relaxation Skills to Manage Stress and Tension; and Improving Health and Wellness are some of the topics covered.
2	Session Roadmap and Check-in	Create an agenda with the participants. Complete a mood review Review the assignment from the last session and any other current techniques the participants are applying.

	Developing New Skills – Managing Unhelpful Thoughts	Review the relationship between feelings and thoughts briefly. Differentiate between unhelpful and helpful thought processes. Discover how Dave addressed his troublesome thought patterns during the managing unhelpful thoughts session. Determine the unhelpful thoughts that are upsetting the participants. Introduce techniques for manage unhelpful thoughts: Coping phrases. Introduce techniques for manage unhelpful thoughts: Assessing unhelpful thoughts. Create an action plan for the following session.
3	Session Roadmap and Check-in	Create an agenda with the participants. Complete a mood review Review the assignment from the last session and any other current techniques the participants are applying.
	Developing New Skills – Engaging in Activities	Review the relationship between activity and mood briefly. Learn how Dave used the session on engaging in activities to get more active. Determine how the participants' present-day activities affect their mood.

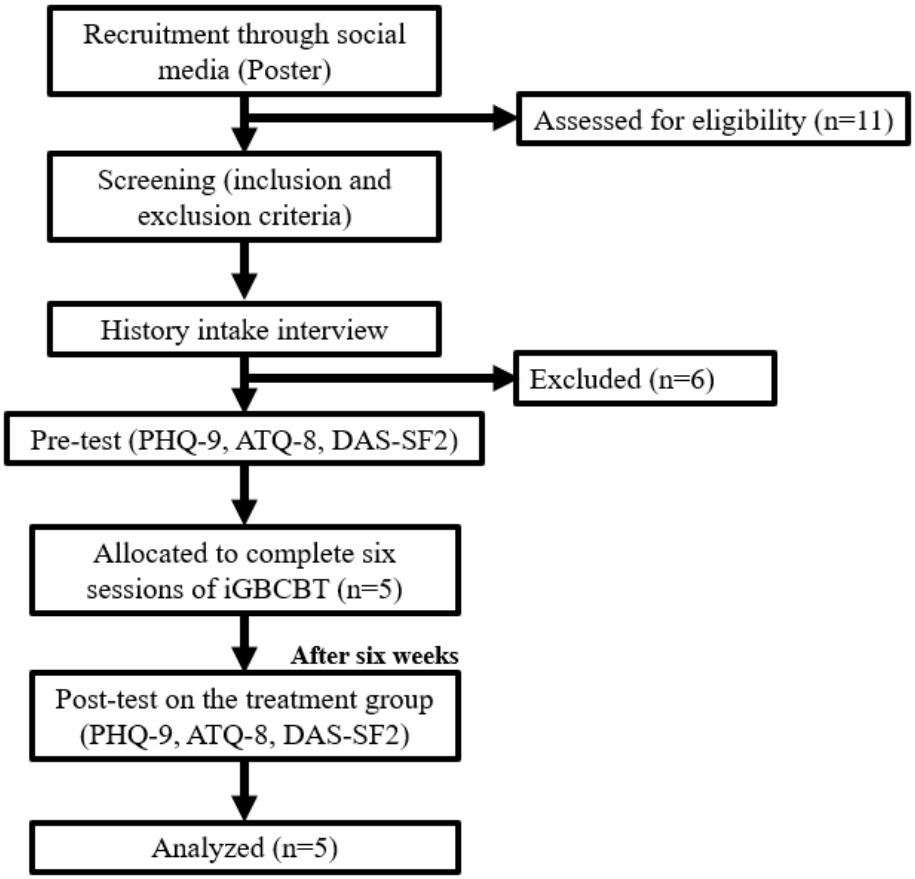
		Help the patient decide which activities they want to do more frequently. Create an action plan for the following session.
4	Session Roadmap and Check-in Developing New Skills – Reducing Stress and Tension	Create an agenda with the participants. Complete a mood review Review the assignment from the last session and any other current techniques the participants are applying. Describe the benefits of relaxation for the participants. Consider the ways in which Dave manages his needs by using relaxation techniques. Review relevant knowledge and abilities for the skill you've chosen, then put them to use during session. Create an action plan for the following session.
5	Session Roadmap and Check-in Developing New Skills – improving Health and Wellness	Create an agenda with the participants. Complete a mood review Review the assignment from the last session and any other current techniques the participants are applying. Give a brief overview of the many health and wellness topics covered in this session. Healthy Eating, Physical Activities/ Exercise, Improving Sleep, and Overcoming Pain are some of the topics covered.

		Examine how Dave addressed his pain and eating objectives throughout the Improving Health and Wellness session. Specify the aspects of the participants' health and wellness they want to enhance. Look up patient-centered health and wellness skills using the tip sheets. Create an action plan for the following session.
6	Session Roadmap: Final session	Create an agenda with the participants. Complete a mood review Review the assignment from the last session and any other current techniques the participants are applying. Review the participants' development during the course of the treatment, paying particular attention to mood and goal attainment. Introduce and discuss the progress-maintaining advice sheet, going over any potential obstacles. Talk about when to get additional care, including crisis referral. Conclude by closing.

Research Procedure

Figure 3. 1

Flow of the Research Procedure



A recruitment poster will be publicized at Facebook, Instagram, and Malaysia Counselling & Psychology Peer Group (Facebook) for a week. The program's basic information, researcher and researcher's supervisor contact information, requirements, and the link and QR-code for registration were included on the poster. The registration period is available for two weeks.

The researcher approached the participants who have registered based on a first-come, first-serve basis. The participants were screened for inclusion and exclusion criteria. Then history intake will be done with the participants individually before the program begins. The researcher will inform the participants about the treatment program's concept and go through the informed

consent form, including the research purpose, program flow, risks, benefits, confidentiality, cost and payment, contact information, and voluntary participation. Once the researcher receives consent from the participants, 3 assessments will be done for data collection for the pre-test, which are PHQ-9, ATQ-8, and DAS-SF2.

