



## The effectiveness of cognitive behaviour therapy on social adjustment among low achievement female students in Jordan

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### Abstract

The current study examined the effectiveness of cognitive behaviour therapy CBT as a counselling intervention on social adjustment. Data from a total of 68 low achievement female students from one school in Amman city was included in this experimental investigation in which students in the experiment group used social adjustment reinforcing through use CBT to complement their traditional counselling delivered social adjustment.

The researchers used social adjustment scale (SAS) at pre and post-test, the duration of the current study was 9 weeks one session weekly included pre and post-tests. The SAS scores demonstrated that low achievement female students in the experiment group show greater gains on social adjustment.

**Keywords:** cognitive behaviour therapy, social adjustment, low achievement female students

### Introduction

Despite Jordan is considered relatively the most stable country in the Arab region, the refugee migration during the previous 10 years has been a main factor to effect in the adverse well-being to both of student's refugee and Jordanian students (Majali, 2015). According to many studies (e.g. Gharaebah, 2014; Nassar, 2010) <sup>[14, 13]</sup> the students from these refugee population admitted in Jordanian are faced social adjustment problems that leaves a significantly impact to Jordanian students. Many studies have shown that the social adjustment problems are the major reasons for low achievement among students, particularly female students (Ashour, *et al.*, 2010; Lazarus & Folkman, 1984; Lee & Chen, 2000; Olimat, *et al.*, 2013) <sup>[3, 20, 21, 33]</sup>.

About low achievement among students, the studies at Arabic region in general and Jordan in particular mentioned the average of low achiever through all educational subjects in school. For example, Olimat, *et al.* (2013) <sup>[33]</sup> mentioned that the average of low achiever among student's at all educational subjects was 29% this is according to ministry of education report. according to many of researchers (e.g. Moore, 1999; Brigman, & Campbell, 2003; Webb, Brigman, & Campbell, 2005) <sup>[30, 9]</sup> the educators and scholars focus on solving this problem through do have counselling for low achievement students, which significant importance is given to treatment programs to solve and improve student problems that related on social skills which effect on academic performance. Furthermore, many of researchers such as (Gharaebah, 2014; Nassar, 2010; Olimat, *et al.*, 2013) <sup>[14, 33]</sup> recommend to apply the intervention – counselling programs to improve and increase the low levels of social adjustments. Moreover, Huffines (2002) <sup>[17]</sup> and Mathur (1999) <sup>[26]</sup> identified that the application of intervention-counselling programs contribute to enhances and improvement the level of social adjustment. in addition, the studies of Abdulaziz

(2007) <sup>[2]</sup>; Almasaeed (2005) <sup>[6]</sup>; Alsagheer (2001) <sup>[8]</sup>; Gharaebah (2014) <sup>[14]</sup>; Nassar (2010) <sup>[13]</sup>; Olimat, *et al.* (2013) <sup>[33]</sup> focused on the Arab region itself, and come a similar recommendations to conduct and carried out intervention-counselling programs to increase and improve the low levels of social adjustment among low achievement students.

According to Pucci (2010) <sup>[35]</sup> Cognitive Behavioral Therapy (CBT) is considered one of the most effective interventions and most important benefit of CBT is teaching students a rational self-counselling skills, where the students understand how to counsel themselves in rationally way then, they will obtain the confidence which it will give them the continuing to do well. Moreover, the CBT techniques include the focusing on correcting problematic underlying assumptions, as well as being cross-cultural as they are based on global laws of human behaviour.

There are many of studies (e.g. Abdalfahim, 2012; Ben-Mustapha, 2013; Lyons, 2010) <sup>[1, 10, 22]</sup> which confirmed the importance of CBT interventions techniques to improve many of school problems, due it has many of academic benefits. Furthermore, the effectiveness of CBT techniques as a clinical treatment to treat many of school problems are seen in some aspects such as school adjustment (Pearson, 2008), academic success (Lyons, 2010) <sup>[22]</sup>, academic functioning (Jr, 2010) <sup>[18]</sup>, and attention deficiency (Ben-Mustapha, 2013; Abdalfahim, 2012) <sup>[1, 10]</sup>.

