# THE EFFECTS OF COGNITIVE BEHAVIOURAL THERAPY GROUP INTERVENTION ON SELF ESTEEM AMONG DRUG USERS BASED ON AGE

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## ABSTRACT

*The purpose of this study is to investigate the effects between Standard Group Cognitive Behavioural Therapy interventions [CBT(S)] and Brief Group Cognitive Behavioural Therapy [CBT (B)] categorized by age on self esteem (EK) mean score among drug users. The quasi experimental design with two treatment groups [CBT(S) & CBT (B)] and one control group (KW) and four measurements (Pre Test, Post 1, Post 2 and Post 3) were employed in this study. The sample of 108 drugs users was chosen using purposive sampling procedure. Sample were then divided into three age categories; (a) 19 to 29 years old (n=34); (b) 30 to 39 years old (n=43); and (c) 40 to 60 years old (n=31). Data were collected using standardized psychometric instruments, including Internal Control Index (Patricia Duttweiler, 1984) and The Rosenberg Self-Esteem Scale. Data were analyzed using descriptive analysis (mean, mean percentage and Standard Deviation) to see the differences on EK mean score between the three age categories. Result of the analysis demonstrated the intervention of group Cognitive Behavioural Therapy (CBT) on treatment group CBT(S) and CBT (B) are succeed in increasing EK mean score compared to KW group in different time interval for all categories. Result also showed EK mean score for treatment group CBT(S) increase higher compared to treatment group CBT (B). The effectiveness of CBT intervention to both group CBT(S) and CBT (B) for all categories are also demonstrated by the increased of EK mean score changing pattern at post test 1 compared to pre test, increase at post test 2 compared to post test 1 and increase at post test 3 compared to post test 2. As a conclusion, finding shows the intervention of group CBT(S) and CBT (B) could increase mean score of self esteem among of drug users based on age.*

**Keywords:** Cognitive behavioural therapy**,** Self esteem, Drug users, Drug abuse.

## Contribution/ Originality

This study is one of very few studies which have investigated the group interventions of cognitive behavioural therapy based on age where usually study is done without considering age as a factor in the intervention of group cognitive behavioural study. Through this study practitioner could considering implement a new approach of interventions based on age group.

## 1. INTRODUCTION

According to Kominars and Dornheim [1], drug abuse is defined as a maladaptive pattern that is fail to perform a responsibility, having interpersonal problems, always breaking the laws and showing lack of physical care. Besides that, drug abuse is also related to the usage of drug not prescribed by doctor or have been prescribed by doctors but are abuses. In addition, Stevens and Smith [2] explains that most of the drug users always think of addiction activities and involved in behaviour that can damage their physical and emotions, depressed, and cannot control their own self.

The government of Malaysia has been very serious in eradicating and rehabilitating drug users, but according to Agensi Anti Dadah Kebangsaan [3] the statistic shown that from 2001-2008, there is 221, 514 cases has been reported including new and repeated cases. Table 1 shows the comparison between new drug users and repeated drug users from January to December 2011.

**Table-1.**The Comparison between new drug users and repeated drug users in January- December 2011

| Case Status | Jan-Dec 2011 | Percentage % | Average Jan-Dec 2011 | |
|---|---|---|---|---|
| | | | **Monthly** | **Daily** |
| New Drug Users | 6, 956 | 62.14% | 580 | 19 |
| Repeated Drug Users | 4, 238 | 37.86% | 353 | 12 |
| Total | 11,194 | 100% | 933 | 31 |

**Source:**Agensi Anti Dadah Kebangsaan [4]

According to Table 1, from January to December 2011, the drug abuse cases is 11, 194 persons where about 38% percent of the cases are repeated drug users. Because about average 19 new drug users' cases and 12 repeated drug users reported daily, this is very worrying. This is because it involves high rehabilitation cost and at the same time, give negative impression to the community about the effectiveness of the rehabilitation for drug users programs that has been carried out before [4]

According to Mohd Rafidi [5], drug users' profiles are complex because they do not belong to the same group or homogeneous. However, they are individually different from many aspects such as personality, drug abuse, health status, socialization, education, work training and skills, environment influence and mental functions. This means that a systematic approach in building drug users psychology strength is needed. Therefore, a study on the effectiveness of group

counselling intervention using Cognitive Behavioural Therapy (CBT) approach is used to help drug users increase their self-esteem and internal locus control. On the other hand, this will also help our country to eradicate these serious social problems.

