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## A Randomised Controlled Trial to Examine the Effectiveness of Group Cognitive Behavioural Therapy for the Treatment of Unipolar Depression in Malaysia

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### ABSTRACT

Malaysia has been experiencing a dearth in mental health resources. Group Cognitive Behavioural Therapy (GCBT) has been an established form of treatment for unipolar depression. The objectives of the current study were to examine the effectiveness of using GCBT for the treatment of depression in Malaysia. A total of 174 participants suffering from unipolar depression were recruited and randomly allocated to one of GCBT+Treatment as Usual (TAU), Relaxation training+TAU, or TAU only treatment groups. The participants were between 18-60 years of age. The participants in the GCBT+TAU group received eight Group CBT sessions of over a span of two months. The participants receiving Relaxation+TAU treatment received eight relaxation training sessions over a span of two months. The participants in the TAU only treatment group received treatment as usual from their psychiatrists. The BDI-M, ATQ-M, ATQP-M and DAS-M were administered at pre-treatment, mid-treatment (week 4) and post-treatment. Repeated Measures MANOVA showed a significant interaction effect between treatment group and time for BDI-M, ATQ-M, ATQP-M and DAS-M. Results showed that GCBT+TAU was

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able to significantly reduce depressive symptoms, negative cognitions and beliefs. Moderate effect sizes for the BDI-M scores, as well as significantly reliable and clinical change, were also found. The current study was limited by geographical boundaries, where only hospitals in and around the greater Klang Valley area were sampled. Results from the current study suggest that GCBT is effective in reducing the symptoms of depression in a Malaysian setting.

*Keywords:* GCBT, RCT, depression, Malaysia, treatment, relaxation

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## INTRODUCTION

Depression is classified by the *Diagnostic and Statistical Manual of Mental Disorders* (4<sup>th</sup> ed., text rev.; DSM-IV-TR; American Psychiatric Association, 2000) as a mood disorder where one experiences periods of excessive sadness or significant loss in pleasure that lasts for two weeks or more. Unipolar depression is one of the most commonly diagnosed mood disorders in the world today, where up to 350 million individuals suffer from the disorder (World Health Organisation 2013). Malaysia is not spared from this problem (Mukhtar & Oei, 2011b), with the number of individuals suffering from depression continuing to increase. In the National Health and Morbidity Survey (NHMS) (2011) conducted by the Institute of Public Health (IPH), it was reported that that close to 2.3 million Malaysians are at risk of suffering from depression in their lifetimes. Among other, Kader and colleagues (2014) found

that in the state of Selangor, Malaysia, prevalence rates of depression were as high as 10.3%. If it is left unchecked, individuals suffering from prolonged depression may turn to suicide as a way to free themselves from the suffering (Malaysian Psychiatric Association, 2013). Thus, it is vital for depression to be seriously addressed as it brings severe consequences (Sinniah, Maniam, Oei, & Subramaniam, 2014).

To date, a variety of treatment methods have been made available in the management and treatment of unipolar depression. For example, pharmacotherapy treatments (e.g., Sadock, Sadock, & Ruiz, 2009) and psychotherapy (e.g., Kavanagh, Littlefield, Dooley, & O'Donovan, 2007) are some of the more widely studied and implemented treatment methods. Of the various forms of psychotherapy, Cognitive Behaviour Therapy remains one of the most widely studied (Beck, 1995) and widely implemented form of individual (Dobson, 1989) as well as group therapy (Dwyer, Olsen & Oei 2013; Oei, McAlinden, & Crwys, 2014) for unipolar depression. The effectiveness of individual CBT has also been translated to a group setting (Bieling, McCabe, & Antony, 2013). Similar to individual CBT, Group CBT is effective in the treatment of depression (Oei & Dingle, 2008).

It is important to highlight the fact that the majority of these studies have been conducted on Western populations and cultures. Markus and Kitayama (1991) suggested that differences amongst cultures elicit a myriad of different constructs such as

one's perception of self, cognitions, emotions and their behaviours. They suggested that in Western cultures, individuals employ an independent construal, where they are individuals who interact with other individuals, maintaining a focus on themselves (Markus & Kitayama, 1991).

Alternatively, the authors postulated an interdependent construal that is often employed by Asian populations. In this regard, individuals view themselves as one part of a greater mechanism, such as the family or societal unit (Markus & Kitayama, 1991). Given these psychosocial differences, it is easy to see how one's cognitions would differ as a result, when considering cognitive constructs of the varying cultures (Markus & Kitayama, 2003).

Malaysia is a country rich with diverse cultures made up of Malay, Chinese, Indian ethnicities and a plethora of other indigenous and immigrant populations (Deva, 2004). Thus, it is vital that any treatment for depression be examined amongst a local populace to ensure that it can be an effective treatment form for use amongst a local populace.

### **Treatment of Depression in Malaysia**

Mukhtar and Oei (2011b) conducted a wide-scale review of available treatment methods for unipolar depression in Malaysia. Their review looked at a total of 18 published articles of studies and they reported that many of the locally produced studies were fragmented and often did not utilise effective study methods such as randomised controlled trials (RCTs). Instead, single

case studies were often used. Their findings raised the need for effective research to be conducted to verify the efficacy of therapeutic methods locally.

Similar to its Western counterparts, pharmacotherapy is one of the most widely used treatments for unipolar depression in Malaysia (Mukhtar & Oei, 2011b). The Malaysian Ministry of Health further supports its use by endorsing it as one of the key treatments for unipolar depression (*Clinical Practice Guidelines*, 2007). For example, Jaafar and colleagues (2007), as well as Azhar and colleagues (2007), also examined the effectiveness of pharmacotherapy interventions in the management of depression.

In Malaysia, the use of CBT as a frontline treatment for depression is slowly becoming more common. However, there is a dearth of studies that examined the effectiveness of CBT directly (Mukhtar & Oei, 2011b). In one study, Azhar and colleagues (2007) examined a total of 96 patients who were administered three medications commonly used in treating depression in conjunction with CBT. Their study showed that all groups showed significant reductions in depressive symptoms over time regardless of medication type. The authors suggested that perhaps the use of CBT had helped patients to deal with the core difficulties, in which working in tandem with pharmacotherapy, resulted in significant reductions in depressive symptoms. Consequently, treatment gains were maintained over a 6-month period (Azhar et al., 2007). Results from their

study showed that the combination effect of pharmacotherapy and psychotherapy was not only effective in managing the symptoms of depression, but also allowed for better relapse prevention of depressive symptoms.

The other study reported by Mukhtar and Oei (2011b) looked at the application of Group based CBT for the treatment of depression (Mukhtar & Oei, 2006). They found that CBT applied in a group setting was able to elicit significant improvements to depressive symptoms, which were significantly greater when compared to treatment as usual controls. Taken together, these studies would suggest that CBT plays an integral role in the treatment of depression in Malaysia.