After data collection for the pre-test, the 6 sessions of iGBCBT began on the group by following the manual 'MyBriefCBT' developed by Jeffrey Cully and his colleague (2021). The participants will be assigned to complete six sessions, with total of five participants in a group. All the participants continue with treatment regime, which indicates they will be referred to psychiatrists for pharmacological therapy. After the 6 sessions, the group was asked to complete 3 assessments (PHQ-9, ATQ-8, and DAS-SF2) for data collection for the post-test.

Data Analysis

The study's main objective is to examine the effects of iGBCBT on depressive symptoms among undergraduate students. The pre-test and post-test of the level of depression, Automatic unhelpful thought, and dysfunctional attitudes will be examined and presented using descriptive statistics and score interpretation. Therefore, Wilcoxon Sign Rank test was used with PHQ-9, ATQ-8, and DAS-SF2 scores at pre-test. Data was analyzed by using JASP 0.17.1. The intervention effect's clinical significance will be assessed. When comparing the pre-test and post-test findings for PHQ-9, a reduction of 5 points shows a clinically significant improvement in depression (Kroenke, 2012). As for ATQ-8 and DAS-SF2, no valid evidence has been done to state the appropriate reduction score, which represents an improvement for the person who gets screened. However, the safe zone can be estimated by calculating the scores. Assuming that the participants choose 'not at all' for ATQ-8, the ideal score will be 8, representing there are no negative views towards self (Netemeyer et al., 2002). Whereas assuming that the participants

choose ‘totally disagree’ or ‘disagree’ with all the negative assumptions of self, the ideal score for DAS-SF2 will be 9 or 18, which indicates no or less negative assumptions towards self (Beevers et al., 2007).

Chapter 4

Results

Descriptive Statistics

Demographic Characteristics

The demographic data of the participants in the current study are shown in Table 4.1 below. A total of five students participated in the program, with one student from Universiti Malaysia Perlis, two students from Universiti Tunku Abdul Rahman, and two students from University of Nottingham Malaysia. The participants' age ranged from 22 to 23, with the mean age of 22.40, and standard deviation of 0.548. Most of the participants were male (n = 4; 80%) and only 20% (n = 1) were female. All of the participants are Chinese. About 60% of the participants (n = 3) were Year 3, whereas the remaining were from Year 2 (n = 1; 20%) and Year 4 (n = 1; 20%). There were 40% of the participants of the participants (n = 2) grouped under the field of psychology, followed by Banking and Finance (n = 1; 20%), Electrical Engineering (n = 1; 20%) and Mechanical Engineering (n = 1; 20%).

Table 4. 1

Demographic Data of Participants (n = 5)

	n	%	*M*	*SD*	Min	Max
Sex						
Female	1	20				
Male	4	80				
Age			22.40	0.548	22	23
22	3	60				
23	2	40				
Ethnicity						
Chinese	5	100				
Program of Study						
Banking and Finance	1	20				
Electrical Engineering	1	20				

Mechanical Engineering	1	20				
Psychology	2	40				
Year of Study			3.00	0.707	2	4
2	1	20				
3	3	60				
4	1	20				
University						
Universiti Malaysia Perlis	1	20				
Universiti Tunku Abdul Rahman	2	40				
University of Nottingham Malaysia	2	40				

Note, *n* = number of cases; % = percentage; *M* = mean; *SD* = standard deviation; Min == minimum value; Max = maximum value

Descriptive Statistics of Topic-Specific Variables

The descriptive statistics of the participants on PHQ-9, ATQ-8 and DAS-SF2 were revealed in Table 4.2 below. The pre-test of PHQ-9 (*n=5*) reported median score of 11.000, interquartile range score of 0.000 and range score of 3.000. The post-test of PHQ-9 (*n=5*) reported median score of 6.000, interquartile range score of 8.000 and range score of 12.000. The pre-test of ATQ-8 (*n=5*) reported median score of 16.000, interquartile range score of 3.000 and range score of 10.000. The post-test of ATQ-8 (*n=5*) reported median score of 16.000, interquartile range score of 6.000 and range score of 10.000. The pre-test of DAS-SF2 (*n=5*) reported median score of 22.000, interquartile range score of 4.000 and range score of 11.000. The post-test of DAS-SF2 (*n=5*) reported median score of 20.000, interquartile range score of 2.000 and range score of 5.000.

Table 4. 2

Frequency Distribution of PHQ-9, ATQ-8, and DAS-SF2 for pre-test and post-test (n=5)

		n	Mdn	IQR	Range
PHQ-9	Pre-test	5	11.000	0.000	3.000
	Post-test	5	6.000	8.000	12.000
ATQ-8	Pre-test	5	16.000	3.000	10.000
	Post-test	5	16.000	6.000	10.000
DAS-SF2	Pre-test	5	22.000	4.000	11.000
	Post-test	5	20.000	2.000	5.000

Note, n = number of cases; Mdn = Median; IQR = Interquartile Range

Data Diagnostic and Missing Data

Frequency and Percentages of Missing Data

No missing data was found in this study. As a result, 5 data were valid for further data analysis.

Methods Employed for Addressing Missing Data

Participants must complete the questions in each section from the questionnaire in order to progress to the next question and submit their responses.

Analyses of data distributions

Normality of Variables. The skewness, kurtosis, Shapiro-Wilk, and boxplot normality tests were included for all variables, including depression, automatic unhelpful thought, and dysfunctional attitude for the pre-and post-test. According to Mishra et al. (2019), determining the statistical methodologies for data analysis can help researchers determine the normality of the data. As a result, skewness, kurtosis, and boxplots can be used to identify outliers prior to their elimination from the present study.