## 2. SELF ESTEEM AND DRUG ABUSE

According to Rosenberg [6] respondents with low self esteem will increase their level of depression and anxiety. They also get negative reputation from their friends. Self esteem is also implicitly valued from their expectations and determines their self-worth. Therefore, if an individual has a high self-esteem, they feel more worthwhile and think positively [7, 8]. On the other hand, those who have low self-esteem feel that they have low self-worth [9]. As stated by Van Zyl, et al. [10], self esteem is related to a person's self-acceptance of their character and has a large impact on the development of habits, emotions, behaviour and psychological adjustment.

Most of the drug users have low self-esteem, twisted self concept, very sensitive, depressed and have high level of uncertainty [1, 11]. They also have problems to live a normal life because of the pressure put by the society as a result from their low self-worth and confidence. Their low self-worth does not happen after they started using drug but it started before they use the drugs.

According to Coombs and Howatt [12] and Shaw, et al. [13], the drug users started using drug when they are looked down by the society, neglected and labeled with bad habits by the society because they fail to succeed in life. In addition, their negative past experience and challenging life journey decrease their level of self-esteem [14]. Their situation worse when they are involved in drug abuse [2, 15].Therefore, as stated by Clarke and Nicholson [14], drug users should be given support and help in a systematic way to so that their self-esteem will increase and they are able to bounce back and return to the society to live a normal life.

## 3. DEMOGRAPHIC INFORMATION OF RESEARCH SAMPLE

This research involves 108 research sample divided into two treatment groups labelled as CBT(S), CBT (B) and one control group, KW. The entire sample is Person under Scrutiny (OKP) at District AADK from three states in northern Malaysia. Table 2 shows the research sample demographic information according to age, OKP, marriage status and treatment groups CBT(S), CBT (B) and KW.

Table 2 shows 10 persons (28%) from CBT(S) group are in category of 19-29 years old, 18 people (50%) are in category of 30-39 years old and 8 persons (22%) are in category of 40-60 years old. While, in CBT (B) group, 15 people (42%) are in category of 19-29 years old. 12 people (33%) are in category of 30-39 years old and 9 people (25%) are in category of 40-60 years old. For KW group, 9 people (25%) are in category of 19-29 years old, 13 people (36%) are in category of 30-39 years and 14 people (39%) are in category of 40-60 years.

**Table-2.** Demographic Information of Sample according to Age, OKP, Marriage Status and Treatment Groups  CBT(S), CBT(B) and KW

| Variable | Category | CBT(S) | | CBT(B) | | KW | |
|---|---|---|---|---|---|---|---|
| | | Quantity | Percentage | Quantity | Percentage | Quantity | Percentage |
| Age | 19-29 | 10 | 28% | 15 | 42% | 9 | 25% |
| (Year) | 30-39 | 18 | 50% | 12 | 33% | 13 | 36% |
| | 40-60 | 8 | 22% | 9 | 25% | 14 | 39% |
| | Total | 36 | 100% | 36 | 100% | 36 | 100% |

**Key:**
**CBT(S)** = Standard Cognitive Behaviour Therapy          **KW** = Control Group
**CBT(B**) =  Brief Cognitive Behaviour Therapy          **OKP** = Person Under Scrutiny

## 4. LITERATURE REVIEW

According to Westbrook, et al. [16] CBT development is related to two major influences that is: Behaviour Therapy influence developed by Wolpe about 1950 and 1960ish and Cognitive Therapy influence developed by Beck about 1970ish. As a result from the combination of the basic principles in Behaviour Therapy that is stimulus with response and belief system elements as well as making interpretations and thinking way in Cognitive Therapy results in CBT Therapy. In a simple maneer, CBT Therapy combines cognitive element, emotions, behaviour and physiology.

According to Stevens and Craske [17], CBT approach is an approach which used brief counselling because it placed the importance on structuring the sessions and the amount of time used in the counselling session. Normally, the standard time for a counselling session is 10 to 20 sessions. However, because of the change in the living environment where the client is more keen in a shorter session to reduce the cost, reduce the time spent waiting and because of the long counselling process, there is a need to shorten the counselling session for the clients.

Therefore, the term Standard Cognitive Behavioural Therapy CBT(S) is used to define the standard CBT treatment to the client that is 10-20 sessions, meanwhile Brief Cognitive Behavioural Therapy is used to refer to treatment to client in less than 10 sessions [17]. As a result, there is a few changes done to strengthen the CBT(B) such as adapting the individual counselling treatment to the group counselling treatment format, making more material to increase client self-therapy and using various method of delivery such as using bibliotherapy and computer aid.