Whilst pharmacotherapy and psychological treatments remain at the forefront of the management of mental health disorders, relaxation training has also been looked at as a viable alternative. To the extent of the author's knowledge, only one study has been done locally to examine the effects of relaxation on depression group (Isa, Moy, Razack, Zainuddin, & Zainal, 2013). In particular, the study by Isa and colleagues (2013) looked at a total of 78 patients suffering from prostate cancer who were suffering from depression, anxiety and stress using the Depression, Anxiety and Stress Scale (DASS-21). Progressive muscle relaxation was used as an intervention and results from their study showed that whilst there were significant reductions in patients' anxiety and stress, no significant improvements were found for

depression. However, it was interesting to note that depression scores did show general downward trend, suggesting that perhaps relaxation could offer some benefits (Isa et al., 2013).

### **Cognitive Behaviour Therapy**

Beck (1994) postulated that the management of unipolar depression using CBT lies in changing cognitions. CBT theorises that our cognitions determine our moods and behaviours (Hope, Burns, Hayes, Herbert, & Warner, 2007). Thus, in the treatment of depression, therapy elicit significant reductions in negative automatic thoughts and dysfunctional beliefs to alleviate the symptoms of depression (Beck, 1995).

Dobson (1989) conducted a meta-analysis of 28 studies that looked at the use of CBT in managing depression. Their findings showed that individuals in CBT experienced a greater degree of change in depressive symptoms, compared to those in no-treatment control, pharmacotherapy or other psychotherapeutic treatments. This finding is supported by a meta-analysis done by Oei and Dingle (2008), who found that CBT administered within a group setting is an effective treatment for depression. They found that the treatment gains from Group CBT were significantly better than the no-treatment controls. In this regard, Oei and Dingle (2008) found that Group CBT used in conjunction with medication resulted in significant reductions in depression over medication alone.

However, a meta-analysis done by Roshanaei-Mohaddam and colleagues

(2011) suggested that CBT did not offer greater improvements over that of pharmacotherapy. They looked at a total of 21 studies on depression which compared pharmacotherapy interventions with CBT, and found only a small overall effect size of 0.05, which they suggested as offering no advantages to either treatment type (Roshanaei-Moghaddam et al., 2011). Given the contrasting results observed, it would be imperative to ensure that the application of CBT as a treatment for unipolar depression amongst a local population is properly examined to determine its effectiveness.

### **Group CBT in Malaysia**

Mental health in Malaysia is still in its infancy and suffers from a substantial dearth in resources. Given the fact that the number of individuals suffering from depression is expected to increase (*National Health and Morbidity Survey, 2011*), it is vital that access to effective healthcare be available. Group CBT represents a solution to the limited resources available.

At this juncture, GCBT has only been researched in Malaysia once. As mentioned above, Mukhtar and colleagues (2011) studied 113 depressed Malay patients. They were randomly allocated an experimental group receiving GCBT with treatment as usual (TAU), but only group as a control. The participants in the GCBT+TAU group were subjected to a series of eight manual GCBT sessions, whilst those in the TAU group received usual treatment. Assessments on the participants depressive symptoms and cognitive changes were done at the onset

of treatment, midpoint, and at the end of the intervention. Results showed that both depressive symptoms and cognitions in the GCBT+TAU reduced faster compared to the TAU only treatment groups.

### **Cohesion and its Effect on Treatment Effectiveness**

Group psychotherapy remains a unique adaptation of more traditional forms of individual psychotherapy in that the group brings with it additional elements to the therapeutic process. Yalom (1995) describes cohesion as a key component of group psychotherapy, where the connections between members are a central part of the therapeutic process.

In a review conducted by Burlingame, Fuhriman and Johnson (2001), group cohesion was found to be positively correlated with treatment outcome, where individuals who felt a stronger sense of belonging to one's group were more likely to experience better treatment outcomes, and vice versa. They examined 24 studies which looked at group cohesion and treatment outcomes, and found similar support for cohesion in both inpatient and outpatient treatments. Similarly, Burlingame and colleagues (2011) found that groups utilising cognitive behavioural therapy had fair correlations between cohesion and treatment outcomes, suggesting that cohesion does in fact play a role in group CBT. The authors also found that encouraging cohesion amongst members played a significant incremental role to the treatment outcomes that was superior to the studies which

did not actively encourage cohesion. The analysis by Burlingame and colleagues (2011) also showed that individuals who had reported increased levels of cohesion also experienced better symptom reduction.

Taken together, the studies lend strong support for the effectiveness of cohesion in augmenting therapeutic outcomes. However, contrary findings were observed in the study by Lorentzen, Sexton and Høglend (2004). They examined a total of 12 individuals with undefined affective disorders and were subjected to treatment intervention that de-emphasised the focus on therapist roles but encouraged relationships between group members. Results from the study suggested that intensity of cohesion did not correlate with treatment outcomes, where the contributions of cohesion were found to be insubstantial. However, they did find that higher cohesion rates were related to lower symptom manifestation.

It is interesting to note the contrary findings from cohesion studies, which suggest the need to properly examine the effects of cohesion, particularly amongst a local populace to determine its influence on treatment outcomes. Thus far, no studies have examined the effects of cohesion amongst Malaysians. Given the differences in culture when comparing across Asian, collectivistic cultures with Western, individualistic cultures (Markus & Kitayama, 2003), it is possible that cohesion could play a more substantial role in determining treatment effectiveness within a group therapeutic setting.

## **Objectives**

The objectives in the current study are to examine the effectiveness of the GCBT+TAU treatment for unipolar depression and examine the cognitive changes that occur. This was done by examining across three treatment groups, namely the GCBT and Treatment as usual (GCBT+TAU) group, the Relaxation and Treatment as usual group (Relaxation+TAU) and finally the Treatment as usual only group (TAU Group).

In more specific, it was hypothesised that the GCBT+TAU treatment group would elicit greater and quicker reductions, as well as experience greater treatment effect for depressive symptoms over time compared to the Relaxation+TAU and TAU only treatment group. Next, it was hypothesised that the GCBT+TAU treatment group would experience the greatest amount of reliable and significant clinical change. Finally, it was hypothesised that the GCBT+TAU treatment group would experience significant decreases in negative automatic thoughts and dysfunctional beliefs compared to no significant changes in the control groups.

The current study also examined the effects of cohesion. The current study aimed to offer some initial insights into cohesion by examining the changes that occurred during the course of GCBT interventions. The findings from the current study would be the first to examine these factors within a clinical setting in Malaysia.

In this regard, the current study expands on the currently available literature by utilising the Relaxation+TAU group as a



placebo control group. The use of a placebo group would allow us to examine if the effects of cohesion amongst group members directly contributed towards treatment outcome.