Skewness and Kurtosis. Skewness and kurtosis were two strategies that were employed to assess the normality of the data. Checking for outliers in the data set was another advantage of employing the skewness and kurtosis method. Skewness and kurtosis had a standard score for

data normality that did not exceed ±2.00. Based on Table 4.3 below, the skewness of PHQ-9, ATQ-8 and DAS-SF2 from pre-test were -2.236, 1.220 and 0.512, while the skewness of PHQ-9, ATQ-8 and DAS-SF2 from post-test were 0.541, 0.524 and -0.590. The kurtosis of PHQ-9, ATQ-8 and DAS-SF2 from pre-test were 5.000, 1.247 and -0.024, while the kurtosis of PHQ-9, ATQ-8 and DAS-SF2 from post-test were -1.488, -0.963 and -0.022. The Shapiro-Wilk of PHQ-9, ATQ-8 and DAS-SF2 from pre-test were 0.552, 0.893 and 0.979, while the Shapiro-Wilk of PHQ-9, ATQ-8 and DAS-SF2 from post-test were 0.902, 0.910 and 0.979.

Table 4. 3

Skewness, Kurtosis, and Shapiro-Wilk Table

		Skewness	Kurtosis	Shapiro-Wilk
PHQ-9	Pre-test	-2.236	5.000	0.552
	Post-test	0.541	-1.488	0.902
ATQ-8	Pre-test	1.220	1.247	0.893
	Post-test	0.524	-0.963	0.910
DAS-SF2	Pre-test	0.512	-0.024	0.979
	Post-test	-0.590	-0.022	0.979

Boxplot and Outliers. The boxplot revealed that there were no outliers among all the variables.

Data Analysis

H_1: There is a significant effect of Internet-delivered Group Brief Cognitive Behavioral Therapy on depressive symptoms among undergraduate students in a group

The assumptions for Wilcoxon's Signed Rank test, including independent observations and dependent data were observed. The data for pre-test of depression appeared to be not normal as the *skewness* $= \ -2.236$, *kurtosis* $= \ 5.000$, which are not within ± 2.000. However, the data for post-test of depression appeared to be normal as the *skewness* = 0.541, *kurtosis* = -1.488.

Moreover, Wilcoxon's Signed Rank test was used to compare the median of pre-test and post-test (refer Table 4.4). The results showed that $W = 12.000$, $p = 0.279$. Therefore, H_1 was rejected. Depressive level of post-test (*Median = 6.0*) was lower than depressive level of the pre-test (*Median = 11.0*). 95% of the true population difference would fall within the confidence interval; therefore, further asserting that the difference was not statistically significant. However, the Rank-Biserial Correlation, $r = 0.600$ showed that there was a moderate effect size. suggesting that the non-significance results may be due to low sample size and insufficient statistical power.

Table 4. 4

Wilcoxon's Signed Rank Test of PHQ-9

							95% CI for Hodges-Lehmann Estimate			
Measure 1	Measure 2	W	z	df	p	Hodges-Lehmann Estimate	Lower	Upper	Rank-Biserial Correlation	SE Rank-Biserial Correlation
Pre_PHQ-9	- Post_PHQ-9	12.000	1.214		0.279	3.500	-2.000	9.000	0.600	0.458

Table 4. 5

Test of Normality (Shapiro-Wilk) of PHQ-9

		W	**p**
Pre_PHQ-9	- Post_PHQ-9	0.836	0.154

Note. Significant results suggest a deviation from normality.

H_2: There is a significant effect of Internet-delivered Group Brief Cognitive Behavioral Therapy on unhelpful thoughts among undergraduate students in a group

The assumptions for Wilcoxon's Signed Rank test, including independent observations and dependent data were observed. The data for pre-test of unhelpful thoughts appeared to be normal as the *skewness* = 1.220, *kurtosis* = 1.247, which are within ± 2.000. In addition, the data for post-test of unhelpful thoughts appeared to be normal as the *skewness* = 0.524, *kurtosis* = -0.963. Moreover, Wilcoxon's Signed Rank test was used to compare the median of pre-test and post-test (refer Table 4.6). The results showed that $W = 7.500$, $p = 0.461$. Therefore, H_2 was rejected.

Unhelpful thoughts of post-test (*Median* = 16.0) is the same as pre-test (*Median* = 16.0). 95% of the true population difference would fall within the confidence interval; therefore, further asserting that the difference was not statistically significant. However, the Rank-Biserial Correlation, $r = 0.500$ showed that there was a moderate effect size, suggesting that the non-significance results may be due to low sample size and insufficient statistical power.

Table 4. 6

Wilcoxon's Signed Rank Test of ATQ-8

							95% CI for Hodges-Lehmann Estimate			
Measure 1	Measure 2	W	z	df	p	Hodges-Lehmann Estimate	Lower	Upper	Rank-Biserial Correlation	SE Rank-Biserial Correlation
Pre_ATQ-8	- Post_ATQ-8	7.500	0.913		0.461	2.165	-6.000	7.000	0.500	0.499

Table 4. 7

Test of Normality (Shapiro-Wilk) of ATQ-8

			W	p
Pre_ATQ-8	-	Post_ATQ-8	0.935	0.634

Note. Significant results suggest a deviation from normality.

H_3: There is a significant effect of Internet-delivered Group Brief Cognitive Behavioral Therapy on dysfunctional attitudes among undergraduate students in a group

The assumptions for Wilcoxon's Signed Rank test, including independent observations and dependent data were observed. The data for pre-test of dysfunctional attitude appeared to be normal as the *skewness* = 0.512, *kurtosis* = -0.024, which are within ± 2.000. However, the data for post-test of dysfunctional attitude appeared to be not normal as the *skewness* = -0.590, *kurtosis* = -0.022. Moreover, Wilcoxon's Signed Rank test was used to compare the median of pre-test and post-test (refer Table 4.8). The results showed that W = 9.000, p = 0.279. Therefore, H_3 was rejected. Dysfunctional attitude of post-test (*Median* = 20.0) is slightly lower than pre-test (*Median* = 22.0). 95% of the true population difference would fall within the confidence interval; therefore, further asserting that the difference was not statistically significant. However, the Rank-Biserial Correlation, r = 0.600 showed that there was a moderate effect size, suggesting that the non-significance results may be due to low sample size and insufficient statistical power (Nayak, B. K., 2010).