In principle, CBT(B) emerges when there is a need for CBT practitioner to make CBT intervention approach become more effective, save cost, and availabe for all groups of people. Therefore, the approach CBT(B) shorten the counselling session. However, according to Miller [15],Curwen, et al. [18], not all client are suitable with the  CBT(B) approach as they need high motivation to change and willing to put a lot of effort to do the rehabilitation activities planned for them. As such, according to Preston [19], CBT framework should be more focused, structured sessions, having goals and strategies with homework.

Generally, brief counselling is used from 1949. Most of the counselling sessions that has been done in 1949 to 1979 is average five to six sessions only.Meanwhile there is a study that had shown the effectiveness of counselling sessions that had been done about 12 sessions or 6 sessions is not significantly different. Therefore, a brief counselling session is more optimum to be used [20].

According to  Dryden [21], brief counselling is not only limited to use the CBT approach but there are various approach that can be used such as psychodynamic, behaviour approach, REBT (*Rational Emotive Behavioral Therapy*),Gestalt approach and strategic approach. Even though CBT(B) is always being related with reducing the cost [17, 22], the objective of carrying out the therapy is more profitable to the client because it does not involve long exploration problem process, but more focused on behaviour and cognitive changes so that they will learn the skills to help themselves to solve their problems [23-26].

According to Feltham and Dryden [22], the CBT (B) counselling session should be done to clients not less than 6 sessions. There is also other opinions on the number of the CBT (B) counselling sessions that is 4 to 8 counselling sessions [27], from 8 to 12 sessions [28], from four to six sessions [29] and not less than 12 sessions [30]. Based on the given views, the researcher has decided to conduct 12 counselling sessions for CBT(S) approach and six counselling sessions for CBT(B).

## 5. RESEARCH OBJECTIVE

There is three objective of this research that is :

(i)        To investigate the effects of intervention between groups CBT(S), CBT (B) and KW on mean score of self esteem for age 19-29 years old.

(ii)  To investigate the effects of intervention between groups CBT(S), CBT (B) and KW on mean score of self esteem for age 30-39 years old.

(iii) To investigate the effects of intervention between groups CBT(S), CBT (B) and KW on mean score of self esteem for age 40-60 years old.

## 6. RESEARCH METHODOLOGY

The research was conducted using quantitative approaches. Quantitative approach will answer research objective that being demonstrated using differences in mean score of self esteem among drug users.

On the other hand, this study has also used the quasi experimental approach by using factoral design for analysing data. In this study, 108 drug users have been chosen using purposive sampling. The sample of the study is divided into three age category, that is (a) 19 to 29 years old ($n=34$); (b) 30 to 39 years old ($n=43$) and (c) 40-60 years old ($n=31$). Data were collect using standardized psychometrics instruments; *Internal Control Index* [31](Duttweiler, 1984) and *The Rosenberg Self-Esteem Scale*. Descriptive analysis (mean, mean percentage and standard deviation) are used to see differences in EK mean score for the three age category.

Sample of the study consists of People Under Scrutiny (OKP) under the Section 6 (1) (a) namely;Magistrate's order to drug addicts to undergo treatment and rehabilitation in the CCRC (formerly known as PUSPEN) within 2 years, and then undergo supervision in community in the district AADK for 2 years. Three districts AADK for each state, Perlis, Kedah and Penang was chosen as research location. Conditions of selected sample are: (i) Obtained low mean score on self esteem and locus of control in `Rosenberg Self Esteem Scale" [31] and 'Internal Control Index' [32]; (ii) The minimum level of education are at least finish their studies at primary school and able

to read and write; (iii) Free from doctor supervision on mental illness and emotional related diseases; and (iii)  voluntarily agree to participate in this study.

## 7. ANALYSIS OF INTERVENTION GROUP EFFECTS

This part will present the analysis results of the effects of intervention between groups CBT(S), CBT (B) and KW in a different time interval based on three age categories; (a) 19 to 29 years old ; (b) 30 to 39 years old ; and (c) 40 to 60 years old.