Ben-Mustapha (2013) <sup>[10]</sup>; Abdalfahim (2012) <sup>[1]</sup>; Jr (2010) <sup>[18]</sup> confirmed to the important benefit to CBT which it was appeared through the good results of CBT intervention for school problems as well as it are shown to occur very quite speedily. Moreover, Jr (2010) <sup>[18]</sup> and Keshi and Basavarajapp (2013) mentioned that the CBT has an important academic benefits such as the contributing to positive social changes resulting from improvement the passing rates and increased the levels of academic achievement. In spite of the strong

recommendations to conduct an intervention programs to improve the low levels of social adjustment among female students, there is a still lack of researches that addressed CBT which it is considered a counselling program in relation to social adjustment.

In addition, Al-Mseidin *et al.* (2017) <sup>[7]</sup> suggested to conduct a qualitative research and an experimental study, over a period of time to develop the level of social adjustment through using a Cognitive Behavior Therapy CBT as a school counselling intervention among secondary female students in Jordan, due to increase the low levels of social adjustment among female students as well as to know how CBT influences the level of social adjustment.

This gap in literature was led to the aim of the present study, which is to examine to the effectiveness of the Cognitive Behavior Therapy as a school counselling programs to treat and improve the low levels of social adjustment among low achievement female students in Jordan. Hence, the aim of the present study to investigate the whether is any there difference in Social Adjustment which related to the components in terms of relationship between adolescent and school environment, relationship between adolescent and his family and relationship between adolescent and his community after the CBT intervention program as a counselling program among female students.

### Research question

Is there any difference between the experimental and control groups at pre-test and post-test on Social Adjustment?

### Cognitive behaviour therapy interventions school students

The CBT techniques are seen to be effective as a counselling intervention program as well as to be support to adolescent students. Some low academic performance (e.g. Mayer *et al.*, 2005) <sup>[27]</sup> is reported to benefit by CBT intervention programs. In addition, these intervention programs are seen to enhance the social skills as well as to help alleviate at-risk behaviour. According to Hoagwood *et al.* (2007) <sup>[16]</sup>; Pössel, Baldus, Horn, Groen, and Hautzinger (2005), the probability increases of at-risk students successfully to completing school, encourage the academic performance, as well as the improvement of self-efficacy skills. However, the results of meta-analysis to comparison the impact of a single component of CBT treatment versus multi components of CBT treatment to decrease disruptive behavior among students, was shown ambiguous results (Ghafoori, 2000) <sup>[13]</sup>. Generally, according to Ghafoori (2000) <sup>[13]</sup>, the CBT interventions are considered more impact than non-cognitive behavioural interventions to reducing at-risk behaviours. Moreover, these interventions improve some student problems such as a social skills that will affect to academic performance (e.g. Wang, Zhou, Yu, Ran, Liu, & Chen, 2015) <sup>[41]</sup>. Therefore, this will support the positive relation between CBT treatment and social adjustment. There are many of studies that applied the CBT techniques as a school counselling (e.g. Brigman & Campbell, 2003; Ling, Anderson, & Ji, 2015 <sup>[23]</sup>; Miranda, Webb, Brigman, & Peloso, 2007; Sapp, 1994; Sapp & Farrell, 1995; Trevino-

Maack, Kamps, & Wills, 2014; Webb, *et al.*, 2005) <sup>[9]</sup>. These studies addressed many of problems such as clinical, psychological and education problems. Furthermore, the empirical studies suggest a relation between CBT intervention programs and improvement the academic performance of students in schools. As well as the CBT intervention programs were used in successfully at school counselling programs in schools. In addition, these Interventions were in both of individual and group counselling sessions as well as inside classroom guidance which it effects through the positive outcomes in academic performance among school students (Brigman & Campbell, 2003 <sup>[9]</sup>; Ling, Anderson, & Ji, 2015 <sup>[23]</sup>; Miranda, Webb, Brigman, & Peloso, 2007; Sapp, 1994; Sapp & Farrell, 1995; Trevino-Maack, Kamps, & Wills, 2014; Webb, *et al.*, 2005) <sup>[9]</sup>.

### Social adjustment

Huffines (2002) <sup>[17]</sup> mentioned that the Social adjustment is the ability of a student to function in successfully at the school with adapting to its rules and requirements. As well as he identified that this involves the relationships with family, friends, and teachers. Moreover, the complying with procedures and rules at school is school social adjustment (Cook, 1990) <sup>[11]</sup>. As well as the school adjustment is considered an adaptive behaviour (Snyder, 1991) <sup>[38]</sup>. Norford (1991) <sup>[32]</sup> found that friendships and other activities at school will strongly influenced at social development among students. Therefore, friendships are provided a basis for social competence. Furthermore, it gave a value of self-worth as well as increased sensitivity to others, then enhancing social problem-solving skills.