Table 4. 8

Wilcoxon's Signed Rank Test of DAS-SF2

Measure 1		Measure 2	W	z	df	p	Hodges-Lehmann Estimate	95% CI for Hodges-Lehmann Estimate		Rank-Biserial Correlation	SE Rank-Biserial Correlation
								Lower	Upper		
Pre_DAS-SF2	-	Post_DAS-SF2	12.000	1.214		0.279	4.000	-1.000	6.500	0.600	0.458

Table 4. 9

Test of Normality (Shapiro-Wilk) of DAS-SF2

			W	**p**
Pre_DAS-SF2	-	Post_DAS-SF2	0.900	0.410

Note. Significant results suggest a deviation from normality.

Chapter 5

Discussion and Conclusion

Discussion

Depressive Symptoms

Based on the outcome in this study, the hypothesis was rejected as the result do not show statistically significant effects ($p = 0.279$) of iGBCBT on depressive symptoms in the participants. However, the outcomes suggest that iGBCBT brings a moderate effect ($r = 0.600$) in reducing the depressive symptoms. A smaller sample may produce results that are not be

strong enough to distinguish between the groups, and the study may end up being incorrectly negative, resulting in a type II error (Nayak, 2010). Besides that, there is a 5-point reduction in the median which is from 11.000 (moderate) to 6.000 (mild), showing that there is a clinically significant improvement in depressive symptoms (Kroenke, 2012).

Considering other studies using Internet-based Cognitive Behavioural Therapy, there are a few outcomes suggesting that there is a moderate to large effect size in reduction of depressive symptoms (Flygare et al., 2020; Hedman et al., 2014; Williams et al., 2013). One of the studies has a similar outcome which has three significant improvements, one remains unchanged, and one worsens, whereas this study also demonstrated 60% positive improvement in depressive symptoms, which has three significant improvement and two worsen (Khatri et al., 2014).

Unhelpful Automatic Thought

According to the outcome, the hypothesis was rejected as the result show a statistically insignificant effect ($p = 0.461$) of iGBCBT on unhelpful automatic thoughts in the participants. Nevertheless, the outcomes suggest that iGBCBT brings a moderate effect ($r = 0.500$) in improving the unhelpful automatic thoughts. A type II error could occur in the study if the sample size is too small since the results might not prove strong enough to discriminate between the groups (Nayak, 2010). Additionally, the median is the same from pre-test to post-test, which is 16.000, indicating that there was not much reduction in unhelpful automatic thoughts. The lowest score that the assessment can be obtained is 8 and the highest score that can be obtained is 40. The author did not indicate the classification of scores; therefore, the classification can be set by the median ($Mdn = 24$) of the assessment. Scores above 24 are considered as high level of negative view towards self, and scores below 24 are considered low level of negative view towards self. Therefore, the pre and post-test suggest that the participants are still at a low level

of negative view towards self with a slight reduction, but further improvement has not been detected.

Dysfunctional Attitude

The hypothesis was not supported as the result show a statistically insignificant effect (p = 0.279) of iGBCBT on dysfunctional attitude in the participants. The outcomes suggest that iGBCBT bring a moderate effect (r = 0.600) in improving the dysfunctional attitude. Similar to statistical significance, statistical power is influenced by sample size and effect size. While a smaller effect size would necessitate larger sample sizes, a large intervention effect size allows for the detection of such an impact in smaller sample sizes (Sullivan et al., 2012). Moreover, the median of post-test (20.000) has two points lower than the pre-test (22.000), indicating a slight improvement in dysfunctional attitude. The lowest score that the assessment can be obtained is 9, and the highest score that can be obtained is 36, where the higher score indicates a higher level of dysfunctional attitude. Since the classification of scores was not provided; therefore, the classification can be set by the median (Mdn = 22.500) of the assessment. Scores above 22.500 are considered as high level dysfunctional attitude, and scores below 22.500 are considered a low level of dysfunctional attitude. Therefore, the pre and post-test suggest that the participants are still at a low level of dysfunctional attitude with a slight reduction. There are three significant improvements, and two mild worsenings in this study.

Implication

Theoretical Implication

Although the results of the current study did not provide empirical evidence for the use of iGBCBT on depressive symptoms among undergraduate students in Malaysia, there is potential for future research. Small sample sizes reduced statistical power, as noted by Serdar et al. (2021).

However, 60% of the participants (n = 3) in this study demonstrated a reduction in depressive symptoms (r = 0.600), unhelpful automatic thoughts (r = 0.500), and dysfunctional attitudes (r = 0.600) as a result of the program. This suggests that future research with a larger sample size in Malaysia could further examine the effect size of iGBCBT.

Previous studies have shown that the effects of guided internet-delivered CBT can last up to three years after treatment and are at least as successful as group-based CBT (Andersson et al., 2013). Additionally, an online depression intervention was found to be just as effective as traditional in-person counseling, with greater long-term efficacy demonstrated in the online group (Wagner et al., 2014).

It is noteworthy that there were no dropouts in this study, whereas several randomized controlled trials and meta-analyses have reported dropout rates of 16% to 32% for Internet-delivered CBT (Lawler et al., 2021; Schmidt et al., 2019; Watson et al., 2017).

Practical Implication

The convenience and flexibility of iGBCBT, as well as its potential for increased access to mental health care, make it an option for addressing the significant burden of depression. For people who may have difficulty getting traditional in-person counselling, online therapy can greatly improve access to mental health care services, especially for people who live in distant or rural locations with little access to mental health professionals or who have physical limitations or mobility concerns. Some participants wanted an alternate counsellor instead of one from their universities; therefore, online therapy can be an alternative to that. This could also reduce the stigmas attached to obtaining mental health care by providing a more secure and confidential choice. It also helped to eliminate the transportation costs and save time for therapy sessions.