### (a)  Age 19 to 29 Years Old

There are 34 samples in the age of 19 to 29 years old where 10 people are in the CBT(S) treatment group, 15 people in the CBT (B) group and 9 people in group KW. Table 3 shows the mean score (M), Percentage of mean difference, and Standard Deviation (SD) for samples with age between 19 to 29 years old. Referring to the CBT(S) treatment group , mean score of EK for Pre test is M = 1.56 ( SD = .07 ), Post test 1 ( M = 2.74 ; SD = .21 ) , Post test 2 ( M = 3:12 ; SD = .47 ) and Post test 3 ( M = 3.43 ; SD = .59 ) . There is an increase at EK mean scores for the CBT(S) group at different time interval. Percentage of mean difference is calculated by the following formula;

% Mean Difference = <u>Mean Post 1- Mean Pre test</u>  X 100
Mean Pre test

**Table-3.** EK Profile of treatment groups CBT(S), CBT (B) and KW at Different Time Interval for Age 19-29 Years Old.

| | CBT(S) | | | CBT(B) | | | KW | | |
|---|---|---|---|---|---|---|---|---|---|
| | *M* | *SD* | **% Mean Differ** | *M* | *SD* | **% Mean Differ** | *M* | *SD* | **% Mean Differ** |
| Pre | 1.56 | .07 | - | 1.55 | .07 | - | 1.55 | .09 | - |
| Post 1 | 2.74 | .21 | 75.6 | 2.60 | .23 | 67.7 | 2.31 | .29 | 49 |
| Post 2 | 3.12 | .47 | 13.8 | 2.97 | .40 | 14.2 | 2.84 | .50 | 22.9 |
| Post 3 | 3.43 | .59 | 9.9 | 3.26 | .65 | 9.8 | 2.66 | .43 | -6.3 |
| Pra-Post 3 | | | 119.8 | | | 110.3 | | | 71.6 |

Table 3 shows an increase in mean at Post test 1 that are 75.6 % compared with the mean of pre test , an increase of 13.8 % for the mean of post test 2 compared with the mean of post test 1 and an increase of 9.9 % of mean score of post test 3 compared with the mean of post test 2 . Overall, there was an increase of 119.8 % between the mean of pre test and mean of post test 3 at time occasion.

While for CBT(B) treatment group there was an increase in mean scores of EK  from time occasion of pre test, M = 1:55 ( SD = .07 ), post test 1 ( M = 2.60 ; SD = .23 ) , Post test 2 ( M = 2.97 ; SD = .40 ) and post test 3 ( M = 3:26 ; SD = .65 ) . In terms of percentage of mean differences, there was an increases of mean for post test 1 by 67.7 % compared with the mean of pre test, increase by 14.2 % for the mean difference for post test 2 compared with the mean of post test 1 and an increase by 9.8 % in the mean score of post test 3 compared with the mean of post test

2. Overall, there is an increase by 110.3 % between the mean of pre test and mean of post test 3 at time occasion.

Meanwhile, in the KW group , the mean score of EK at time occasion of Pre test is M = 1.55 ( SD = .09 ) , post test 1 ( M = 2.31 ; SD = .29 ) , post test 2 ( M = 2.84 ; SD = .50 ) and post test 3 ( M = 2.66 ; SD = .43 ) . In terms of percentage of mean difference, there are increase of mean for post test 1 by 49% compared to the mean of pre test, an increase by 22.9 % of post test 2 mean difference compared with the mean of Post test 1, and a decrease of -6.3 % for the mean score of post test 3 compared with mean of Post test 2. Overall, there is an increase by 71.6 % between the mean of pre test and mean of post test 3 at the time occasion. Description about mean changing pattern of EK for each treatment and control groups at different time interval are shown in Figure 1.

