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THE EFFECTIVENESS OF COGNITIVE BEHAVIOUR THERAPY ON SOCIAL AND ACADEMIC ADJUSTMENT AMONG JORDAN FEMALE SECONDARY SCHOOL STUDENTS IN JORDAN

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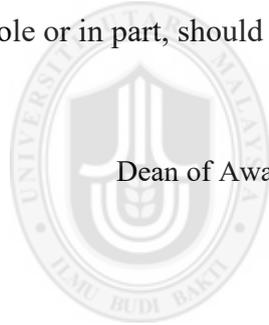
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ABSTRAK

Terapi Kognitif Tingkah Laku (CBT) sebagai intervensi kaunseling dalam pendidikan bagi menyelesaikan masalah persekolahan seperti pelarasan persekolahan, fungsi akademik dan kejayaan akademik dalam kalangan pelajar remaja telah menunjukkan bukti positif. Namun, aplikasi CBT bagi penyesuaian sosial dan akademik masih berkurangan. Kajian ini menguji kesesuaian CBT untuk diaplikasikan ke atas pelajar-pelajar remaja di Jordan berdasarkan reformasi kaunseling pendidikan di Jordan. Kajian ini bertujuan mengkaji keberkesanan CBT ke atas penyesuaian sosial dan akademik dalam kalangan pelajar remaja di Jordan. Kajian ini menggunakan reka bentuk eksperimen kuasi kumpulan tidak setara melibatkan 68 orang pelajar perempuan di sekolah menengah. Kumpulan eksperimen menjalani intervensi CBT bagi lapan sesi (45 minit setiap sesi) dalam persekitaran bilik darjah biasa dibantu oleh seorang kaunselor terlatih. Manakala, kumpulan kawalan menggunakan Program Kaunseling Sekolah biasa bagi tempoh yang sama dalam persekitaran bilik darjah biasa. Data dikumpulkan untuk praujian dan pascaujian menggunakan Skala Penyesuaian Sosial SA oleh Fudah (2008) dan Skala Penyesuaian Akademik AA oleh Nassar (2010) untuk pemboleh ubah-pemboleh ubah (penyesuaian sosial dan akademik). Kajian perintis mengesahkan kebolehpercayaan soal selidik. Analisis Kovarians Sehala (ANCOVA) dalam pascaujian menunjukkan perbezaan ketara antara kumpulan eksperimen dengan kumpulan kawalan bagi semua pemboleh ubah. Perbezaan min yang paling ketara dilihat antara praujian dengan pascaujian bagi kumpulan eksperimen bagi penyesuaian sosial berdasarkan Skala SA, dan antara min praujian dengan pascaujian bagi kumpulan eksperimen bagi penyesuaian akademik berdasarkan Skala AA. Dapatan kajian mengukuhkan penggunaan teknik CBT dalam kaunseling pendidikan yang mampu meningkatkan tahap penyesuaian sosial dan akademik. Kajian ini mencadangkan supaya teknik CBT sentiasa dikemaskini dan dijalankan secara konsisten untuk meningkatkan penyesuaian sosial dan akademik dalam kalangan pelajar remaja.

Kata kunci: pelarasan sosial, pelarasan akademik, terapi perilaku kognitif, Jordan, pelajar remaja.

ABSTRACT

Cognitive Behaviour Therapy (CBT) as a counselling intervention in education has shown positive evidence in solving some of the school problems such as school adjustment, academic functioning and academic success among adolescent students. However, there is a dearth of CBT application in relation to social and academic adjustment. The current study tested the relevance of CBT to Jordanian adolescent students that accords with the Jordanian educational counselling reforms. The study aims to investigate the effectiveness of CBT on social and academic adjustment among Jordanian adolescent students. The research used a quasi-experimental non-equivalent group design involving 68 female secondary school students. The experimental group underwent a CBT intervention for eight sessions (45 minutes each) in a regular classroom setting aided by a trained counsellor. Whereas, the control group used Regular School Counselling Program for the same amount of time in a regular classroom setting. Data were gathered for pre-test and post-test using SA-Scale by Fudah (2008) and AA-Scale by Nassar (2010) for the variables (social and academic adjustment). The pilot study confirmed the reliability of the questionnaire. A one-way ANCOVA in the post-test revealed that the experimental group shows better significant results compared to the control group for all variables. The significant mean differences were observed between the pre-test and the post-test for the experimental group for social adjustment based on SA-Scale, and between the means of the pre-test and the post-test for the experimental group for academic adjustment based on AA-Scale. The findings have supported the use of CBT in educational counselling which could increase the levels of social and academic adjustment. This study recommends that CBT techniques are updated regularly and conducted consistently to enhance social and academic adjustment among adolescent students.

Keywords: social adjustment, academic adjustment, cognitive behaviour therapy, Jordan, adolescent students.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

CBT   Cognitive Behaviour Therapy.

SA   Social Adjustment.

SAS   Social Adjustment Scale.

SE   School Environment.

FE   Family Environment.

CE   Community Environment.

AA   Academic Adjustment.

AAS   Academic Adjustment Scale.

CA   Curricular Adjustment.

MGLA   Maturity of Goals and Level of Aspiration.

PEPUT   Personal Efficiency: Planning and Use of Time.

SSP   Study Skills and Practices.

PRTS   Personal Relation with Teachers and Students.

CHAPTER ONE
INTRODUCTION

1.1 Introduction

This study focuses on the influence of cognitive behaviour therapy on the social and academic adjustment among low-achieving female high school students in Jordan. Even though CBT has a proven ability to help students with regard to their academic performance, deficiencies, and functioning (Abdalfahim, 2012; Ben Mustapha, 2013), it is nonetheless, not widely used in Jordan. Thus, in this study, a newly intervention module of CBT for social and academic adjustment is developed to help female high school students in Jordan overcome their poor social and academic performance. In order to understand the overall concept of this thesis, this introductory chapter consists of 10 subsections which include background to the study, problem statement, research objectives, research questions, hypotheses, significance of the study, conceptual framework, limitations of the research, operational definitions and conclusion. The detail of each subsection is described as follows.

1.2 Background of the Study

It is universal that school children are faced with psychological, academic, and social problems. They have to overcome these challenges while pursuing studies. Schools normally have counselling facilities to help the children cope with these challenges. This leads to a healthy psychosocial functioning resulting in good academic outcomes (ASCA, 2005; Kyalo & Chumba, 2011). Even though counselling facilities are provided in school, some of the students are still unable to cope with the challenges relating to poor social and academic adjustment. Perhaps Cognitive Behaviour

Therapy (CBT) introduced to high school students might help at-risk children overcome those problems.

Poor academic performance is one of the critical issues at school, as shown by number of studies. These studies have also linked it to leading to school dropout, drug abuse, and low self-confidence (Casey, 1996; Huffines, 2002; Saunders, 2013). Low achievement is seen more amongst female students in various countries. More specifically they are seen in Arab regions (e.g. Ashour, Obaid, & Abdul Karim, 2010; Olimat, Saaida, & Alzyadat, 2013; Rahamneh, 2012), Turkey (e.g. Özel, & Özel, 2013), and India (e.g. Areepattamannil, 2011; Thongphat, 2012). Moreover, the reason for low achievement among female students is because female students are not really interested in education due to poor time management and prioritization. Female students normally focus on accomplishing home tasks such as cleaning, washing, and so on (Olimat, et al., 2013). Other reason as stated by Rahamneh (2012) is due to early marriage. This affects female adolescents' thinking by which they believe that education is not necessary for them since after reaching 18 years old, they will get married and leave school. A number of studies have looked at the reasons of low achievement among adolescent students. The study of Olimat, Saaida, and Alzyadat (2013) found that poor social adjustment was the main reason for low achievement among secondary school students. Similarly, Ashour, et al. (2010) in their study on sixth grade students also confirmed that low social adjustment was the primary reason behind the problem. On the other hand, social adjustment was the major reason for low achievement among students (Abdulaziz, 2007; Huffines, 2002; Mathur, 1999). In addition, Adler, et al. (2008); and Petersen, Louw, and Dumont (2009) found that

2

female students who have trouble making social and academic adjustment at secondary school face other social adjustment problems in higher education.