Scheduling and delivery options for online treatment may be flexible. It makes it possible to schedule therapy sessions at times that are agreeable for both the client and the therapist, which can be very helpful for those with hectic schedules or other obligations. There were two times where some of the participants could not make it to the scheduled time, so another meeting was arranged with the participants to keep up with the progress on the intervention.

It also helped to improve monitoring and tracking progress. A fillable workbook had been sent to the participants. They utilized it by adding and revising their SMART goal, therapy notes, and progress. The participants could share their work by sharing their screen on the device, as it is more convenient compared to using hard copy for physical therapy sessions where participants have the tendency to forgot to bring the notes to the therapy sessions. It also convenient for the participants to monitor their daily progress, where they just need to open the PDF and tick the box or fill in the required details on their smartphones where they can bring it everywhere. It could also allow the participants to easily refer for resources for their future mental health needs, it is because the helplines of mental health services had been pinned on the WhatsApp group's description.

Group support was also beneficial for the participants. The participants were able to share their ideas on certain aspects of how they cope with their depressive symptoms by employing the skills that they learned in the program, which provide different coping methods for reducing depressive symptoms. The participants could supervise each other's progress by sharing their activities and homework to the WhatsApp group. This could help the participants to have accountability among each other. Some participants offered emotional support for those in need, mentioning that it is not easy to cope with depressive symptoms and they would offer support for people who need it.

Limitation of the Study

Although the findings of this study were gratifying, it's important to remember that there are some limitations that must be taken into account. Essentially, the study's small sample size and special clinical setting may restrict how widely the findings can be applied to other groups or settings. The study also employed self-report questionnaires, which have the potential to be biased and may not accurately capture the full range of symptoms or functional impairments associated with depression (Beevers et al., 2007; Hollon et al., 1980; Kroenke et al., 2001).

It is essential for researchers to understand that effect size, regardless of statistical significance, is a crucial factor to take into account when evaluating study findings since it gives a sense of the magnitude or impact of the association between variables. Although this study's effect size was moderate, the absence of statistical significance shows that it would be wise to proceed with care when establishing solid inferences about the association between the variables. The insufficient sample size had caused statistical insignificant. The *p*-value were all above .05, which led to the use of non-parametric test (Wilcoxon Signed Rank Test). Non-parametric tests have fewer restrictions than parametric tests, which may lead to have imprecise findings if there is no distribution (Hussain & Mahmud, 2019).

The outcome of this study does not adequately represent the population of Malaysia. The Bumiputera (Malay and Indigenous), Chinese, Indians, and Others (non-Malaysian citizens) are the four main ethnic groups comprising Malaysia's well-known multicultural society (Malaysia, 2011). The participants of this study were all Chinese; therefore, the outcome may reflect on the Chinese population in Malaysia but not the ethnic group in Malaysia.

This was a single group study without controlled group and follow-up sessions. The intervention’s long-term effects cannot be determined without follow-up meetings. Other than

that, without the control group, it is hard to accurately identify whether changes or outcomes are attributable to the intervention as opposed to being attributable to some other variable without a control group (University of North Carolina, 2022). This study is not sufficiently compelling when compared to other research designs like cohort study, it is because this single group study has the second-lowest degree of evidence of all the research designs (Burns et al., 2011).

Recommendations for future research

The results of this study imply that iGBCBT might be an effective therapy for people who suffer from depression. Further research is necessary to replicate and expand on these findings, investigate the processes of change, and identify the the ideal circumstances in which to apply iGBCBT in clinical practice. Although iGBCBT is a promising approach for treating depression, its integration into standard clinical care requires additional research and careful evaluation of its limitations. For instance, a comprehensive one-to-one screening session is needed to thoroughly evaluate the participants' depressive symptoms.

Increasing the sample size could improve the statistical power and effect size. The sample size has a significant impact on data accuracy (Faber & Fonseca, 2014). Including invalid and outlier samples, there were only five samples in this study, which produced a medium effect size. Therefore, the amount of data that can be generalized to all Malaysian university students may be limited by the current sampling method. To ensure that the results are applicable to the broader population, future researchers should use random sampling procedures and expand their sample sizes, and randomized controlled trials are highly recommended.

To ensure equal representation from all targeted groups, future studies should aim to diversify participation in terms of gender, ethnicity, university, and other demographic characteristics. It is also essential to involve individuals from various nationalities. All

participants in the current study were Chinese, and to avoid biased responses, future investigations could recruit participants from diverse backgrounds, particularly different races.

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Appendix

PHQ-9

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

ID #: _____ DATE: _____

Over the last *2 weeks*, how often have you been bothered by any of the following problems?
(use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite — being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
		add columns	+	+
		TOTAL:		

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card).

ATQ-8

Automatic Thoughts Questionnaire - 8

Name: Date:

Instructions:

Listed are a variety of thoughts that pop into people's heads. Please read each thought and indicate how frequently, if at all, the thought has occurred to you over the past week. Please read each item carefully and circle the appropriate answers on the answer sheet in the following fashion:

1 = not at all

2 = sometimes

3 = moderately often

4 = often

5 = all the time

Thought	Response				
1. I'm no good.	1	2	3	4	5
2. I'm so disappoint in myself.	1	2	3	4	5
3. What's wrong with me?	1	2	3	4	5
4. I'm worthless	1	2	3	4	5
5. I feel so hopeless.	1	2	3	4	5
6. Something has to change.	1	2	3	4	5
7. My future is bleak.	1	2	3	4	5
8. I can't finish anything.	1	2	3	4	5

DAS-SF2

DAS-SF2

The sentences below describe people's attitudes. Circle the number which best describes how much each sentence describes your attitude. Your answer should describe the way you think most of the time.