**Figure-1.** Mean Changing Pattern of EK for CBT (S), CBT (B) and KW Groups in Different Time Interval for Age 19-29 Years Old.
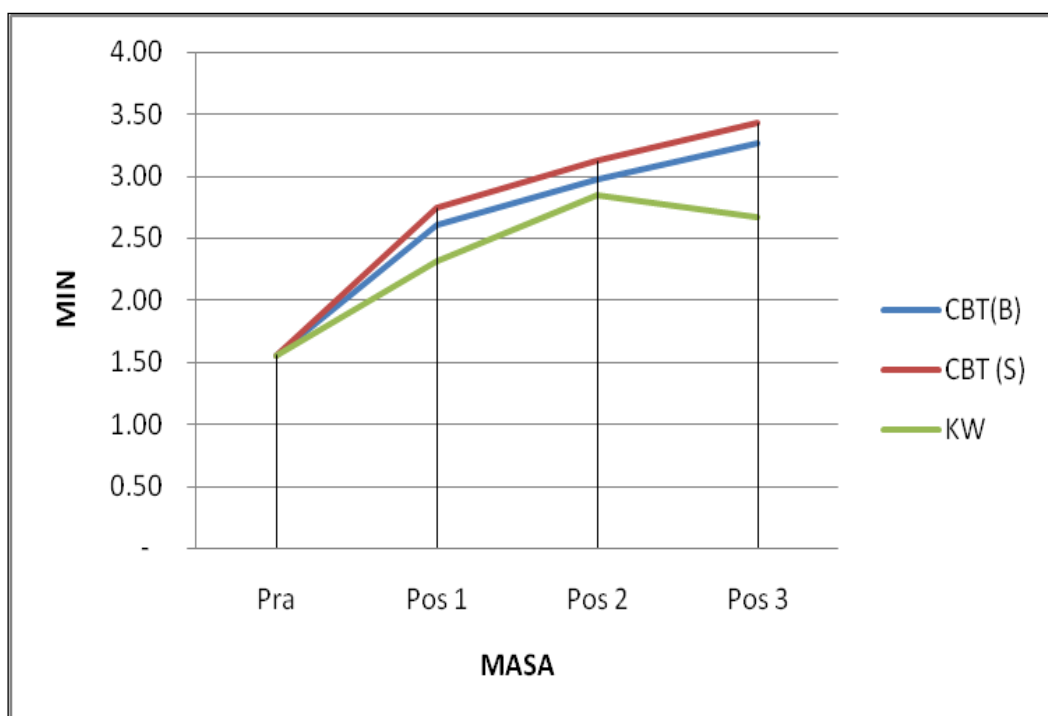


Figure 1 shows changing pattern of EK mean score for CBT (S), CBT (B) and KW groups in different time interval for age 19-29 years old. Figure 1 shows at the time occasions of Pre test, mean scores between treatment and control groups are almost equal CBT ( S ) ( M = 1.56 ; SD = .07) , CBT (B) (M = 1.55 ; SD = .07) , and KW (M = 1.55 ; SD = .09) . However, at Post test 1 , mean scores for CBT(S) group ( M = 2.74 ; SD = .21 ) was higher compared with mean of CBT(B) (M = 2.60 ; SD = .23) and KW ( M = 2.31 ; SD = .29 ). The same pattern is shown at Post test 2. Mean for CBT (S) ( M = 3:12 ; SD = .47 ) was higher than mean of CBT (B) ( M = 2.97 ; SD= .40 ) and KW (M = 2.84 ; SD = .50) as well as in Post test 3 where mean for CBT (S) ( M = 3.43 ; SD = .59 ) was higher than CBT (B) ( M = 3.26 ; SD = .65 ) and KW ( M = 2.66 ; SD = .43 ) . Figure 1

also shows the mean score of EK at post test 3 for KW group is lower compared to mean score of post test 2.

It can be concluded that based on the difference and percentage of EK mean score and also the changing pattern of EK mean score show that CBT(S) treatment group is more effective in increasing EK mean score compare to CBT(B) and KW group at different time interval for the category of 19-29 years old. Meanwhile, the CBT treatment group (B) is more effective in increasing EK mean score at different time interval compared to KW group.

**(b) Age 30 to 39 Years Old**

A total of 43 samples in the age category of 30 to 39 years old which includes 18 people in the treatment group CBT(S), 12 people in the CBT (B) group and 13 people in KW group. Table 4 shows the mean scores (M), percentage of mean difference and standard deviation (SD) of the sample in the age category of 30 to 39 years old.

**Table-4.** EK Profile of treatment groups CBT(S), CBT (B) and KW at Different Time Interval for Age 30-39 Years Old.

|  | CBT(S) | | | CBT(B) | | | KW | | |
|---|---|---|---|---|---|---|---|---|---|
|  | *M* | *SD* | **% Mean Differ** | *M* | *SD* | **% Mean Differ** | *M* | *SD* | **% Mean Differ** |
| Pra | 1.54 | 0.08 | - | 1.53 | 0.05 | - | 1.56 | 0.06 | - |
| Post 1 | 2.66 | 0.47 | 72.7 | 2.71 | 0.53 | 77.1 | 2.44 | 0.21 | 56.4 |
| Post 2 | 3.29 | 0.45 | 23.7 | 2.91 | 0.43 | 7.4 | 2.81 | 0.45 | 15.2 |
| Post 3 | 3.43 | 0.77 | 4.3 | 3.13 | 0.67 | 7.6 | 2.84 | 0.77 | 1.1 |
| Pra-Post 3 | | | 122.7 | | | 104.6 | | | 82 |