Literature review suggests that many school problems amongst female students have been solved and improved by using Cognitive Behavioral Therapy (CBT) as an intervention program. Some examples are academic functioning (Jr, 2010), academic success (Lyons, 2010) and attention deficit (Abdalfahim, 2012; Ben-mustapha, 2013). These studies confirm that CBT intervention has been effective and successfully treated the above school-related issues. However, there is a lack of studies that addresses CBT in relation to low achievement issues, especially adjustment issues such as social and academic adjustment where some researchers identify that social and academic adjustment are the major reasons for low achievement among female students in Jordan (Ashour, et al., 2010; Olimat, et al., 2013).Hence, through the evidences of previous CBT interventions in the above school issues (e.g. academic functioning, academic success, and attention deficit), this current study is expected to improve the low levels of social and academic adjustment among underachieving female Jordanian students. Jordan was selected as the main focus of this study due to the war in neighbouring countries especially Syria and Palestine which might influence Jordanians' social adjustment in their daily life. Therefore, the intervention developed for the current study is based on CBT techniques with positive evidences in previous literature (Abdalfahim, 2012; Ben-mustapha, 2013; Jr, 2010; Lyons, 2010).

Amongst neighbouring nations around Jordan such as Palestine, Iraq and Syria, Jordan enjoys a relatively stable political climate. However, Jordan has borne the influx of

nearly 2 million refugees from Syria, Iraq, Libya and Yemen since year 2011 (Gharaebah, 2014; UNHCR, 2015). The change in the socio-political climate of Jordan poses challenges with students enrolling in schools reportedly having low levels of academic capability and poor social adjustment (Gharaebah, 2014). This really requires intervention to address the issue. However, the school counsellors in Jordan mostly rely on the traditional counselling services without using the CBT new intervention techniques (Al-Shraifin, 2011; Al-Smadi & Al-Shawi, 2014). CBT as an intervention has many advantages but its effectiveness has not been examined in Jordan yet. Some advantages are – the therapies are short-term, they have clearly defined goals and techniques making research easy, and they are adaptive across cultures because they are based on universal laws of human behaviour (Pucci, 2010).

In view of this paucity of studies on CBT as an intervention tool to address school problems, the purpose of the current study is to investigate the CBT interventions to improve the low level of social and academic adjustment among low achievement female students at secondary schools in Jordan.

1.3 Problem Statement

Gharaebah (2014) has detailed the history of political conflict in the Arab world. The net result is that it has had negative consequences throughout the region - a weak economy, an unstable political climate (Abu-hassan, 2014), and adverse psychological well-being of students and adults (Gharaebah, 2014). Though Jordan is relatively the most stable country in the region, the refugee migration (over two million in the previous ten years!) has been a major factor in the adverse well-being of students (Majali, 2015). According to previous studies (i.e., Gharaebah, 2014; Nassar, 2010),

4

students from the refugee population who migrated to Jordan might face social and academic adjustment problems which leave significant negative effects on Jordanian students too. Many studies have shown that these social and academic adjustment problems are the major reason for low achievement in students, particularly females (Ashour, et al., 2010; Lazarus & Folkman, 1984; Lee & Chen, 2000; Olimat, et al., 2013). In the study by Ashour, et al. (2010), the researchers identified the reason for low achievement among female students which is due to the nature of Arab culture, where the females would stay at home while the males would complete studies for job seeking. Further, the unstable political climate in the Arab region enables only the males to seek jobs. Furthermore, the problem of low achievement among students is considered an educational universal problem, where the Organisation for Economic Co-operation and Development (OECD) published the percentage of low achiever students age 15 years old at 34 countries in mathematics and reading, where the average of the percentage of low achiever students at mathematics was 22.5% and 18.8 % at reading (Petrilli & Janie, 2011). However, the studies in the Arab region in general, and Jordan in particular identify the average of low achievers in all educational subjects (Mathematics, Sciences, Arabic Language, English Language, and Islamic education). For example, the study done by Olimat, et al. (2013) identifies that the average of low achieving female students in all educational subjects was 29% whereby in 2010 it was 24% based on the report by the Ministry of Education (Ministry of Education, 2017). Thus, this shows that the number of low achievers in Jordan is above average, and a new program is needed to reduce it. To address this problem, schools do have counselling for students on several academic and psychological functions, of which significant importance is given to intervention programs for solving and improving student problems, especially in social skills and

5

academic performance (Moore, 1999; Brigman, & Campbell, 2003; Webb, Brigman, & Campbell, 2005). However, it seems that the traditional counselling method need new intervention in order to reduce the problems. A number of studies recommend these intervention – counselling programs specifically to address the low levels of social and academic adjustments (e.g. Gharaebah, 2014; Nassar, 2010; Olimat, et al., 2013). Similarly, Huffines (2002) and Mathur (1999) have shown the application of intervention-counselling programs enhances social and academic adjustment. Finally, many studies have focused on the Arab region itself, and have come with similar recommendations to apply intervention-counselling programs to address low levels of social and academic adjustment among low achievement students (Abdulaziz, 2007; Almasaeed, 2005; Alsagheer, 2001; Gharaebah, 2014; Nassar, 2010; Olimat, et al., 2013). Interestingly, in light of Social Learning Theory, Bandura believes that the level of social adjustment among students can be improved through modification in dealing with family and community. This is to say, strong relations with family and community will enable and help the students improve their level of social adjustment (Lakhdar, 2017). Similarly, in light of Cognitive Development Theory, Piaget asserts that an individual tries to accommodate himself to the environment in which he lives, and uses assimilation to convert experience and ideas into something that suits his organized cognition. This will then improve his level of academic adjustment (Boraik, 2017). Both of the aforementioned theories confirm that a good intervention program can improve social and academic adjustment (Ibrahima, 2017; Shareef, 2014)

Further, Gharaebah (2014) listed the weaknesses of the regular school counselling program applied in schools in Jordan by the Ministry of Education; 1) It cannot treat all school problems especially reducing low levels of social and academic adjustment,

(2) It needs a long time for improvements or to solve few problems. Perhaps, employing CBT as the therapy to teach students on how to overcome their poor social and academic adjustment is the right solution.

One of the most effective interventions is Cognitive Behavioral Therapy or CBT (Pucci, 2010). An important benefit of the CBT is teaching clients rational self-counselling skills, whereby clients understand how to counsel themselves rationally and so gain confidence that they will continue to do well. Other benefits include focus on correcting problematic underlying assumptions, being cross-cultural as they are based on universal laws of human behaviour, and focusing on client's goals rather than imposing the therapist's goals on the client. Thus by applying Beck's cognitive model, the interplay between cognitive systems and the emotional and behavioral responses be evident. This will then treat the cognitive distortions, negative believes, roles and assumptions about self and others, and all other factors that cause the low levels of social and academic adjustment.

There are studies (e.g. Abdalfahim, 2012; Ben-mustapha, 2013; Lyons, 2010) that have confirmed the importance of CBT interventions to solve and improve school problems, particularly as it has many academic benefits. Effectiveness of CBT as a clinical treatment to address school problems are seen in some specific areas: school adjustment (Pearson, 2008), academic functioning (Jr, 2010), academic success (Lyons, 2010), and attention deficiency (Abdalfahim, 2012; Ben-mustapha, 2013). The good results of CBT intervention for school problems and are seen to occur quite speedily. Moreover, CBT has additional academic benefits like contributing to positive social change resulting from increased passing rates and improved academic

7

achievement (Jr, 2010). Increased level of student self-efficacy and improved participation in the classroom are also attributed to CBT (Keshi & Basavarajapp, 2013). Although, the benefit of CBT had been identified by the above researchers, the application of CBT in the school setting are sparse.

However, such studies linking CBT interventions to school problems do not seem to be very strong in literature. As pointed out by various studies (Abdalfahim, 2012; Abdulaziz, 2007; Almasaeed, 2005; Alsagheer, 2001; Ben-mustapha, 2013; Gharaebah, 2014; Huffines, 2002; Jr, 2010; Lyons, 2010; Mathur, 1999; Nassar, 2010; Olimat, et al., 2013), despite the strong recommendations for intervention programs to solve the low level of social and academic adjustment problems among adolescent female students, there is a still dearth of studies that addressed CBT as intervention-counselling program in relation to social and academic adjustment. This perceived gap in literature has led to the purpose of the current study, which is to investigate the effectiveness of the CBT interventions as school counselling programs in order to address the low level of social and academic adjustment among low achievement female students in secondary schools in Jordan.