		Totally Agree	Agree	Disagree	Totally Disagree
1.	If I am to be a worthwhile person, I must be truly outstanding in at least one major respect.	1	2	3	4
2.	If you don't have other people to lean on, you are bound to be sad.	1	2	3	4
3.	I do not need the approval of other people in order to be happy.	1	2	3	4
4.	If you cannot do something well, there is little point in doing it at all.	1	2	3	4
5.	If I do not do well all the time, people will not respect me.	1	2	3	4
6.	If others dislike you, you cannot be happy.	1	2	3	4
7.	People who have good ideas are more worthy than those who do not.	1	2	3	4
8.	If I do not do as well as other people, it means I am an inferior human being.	1	2	3	4
9.	If I fail partly, it is as bad as being a complete failure.	1	2	3	4

Evaluation Rubric

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ARTS AND SOCIAL SCIENCE

DEPARTMENT OF PSYCHOLOGY AND COUNSELLING

UAPC3093 PROJECT PAPER II

Quantitative Research Project Evaluation Form

TURNITIN: ***'In assessing this work you are agreeing that it has been submitted to the University-recognised originality checking service which is Turnitin. The report generated by Turnitin is used as evidence to show that the students' final report contains the similarity level below 20%.'***

Project Title: Effectiveness of Internet-delivered Group Brief Cognitive Behavioral Therapy (iGBCBT) on Depressive Symptoms among Undergraduates Students in Malaysia: A Single Group Study	
Supervisor: Mr. Pheh Kai Shuen	
Student's Name: Yap Guan Ji	Student's ID 18AAB02735

INSTRUCTIONS:

Please score each descriptor based on the scale provided below:

1. Please award 0 mark for no attempt.
2. Please mark only **3(A)** or **3(B)** for **Proposed Methodology**.
3. For criteria **7**:
   Please retrieve the marks from "**Oral Presentation Evaluation Form**".

1. ABSTRACT (5%)	**Max Score**	**Score**
a. State the main hypotheses/research objectives.	5%	
b. Describe the methodology: ● Research design ● Sampling method and sample size ● Location of study ● Instruments/apparatus/outcome measures (if applicable) ● Data gathering procedures	5%	
c. Describe the characteristics of participants.	5%	
d. Highlight the outcomes of the study or intervention, target behaviour and outcomes.	5%	
e. Conclusions, implications, and applications.	5%	
Sum	25%	/25%
Subtotal (Sum/5)	5%	/5%
Remark:		

2. (A) METHODOLOGY (25%)	**Max Score**	**Score**
a. Research design/framework: ● For experiment, report experimental manipulation, participant flow, treatment fidelity, baseline data, adverse events and side effects, assignment method and implementation, masking (if applicable). ● For non-experiment, describe the design of the study and data used.	5%	
b. Sampling procedures: ● Justification of sampling method/technique used. ● Description of location of study. ● Procedures of ethical clearance approval.	5%	
c. Sample size, power, and precision: ● Justification of sample size. ● Achieved actual sample size and response rate. ● Power analysis or other methods (if applicable).	5%	
d. Data collection procedures: ● Inclusion and exclusion criteria. ● Procedures of obtaining consent. ● Description of data collection procedures.	5%	

● Provide dates defining the periods of recruitment or repeated measures and follow-up. ● Agreement and payment (if any).		
e. Instruments/questionnaire used: ● Description of instruments ● Scoring system ● Meaning of scores ● Reliability and validity	5%	
Subtotal	25%	/25%
Remark:		
2. (B) METHODOLOGY – SINGLE-CASE EXPERIMENT (25%)	**Max Score**	**Score**
a. Research design/framework: ● Identify the design, phase and phase sequence, and/or phase change criteria. ● Describe procedural changes that occurred during the investigation after the start of the study (if applicable). ● Describe the method of randomization and elements of study that were randomized (if applicable). ● Describe binding or masking was used (if appliable).	5%	
b. Participants AND Context AND Approval: ● Describe the method of recruitment. ● State the inclusion and exclusion criteria. ● Describe the characteristics of setting and location of study. ● Procedures of ethical clearance approval. ● Procedures of obtaining consent.	5%	
c. Measures and materials used: ● Operationally define all target behaviours and outcome measures. ● Reliability and validity. ● Justify the selection of measures and materials. ● Describe the materials.	5%	
d. Interventions: ● Describe the intervention and control condition in each phase. ● Describe the method of delivering the intervention. ● Describe evaluation of procedural fidelity in each phase.	5%	
e. Data analysis plan:	5%	

● Describe and justify all methods used to analyze data.		
Subtotal	25%	/25%
Remark:		
3. RESULTS (20%)	**Max Score**	**Score**
a. Descriptive statistics/Sequence completed: ● Demographic characteristics ● Topic-specific characteristics ● For single-case study, report the sequence completed by each participant, trial for each session for each case, dropout and reason if applicable, adverse events if applicable	5%	
b. Data diagnostic and missing data (if applicable): ● Frequency and percentages of missing data (compulsory). ● Methods employed for addressing missing data. ● Criteria for post data-collection exclusion of participants. ● Criteria for imputation of missing data. ● Defining and processing of statistical outliers. ● Data transformation. ● Analyses of data distributions.	5%	
c. Appropriate data analysis for each hypothesis or research objective.	5%	
d. Accurate interpretation of statistical analyses: ● Accurate report and interpretation of confidence intervals or statistical significance. ● Accurate report of *p* values and minimally sufficient sets of statistics (e.g., *dfs*, *MS*, *MS error*). ● Accurate report and interpretation of effect sizes. ● Report any problems with statistical assumptions.	5%	
Subtotal	20%	/20%
Remark:		
4. DISCUSSION AND CONCLUSION (20%)	**Max Score**	**Score**
a. Discussion of findings: ● Provide statement of support or nonsupport for all hypotheses. ● Analyze similar and/or dissimilar results.	5%	