Referring to the CBT(S) treatment group in Table 4 shows the EK mean scores for Pre test is M = 1:54 (SD = .08), post test 1 (M = 2.66; SD = .47), Post test 2 (M = 3:29: SD = .45) and post test 3 (M = 3:43; SD = .77). While for the CBT (B) treatment group, the mean scores of EK at the time occasion for Pre test is M = 1:53 (SD = .05), post test 1 (M = 2.71; SD = .53), post test 2 (M = 2.91; SD = .43) and Post test 3 (M = 3:13; SD = .67). While for KW groups, the EK mean scores for Pre test is M = 1:56 (SD = .06), post test 1 (M = 2:44; SD = .21), post test 2 (M = 2.81; SD = .45) and post test 3 (M = 2.84; SD = .77). There was an increase in EK mean scores for all three groups CBT(S), CBT (B) and KW in different time interval.

Table 4 also shows there were an increase by 119.8% between the mean of pre test and mean at time occasion of post test 3 for CBT(S) treatment group, an increase by 110.3% between the mean of pre test and mean at time occasion of post test 3 for CBT (B) treatment group and an increase by 71.6% between the mean of pre test and mean at time occasion of post test 3 for KW group. Description about mean score changing pattern of EK for each treatment and control groups at different time interval are shown in Figure 2.

Figure 2 shows the profile of mean score changing pattern of EK for CBT(S), CBT (B) and KW groups in different time interval based on the sample age between 30 to 39 years old.

**Figure-2.** Mean Changing Pattern of EK for treatment groups CBT (S), CBT (B) and KW in Different Time Interval for age 30-39 Years Old.
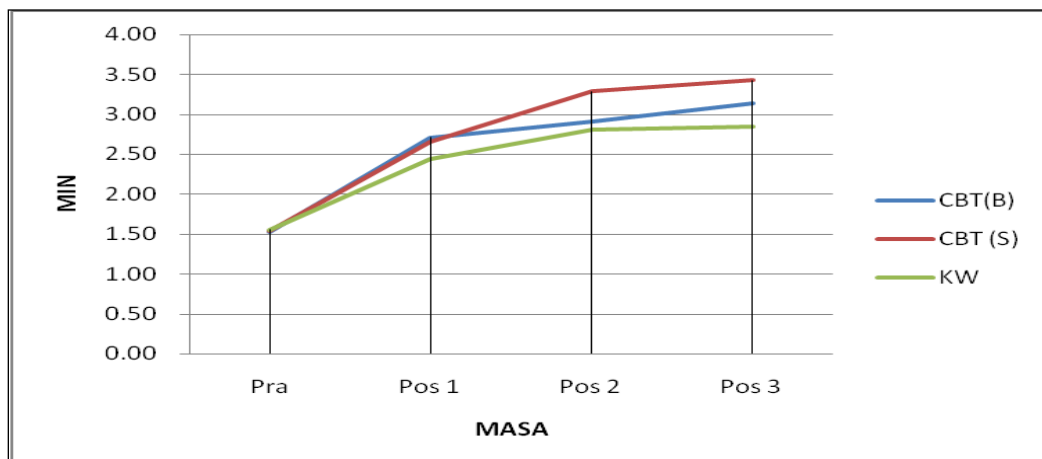


Meanwhile, Figure 2 shows at the time occasion of pre test, mean scores between treatment and control groups are almost equal CBT (S) (M = 1.54; SD = .08), CBT (B) (M = 1.53; SD = .05), and KW (M = 1:56; SD = .06). In the post test 1, mean for CBT (S) (M = 2.66; SD = .47) was lower than CBT (B) (M = 2.71; SD = .53) and higher than the KW group (M = 2:44; SD = .21). In the post test 2, mean for CBT (S) (M = 3.29; SD = .45) was higher than CBT (B) (M = 2.91; SD = .43) and KW (M = 2.81; SD = .45). Similar with post test 3, the mean for CBT (S) (M = 3:43; SD = .77) was higher than CBT (B) (M = 3:13; SD = .67) and KW (M = 2.84; SD = .77).

In summary, based on the difference and percentage of mean scores and mean changing pattern of EK demonstrated CBT(S) are more effective in increasing EK mean scores compared to the CBT (B) and KW group at the different time interval for the age of 30-39 years old. Meanwhile, treatment group CBT (B) is more effective increasing EK mean scores compared to KW group.

**(c) Age 40 to 60 Years Old**

A total of 31 samples in the age category of 40 to 60 years old which includes 8 people in treatment group CBT(S), 9 people in the CBT(B) group and 14 people in the KW group. Table 5 shows the mean scores (M), percentage of mean difference and standard deviation (SD) of the sample with age between 40 to 60 years old.