According to Levine and Levine (1996) <sup>[24]</sup>, there are four aspects of social adjustment: competence, personal development, social integration and social responsibility. The social integration has found to be the most difficult aspect of social adjustment for high school students. In addition, they confirmed to the role of the high school teachers to the adjustment of students especially with new students.

### Research methodology

#### The Population and Sampling of the Study

The current study was used the pre and post-test experimental design aimed at examine the effectiveness of CBT on social adjustment among female students in secondary schools in Jordan.

The population of the present study was all secondary female students in secondary schools in Jordan. In addition, the researchers choose one secondary female school from Amman city randomly (Lamees Bint Umr School), the number of female students in Lamees Bint Umr School were 350. The reason to choose only one school is because of the nature of research design, i.e. experimental intervention. It is not possible to conduct experimental intervention in multiple schools because of the rigour and care that is required by the intervention (Mertens, 2010; Heppner, Wampold, & Kivlighan, 2008; and Wright, 2014) <sup>[28, 15, 42]</sup>. Then, the low achievement students were chosen depend on teachers reports where the researchers identified the low achievement students under 69% based on the average scores at all education subjects at first academic semester 2016/2017 which were 68

female students from 350. Therefore, a sample of 68 female students were selected randomly from one school in Amman City in Jordan. The sampling was done randomly for the experiment.

**Instrumentation**

To answer to the research question of the current study, one instrument was used: Social Adjustment Scale. The scale was built by Fudah (2008) [12] with total of 33 items, were divided into three dimensions: relationship between adolescent and school environment, relationship between adolescent and her family, and relationship between adolescent and her community. The 33 items were rated on a 5-point Likert scale: always, often, sometimes, rarely, never.

The minimum score was 33 and the maximum score was 165. Moreover, the scale has three score categories: Low= under 77, Medium= 77-121, And High= more 122.

The reliability to social adjustment scale was extracted by Fudah (2008) [12] where the results of Cronbach’s alpha to social adjustment scale was 0.90. Furthermore, Al-Mseidin *et al.* (2017) [7] also extracted the reliability to social adjustment scale where the results of Cronbach’s alpha to social adjustment scale was 0.79 This means the questionnaire was ready to be used for data collection.

**Cognitive Behavior Therapy Intervention Program CBT-IP**

the researchers adapted the intervention program of the current study (Cognitive Behaviour Therapy Intervention Program CBT-IP) from previous study that addressed CBT as an intervention program such as Keshi, Basavarajappa (2013) [19]; Thompson (2014) [49]; Woidneck, Morrison and Twohig (2014) [43]; Zyromski, and Joseph (2008) [44], and social adjustment (e.g. Abdulaziz, 2007 [2]; Huffines, 2002; Mathur, 1999) [17, 26]. The number of sessions of the current study was eight training sessions one session weekly for eight weeks, with 45 minutes to each session.

**The session includes**

**Step 1:** prepare the students and dividing them into groups (duration 2 minutes).

**Step 2:** used 2 CBT techniques (cognitive restructuring & self-management) each techniques 4 sessions. (Duration 20 minutes).

**Step 3:** The students were provided educational attitudes related to their social adjustment problems. The educational attitudes were provided through work-papers that treat how

student's attitude suffers from problems of social adjustment. For example, the session that used a cognitive restructuring technique will be as a follow: self-talking through explain the negative thoughts before, during and after the problem positions.

**Procedure**

The researchers have chosen one secondary female school (Lamees Bint Umar) in random way in Amman city to be a participate in the present study. Then, the researchers obtained the approval from the school to conduct the present study.

Furthermore, the researchers chose 68 low achievement female students according to teacher’s reports to the first academic semester 2016/2017 where who obtained under 69% of overall scores to all education subjects. As well as the researchers divided the 68 female students into 2 groups: experimental group (34) students and control group (34) students. Then, the researchers explained to students that will participate at the present study the aims of the study. Moreover, the researchers informed students who don’t want to participate for any reasons were free to opt out from the study, the study needs 9 weeks to complete with pre and post-tests.

**Data Analysis**

The aim of the present study is to examine the effectiveness of CBT techniques on social adjustment among female secondary students in Amman City in Jordan. For this purpose, the data was analyzed using Paired-Samples t Tests and ANCOVA.