● Justifications for statistical results in the context of study.		
b. Implication of the study: ● Theoretical implication for future research. ● Practical implication for programs and policies.	5%	
c. Relevant limitations of the study.	5%	
d. Recommendations for future research.	5%	
Subtotal	20%	/20%
Remark:		
5. LANGUAGE AND ORGANIZATION (5%)	**Max Score**	**Score**
a. Language proficiency	3%	
b. Content organization	1%	
c. Complete documentation (e.g., action plan, originality report)	1%	
Subtotal	5%	/5%
Remark:		
6. APA STYLE AND REFERENCING (5%)	**Max Score**	**Score**
a. 7th Edition APA Style	5%	/5%
Remark:		
***ORAL PRESENTATION (20%)**	**Score**	
Subtotal	/20%	
Remark:		
PENALTY	**Max Score**	**Score**
Maximum of 10 marks for LATE SUBMISSION, or POOR CONSULTATION ATTENDANCE with supervisor.	10%	
****FINAL MARK/TOTAL**	/100%	

*****Overall Comments:**

Signature: _____ **Date: _____**

Notes:

1. **Subtotal**: The sum of scores for each assessment criterion
2. **FINAL MARK/TOTAL**: The summation of all subtotal score
3. Plagiarism is **NOT ACCEPTABLE**. Parameters of originality required and limits approved by UTAR are as follows:
   (i) **Overall similarity index is 20% or below**, and
   (ii) **Matching of individual sources listed must be less than 3%** each, and
   (iii) Matching texts in continuous block must **not exceed 8 words**

   Note: Parameters (i) – (ii) shall exclude quotes, references and text matches which are less than 8 words.

   Any works violate the above originality requirements will NOT be accepted. Students have to redo the report and meet the requirements in **SEVEN (7)** days.

*The marks of "Oral Presentation" are to be retrieved from **"Oral Presentation Evaluation Form".**

**It is compulsory for the supervisor/examiner to give the overall comments for the research projects with A- and above or F grading.

Supervisor's Comment

Universiti Tunku Abdul Rahman			
Form Title : Supervisor's Comments on Originality Report Generated by Turnitin for Submission of Final Year Project Report (for Undergraduate Programmes)			
Form Number: FM-IAD-005	Rev No.: 0	Effective Date: 01/10/2013	Page No.: 1of 1

FACULTY OF ART AND SOCIAL SCIENCE

Full Name(s) of Candidate(s)	Yap Guan Ji
ID Number(s)	18AAB02735
Programme / Course	BACHELOR OF SOCIAL SCIENCE (HONS) GUIDANCE AND COUNSELLING
Title of Final Year Project	Effectiveness of Internet-delivered Group Brief Cognitive Behavioral Therapy (iGBCBT) on Depressive Symptoms among Undergraduates Students in Malaysia: A Single Group Study

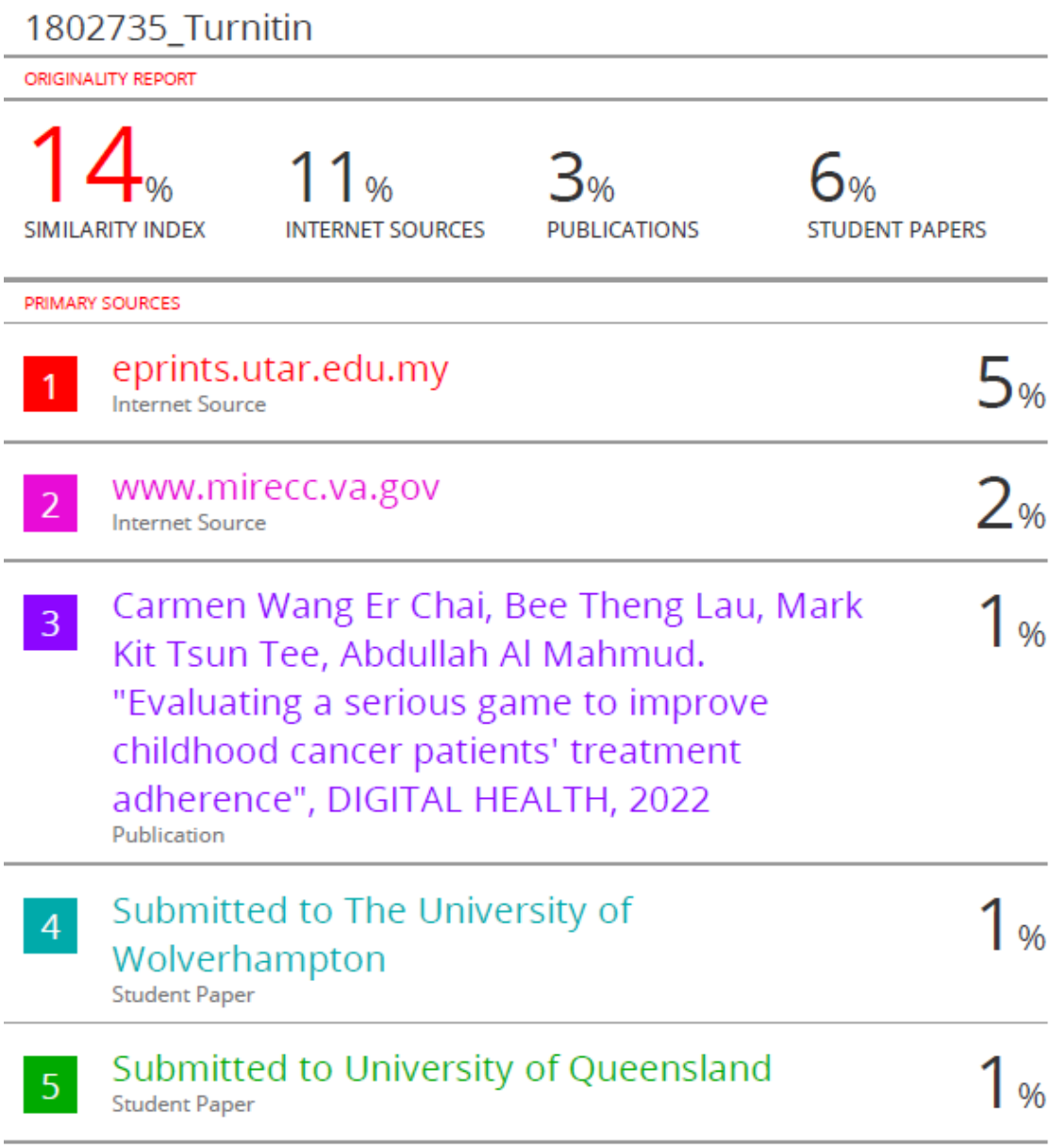
Similarity	**Supervisor's Comments (Compulsory if parameters of originality exceeds the limits approved by UTAR)**
Overall similarity index: 14 % **Similarity by source** Internet Sources: 11 % Publications: 3 % Student Papers: 6 %	
Number of individual sources listed of more than 3% similarity: 1	
Parameters of originality required and limits approved by UTAR are as follows: **(i) Overall similarity index is 20% and below, and** **(ii) Matching of individual sources listed must be less than 3% each, and** **(iii) Matching texts in continuous block must not exceed 8 words** ***Note: Parameters (i) – (ii) shall exclude quotes, bibliography and text matches which are less than 8 words.***	