**Table-5.** EK Profile of treatment groups CBT(S), CBT (B) and KW at Different Time Interval for Age 40-60 Years Old.

| | CBT(S) | | | CBT(B) | | | KW | | |
|---|---|---|---|---|---|---|---|---|---|
| | *M* | *SD* | % Mean Differ | *M* | *SD* | % Mean Differ | *M* | *SD* | % Mean Differ |
| Pre | 1.53 | 0.06 | - | 1.55 | 0.08 | - | 1.58 | 0.07 | - |
| Post 1 | 2.75 | 0.28 | 79.7 | 2.57 | 0.20 | 65.8 | 2.39 | 0.30 | 51.3 |

*Continue*

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Post 2 | 3.10 | 0.49 | 12.7 | 3.18 | 0.30 | 23.7 | 2.83 | 0.49 | 18.4 |
| Post 3 | 3.49 | 0.52 | 12.6 | 3.48 | 0.44 | 9.4 | 2.91 | 0.42 | 2.8 |
| Pre-Post 3 | | | 128.1 | | | 124.5 | | | 84.2 |

Referring to the CBT(S) treatment group, EK mean scores for the Pre test is M = 1:53 (SD = .06), post test 1 (M = 2.75; SD = .28), post test 2 (M = 3:10; SD = .49) and post test 3 (M = 3:49; SD = .52). While for CBT (B) treatment group the mean scores of EK for pre test is M = 1:55 (SD = .08), post test 1 (M = 2.57; SD = .20), post test 2 (M = 3:18; SD = .30) and post test 3 (M = 3.48; SD = .44). For KW group, EK mean scores for Pre test at the time occasion is M = 1.58 (SD = .07), post test 1 (M = 2.39; SD = .30), post test 2 (M = 2.83; SD = .49) and post test 3 (M = 2.91; SD = .42) There was an increase in EK mean scores for all three groups CBT(S), CBT (B) and KW in different time interval.

Table 5 also shows there was an increase by 128.1% between mean of pre test and mean of post test 3 at time occasion for CBT(S) treatment group, an increase by 124.5% between mean score of pre test and mean of post test 3 at time occasion for CBT (B) group and there was an increase by 84.2% between mean of pre test and mean of post test 3 at time occasion for KW group. Explanation about mean score changing pattern of EK for each treatment and control groups at different time interval are shown in Figure 3.

**Figured-3.** Mean Changing Pattern of EK for treatment groups CBT (S), CBT (B) and KW in Different Time Interval for age 40-60 Years Old.
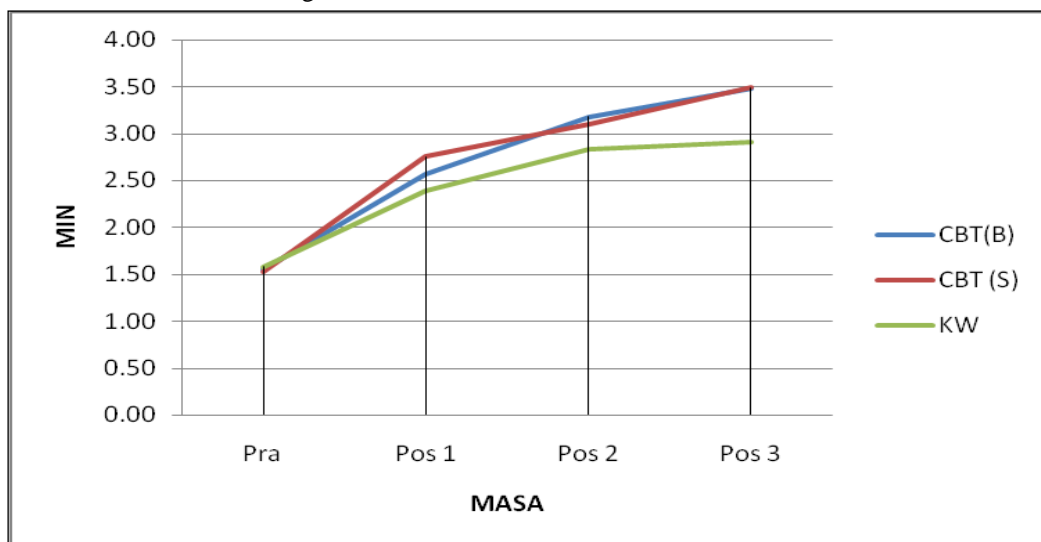