Taken together, the current study aims to provide a more expansive take on the application of Group Cognitive Behavioural Therapy within a Malaysian context. Whilst past studies have used GCBT, the current study looks to expand on the available findings by broadening the selection parameters for participants to be more representative of the Malaysian populace.

## METHODS

### Sample Size Calculation

An a priori analysis was conducted to determine the sample size required to obtain enough power to minimise the chances of a Type II error. The G\*Power programme for the calculation of power (Mayr, Erdfelder, Buchner, & Franz, 2007) was used. A small effect size of 0.25 was selected as per Mukhtar and colleague's (2007) study of group CBT amongst Malaysians of Malay ethnicity, which found effect sizes amongst the treatment groups ranging from 0.09 to 0.93. A power level of 0.95 was selected. The current analysis showed that a total sample size of 159 was required to ensure that enough power was available to limit the chances of Type II error. For the purpose of the current assessment, an estimated 210 participants were selected to account for any potential losses through dropouts and fatigue.

### Participants

A total of 210 participants were recruited for this study. A final number of 174 participants were selected for the study after dropouts in the preliminary stages and exclusions. Of this, 69.6% of them were female. The mean age was 39 ( $SD= 11.51$ ), and ranged between 20 – 60 years. A total of 48.5% of the participants are Malays, followed by Chinese (35.1%), Indian (11.7%) and other indigenous ethnicities (3.5%). This composition of the participants was reflective of the Malaysian populace as a whole, which comprises of 50.1% Malays, Chinese (22.6%) and Indians (6.7%), whilst the remaining population was made up of various indigenous and non-citizens. Of the number, 1.2% did not indicate their ethnicities. Amongst the participants, 37.4% received primary school education, 43.9% received at least secondary school education, and 14.6% of the participants received at least a college level education or higher, whilst 4.1% did not respond to this item.

The inclusion criteria for the current study were that the participants must have been diagnosed with major depressive disorder in the past two weeks by a psychiatrist, are between the ages of 18 to 60 years, currently receiving pharmacotherapy treatment, able to understand Bahasa Malaysia and have no co-morbid diagnosis of major psychiatric (e.g., schizophrenia, bipolar disorder) or medical disorders (e.g., cancer, HIV).

Referrals for the current study were made by the psychiatrists from various

hospitals. The participants referred were existing patients of the hospital and have been receiving pharmacological treatment for unipolar depression. Diagnoses made were based primarily on clinical interviews from the psychiatrists based on the DSM-IV-TR (DSM-IV-TR, 2000). Medications used included Remeron, Seroquel, Stilnox, Luvox, Lorazepam, Clonazepam, Escitalopram, and Fluvoxamine. The referred patients were then screened again for depression with the Mini International Neuropsychiatric Interview (Mukhtar et al., 2012).

## Measures

**Beck Depression Inventory-Malay (Mukhtar & Oei, 2008).** The Beck Depression Inventory-Malay (BDI-M) contains 20 items in Bahasa Malaysia (BM) (the national language of Malaysia), which was translated from the original Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Respondents rated the frequency of the symptoms experienced in the past two weeks. The BDI-M has good internal reliability (Cronbach's  $\alpha = 0.91$ ), good concurrent ( $r = 0.61$ ) and good discriminant validity (Mukhtar & Oei, 2008). The BDI-M was scored on a 4-point rating scale on the severity of depressive symptoms experienced in the past week, where higher scores are indicative of more depressive symptoms. An example of the items on the list is "*Saya rasa bersalah sepanjang masa*" (i.e., I feel guilty all the time). The BDI-M has a score range between 0 and 60, with the scores of 12 or higher depicting the

possibility of depression. The BDI-Malay has good internal reliability (Cronbach's  $\alpha = 0.91$ ), good concurrent validity ( $r = 0.61$ ) as well as good discriminant validity (Mukhtar & Oei, 2008).

**Automatic Thought Questionnaire-Malay (Oei & Mukhtar, 2008).** The Automatic Thought Questionnaire-Malay (ATQ-M) contains 17 items in Bahasa Malaysia, which were translated from the original ATQ (Dobson & Breiter, 1983). The ATQ-M uses a 5-point rating scale, where higher scores indicate more frequent negative automatic thoughts. The ATQ-M was found to have a good internal consistency (Cronbach's  $\alpha = .91$ ) and a moderate concurrent validity with depressive symptoms ( $r = 0.52$ ) (Oei & Mukhtar, 2008). An example of items on the list is "*Saya tak boleh siapkan apa pun*" (i.e., I can't even finish anything). The ATQ-M has a score range between 17 and 85. The ATQ-Malay was found to have good internal consistency (Cronbach's  $\alpha = .91$ ) and moderate concurrent validity with depressive symptoms ( $r = 0.52$ ) (Oei & Mukhtar, 2008).

**Dysfunctional Attitude Scale-Malay (Mukhtar and Oei, 2011).** The Dysfunctional Attitude Scale-Malay (DAS-M) is a 19-item measured in BM based on the original 40-item DAS (Weissman & Beck, 1978). The DAS-M was designed to measure predisposing beliefs. The participants were asked to rate a series of statements based on a 7-point rating scale, where higher scores are indicative of



a higher frequency of negative beliefs and vice versa. The DAS-M was found to have a good internal consistency with Cronbach's alpha coefficient ranging between 0.79 and 0.86. An example of the items in the list is "*Saya masih boleh bergembira walaupun terlepas banyak perkara baik dalam hidup ini*" (i.e., I can still be happy even though I've missed out a lot in life). The DAS-M has a score range between 19 and 133. The DAS-Malay was found to have a good internal consistency with the Cronbach's alpha coefficient between 0.79 and 0.86 (Mukhtar & Oei, 2011).

**Visual Analogue Scale (Proxy for Cohesion) (Hornsey, Olsen, Barlow, & Oei, 2012).** A single-item visual analogue scale was utilised as a proxy in the measurement for cohesion. The participants were asked to rate how close they felt with fellow participants in their intervention group. The scale was found to have good convergent validity with other multi-item measures of cohesion (e.g., Therapeutic Factors Inventory: Cohesiveness subscale). The scale also showed a good convergent validity with the BDI, where higher sense of cohesion was negatively correlated with depression scores.

### Procedures

A total of 210 participants were recruited and screened by the researchers, with a final total of 174 participants being selected

after taking into account the inclusion and exclusion criteria, as well as the dropouts that occurred at the first session.

The participants were recruited from government hospitals in the Klang Valley region of the state of Selangor, and were currently undergoing pharmacological treatment for unipolar depression (e.g., Major Depressive disorder, Dysthymia). The participants were randomly allocated into 3 groups via random number generator to one of either the GCBT+TAU ( $n=58$ ), the Relaxation+TAU ( $n=51$ ) or TAU only treatment group ( $n=62$ ) by the researcher. Both the participants and clinical psychologists running the groups were blinded to the nature of the study. At the end of the study, the participants in the Relaxation+TAU and TAU only treatment group were given the option to undergo GCBT+TAU. All the participants continued with their medication throughout the study.