1.4 Research Objectives

The following objectives were formulated in order to successfully prove that Cognitive Behaviour Therapy Intervention (CBT) plays an important role in the Social and Academic Adjustment among low-achieving female high school students, by focusing on the total Social Adjustment Scale scores and Academic Adjustment Scale scores:

1. To examine whether there is any difference between the experimental and control groups in the subject's Social Adjustment related components in terms of school environment, family environment and community environment after the Cognitive Behaviour Therapy intervention among secondary female students.

2. To examine whether there is any difference between the experimental and control groups in the subject's Academic Adjustment related components in terms of Curricular adjustment, maturity of goals and level of aspiration, personal efficiency: planning and use of time, study skills and practices and personal relation with teachers and students after exposure to the Cognitive Behaviour Therapy intervention among secondary female students.

1.5 Research Questions

This study proposes the following research questions:

1. Is there any significant difference between the experimental and control groups at pre-test and post-test on Social Adjustment in terms of School Environment, Family Environment and Community Environment?

2. Is there any significant difference between the experimental and control groups at pre-test and post-test on Academic Adjustment in terms of Curricular adjustment, maturity of goals and level of aspiration, personal efficiency: planning and use of time, study skills and practices and personal relation with teachers and students?

1.6 Hypotheses of the Study

Two main hypotheses were formulated for this research. The hypotheses were then divided into eight sub-main research hypotheses with Ho1 looking at 3 sub-main research hypotheses from Ho1 to Ho4 that seek to answer research question number 1. The following 5 sub-main research hypotheses, Ho5 until Ho10, deal with research question number 2.

Ho1.1: 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).

Ho1.2: There is no significant difference between pre-test and post-test on school environment between experimental and control groups.

Ho1.3: There is no significant difference between pre-test and post-test on family environment between experimental and control groups.

Ho1.4: There is no significant difference between pre-test and post-test on community environment between experimental and control groups.

Ho2.1: There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on total of Academic Adjustment scores (AAS).

Ho2.2: There is no significant difference between pre-test and post-test on Curricular adjustment between experimental and control groups.

Ho2.3: There is no significant difference between pre-test and post-test on maturity of goals and level of aspiration between experimental and control groups.

Ho2.4: There is no significant difference between pre-test and post-test on personal efficiency: planning and use of time between experimental and control groups.

Ho2.5: There is no significant difference between pre-test and post-test on study skills and practices between experimental and control groups.

Ho2.6: There is no significant difference between pre-test and post-test on personal relation with teachers and students between experimental and control groups.

1.7 Significance of the Study

The Counselling Department in Ministry of Education in Jordan is responsible for giving directives for counselling practice and policy. They have stated that all psychological and behavioural problems among school students should be treated and improved by applying all possible counselling theories. This should include individual counselling sessions, group counselling sessions, and classroom guidance (Ministry of Education, 2017). Moreover, Banat (2015); Gharaebah (2014) and Khawaldih and Tanous (2018) listed some inadequacies of RSCP (the control group treatment). First, it takes a long time to produce results. Second, it depends on indoctrination relating to the role of counsellor to give instructions and guidance to students. Third, there is no sustainability and development of counsellor skills in RSCP because RSCP only requires the counsellor to give instructions and guidance to students without any development for the counsellor's part. Fourth, there is no possibility to follow up the case outside the session, where the counsellor just gives instructions and guidance

11

during the session. Fifth, there is no homework given to students, thus the counsellor is unable to measure the levels of improvement among students.

However, CBT as a technique is considered as one of the counselling theories which has been proven effective when it comes to treatment and improvement of academic and social problems among school students (e.g. Abdalfahim, 2012; Ben-mustapha, 2013; Jr, 2010; Lyons, 2010; Pearson, 2008). The present study, which looks at use of CBT for school problems, will contribute to support and confirm the effectiveness of the policy and practice of the counselling department for applying counselling theories to school problems.

Furthermore, the present study will investigate CBT intervention programs through empirical based analysis, will demonstrate that it has effect on social and academic adjustment .In addition, the results of the present study may show the way as to how to bring, through the application of CBT intervention program, an improvement in the low levels of social and academic adjustment among low achievement female students.

The results of the present study can be adapted as a valid and reliable instrument in future research on social and academic adjustment among low achievement female students at secondary schools. It could also establish CBT as an acceptable improvement technique in school counselling. And possibly the technique could be extended to other education levels also beyond secondary schools.

1.8 Conceptual Framework

The present study will investigate the relationships between independent variable (CBT intervention program) and the dependent variables (social and academic adjustment) and the figure below shows a conceptual framework for this study.

The conceptual framework of the present study is shown in figure 1.1

This present study aims to test the effectiveness of Cognitive Behavioural Therapy (CBT) techniques on social and academic adjustment among female students in secondary schools in Jordan. In this study, CBT is considered as an independent variable to examine its impacts on dependent variables (social and academic adjustment). In a quasi-experimental design, during the treatment period, one group practiced classroom counselling using CBT techniques (experimental group), and another group practiced RSCP (control group). In the current study, the dependent variables representing school counselling to be measured are social adjustment based on school environment, family environment, and community environment, academic adjustment based on curricular adjustment, maturity of goals and level of aspiration, personal efficiency: planning and use of time, study skills and practices, and personal relation with teachers and students. Further, the mean differences between the two dependent variables (social and academic adjustment) of the two groups will be examined in the conditions of pre-test and post-tests.

INDEPENDENT VARIABLES	PARTICIPANTS OF STUDY	DEPENDENT VARIABLES

FEMALE STUDENTS AGE 16

CBT-INTERVINTION COUNSELLING

REGULAR SCHOOL COUNSELLING

SOCIAL ADJUSTMENT

- School Environment
- Family Environment
- Community Environment

ACADEMIC ADJUSTMENT

- Curricular Adjustment
- Maturity of Goals
- Personal Efficiency
- Study Skills and Practices
- Personal Relation
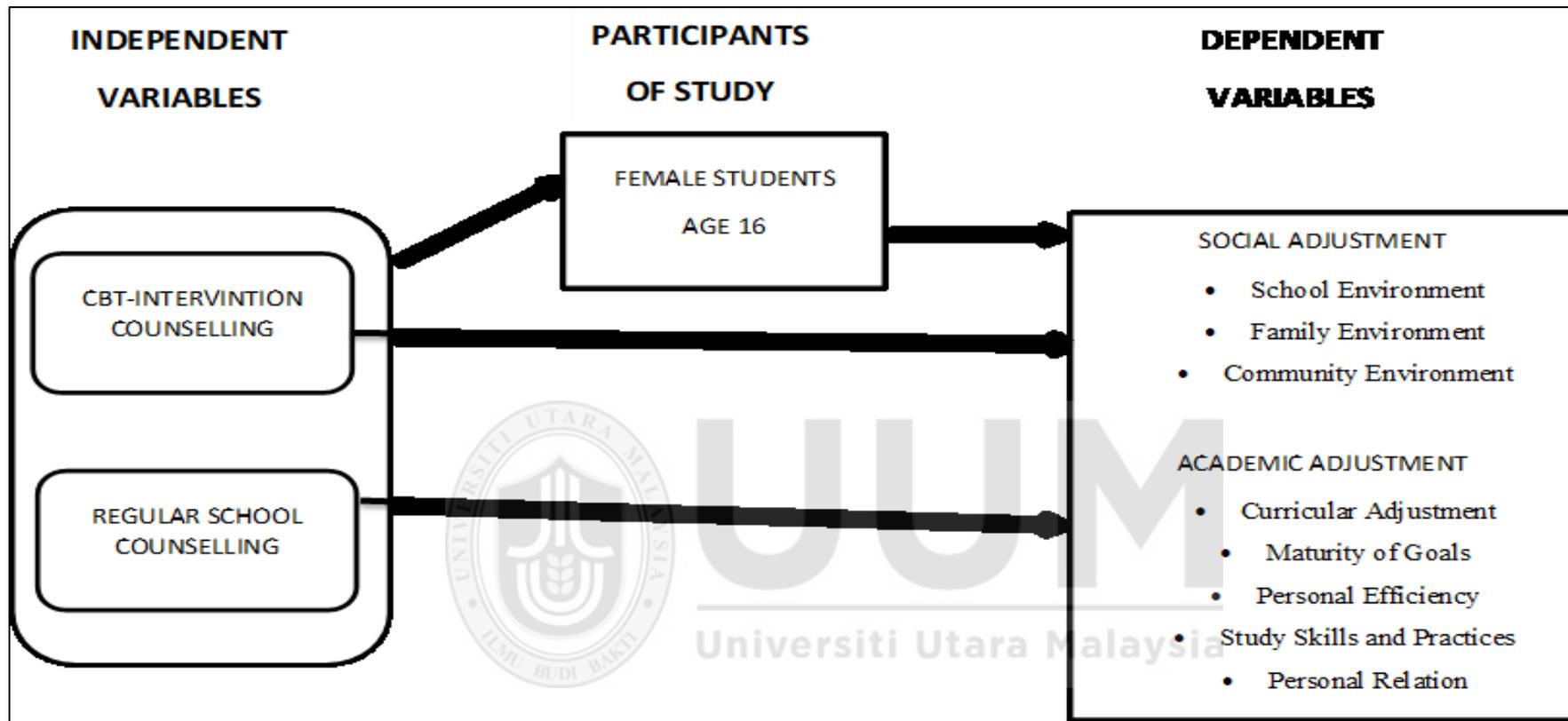
Figure 1.1. The Conceptual Framework of Variables in Experimental Study