Figured 3 shows the profile of mean changing pattern of EK for CBT(S), CBT (B) and KW treatment group in the different time interval for the age between 40 to 60 years old. Meanwhile, figured 3 also shows at the time occasion of pre test, mean scores between treatment groups and control groups found to be almost the same CBT (S) (M = 1.53; SD = .06), CBT (B) (M = 1.55; SD = .08), and KW.(M = 1:58; SD = .07). In the post test 1, mean scores for CBT (S) (M = 2.75; SD = .28) was higher than CBT (B) (M = 2:57; SD = .20) and KW (M = 2:39; SD = .30). In the post test

2, mean for CBT (S) (M = 3:10; SD = .49) was lower than CBT (B) (M = 3:18; SD = .30) and higher than the KW group (M = 2.83; SD = .49). In the post test 3, the mean for CBT (S) (M = 3:49; SD = .52) was higher than CBT (B) (M = 3:48; SD = .44) and KW (M = 2.91; SD = .42).

It can be concluded that based on the difference of mean scores and the mean percentage and mean changing patterns of EK at Figure 3 shows the CBT (S) treatment group are more effective increasing EK mean scores compared to the CBT (B) and KW group in the different time interval for the 40 -60 years old age group even though the analysis demonstrated a decline in EK mean scores of post test 2. Other than that, CBT (B) treatment group are more effective than KW group.

## 8. DISCUSSION

The analysis of EK profile for CBT(S), CBT (B) and KW in a different time interval are done accordingly by three age categories that are ; ( i ) 19 to 29 years old; ( ii ) 30 to 39 years old; and ( iii ) 40 to 60 years old. Based on the results of the descriptive analysis (mean, percentage of mean difference and standard deviation) shows that the intervention of CBT on treatment groups CBT(S) and CBT (B) had successfully increase EK mean score compared to KW group at different time interval for all three age categories. Meanwhile, in terms of comparison of increment in EK mean scores, CBT intervention on CBT(S) treatment group showed a higher increased compared with the CBT (B) treatment group. The effectiveness of CBT interventions for both groups CBT (S) and CBT (B) for all three age categories also demonstrated through the increased of mean scores changing pattern of EK at the post test 1 compared to the pre test, increased at post test 2 compared to post test 1 and increased at post test 3 compared to post test 2.

Based on the analysis of EK profiles for all three age categories on treatment group CBT(S), CBT (B) and KW shows difference in ages does not influence the findings of the study because it shows the similar result; ( i ) CBT intervention successfully increased the EK mean score for group CBT (S) and CBT (B) compared to KW for all category ; and (ii) CBT intervention for CBT(S) group treatment showed higher EK mean score than the CBT (B) for all age categories . This findings are in line with the views of Mohd Mansur [33] that the age factor cannot be the indicators of individual in acceptance of counselling , the client willingness are more an important factor in counselling session like having openness and discuss their problem to determine the goal in changing the behaviour to plan for the future .

Other than that, research finding is also consistent with the study of perception effectiveness in counselling services by Zukhairi and Mahmood Nazar [34]. According to the study, there is no significant relationship between the ages of the occupants in a counselling program with their treatment phase. This finding is oppose with a study done by Brantner [35] which conclude that group counselling is not suitable for the elderly because they are not capable of building cohesion in the group, but based on this study sample in age category between 40 to 60 years old are able to increase EK mean score as a result of CBT intervention using group counselling.

As the differences age category factor did not influence the findings of the study, the mean score of EK increased for all three age categories in CBT(S) and CBT (B) treatment group is likely due to the input module designed by the researchers and the use of CBT techniques during the intervention has been successful to provide awareness and skills to increase self esteem and locus

of control of the sample. Meanwhile, the increase of EK mean scores could be due to the process in group counselling that have adopted the therapeutic relationship between the counsellor and between each of them. In addition, orderly and systematic group counselling method and effective skills training to counsellors who conduct interventions are also likely to increase the EK mean score for both the CBT(S) and CBT (B) treatment group.

## 9. SUMMARY

The analysis result of EK profiles for all three age categories also show; (i) Mean changing pattern of EK mean scores is clearly demonstrated at post test 1 compared to pre test; (ii) Mean changing pattern of EK mean scores in the control group (KW) was relatively flat compared with the mean changing pattern of EK mean score for all three age categories; and (iii) Difference in mean score changing pattern of EK are almost the same for all categories of age. This finding showed age factor does not affect the mean score changing pattern of EK. Thus the difference of mean score changing pattern of EK for the three age categories are highly due to the reason of using CBT techniques which are very effective during the intervention process based on the time occasion.

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