For the GCBT+TAU treatment group, 58 participants were allocated to seven different treatment groups, with eight to ten participants in each group. Each group would undergo eight GCBT sessions weekly over a span of two months, following an adapted BM version of the Group CBT manual (Mukhtar & Oei, 2011a) for approximately three hours per session. All the sessions were conducted by a doctoral level clinical psychologist (i.e., the second author), who was trained in Australia with more than 10 years of experience in managing depression.

The Relaxation+TAU treatment group consisted of seven different treatment groups, with between eight and ten participants in each treatment group. Each group would undergo eight weekly relaxation training sessions over a span of two months. Each session was run based on a relaxation manual (Mukhtar, Khaiyom, & Low, 2013) for approximately two hours per session. All the sessions were conducted by a master level clinical psychologist who was trained in relaxation training for individuals suffering from depression.

The participants in the TAU group received pharmacotherapy treatment from their psychiatrist or primary care physicians during the course of the study. They were either given the assessment packet consisting of measures at the psychiatric clinic of their respective hospitals, or mailed to them. The participants who had agreed to take part in the study were given the option of either handing in the research packets to the researchers at the psychiatric clinics, or mailing the completed packets back to the researchers via stamped and addressed envelopes prepared for them.

**GCBT Manual.** The GCBT manual used in the current study was developed and translated by (Mukhtar & Oei, 2011a). The manual was published in BM and described eight treatment sessions of three hours each, with detailed descriptions of each session's task and activities. Homework was also given at the end of each session corresponding to the content of each

session and was assessed at the start of the next session. The first two sessions offered a general introduction into CBT and behavioural activities. Sessions three and four emphasised on the cognitive aspect of CBT, where the participants were socialised to automatic thoughts, intermediate and core beliefs. Sessions five and six introduced them to the CBT techniques such as the Socratic Questions which help dispute negative thoughts and beliefs. Finally in sessions seven and eight, the participants were encouraged to expand and enhance their social networks to encourage relapse prevention.

**Relaxation Manual.** The relaxation manual is a compilation of seven techniques that encompasses both physical and mental relaxation techniques (Mukhtar et al., 2013). The relaxation training consisted of eight treatment sessions of two hours each, with a detailed description of each session's task. Homework was also given at the end of each session, and this was typically to practice techniques learned in the corresponding session. The first session offered a general introduction into relaxation and its benefits. In each subsequent session, one technique was presented and practiced together in each session. The first four sessions focussed on behavioural relaxation techniques such as deep breathing exercises and progressive muscle relaxation techniques. In the final four sessions, the relaxation techniques were focussed on the cognitive aspects of relaxation such as guided imagery exercises.

In this study, all the assessments were conducted before the onset of the study (pre-score), at week four (mid-score) and at the end of the study (i.e. week 8; post-score).

### **Ethical Approval**

Ethical clearance was obtained via Universiti Putra Malaysia's (UPM) Ethical Review Committee, the Malaysian Ministry of Health and the National Medical Research Register prior to the commencement of the current study. Written consent was obtained from all the participants and their rights as participants were also highlighted.

### **Statistical Analyses**

SPSS version 22.0 was used to analyse the data. Demographic data and assumption testing was conducted. Intent-to-treat approach was used, where the mean scores from the participant's last available assessment were carried forward to the remaining assessment time-points. The current study was a mixed design 3X3 Repeated measures multivariate analysis of variance (Repeated Measures MANOVA), with the treatment conditions and three assessment points acting as the independent variables. Dependent variables for the current study were comprised of the BDI-M, ATQ-M, and the DAS-M.

The Relaxation+TAU group was conducted to both examine the effects of relaxation training on depression and act as a placebo control for the effects of cohesion. In the current study, both the GCBT+TAU and Relaxation+TAU treatment groups spent similar amounts of time with the researchers, acting as a placebo for the effects of regular interaction with researchers. The TAU only treatment group acted as the no treatment control, where the participants did not receive any direct contact with the researchers other than during the collection of data from the various assessment points. All the participants received regular care from their usual health care providers (i.e., the psychiatrists).

**Assumption Testing.** Preliminary analysis showed that the number of missing items was not significant (<5%) and did not appear to be occurring in any significant patterns. Means substitution was utilised to replace missing data. Skewness and Kurtosis analysis showed that departures from normality were minimal.

## **RESULTS**

### **Demographic information**

Demographic information across each treatment group is depicted in Table 1 below.

Table 1  
*Descriptive statistics of each treatment group*

		GCBT+TAU	Relaxation+TAU	TAU Only
Age		38.72 (11.04)	40.62 (12.19)	38.10 (11.46)
Gender (%)	Male	32.8	23.5	30.6
	Female	65.5	74.5	69.4
	Unreported	1.7	2	0
Ethnicity (%)	Malay	67.2	31.4	45.2
	Chinese	17.2	51	38.7
	Indian	12.1	9.8	12.9
	Others	1.7	5.9	3.2
	Unreported	1.8	1.9	0
Education (%)	High School	43.1	27.5	40.3
	Undergraduate	50	39.2	41.9
	Postgraduate	3.4	27.5	14.5
	Unreported	3.5	5.8	3.3

*Note:* Figures depict means and standard deviations in the parenthesis unless otherwise specified

### Overall Analysis

MANOVA results showed that there was a significant TimeXGroup interaction effect [F(12, 326)=8.63, p<.001,  $\eta^2_{\text{Partial}}=0.24$ ], suggesting that the dependent variables in the current analysis experienced a significant change in groups over time. Significant main effects were also found for both groups [F(6, 332)=3.47, p=.002,  $\eta^2_{\text{Partial}}=0.06$ ] as well as for time [F(6, 668)=12.40, p<0.001,  $\eta^2_{\text{Partial}}=.10$ ].

Meanwhile, the one way ANOVA analysis showed no significant differences across the three experimental groups at pre-treatment for BDI-M scores [F(2, 168)=.353, p=.70], ATQ-M scores [F(2, 168)=1.16, p=.32], and DAS-M [F(2, 168)=.03, p=.97]. This would suggest that all the three groups did not differ in terms of severity of depression at pre-treatment.