14

1.9 Limitations of the Study

Every study has its own limitations. The limitations of this study were resulted from the fact that it deals with only one independent variable, i.e. the intervention of the CBT-based program on low-achieving female secondary school students in improving and increasing the levels of social and academic adjustment which are regarded as the dependent variables in the study. Since having a number of moderating factors is always the choice of this kind of research, the finding should be viewed in light of the study's limitations.

Secondly, the findings will be confined only to low achievement female students in secondary schools in Amman city at Hashemite Kingdom of Jordan in academic year 2015/2016. They should not be generalized beyond that, though the study would be robust enough to be replicated elsewhere.

Furthermore, the current study will use quasi- experimental design (pre-test and post-test) where the researcher will select nonrandomized sampling and will choose two groups (experimental and control). Thus, the scope of generalizing the findings gets limited to the population of a specific secondary female school students community at Amman city.

Moreover, several internal and external validity threats of the real experimental design (pre-test and post-test) may affect the findings. Control measures for these threats will be in place to minimize the limitation. Furthermore, all respondents were told not to discuss the matters with other students during an eight-week period in every session. Classes between the experimental group and the control group have also been arranged

to be further away from each other. The researchers have taken all measures to ensure that all threats are in control. These measures will be discussed in Chapter Three.

1.10 Operational Definitions

In the current study, there are five variables: CBT (Cognitive Restructuring and Self-management Techniques), social adjustment (School Environment, Family Environment, and Community Environment), academic adjustment (Curricular Adjustment, Maturity of Goals and Level of Aspiration, Personal Efficiency: Planning and Use of Time, Study Skills and Practices, and Personal Relation with Teachers and Students), low achievement female students, and intervention program:

1. **CBT**: Alford and Beck (1997) defined CBT as a brief but structured therapy based on context-driven problem-solving. CBT has a greater focus on internal factors, such as self-talk, which is unlike other behavioural techniques which rely on external factors to understand behaviour change (Alford & Beck, 1997). Furthermore, Friedburg and McClure (2015); and Koning, et al. (2013) defined CBT as a psychological therapy depend on three elements: thoughts, feelings and behaviours to treat the effective behaviours through using mixed of cognitive and behavior techniques (e.g. cognitive restructuring, and self-management technique). Another understanding of the CBT model is that it focuses on the interaction of behaviour and cognitions with emotional state of an individual. CBT addresses how this interaction affects the way individuals relate to their environment. CBT is a kind of therapeutic intervention to help change both cognition and behaviour (Kendall, 2006).

2. **Cognitive Restructuring**, is a therapeutic process that helps the client discover, challenge, modify or replace their negative, irrational thoughts or cognitive distortions. It is part of Cognitive Behavioral Therapy which is frequently used by therapists due to the fact that many problems are caused by people's faulty ways of thinking about themselves and the world around them (Ben-mustapha, 2013). Cognitive restructuring aims to help people reduce their stress by cultivating more positive and functional thought habits (Mills, Reiss, & Dombeck, 2008).

3. **Self-management Techniques:** includes a variety of techniques whereby students observe their behavior, record its occurrence while performing the behavior, evaluate or rate its quality, and deliver contingent consequences. This is to say, students take over many of the classroom behavior management tasks that are typically performed by teachers (Cormier, Nurius & Osborn, 2016). Thus, self-management techniques can be viewed as the capacity to regulate one's own behaviour which involves the personal and systematic application of behavior change strategies. Hence, there are two elements, a behavior to be changed, and another behavior emitted for the purpose of affecting the desirable change (Ben-mustapha, 2013).

4. **Social Adjustment**: According to Huffines (2002), social adjustment is an ability of a student to successfully function in an institute by adapting to the rules and requirements of the school. He said social adjustment involves, and is influenced by relationships with family, friends and the school staff.

5. **School Environment**: An ability to establish a balanced social relationship within the school including with teachers, classmates and all the faculty members. It also

17

involves commitment to the rules and laws imposed by the school. It is measured in the current study through items by which the students can describe their relationship with the school surrounding (Fudah, 2008).

6. **Family Environment**: An ability to establish social relationships based on understanding and communication with all members of the family involving a sense of belonging and the desire to be within the family. It is measured in the current study whereby the students get items describing their relationship with members of their family (Gharaebah, 2014).

7. **Community Environment:** An ability to establish a good and normal social relation with the student community such as friends and place of residence based on understanding, cooperation and respect for social laws and traditions. In this study, the relation is measured by putting forth items for the students to describe their relationship with the community in which they are located (Fudah, 2008).

8. **Academic Adjustment:** Baker and Syrik (1999) viewed as academic adjustment as having a positive attitude towards academic achievement. It involves setting academic goals, putting efforts to effectively meet the goals, completing academic requirements, thereby being successful in the academic endeavour and environment.

9. **Curricular Adjustment:** according to Nassar (2010), Curricular Adjustment refers to the extent of student satisfaction and consistency with the study in the educational institution in general and choose the specialization in particular and the extent of its relevance to study and its consideration and important in her life.

10. **Maturity of Goals and Level of Aspiration:** Maturity of Goals and Level of Aspiration refers to the extent of student planning objectives of study and effort in order to achieve its objectives and reveal the nature of her interests and the extent of her sense of responsibility and obligations of the school (Abu-lil, 2011).

11. **Personal Efficiency: Planning and Use of Time:** Olimat, et al. (2013) identified that this dimension means the extent of student planning for her daily activities how to use time effectively and the extent of completion of homework and not to waste time in external activities at the expense of her studies.

12. **Study Skills and Practices:** Study Skills and Practices reflect the extent of student interaction with the class position and readiness to learn, alertness, attention, activities, and extent of her ability to use other sources of knowledge and access to the necessary information and the extent to follow the different study skills and prepare for examinations (Nassar, 2010).

13. **Personal Relation with Teachers and Students:** Abu-lil (2011) stated that this concept indicates how well a student can build relationships and deal with colleagues and teachers. As well as, the extent of trust and mutual respect between him and his teachers and colleagues.

14. **Low Achievement Female Students:** Low academic achievement means students who failed the exam or had to re-take it (Pinyopornpanish, et al., 2010). In addition, Sutcliffe (1959) specified low achievement in a subject as an average mark of "D" and below, with reference to the total school students. Furthermore, Murad, Aldaseen and Mahasneh (2016) identified that the low achievement

students who obtained under "D" mark in average of a group of educational courses. Hence, the present study adopts this specification and will focus on female students who obtain a mark average of "D" and below.