**Results**

the hypothesis of the current study is "There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on total of Social Adjustment scores (SAS)".

Paired t test is the suitable statistic test which it used to find out the difference in normal distributed dependent variables for same subjects at different times of experiment group. According to the results of Paired t test there was significant difference found in total score of Social Adjustment Scale SAS between pre and post-test in experiment group, where higher means of Social Adjustment scores observed with post-test than pre-test. In addition, about Control group there was no significant difference found in total score of Social Adjustment Scale SAS between pre and post-test, as shown in Table 1.

**Table 1:** Summary of Paired-Samples t Tests for the experimental and control Groups Pre-and Post-Intervention Dependent Variables in social adjustment

Group	Paired Differences	Mean	SD	T	Df	p	N
Experimental	Pre-test	64.00	9.1	-29.16	33	.00	34
	Post-test	110.56	12.13				
Control	Pre-test	63.94	10.48	-1.73	33	.09	34
	Post-test	64.26	10.2				

Next figure illustrated the higher means of total score of Social Adjustment Scale SAS of experimental group than in

control group in post-test, while no difference observed in pre-test.

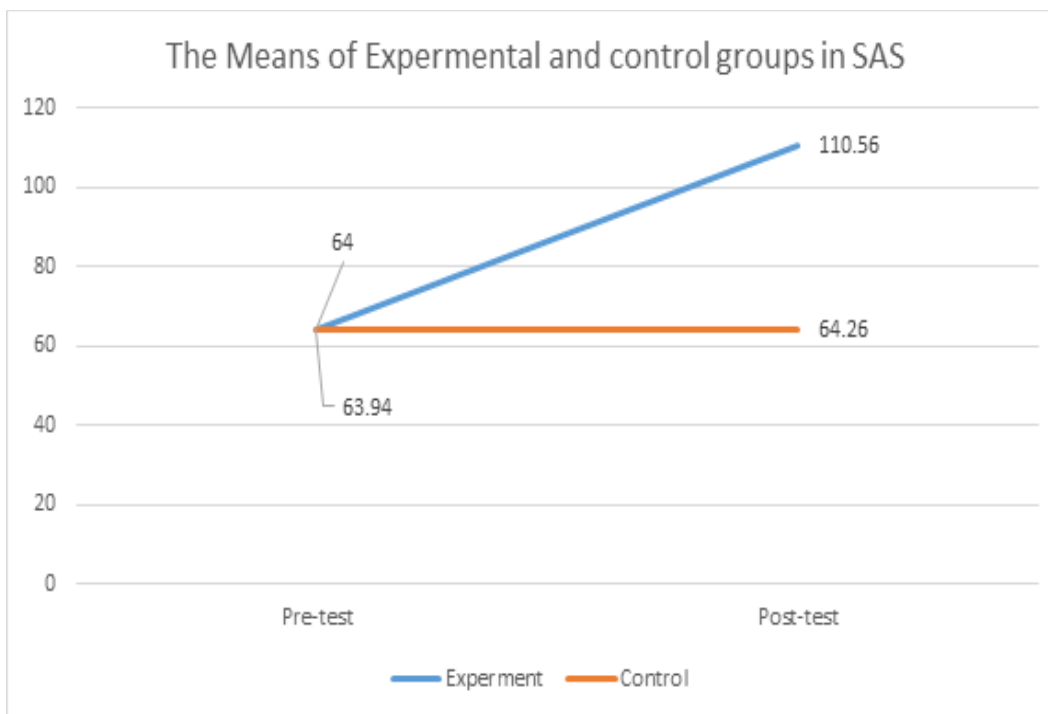


Fig 1: Means of Experimental and control groups in SAS.

In order to evaluate the statistical significance of the difference in the mean scores, a one-way analysis of covariance (ANCOVA) was conducted at a significance level of .05. The independent variable, Group, includes two

groups: Experimental and Control. The dependent variable is the participants’ post-test scores (Social Adjustment Scale SAS) and the covariate is the participants’ pre-test scores. The results are shown in Table 2 and 3.