### Mean Differences across Groups

**Beck’s Depression Inventory-Malay (BDI-M).** The preliminary analysis showed that Mauchly’s test was significant, indicating that the assumption of sphericity has been violated. Thus, Greenhouse-Geiser corrections were used in the current analysis. Repeated measures ANOVA was conducted on the BDI-M, and the results showed that the BDI-M experienced significant main effect changes over time [F(1.38, 232.41)=29.28, p<.001,  $\eta^2_{\text{Partial}}=0.15$ ] and group [F(2, 168)=9.19, p<.001,  $\eta^2_{\text{Partial}}=0.10$ ]. Analysis for BDI-M showed a significant Time and Group (TimeXGroup) interaction effect F(2.77, 232.41)=11.01, p<.001,  $\eta^2_{\text{Partial}}=0.12$ ] (see Figure 1), suggesting that the BDI-M scores would change between the groups over time.

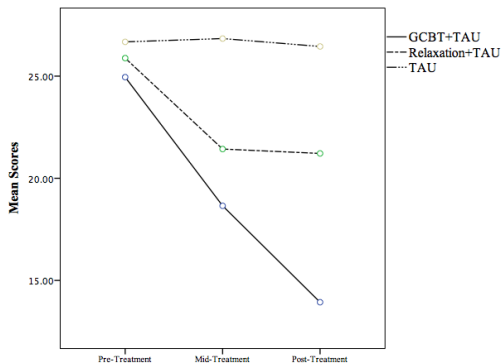


Figure 1. Mean scores of BDI-M

Meanwhile, post hoc analyses showed that the GCBT+TAU treatment group experienced significant reductions between pre-treatment (M=24.95) and mid-treatment (M=18.65) ( $p < .001$ ), as well as the post-treatment (M=13.93) ( $p < .001$ ). Results also showed that the mid-treatment scores were significantly higher than the post-treatment ( $p < .001$ ), resulting in significant reductions.

Post hoc analyses also showed that the Relaxation+TAU treatment group experienced significant reductions between the pre-treatment (M=25.88) and mid-treatment (M=21.43) ( $p = .001$ ), as well as between the mid-treatment and post-treatment (M=21.22) ( $p = .05$ ). Finally, analysis of the TAU only treatment group showed that it experienced no significant changes in depressive symptoms over time.

The preliminary analysis showed that Mauchly's test was significant, indicating that the assumption of sphericity had been violated. Thus, Greenhouse-Geiser corrections were used in the current analysis. Repeated measures ANOVA was conducted and the results showed that the ATQ-M

experienced significant main effect changes over Time [ $F(1.73, 291.04) = 28.86, p < .001, \eta^2_{\text{Partial}} = .15$ ] and Group [ $F(2, 168) = 6.53, p = .002, \eta^2_{\text{Partial}} = .07$ ]. Analysis for the ATQ-M scores showed a significant TimeXGroup interaction effect [ $F(3.47, 291.04) = 31.52, p < .001, \eta^2_{\text{Partial}} = .27$ ] (see Figure 2). This suggests that the ATQ-M scores would change between groups over time.

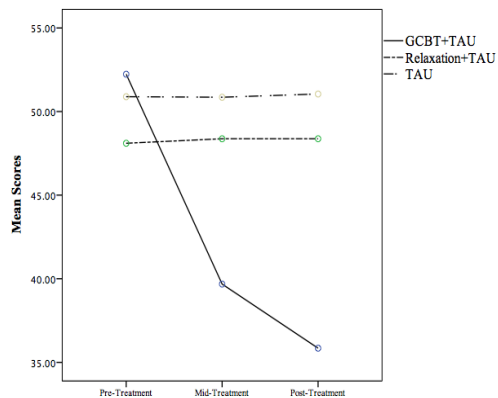


Figure 2. Mean scores of ATQ-M

**Automatic Thought Questionnaire-Malay (ATQ-M).** The post-hoc analyses showed that the GCBT+TAU treatment group experienced significant reductions in negative automatic thoughts between the pre-treatment (M=52.23) and mid-treatment (M=39.68) ( $p < .001$ ), and post-treatment (M=35.85) ( $p < .001$ ). The analyses also showed significant reductions in negative automatic thoughts between the mid-treatment and post-treatment ( $p = .001$ ).

Further analyses showed that in both the Relaxation+TAU and TAU only treatment groups, no significant changes in the negative automatic thoughts had occurred.



**Dysfunctional Attitude Scales-Malay (DAS-M).** The preliminary analysis showed that Mauchly’s test was significant, indicating that the assumption of sphericity had been violated. Thus, Greenhouse-Geiser corrections were used in the current analysis. Repeated measures ANOVA was conducted and the results showed that the DAS-M experienced no significant main effect changes over Time [F(1.89, 317.02)=4.61,  $p=.012$ ,  $\eta^2_{\text{Partial}}=.03$ ] but significant main effect change between the groups [F(2, 168)=4.24,  $p=.02$ ,  $\eta^2_{\text{Partial}}=.05$ ]. Similarly, the analysis for the DAS-M also showed a significant TimeXGroup interaction effect [F(3.77, 317.02)=5.10,  $p=.001$ ,  $\eta^2_{\text{Partial}}=.06$ ] (see Figure 3). This finding suggests that the DAS-M scores would change between the groups over time.

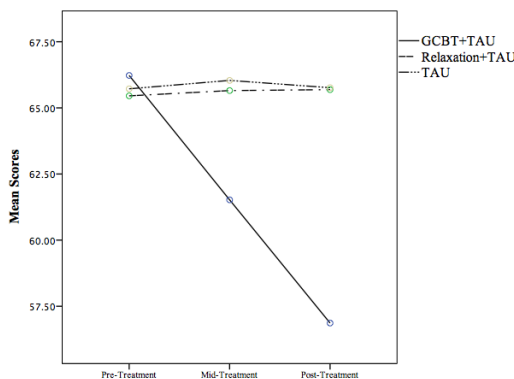


Figure 3. Mean scores of DAS-M

The post-hoc analyses showed that the GCBT+TAU treatment group experienced significant decreases in the frequency of negative beliefs between the pre-treatment (M=66.23) and post-treatment (M=56.87)

( $p<.001$ ). The analysis also showed significant decreases in the frequency of negative beliefs between the mid-treatment (M=61.52) and post-treatment ( $p=.02$ ). The post-hoc analyses further showed that no significant changes in coping behaviour in both the Relaxation+TAU and TAU only treatment groups.

**Cohesion.** The preliminary analysis showed that Mauchly’s test was significant, indicating that the assumption of sphericity had been violated. Thus, Greenhouse-Geiser corrections were used in the current analysis. Repeated measures ANOVA was conducted and the results showed that as assessed by the single item, visual analogue scale experienced significant main effect changes over time [F(5.63, 225.150)=8.43,  $p<.001$ ,  $\eta^2_{\text{Partial}}=.17$ ] but no significant main effect was observed across the groups [F(1, 40)=.042,  $p=.89$ ,  $\eta^2_{\text{Partial}}=.001$ ]. No significant interaction effect was observed between TimeXGroup [F(5.63, 1.04)=.50,  $p=.80$ ,  $\eta^2_{\text{Partial}}=.012$ ], suggesting that cohesion scores would change between the groups over time.