15. **Intervention Program**: the training program was based on Cognitive Behaviour Therapy interventions (CBT-interventions), adapted and developed from previous studies (i.e., Abdalfahim, 2012; Ben-mustapha, 2013; Jr, 2010; Keshi & Basavarajapp, 2013; Lyons, 2010), to improve and increase the levels of social and academic adjustment among low achievement female students. The sessions of the program were spread over eight weeks with one session per-week. Each session will be forty-five minutes.

1.11 Conclusion

In a nutshell, the principal objective of this current study is to examine the influence of CBT intervention program on social and academic adjustment among low-achieving female students in secondary schools by comparing the intervention program with regular counselling which is currently being practiced in secondary schools. This chapter also presented a brief review of the variables namely, the CBT intervention program, social adjustment, academic adjustment, and low-achieving female students. Apart from this, the problem statement, research objectives, research questions and hypotheses, and the significance of the study have also been presented and elaborated.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

Chapter two contains five major sections; i.e. Cognitive Behaviour Therapy (CBT), Social Adjustment, Academic Adjustment, Low Achievement, and Adolescent. The discussion in this chapter involves the definitions of variables, the theoretical foundations of these variables as well as the relationship between the variables. CBT as a counselling intervention program has evinced positive outcomes in education. Despite the positive findings of the roles of CBT in education, however, it should be noted that most of the studies have not addressed the issues of social and academic adjustment even though social and academic adjustment are considered as important variables which could help and give support to students to develop and improve their educational outcomes. CBT techniques have been proven effective in overcoming most of psychological problems faced by students. In addition, the employment of these techniques among adolescent students helps them reorganize their thoughts to improve mental health and hence, solve their psychological problems. Nowadays, CBT has been considered a good type of counselling in the sphere of education. Even though there have been many research studies addressing CBT in education, there is still a gap to be filled with regard to CBT and its ability to increase the levels of social and academic adjustment. Thus, this present study seeks to fill this gap by carrying out a CBT treatment to increase and develop the levels of social and academic adjustment among adolescent students.

The theories and applications of CBT are dealt with especially in the area of school problems. Three techniques amongst others are dealt with in detail: problem-solving therapy, reframing strategy, and self-management strategies. The discussion further addresses social and academic adjustments with school students. The chapter concludes with a discussion on low achievement students, especially the at-risk students in secondary school (adolescents). It appears that the main reasons of low achievement of students in secondary schools is the low levels of social and academic adjustment which is what puts them at-risk.

2.2 The Theory of CBT, Social Adjustment and Academic Adjustment

The followings will discussed about the three theories employed in the independent (CBT) and dependent variables (Social adjustment and academic adjustment) of the research. The theory involved are The Beck's Theory, The Social Learning Theory and Piaget's Theory of Cognitive Development.

2.2.1 The Theory of CBT: Beck's Theory

An understanding of CBT can be drawn from the studies done by a number of researchers. The classic model of CBT developed by Beck is focused on both aspects; i.e. cognitive and behavioural. The model looks at the interplay between cognitive systems and the emotional and behavioural responses. It lays stress on the importance of context and meaning assignment, and the role of "schemas" (beliefs, rules, assumptions about self and others) in influencing behaviour. According to Kendall (2006), the CBT model explains how the interaction of behaviour and cognition with the emotional state of individuals affects the way the individuals relate to their environment.

22

Beck (2011) defined CBT as a brief but structured therapy based on context-driven problem-solving. They worked on developing effective coping skills by integrating thoughts, feelings, and behaviours. Through a combination of therapeutic interventions, CBT assists with changing both cognition and behaviour. CBT has a greater focus on internal factors, such as self-talk, which is unlike other behavioural techniques that rely on external factors to understand behaviour change. Therefore, this form of intervention addresses generalization issues (Hernandez, 2014; Kendall & Braswell, 1993). CBT also emphasizes generalization by advising "homework," which is a "contract" between the therapist and the participants. The contract seeks to try out some specific actions outside of the group and in natural settings with the expectation that if there is success outside the therapy context, it is internally reinforcing, and more likely to produce generalization (Alford & Beck, 1997).

CBT also focuses on the role of affect (feeling) i.e. how individuals perceive the social world. It dynamically examines how a more or less successful response is produced by integration of a person's thoughts, feelings, and behaviours. CBT's intentional, planned interventions carefully consider how the interventions influence thoughts and behaviours (Raylu & Oei, 2010). Consequently, it leads to cognitive problem-solving strategies which take into account both the internal and external contexts. CBT participants are taught to relate their thoughts and behaviours to feelings and intensity of feelings (Butler, Chapman, Forman & Beck, 2006; Koning, 2010). The philosophy of CBT appears to operate through the integration of cognition and behaviour.

Further, Beck's CBT model pays attention to the differences between cognition (thoughts, appraisals, and beliefs), emotional experience, and overt behaviour, while

23

prioritizing cognition by suggesting that our belief-based appraisals of events determine our feelings and actions (Beck, 1976; Beck, Rush, Shaw, & Emery, 1979; Dobson & Dozois, 2019). Logically, when people have feelings of distress or problematic patterns of behaviour, the way they contemplate on events and other aspects of their life affects therapeutic change. However, it is worth noting that Beck did not postulate cognition as an ultimately causal or exogenous variable, but instead viewed cognition as a pragmatic point of entry for understanding and intervention (Dawson & Moghaddam, 2015). In addition, Beck's model posits that developmental experiences produce core beliefs including contingent beliefs and assumptions that are influenced by various behavioural and cognitive strategies (Cormier, et al., 2016). Crucially, Beck (1997) stated that even where developmental experiences are considered negative (e.g., being abused by others), leading to potentially maladaptive core beliefs and secondary assumptions (e.g., others cannot be trusted; to get by, I must depend on myself), they are not problematic so long as compensatory strategies (e.g., self-reliance, avoidance of others) are working. Even though Beck's model emphasizes target beliefs, the use of emotion-focused or behavioural techniques is not denied to facilitate cognitive change. For example, preliminary work around emotional tolerance engaged with cognitive techniques and behavioural experiments is crucial to proffer the opportunity for direct environmental feedback with evidence against irrational and maladaptive thoughts. Within Beck's CBT model, the most enduring change is expected to arise from shifts in beliefs and thinking patterns which may be depending on changes in emotional or behavioural experiences (Dawson & Moghaddam, 2015).

2.2.2 The Theory of Social Adjustment: Social Learning Theory

A review of past literature shows that social learning theory focuses on the relationship between culture and adjustment patterns. Moreover, this theory regards the adjustment as an extrinsic behavior where an individual joins a group of persons in order to achieve the level of adjustment (Lakhdar, 2017). In addition, Essa (2017) pointed out that social learning theory focuses on the social effects and adjustment whereby modern social aspect is deemed complex and leads to the decrease in the opportunities to develop and grow one's personality.

Moreover, according to social learning theory, the behaviour of an individual or a group drives human thoughts, attitude and behaviour (Ibrahima, 2017). In addition, Bandura (1986) mentioned that individuals learn by observing other people's behavior which is capable of stimulating behaviour change in them. According to Hamadinh (2015), social learning theory is useful because it addresses the key issues of behaviour acquisition and mode of adjustment relevant for students during their stay at school. Thus, behaviour is not solely driven by inner drives or environments, but could be resulting from an interactive association between inner process and environmental variables (Serayah, 2014).

Therefore, this theory asserts that behaviour is learned through observation and imitation. This is supported by Ibrahima (2017) who mentions about the integration of new patterns of behaviour based on imitation through the learning of social and other learning skills. Thus, social adjustment among the students in school may be directly affected by attitude change. Bandura believes that a large number of habits acquired in lifetime are learnt by observing and imitating other people (Side, 2018).