Note Supervisor/Candidate(s) is/are required to provide softcopy of full set of the originality report to Faculty/Institute

Based on the above results, I hereby declare that I am satisfied with the originality of the Final Year Project Report submitted by my student(s) as named above.

_____	_____
Signature of Supervisor	Signature of Co-Supervisor
Name: Mr. Pheh Kai Shuen	Name: _____
Date: 21/4/2023	Date: _____

Turnitin Report



1802735_Turnitin

ORIGINALITY REPORT

14%	11%	3%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	eprints.utar.edu.my Internet Source	5%
2	www.mirecc.va.gov Internet Source	2%
3	Carmen Wang Er Chai, Bee Theng Lau, Mark Kit Tsun Tee, Abdullah Al Mahmud. "Evaluating a serious game to improve childhood cancer patients' treatment adherence", DIGITAL HEALTH, 2022 Publication	1%
4	Submitted to The University of Wolverhampton Student Paper	1%
5	Submitted to University of Queensland Student Paper	1%

IAD Form

Universiti Tunku Abdul Rahman			
Form Title : **Sample of Submission Sheet for FYP/Dissertation/Thesis**			
Form Number : **FM-IAD-004**	Rev No: **0**	Effective Date: **21 June 2011**	Page No: **1 of 1**

FACULTY OF ARTS AND SOCIAL SCIENCE
UNIVERSITI TUNKU ABDUL RAHMAN

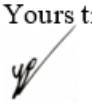
Date: 21/04/2023

SUBMISSION OF FINAL YEAR PROJECT

It is hereby certified that Yap Guan Ji (ID No.: 18AAB02735) has completed this final year project titled "Effectiveness of Internet-delivered Group Brief Cognitive Behavioral Therapy (iGBCBT) on Depressive Symptoms among Undergraduates Students in Malaysia: A Single Group Study" under the supervision of Mr. Pheh Kai Shuen (Supervisor) from the Department of Psychology and counselling, Faculty of Arts and Social Science.

I understand that University will upload softcopy of my final year project in pdf format into UTAR Institutional Repository, which may be made accessible to UTAR community and public.

Yours truly,



Name: Yap Guan Ji

Ethical Approval

UNIVERSITI TUNKU ABDUL RAHMAN DU012(A)
Wholly owned by UTAR Education Foundation Co. No. 578227-M

Re: U/SERC/271/2022

14 December 2022

Dr Pung Pit Wan
Head, Department of Psychology and Counselling
Faculty of Arts and Social Science
Universiti Tunku Abdul Rahman
Jalan Universiti, Bandar Baru Barat
31900 Kampar, Perak.

Dear Dr Pung,

Ethical Approval For Research Project/Protocol

We refer to the application for ethical approval for your student's research project from Bachelor of Social Science (Hons) Guidance and Counselling programme enrolled in course UAPZ3093. We are pleased to inform you that the application has been approved under Expedited Review.

The details of the research projects are as follows:

	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	Effectiveness of Internet-delivered Group Cognitive Behavioral Therapy (iGCBT) on Depressive Symptoms Among Undergraduates Students in Malaysia: A Pilot Randomized Controlled Trial	Yap Guan Ji	Mr Pheh Kai Shuen	14 December 2022 – 13 December 2023

The conduct of this research is subject to the following:

(1) The participants' informed consent be obtained prior to the commencement of the research;

(2) Confidentiality of participants' personal data must be maintained; and

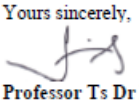
(3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

(4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

Should the students collect personal data of participants in their studies, please have the participants sign the attached Personal Data Protection Statement for records.

Thank you.

Yours sincerely,



Professor Ts Dr Faidz bin Abd Rahman
Chairman
UTAR Scientific and Ethical Review Committee

c.c Dean, Faculty of Arts and Social Science
Director, Institute of Postgraduate Studies and Research

Action Plan

Action Plan of UAPC3093 Project Paper II

Supervisee Yap Guan Ji

Supervisor Pheh Kai Shuen

Task Description	Date	Supervisee's Signature	Supervisor's Signature	Supervisor's Remarks	Next Appointment Date/Time
Methodology					
Submit Chapter 3: Methodology	14/4/2023				14/4/2023
Amend Chapter 3: Methodology	14/4/2023				
Results & Findings					
Submit Chapter 4: Results	16/4/2023				19/4/2023
Amend Chapter 4: Results	16/4/2023				
Discussion & Conclusion					
Submit Chapter 5: Discussion	16/4/2023				19/4/2023
Amend Chapter 5: Discussion	16/4/2023				
Abstract	16/4/2023				
Turnitin Submission	17/4/2023			Generate similarity rate from Turnitin.com	

Amendment	20/4/2023				
Submission of final draft	21/4/2023			Submission of hardcopy and documents	
Oral Presentation					

Notes:
1. **Deadline for submission cannot be changed, mark deduction is as per faculty standard.**
2. **Supervisees are to take the active role to make appointments with their supervisors.**
3. **Both supervisors and supervisees should keep a copy of this action plan.**
4. **This Action Plan should be attached as an appendix in Project Paper 2.**