The post-hoc analyses showed that cohesion increased significantly over time. In specific, cohesion significantly increased between Week 1 and Week 3 ( $p=.002$ ), Week 4 ( $p=.001$ ), Week 5 ( $p<.001$ ), Week 6 ( $p<.001$ ), Week 7 ( $p<.001$ ), as well as Week 7 ( $p<.001$ ). Further analyses showed that there were significant increases in the perceived cohesion between Week 2 and Week 3 ( $p=.009$ ), Week 4 ( $p=.002$ ), Week 5 ( $p=.003$ ), Week 6 ( $p<.001$ ), Week 7 ( $p=.001$ )

and Week 8 ( $p=.003$ ). Similarly, the analysis also showed significant increases in cohesion between Week 3 and Week 7 ( $p=.042$ ) (see Table 2).

### Effect Sizes for the Treatment Groups

Partial eta squared effect sizes were obtained to determine the treatment effect observed across the three groups (refer to Table 1). Results from the analysis showed that the participants in the GCBT+TAU group experienced moderate treatment effect from the pre-treatment to post-treatment ( $\eta^2_{\text{Partial}} = .58$ ). Meanwhile, the participants in the Relaxation+TAU ( $\eta^2_{\text{Partial}} = .23$ ) and TAU ( $\eta^2_{\text{Partial}} = .06$ ) only group experienced a small treatment effect. Thus, this suggests that GCBT+TAU treatment was able to elicit significantly greater reduction in depressive symptoms compared to the Relaxation+TAU Treatment and TAU only treatment groups.

### Significant Reliable Change and Clinically Significant Change of BDI-M

Significant reliable change was determined in this current study. It is defined as the reliably statistical change that occurs regardless of normal functioning. Clinically significant change was also determined in the current study, which is defined as a return to normal functioning when comparing the clinical population and that of the general population (Jacobson & Truax, 1991). The GCBT+TAU group results from the pre-treatment to post-treatment showed that 77.59% (45/58) of the participants experienced significant reliable change,

whilst 58.52% (34/58) of them experienced clinically significant change (See Table 3). On the other hand, the participants in the Relaxation+TAU group experienced 37.25% (19/51) clinically significant change, whilst 1.96% (1/51) of the participants underwent clinically significant change (see Table 3). However, the participants in TAU only group did not experience any significantly reliable or clinically significant change from the pre-treatment to post-treatment (see Table 3).

Further post-hoc analyses also showed that at pre-treatment, there was no significant difference observed between the three treatment groups of GCBT+TAU, Relaxation+TAU and TAU only treatment group (see Figure 1). Once again at the

Table 2  
Means and standard deviations for cohesion in GCBT and relaxation treatment groups

		GCBT	Relaxation
Week 1	Mean	2.20	2.00
	Std Deviation	0.19	0.83
Week 2	Mean	3.18	2.50
	Std Deviation	0.19	0.84
Week 3	Mean	3.48	4.00
	Std Deviation	0.18	0.79
Week 4	Mean	3.83	4.50
	Std Deviation	0.17	0.78
Week 5	Mean	4.43	4.00
	Std Deviation	0.17	0.74
Week 6	Mean	4.85	4.50
	Std Deviation	0.15	0.69
Week 7	Mean	4.80	4.50
	Std Deviation	0.15	0.68
Week 8	Mean	4.65	4.50
	Std Deviation	0.13	0.57

mid-treatment, there was no significant difference in the BDI-M scores between GCBT+TAU and Relaxation+TAU. However, the GCBT+TAU treatment group experienced a greater significant reduction in depressive scores as compared to that experienced in the TAU only treatment group ( $p < .001$ ). By the post-treatment, the GCBT+TAU treatment group was observed to have significantly lower depression scores than those in the Relaxation+TAU treatment group ( $p = .003$ ), as well as those in the TAU only treatment groups ( $p < .001$ ), whilst those in the Relaxation+TAU treatment group

recorded significantly lower BDI scores than those in the TAU only treatment group ( $p = .05$ ).

These results indicate that the GCBT+TAU treatment group elicits faster reductions in depressive symptoms between the pre-treatment to mid-treatment and post-treatment compared to the TAU only treatment group, whilst the GCBT+TAU treatment elicits faster reductions than the Relaxation+TAU treatment group between the pre-treatment and post-treatment only (see Table 1 & Figure 1).

Table 3  
*Percentages of significantly reliable and clinical change for each group*

	Total Participants	Reliable Change (n, %)	Clinically Significant Change (n, %)
GCBT+TAU	58	45 (77.59%)	34 (58.52%)
Relaxation+TAU	51	19 (37.25%)	1 (1.96%)
TAU Only	64	Nil	Nil

*Note:* GCBT – Group CBT; TAU – Treatment as Usual

## DISCUSSION

The current study was conducted with the aim to determine the effectiveness of GCBT+TAU in reducing the symptoms of depression as compared to the Relaxation+TAU treatment and TAU only treatment groups. The current study also evaluated any significant reliable change and clinically significant change to depression scores. The cognitive changes that occurred during the treatment of unipolar depression were also examined. Finally, this study also looked at providing

insights into the contributions of cohesion to treatment outcomes.

The results from the current study support the first and second hypotheses which stated that participants in the GCBT+TAU treatment group would experience significant reductions in depressive symptoms between the pre-treatment, to mid-treatment, and finally to post-treatment, as well as greater reliable and clinically significant change over time, as compared to the other treatment groups. In addition, the results from the current

study show that depressive symptoms in the GCBT+TAU treatment group experienced significantly greater and quicker reductions in depressive symptoms over time compared to both Relaxation+TAU treatment group and TAU only treatment groups. This was evident by the greater effect sizes observed in the GCBT+TAU group and the reliable and clinically significant change. Whilst the Relaxation+TAU treatment group also experienced significant reductions in depression symptoms up to mid-treatment, it elicited a smaller effect size, as well as reliable and clinically significant change. Finally, the TAU only treatment group did not experience any significant change in depressive symptoms. These findings bring with it important implications in the treatment of depression in Malaysia, suggesting that perhaps the use of CBT in conjunction with pharmacotherapy treatments would bring about significant improvements in the shortest amount of time.