25

The current study depends on social learning theory as a major theory of social adjustment due to its close relation to the contents of the instrument of social adjustment scale SAS. This theory also illustrates how social change, experience and imitation affect the individual level of social adjustment. Moreover, this theory provides the explanation, measurement, and ways to improve the level of social adjustment among students. Additionally, it has a measurement to social adjustment among adolescents with explanations about how it can be increased and improved through school counselling training programs. Moreover, Essa (2017) mentioned that social effects in individual are also related to family and community. They explained that family and community affect social adjustment among students. In addition, Lakhdar (2017) stated that students could improve the level of social adjustment through modification in his dealing with family and community, whereby the strong relations with family and community give the students the probability to improve the level of social adjustment. In the Jordanian high school cases, the increasing number of war migration from neighbouring countries like Syria and Palestine will involve the understanding of family and community therapy in CBT. Thus, by focusing on social effects and the strong relations the students have with family and community, social learning theory contributes to the increase of efficacy level of social adjustment among students. Students should master social adjustment, be able to imitate their vicarious experience, increase their persuasive motivation, and improve their emotional state in order to increase their self-efficacy to social adjustment (Graham, 2018; Bandura, 1986).

2.2.3 The Theory of Academic Adjustment: Piaget's Theory of Cognitive Development

According to Boraik (2017), Jean Piaget is an inventor of Theory of Cognitive Development who believes that adjustment is an inherited tendency by which the individual tends to accommodate himself to the environment in which he lives. In addition, assimilation is considered by Piaget as part of adaptation process that includes two parts: assimilation and accommodation (Abu-lil, 2011).

Shareef (2014) stated that Piaget believes that assimilation is a mentality method, where the individual is engaged with new cognitive things or erotic events relating to schema or conversion of experiences and new ideas. Further, Ibrahima (2017) mentioned that accommodation is an individual's tendency to adjust and change his mentality structures cognitive patterns in order to adapt to the demands of the external environment.

In terms of academic adjustment, the current study depends on Cognitive Development Theory as a major theory of academic adjustment because of its close relation to the contents of academic adjustment scale AAS. Moreover, the Cognitive Development Theory illustrates how an individual tries to accommodate himself to the environment in which he lives, as well as how he uses assimilation to convert his experiences and new ideas into something else suitable to his organized cognition which will then lead to the improvement of the level of academic adjustment (Boraik, 2017). Hence, through assimilation and accommodation, the individual will be able to adapt to his academic environment and achieve good outcomes (Juhani, 2016). Thus, in a nutshell, this theory provides the explanation and the ways to improve the level of academic adjustment among students. Additionally, through school counselling

27

training programs, this theory provides a measurement to academic adjustment among adolescents with an explanation about how the level of academic adjustment can be increased and improved.

In addition, Hamadinh (2015) asserted that through accommodation, the individual changes his way of study skills in order to obtain good outcomes. Other example relating to maturity of goals, the individual tends to use assimilation to merge new ideas in his schema to suit academic requirements, and this leads to positive academic performance (Side, 2018). Thus, Cognitive Development Theory provides a logical explanation to the development of the level of academic adjustment through accommodation and assimilation in an individual's schema which are considered as the basic elements of cognitive theory.

2.3 Cognitive Behavioural Therapy CBT

2.3.1 History of CBT

Cognitive behavioural therapy (CBT) is a broad area designed to produce constructive change in human behaviour through intervention of a variety of techniques and strategies that are based on principles of learning. Cognitive behaviour therapy is a more focused aspect of 'behaviour therapy' which was first developed in the 1950s. The early focus was on changing observable behaviour (Chui & Chan, 2017; Lazarus, 2006; Wolpe, 1992; Skinner, 1986; Waller, et al., 2007). Hayes (2004) reported it as the first wave of behaviour therapy. Since then, the theories have advanced significantly, with the emergence of cognitive-behaviour therapy (CBT) as one of the more important advanced therapies (Bandura, 1986; Beck, 1991; Meichenbaum, 2002). CBT, the second wave of behaviour therapy, went beyond the purely

28

observable behaviour to emphasizing the impact and influence of private events, (such as cognitions, beliefs, and internal dialogue) on resulting feelings and performance. In this orientation, both overt (observed behaviour) and covert (feelings and thoughts) responses should be taken together as important targets of change. Beyond CBT there have been more recent developments in the third wave of behaviour therapy, like acceptance and commitment therapy (ACT) (Hayes & Strosahl, 2005), dialectical behaviour therapy (DBT) (Linehan, 1993; Edwards, 2015), and mindfulness-based cognitive therapy (MBCT) (Teasdale, Moore, Hayhurst, Pope, Williams & Segal, 2000). Thus the progression from the first to the third wave was from behavioural aspects to cognitive aspects to integration of the first wave with the second wave. In summary, the behaviour of humans is influenced by their ideas and feelings.

2.3.2 The Impact of CBT Interventions

CBT is a combination of therapeutic intervention to change both cognition and behaviour (Kendall, 2006). Though relatively similar for adults and youth, the use of CBT for youth requires a basic knowledge of child development because of the differences in cognitive development (Holmbeck, et al., 2006). Pro-social skill training, interpersonal skill building and effective problem solving are the interventions used by CBT. They help individuals to reframe cognitions, use writing or talking to externalize thoughts, and to enhance positive thinking by restructuring the environment. Positive behaviour then gets reinforced by improved positive thinking (Mayer et al., 2005). Improved positive thoughts and behaviours lead to change in cognition and behaviour, which is the aim of CBT interventions. Kendall (2006) pointed out how CBT interventions, that emphasize a shift from negative self-

29

talk to positive expression, and from negative thought processes to positive method of thinking, has led to addressing maladaptive thoughts and behaviour.

Common CBT intervention methods include strategies such as role-play, writing, and problem-solving. Other contemporary aspects include a comprehensive treatment model that integrates the youth with family, school, and community (Kendall, 2006; Maric, Steensel, & Bögels, 2015). Additionally, it has been shown empirically that the use of treatment manuals increases significantly the outcome results, by increasing the standardization of intervention methods, providing training to service providers, and helping generalize outcome results to other environments (Gresham, Mai & Cook, 2006; Hoagwood, et al., 2007; Herbert & Forman, 2011).

2.3.3 CBT and School Students

CBT has received significant research focus in the area of adolescent mental health treatment (Ahmad et al., 2016; Ginevra, et al., 2014; Holmbeck et al., 2006; Lenz & Hollenbaugh, 2015). It is seen to be effective as intervention and support for adolescent students. Some at-risk behaviour such as depression (Kvapil, 2007), substance abuse, disruptive behaviour (Ghafoori, 2000; Hernandez, 2014), social skill deficits, and low academic performance (Mayer et al., 2005) are all reported to benefit by CBT interventions. These interventions are seen to enhance prosocial skills and to help alleviate at-risk behaviour. The likelihood increases of at-risk students successfully completing school, promoting academic performance, and increasing self-efficacy skills (Hoagwood et al., 2007; Pössel et al., 2005). However, meta-analysis, of comparison of the effect of a single component of CBT intervention versus

multi components of CBT intervention to reduce disruptive behaviour in youth, has shown ambiguous results (Ghafoori, 2000).

Overall, CBT interventions are more effective than non-cognitive behavioural interventions in reducing at-risk behaviour (Ghafoori, 2000). It is also seen to improve some student problems in social skills and academic performance (e.g. Wang, et al., 2017). So, this supports the positive correlation between CBT interventions and academic and social adjustment.

2.3.4 CBT Techniques

CBT techniques combine behaviour therapy techniques and cognitive therapy techniques. This section explains the CBT strategies.

2.3.4.1 Problem-Solving Strategy

The late 1960s and early 1970s saw an emerging trend of problem-solving therapies and training in the development of intervention and prevention strategies for enhancing situation-specific competence. D'Zurilla (1988) defines problem solving as "a cognitive-affective-behavioural process through which an individual (or group) attempts to identify, discover, or invent effective means of coping with problems encountered in everyday living".

Rose and LeCroy (1991) describe problem solving strategy as a series of steps - analysing a problem, discovering new alternate approaches, evaluating those approaches, and developing strategies for implementing those approaches in the real world. The problem-solving strategy relies on three basic elements: behaviour,

cognition, and emotion. Training is imparted through a series of steps to reach a solution to the problems.