Table 2: ANCOVA results and descriptive statistics for contrast by group and post-test scores to SAS

Groups	Pre-test Score		Post-test Score		N
	Mean	SD	Mean	SD	
Experiment group	64.00	9.101	110.56	12.129	34
Control group	63.94	10.476	64.26	10.199	34
sources	SS	df	Ms	F	Sig.
Corrected Model	38530.03a	3	12843.34	337.95	.00
Intercept	2155.93	1	2155.93	56.73	.00
Group	2298.58	1	2298.58	60.48	.00
SAS . pre	4995.45	1	4995.45	131.45	.00
Group * SAS . pre	375.03	1	375.03	9.87	.00
Error	2432.25	64	38.00		
Total	578345.00	68			
Corrected Total	40962.28	67			

Note: a. R Squared = .941 (Adjusted R Squared = .938), b. Computed using alpha = .05.

Table 3: Pairwise Comparisons to the experimental and control Groups at Post-test of SAS scores

Group	Mean Difference	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
				Lower Bound	Upper Bound
Experimental VS. Control	44.15*	2.64	.00	38.87	49.42

Based on estimated marginal means.

\*. The mean difference is significant at the .05 level, a. Adjustment for multiple comparisons: Bonferroni.

One-way ANCOVA results shown that there were statistically significant differences among groups at post-test, indicating a significant main effect for intervention program (Table 3 and 4). Multiple comparisons revealed significant differences between the control group and experimental group. However, the mean difference between the experimental group and control group was a statistically significant (Table 3 and 4). Moreover, The Means shown that

participants in the experimental group performed best, with participants in the control group performing worst. The results shown that the two groups had significant difference in their performance at post-test. The experimental group outperformed the control group in identifying the contrast, indicating that the intervention of CBT had a significant effect on performance in identifying the contrast. Hence, the null hypothesis predicting that there would be no

significant differences among groups' performance at post-test is rejected. The experimental group outperformed the control group in identifying the contrast, indicating that the intervention of CBT had a significant effect on performance in identifying the contrast.

### Discussion

The results of the current study refer that there are a significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on total of Social Adjustment scores. The results confirm with previous studies such as AlAbdullat (2008) [4], which it improve the level of social adjustment through using an intervention program. The results also confirm with previous studies that apply a cognitive behavior therapy CBT (e.g. Albano *et al.*, 1995; Heimbrg *et al.*, 1996; Michel, *et al.*, 2003; Madboli, 2009) [5] these studied confirmed that the CBT is an excellent intervention to improve many of educational problems such as social relationship (Madboli, 2009), social phobia (Albano *et al.*, 1995; Heimbrg *et al.*, 1996) [5] and Generalized Anxiety Disorder (Michel, *et al.*, 2003). In addition, these studies also confirmed that the CBT was useful treatment where the students were acquired the experience, confidence and awareness through apply a cognitive and behavioral techniques which contributed to overcome these problem (Albano *et al.*, 1995; Heimbrg *et al.*, 1996; Michel, *et al.*, 2003; Madboli, 2009) [5].

In the current study, the students acquire the confidence where they become more confident and this contributed to improve their social skills such as communication skills this lead to increase the level of social adjustment. other benefit for CBT intervention, where students become more interactively during treatment sessions this because students acquired an educational experiences which it help them to be more interactively.

Other point related to the benefits of CBT techniques at the educational process, where the results of the current study confirmed that the students at experimental group were more interested to complete the training program of CBT. This perhaps due to the nature of the CBT techniques which it addressed there problems and at the same time it provided a logical solutions with quickly improvement. Therefore, according to the results of the current study, the CBT techniques are proved the effectiveness to increase and improve the level of social adjustment among low achievement female students as well as the students that were participants of the current study were seen an improvement on achievement according to teachers reports at the end of the first semester 2016/2017 and this refer to positive effectiveness to CBT in academic performance.

### Limitation

The main issue faced in this study is that more schools could not be applied because of logistics limitations. Therefore, the number of schools which applied the CBT intervention program was limited to just one school in Amman City, Jordan due the nature of the experimental design. Another study should focus on more schools in order to generalize the findings.

### Suggestion and Future Investigation

The current study is suggested to set up a supervisory committee in the Ministry of education in Jordan to evaluate the level of social adjustment among low achievement female students, and to improve the low level of social adjustment through Applying a counselling interventions especially CBT interventions which it have a positive outcomes as shown at the current study. Thus, the current study is recommended to conduct the CBT techniques as a counselling program to increase in the low levels of social adjustment among low achievement female students. Furthermore, the present study addressed only female students, while other study could focus on both of males and females in order to generalize the findings.

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