The current study supports the results by Azhar and colleagues (2007), as well as that by Mukhtar and colleagues (2006), which revealed that CBT was able to elicit significant reductions in depression symptoms when used in conjunction with pharmacotherapy. The results obtained in the current study showed similar patterns of reductions in depression symptoms, as exhibited by the study of Mukhtar and colleagues (2006). In their study, the participants were found to have experienced greater and quicker reductions in depressive

symptoms over time compared to those in the treatment as usual control group. It was interesting to note however that the final mean BDI-M scores of their study at post-treatment ( $m=6.33$ ) were substantially lower than that of the current study ( $m=12.40$ ). Similarly, the study by Mukhtar and colleagues (2006) also showed greater reliable and clinically significant change than the current study. More importantly, the current study has extended their findings by sampling from the wide range of ethnicities here in Malaysia. Doing so allowed generalisation of GCBT effectiveness in treating depression to be extended to the Malaysian populace.

In terms of the changes in depressive symptoms, there were similar trends in both the current study and the study by Isa and colleagues (2013). Whilst there was a significant reduction in depression scores for both studies, this ultimately did not result in clinically significant reductions between pre-treatment and post-treatment for those in the Relaxation+TAU treatment groups. This result suggests that Relaxation training does not function as an effective treatment for depression. Instead, it is possible that relaxation training may serve as an effective technique to be incorporated as a skill or technique within established treatments. It may also be useful for individuals who struggle with CBT, such as individuals who have difficulty with insight. Given that relaxation training focuses primarily on physiological and behavioural interventions, this could prove to be an effective adjunct

for some individuals to supplement existing treatments that they may already be receiving.

Results also support the third and final hypotheses that the GCBT+TAU treatment group would experience significant reductions in negative automatic thoughts and beliefs between the pre-treatment to mid-treatment and finally to post-treatment. The findings obtained in the current study also showed that there were no significant changes to negative automatic thoughts and dysfunctional beliefs in the Relaxation+TAU and TAU only treatment groups.

Findings from the current study support studies done in the past such as that done by Kwon and Oei (2003), which revealed that the participants undergoing GCBT experienced significant reductions to negative automatic thoughts and dysfunctional beliefs when applied to a group of 35 participants suffering from depression. In addition, the results from the current study also support the findings by Mukhtar and colleagues (2011) which indicated that there were similar patterns in the reductions of negative automatic thoughts and dysfunctional beliefs, where significant reductions of ATQ-M and DAS-M scores occurred between the pre-treatment to mid-treatment and finally to the post-treatment were observed. Moreover, the results also show that the rate of change in negative automatic cognitions appears to match that of the findings by Mukhtar and colleagues (2011). This would lend support to the notion that GCBT is an effective

method of reducing negative automatic thoughts beliefs amongst a local populace.

The findings from the current study also suggest that the cognitive theories suggested by Beck (1995) may be applicable to Malaysians, provided that similar patterns of reductions in negative automatic thoughts and dysfunctional beliefs were observed. The cognitive model of depression suggests that the interaction of negative life events with dysfunctional beliefs elicits a higher frequency of negative automatic thoughts, which then results in an individual suffering from depression. These findings suggest paths for future research, whereby the aim would be to test the model of Beck's Cognitive model of depression to determine its validity amongst a local population.

For example, the item "*Tak ada siapa memahami saya?*" ("No one understands me") in the ATQ-M yielded some substantial decreases in the frequency of endorsements from the pre-treatment to post-treatment. Given the collectivistic nature of Malaysians (Markus & Kitayama, 2003), this change suggests that changing perceptions on their sense of belonging will elicit possibly reduced depression symptoms. Thus, it is vital to ensure the validity and generalizability of the cognitive model to properly understand the underlying mechanisms at work, given the results found in the current study.

In comparing the GCBT+TAU and Relaxation+TAU treatment, some interesting parallels appeared and these might offer some insights into the plateauing of BDI-M



scores observed in the Relaxation+TAU group. Scores for the BDI-M suggested that both the GCBT+TAU and Relaxation+TAU groups experienced significant reductions from the pre-treatment to mid-treatment. In the initial sessions of GCBT, the main focus was on behavioural change. The participants were introduced techniques that focus on day-to-day changes such as encouraging exercises, which is similar to that experienced in the Relaxation+TAU group which focussed on the behavioural and physical aspects of relaxation (e.g., progressive muscle relaxation). However, as the sessions progressed to the 4th session (i.e., mid-treatment), more cognitive strategies were implemented. This was observed in the cognitive changes observed in the GCBT+TAU groups, but not in the Relaxation+TAU or TAU only treatment groups. Hence, it is possible that the plateauing of improvements in BDI-M observed was because in the Relaxation+TAU group, cognitive strategies were not offered, limiting the potential recovery of depressive symptoms to that of behavioural and physiological ones only.

The results from this study lend support to the notion that GCBT could be used in conjunction with treatment as usual to supplement the treatment of unipolar depression. Given that the Malaysian Ministry of Health (*Clinical Practice Guidelines: Management of Major Depressive Disorder*, 2007) acknowledges the use of CBT in the management of moderate to severe depression, it is possible for GCBT to bolster the substantial deficit

of mental health resources. Thus, this will allow clients greater access to a well-established and evidence based treatments for depression.

An interesting result which mirrored that of Mukhtar and colleagues (2006) was that the participants in the TAU group did not experience any significant change to depression symptoms. This finding is contrary to that of the previous studies that showed significant improvements to depressive symptoms given pharmacotherapy (Jaafar et al., 2007).

One possible reason for this is the nature of participant selection. In the current study, the participants were obtained via referrals from the psychiatrists after being diagnosed with depression. It is possible that these participants have had their depressive symptoms already stabilised with pharmacotherapy, thus no further changes would occur. Following this line of reasoning, it would be possible then that additional interventions in the forms of GCBT and Relaxation treatment would elicit substantial improvements to depression. This postulation is supported by the study by Azhar and colleagues (2007), which suggested that CBT would be an effective adjunct for pharmacotherapy resistant depression patients.

The results from the current analysis showed that there were general upward trends in group cohesiveness over time. However, there were no significant differences between the levels of cohesiveness in the GCBT+TAU and Relaxation+TAU groups. Given that there were significant

differences in the depression scores between the GCBT+TAU and Relaxation+TAU groups, this suggests that cohesion does not play a significant role in the treatment outcome as there were no significant differences in the cohesion scores. Hence, a further study is required to fully examine the relationship between cohesion and progression of treatment outcomes.

The current study adds to the existing body of literature on depression treatment in Malaysia. The randomised design and a priori determination of power allowed for good generalisability of the results obtained. In this regard, the rating scales utilised were of sound psychometric properties, where all measures had been translated and validated for use amongst a local populace.

Another strength of the current study is that it sampled a wide range of ethnicities (e.g., Malay, Chinese, Indians and other various minority ethnicities) which reflects the population ratio in Malaysia. For this reason, the current study also employed a randomised controlled trial which would answer the need for more empirical research for the treatment of unipolar depression in Malaysia (Mukhtar & Oei, 2011b). Another strength in the current study is the use of translated and validated measures for use in Malaysia. The use of a manual GCBT program and Relaxation Training programme was another strength, as it allowed for structured and easily replicable sessions.