Problem-solving therapy or training has been successfully used across multiple disciplines covering a wide range of issues (Chang, D'Zurilla, & Sanna, 2004; Edwards, 2015). It has been found useful across diverse groups and is explicitly collaborative in nature.

Application of Problem-Solving

Problem-solving is applicable across diverse groups and covers several areas, viz. developing educational and academic achievement skills (Beck, 2011; Bell, Brown, & Bryant, 1993; Mehan, Hubbard, & Villaneuva 1994), overseeing conflict management (Watson, Bell, & Chavez, 1994), managing mental health risks, and helping cope with adversity such as depression, Neuroticism and Suicidal Behaviour, suicide and anxiety disorder (Queen, Donaldson, & Luiselli, 2015; St-Lawrence, Brasfield, Jefferson, Alleyne, O'Bannon, & Shirley, 1995; Pawluk, et al., 2017; Yang & Clum, 1994; Walker, Chang, & Hirsch, 2017).

Stages of Problem-Solving

D'Zurilla (1986/1988) described a problem as "a discrepancy between how a present situation is being experienced and how that situation should or could be experienced". He identifies six stages of problem-solving training:

1- Treatment rationale (initial structuring): discusses goals, rationale, and general format of the training; trains to recognize and label concerns, including use of

problem self-monitoring; discusses the limited capacity of the conscious mind during problem-solving.

2- Problem orientation: Assesses the problem-solving coping style; educates about maladaptive and facilitative problem-solving coping skills; determines cognitive and emotional obstacles to problem solving, and trains to overcome these, attacking the concern from many different angles.

3- Problem definition and formulation: helps to gather relevant and factual information for understanding issues; identifies problem-focused and/or emotion-focused components of the issues.

4- Generation of alternative solution: instructs to think about different ways to handle each goal with deferment of judgment.

5- Decision making: Instructs about screening the list of alternative solutions; evaluates (judging and comparing) solution outcomes for each goal; selects solution plans.

6- Solution implementation and verification: Encourages to carry out several alternative solutions simultaneously; trains to self-monitor, evaluate, and reinforce the implementation of the solutions; helps to troubleshoot and recycle the problem-solving stage if the solutions do not work.

Table 2.1
Shows Stages of Problem-Solving

No.	Stage
1	Treatment rationale
2	Problem orientation
3	problem definition and formulation
4	Generation of alternative solution
5	Decision making
6	Solution implementation and verification

2.3.4.2 Self-management Strategies

Self-management is a strongly collaborative strategy with strong environmental involvement (Kanfer & Gaelick-Buys, 1991). Moreover, Jawahar, et. Al. (2013) defined self-management strategy as "the individual's ability to manage the symptoms, treatment, physical and psychosocial consequences and lifestyle changes inherent in living with a chronic condition". It is useful in addressing a wide range of specific problems in living. It has been used across varying clientele (e.g., age groups, disability status, problem severity, cultural heritage).

The several client outcomes of self-management include: (1) tasks, interpersonal, cognitive, and emotional behaviours; (2) altered perceptions of judgmental attitudes toward problematic situations or persons; (3) ability to change or to cope with a stress-inducing situation. Some applications of self-management include health management (Jacob, Penn, Kulik, & Spieth, 1992), school successes (Haire-Joshu, Fisher, Munro, & Wedner, 1993; Thompson, 2014), and relationship conflict (Sue & Sue, 2012).

2.3.4.3 Reframing Strategy

Reframing is to re-state the meaning of a problematic situation or behaviour. The essence is to give a situation, a behaviour, or some other issue of concern a different

34

meaning through giving it a new label or a new name. The different connotation arising from reframing is usually positive or at least less troubling (Cormier, et al., 2016).

Cormier, et al. (2016) stated that reframing involves six steps:

1- Explanation of the treatment rationale: the purpose and an overview of the procedure.

2- Identification of client perceptions and feelings in situations of concern.

3- Deliberate enactment of selected perceptual features.

4- Identification of alternative perceptions.

5- Modification of perceptions in situations of concern.

6- Homework and follow-up.

Reframing also has diverse clients (Taylor, Gilligan, & Sullivan, 1995; Soo-Hoo, 1998; Motenko & Greenberg, 1995).

2.3.4.4 Stress Management Strategies

This technique applies to both physical and cognitive coping skills. Resistance to stress is enhanced by better preparation to respond more effectively when stressors are encountered (Cormier et al., 2016). Meichenbaum (1993) states that stress inoculation training helps clients acquire sufficient knowledge, self-understanding, and coping skills to better handle expected stressful encounters. This strategy has applications

with educational problems such as adjustment, and achieving (Davis, Nolen-Hoeksema, & Larson, 1998).

2.3.4.5 Imagery Strategy

This is a technique that assesses the potential for using imagination and memory to form in the "mind's eye" both visual images and mental "images" related to hearing and the other senses (Clancy, McNally, & Schacter, 1999; Kunze. et al., 2016; Paddock, et al., 1998; Paddock, et al., 1999). Again, this is a strategy applicable to diverse groups (Herring & Meggert 1994; Omizo, Omizo, & Kitaoka 1998; Gaines & Price-Williams, 1990).In addition, there are several studies that addressed this technique with some variables such as social anxiety disorder (e.g. McEvoy, et al., 2017), nightmares (e.g. Kunze. et al., 2016), anxiety (e.g. Reiss, et al., 2017), and therapeutic empathy (e.g. Laura et al., 2017).

2.3.4.6 Cognitive Restructuring Strategy

This is a technique with roots in the elimination of distorted or invalid inferences and disputing irrational thoughts or beliefs. This leads to developing new, healthier cognitions and patterns of responding. This technique is considered an essential component of almost every cognitive-behavioural procedure (Chrétien, et al., 2017; Spain, et al., 2017). It has applications in depression (unipolar and bipolar), anxiety, panic disorders, trauma, social phobia, suicidality, obsessive-compulsive disorder, schizophrenia, eating disorders, anger, substance abuse, self-esteem problems, stress and coping, and relapse prevention (Drapeau, et al., 2017; Guralnick & Neville, 1997; Kendall, 2000; Mash & Barkley, 2006; Ollendick & King, 2000; Spain, et al.,2017).

2.3.4.7 Meditation and Relaxation Strategies

This is a practice of taking a comfortable position, mostly sitting but also including standing or lying down (Patel, 1993). It involves being in a quiet environment, regulating breathing, adopting a physically relaxed and mentally passive attitude, and focusing single-mindedly upon an object. Meditation need not be a focus on a physical object. It can be an idea, image, or happening; a mantra meditation which is a mental repetition of a word or phrase; observing one's own thoughts, perception, or reaction; or concentrating on some bodily generated rhythm (e.g., breathing). Furthermore, there are several studies that addressed this strategies with some variables such as stress disorder (e.g. Gallegos, et al., 2017), Ghosts (e.g. Gautam, et al., 2017; Jalal, 2017), and Generalised Anxiety Disorder and Panic Disorder (e.g. Sharpless & Doghramji, 2017).

2.3.4.8 Palliative Coping Strategies

This is a technique particularly useful for chronic or life-threatening illnesses that are aversive or stressful situations that cannot be substantially altered or avoided (Dobkin, Zhao & Monshat, 2017; Meichenbaum 1993, 1994) This is especially useful when dealing with unchangeable and uncontrollable stressors; e.g., perspective taking, selective attention; adaptive modes of affective expression such as humour, relaxation, and reframing the situation. This helps to persevere and continue the hard behavioural work of learning and doing what is needed (Brown, 2000; Law, Amundson, & Alden, 2014).