The use of a group modality for the current study also represents a strength. Given that the Asian cultures are by and

large collectivistic (Markus & Kitayama, 2003), group based approach would possibly offer significant benefits to treatment outcomes. Anecdotal observations from the current study showed that a strong sense of camaraderie was built among the participants who experienced group based interventions (i.e., the GCBT+TAU and Relaxation+TAU treatment groups). The participants were observed to discuss the techniques shared to them, and then spontaneously offered their own views and experiences in regards to those techniques, suggesting possible enhancement to the treatment effect. It is interesting to note that the Asian notion of 'face saving' (Markus & Kitayama, 2003) did not appear to be a significant barrier to group camaraderie. Rather than face saving being hindrance, observations from the current study further suggested that the participants were able to focus on the common goal of trying to overcome their difficulties together.

Whilst the results suggest the significant positive treatment effects of the GCBT treatment group over the other two control groups, caution should be taken when considering its implications. One limitation of the current study lies in the fact that no formal tracking of medication taken by the participants was done. This was due to the fact that many participants were unable to provide a detailed record of their medication intake. Consequently, the participants' medical records were not always easily available to the researchers. Referrals made were at times restricted to patients' current demographics and contact

information. In other words, the researchers could not access up-to-date information regarding the medications being taken by the participants. Moreover, informal enquiries to participants were inconclusive as many of them were unable to recall the names of their medication, or even track medication adherence during the course of the study. In addition, the current study also did not examine if the participants had received any forms of alternative treatment methods such as traditional cures through local *bomoh* or *sinseh* (traditional shamans who engage in healing based on cultural beliefs) or religious approaches (Haque, 2008). It is possible that applications to such treatment methods may have elicited changes to depressive symptoms as part of cultural healings.

On the contrary, one limitation of this study is that it is possible that the non-change observed in the TAU treatment group could possibly be due to non-adherence to pharmacological interventions. Whilst results in this study showed no significant difference in depressive symptoms across the groups, further research would benefit from controlling this variable to determine its effect on treatment effectiveness.

However, the current study was limited by geographical constraints. In particular, the current study obtained its sample pool from within the country's capital of Kuala Lumpur, and its surrounding satellite towns. As such, it is necessary that the study be expanded to include individuals from rural areas, as well as from less established city centres. Moreover, the current study only

utilised self-report measures to assess the severity of depressive symptoms and cognitions being experienced. Self-report measures are prone to experimenter bias, where the participants respond in accordance to how they believe they should be performing.

This limitation brings with it some possible new directions for future studies. Standardising the administration of treatments (i.e., having the same clinical psychologist administer all treatments) will help to minimise variability in the study. Future research could focus more on the process of change that occurs during GCBT, where a better understanding will definitely allow for more effective treatment. Finally, an examination of different facets that are pertinent to an Asian culture, that will mediate the effects observed in the current study, is hoped to provide further insights such as religiosity which plays a substantial role in many Asian cultures (Markus & Kitayama, 2003). In response to possibility of experimenter bias, future research could employ structured clinical interviews to confirm existing diagnosis.

In addition, the current study also did not examine the long-term effects of GCBT treatment on depression. Whilst the results from the current study showed the significant reductions of depressive symptoms as well that of negative cognitions and dysfunctional beliefs, what was not examined was the long-term effects as a result from the treatment. Effective treatments would ideally not only bring with it clinically significant change, but also long-term maintenance of reduced

depressive symptoms. Further studies on the effectiveness of GCBT in the treatment of depression in Malaysia would also benefit from the examination of the long-term effects in depressive symptoms, as well as cognitions and beliefs.

Overall, the current study lends to the wealth of existing knowledge on the applicability of GCBT as an effective conjunctive to psychiatric treatment for depression. The current study was the first of its kind to compare the effectiveness of GCBT+TAU with Relaxation+TAU, showing that whilst both resulted in the reduction of depression symptoms, the change rate for GCBT+TAU is superior to that of Relaxation TAU. Finally, the results from the current study also have extended the current wealth of literature on GCBT by providing an early glimpse into the effects of GCBT on positive automatic thoughts.

## CONCLUSION

In conclusion, the study lends support to the notion for the use of Group CBT amongst a local Malaysian populace as an effective treatment method for unipolar depression which could potentially maximise the existing limited mental health resources.

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**APPENDIX***School level factors and their description (Creemers & Kyriakides, 2008)*

Components	Mode of Delivery	Duration
Day One		
1. Introduction and ground rules		
2. Three components of emotion and behaviours for change		
3. Homework/group work allocation		
4. Behavioural activation		
5. 'Spring Cleaning'	Psychoeducation, class	3 hours
6. 4 stages of change	exercises	
7. Depression – Types and variations		
8. 3 components of emotions		
9. You and your situation/other people		
10. Pharmacotherapy		
Day Two		
1. Behavioural: Achievement and Entertainment		
2. Behavioural: Self-help	Psychoeducation, class	
3. Homework/group work allocation	exercises, role play,	3 hours
4. Relaxation	homework, group	
5. Behavioural: Doing it	discussion	
6. Pleasant activity list		
Day Three		
1. Cognitive I		
2. Cognitive I	Psychoeducation, class	
3. Homework/group work allocation	exercises, role play,	3 hours
4. Thoughts	homework, group	
5. Connection between schemas and automatic thoughts	discussion	
Day Four		
1. Cognitive II: Analysis		
2. Cognitive II: Magic wand	Psychoeducation, class	
3. Homework/group work allocation	exercises, role play,	3 hours
4. Cognitive restructuring	homework, group	
5. Challenging negative automatic thoughts	discussion	
6. Creating mantras		
Day Five		
1. Cognitive III		
2. Cognitive techniques	Psychoeducation, class	
3. Homework/group work allocation	exercises, role play,	3 hours
4. Five tests to prove false beliefs	homework, group	
5. Changing bad memories	discussion	
6. Process of change: Yes I can!		

**APPENDIX** (*continue*)

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Day Six			
1.	Cognitive IV		
2.	Cognitive techniques	Psychoeducation, class exercises, role play,	
3.	Homework/group work allocation	homework, group	3 hours
4.	Downward arrow technique	discussion	
5.	Logical Analysis		
Day Seven			
1.	Building support systems		
2.	Interpersonal connections	Psychoeducation, class exercises, role play,	
3.	Homework/group work allocation	homework, group	3 hours
4.	Problem solving	discussion	
5.	Past, present and future: Power of the mind		
6.	Cost/benefit analysis		
Day Eight			
1.	Revision and relapse prevention		
2.	Planning for the future	Psychoeducation,	3 hours
3.	Homework/group work allocation	class exercises, role play,group discussion	
4.	Revisiting strategy and saying goodbye to depression		

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