2.3.5 CBT Intervention and Its Application in Schools

The American School Counselling Association ASCA (2005) has a comprehensive framework that calls attention to situations within the schools that defeat, frustrate and hinder students' academic success. They recommend that school counsellors implement a comprehensive school counselling program that leads to increased student(s) achievement and supports the school's academic mission. How each individual school counsellor meets that mission is flexible within the comprehensive framework. There is an increased focus on school counselling and its impact on academic achievement in students. ASCA reinforces the idea of school counsellors focusing on promoting and enhancing student learning. This is especially appropriate considering that most adolescents who receive mental health services do so at school (Farmer, et al., 2003)

There have been many studies of CBT applications, mostly in school counselling. These studies addressed clinical, psychological and education problems. Empirical research suggests a correlation between CBT interventions and increased academic achievement of students in middle schools. CBT interventions have been used successfully within the delivery system of comprehensive school counselling programs in middle schools. Interventions have been in individual counselling sessions, group counselling sessions, and classroom guidance to help control negative emotions and directly impact metacognitive processes, thereby increasing academic achievement in students (Brigman & Campbell, 2003; Ling, Anderson, & Ji, 2015; Miranda, Webb, Brigman, & Peloso, 2007; Sapp, 1994; Sapp & Farrell, 1995; Trevino-Maack, Kamps, & Wills, 2014; Webb, et al., 2005).

School Counsellors were provided practical examples and resources to assist in implementing CBT interventions for helping students control cognitive thought processes and positively impact academic achievement (Zyromski & Joseph, 2008). Some of the aspects of CBT which make it appropriate for use in schools are the relatively small number of sessions needed for counselling, the psycho-educational aspects of the counselling relationship, and the transparency of the treatment plan between school counsellor and student. In the empirical research on effectiveness of these interventions, it was important to discuss as to what theoretically based interventions would be applicable within the comprehensive school counselling program. Graham (2005) suggested that CBT techniques are the best, as supported by evidence. In other words, empirical research suggests that CBT interventions have shown their effectiveness as therapeutic interventions for children. This is specifically true for children struggling with: anxiety disorders, obsessive-compulsive disorders, chronic fatigue, post-traumatic stress disorder, psychotic disorders, social skills deficits, drug and alcohol abuse, parental divorce or separation, and depression (Barrett, 1998; Barrett, Dadds, & Rapee, 1996; Cohen, et al., 2004; Dadds, et al., 1999; Donovan, Spence, & March, 2017; Flannery-Schroeder & Kendall, 2000; Franklin, et all.,1998; Graham, 2005; Horowitz, 2017; Kendall, 1994; Merry, et al., 2004; Sharma & Pandey, 2017).

Utilizing of CBT interventions for youth has an increasingly diverse research base, supporting the effectiveness of varied approaches with adolescent or children clients (Braswell & Kendall, 2001; Graham, 2005). Research shows that that youth have been helped to produce positive changes and have a problem-solving attitude (Braswell & Kendall, 2001; Graham, 2005). There is a strong indication of correlation between

CBT and Student Learning (Wang, Haertel, & Walberg, 1993). In addition, the research specifically connecting CBT interventions with an increase in academic achievement in middle and secondary schools is limited (Zyromski & Joseph, 2008).

Motivation is a major building block for academic achievement and many researchers have linked the cognitive processes to it (Roeser, Strobel & Quihuis, 2002; Young, 1997). They have found that cognitive behavioural interventions impact metacognitive influences on student learning by controlling cognitive thought processes. This positively impacts academic achievement. School counsellors are increasingly aware of how these interventions are aiding student academic achievement (Brigman & Campbell, 2003; Brown & Trusty, 2005; Sink, 2005a; Sink, 2005b; Webb, et al., 2005).

Sink (2005a) feels that students tend to lose motivation, focus, and self-regulation as they transition from adolescence into adulthood. According to him, school counsellors have a major role in using interventions to improve students' cognitions and metacognitions to reinforce motivation.

Sink (2005b) says students must be helped to plan and organize their school and home life. They should sharpen information gathering skills and know how to organize their learning strategies by using memory strategies. According to him, large and small group activities are best for these psycho-educational lessons. These interventions meet the criteria to be classified as CBT interventions viz. being psycho-educational, being strategies to control and change personal-social behaviours, helping overcome anxiety and other barriers to success, positively impacting on cognitive and

40

metacognitive functioning, and enhancing organizational and learning skills (Sink, 2005a/2005b).

School counsellors are encouraged to apply intervention frameworks to counter negative student emotions like anxiety and stress. Anxiety and stress negatively impact peer popularity, increase depressions and increase loneliness and attention deficiency. These can be countered by CBT, thereby leading to positive academic achievement (Barabasz & Barabasz, 1981; Ergene, 2003; Fisher, Masia-Warner, & Klein, 2004; Keogh, Bond, French, Richards, & Davis, 2004; Kiselica, Baker, Thomas, & Reedy, 1994). CBT interventions are definitely beneficial for fixing emotional and clinical psychological problems; school counsellors must therefore be trained and encouraged to use the same.

Numerous resources (e.g. Burns, 1999; Cormier, et al., 2016; Dobson, 2001) can help practicing school counsellors to learn the theoretical foundation and applications of CBT. Individual counselling sessions in school are by necessity brief and so cognitive behavioural theoretical beliefs should be modified and integrated into the practical, brief applications. Some of the CBT units that can be integrated could pertain to problem solving training, self-regulation approaches, recognizing and labelling emotions, relaxation training, and anger management, to name a few (Braswell & Kendall, 2001; Cormier, et al., 2016).

The integration of CBT in the counselling framework will help in designing brief, targeted and practical interventions, aimed specifically at metacognitive processes. The developmental level of the student, the communication and delivery method of the school counsellor, and the manner best suited for the student to receive information

must all be taken into consideration when designing the intervention. Cormier et al. (2016) listed the areas of assistance that can be provided by CBT interventions: attention-deficit hyperactivity disorder, anger management issues, struggling with homework, struggling with substance abuse, having problems controlling behaviour in the classroom, caving to social pressures, hoping to lose weight, or dealing with anxieties, shyness or phobias. Desired behaviour can be increased or decreased as appropriate through self-monitoring interventions such as stimulus control, self-reward, self-as-a-model, and self-efficacy. Academic self-concept is positively impacted while reducing test anxieties among students (Donovan, et al., 2017; Horowitz, 2017; Miranda, et al,. 2007; Sapp, 1994; Sapp & Farrell, 1995 Sharma & Pandey, 2017).

According to Zyromski and Joseph (2008), studies of CBT in middle school settings would largely benefit school counsellors. This is more so in the context of the benefits of Student Success Skills (SSS) program and the focus on evidence based practice in ASCA's National School Counselling Model. Moreover, studies of CBT interventions in the middle school setting confirmed the effectiveness of CBT interventions delivered through small groups and classroom guidance. The interventions controlled cognitive inhibitors to academic achievement, such as anxiety and stress. Specific resources and interventions were identified to help school counsellors learn and apply CBT interventions in their schools (Zyromski & Joseph, 2008).

2.4 Adjustment Concept

Adjustment is a relationship between the individual and the environment, where personal needs and the requirement of environment have to be balanced in order to

overcome life problems. Accommodation and adaptation are synonyms for adjustment. It is an equilibrium which may be disturbed either by personal needs or the environment requirements (Coe, Davies & Sturge-Apple, 2017; Monroe, 1990). It emphasizes the individual's struggle with the physical and social environment so as to get along and survive. Adjustment is a process to find and adapt modes of behaviour aligned to the changes in the environment (Good, 1959). Shafer saw (As cited in Krishna & Manisekhar, 2014, Kulshrestha, 1979) it as the process of a living organism maintaining a balance between its needs and the external circumstances which impinge on the satisfaction of these needs. In addition, According to him, an individual's goal seeking behaviour becomes his need and this is facilitated by adjustment which is a smoothly functioning interaction with the environment. Further, Graham, et al. (2017) identified that when children faced a multiple behavioral and social challenges in school, this will decrease the levels of school adjustment as well as this leads to achieve a low levels of educational outcomes among students. Thus, the individual's attempts to deal with stress, tensions, conflict, etc. in the process of meeting his or her needs is termed as adjustment. A harmonious relationship has to be maintained by the individual with the environment (Krishna & Manisekhar, 2014, Kulshrestha, 1979).Role of Counselling Services and Students' Social and Academic Adjustment

Sindabi (1992) looked at two processes of helping adjustment. One is 'Guidance' which is the group of services that assist in securing the knowledge and skills required for making adequate interpretation, making choices and making plans that are essential for satisfactory adjustment in diverse domains. These services seek efficiency in the individual's adjustments in order to be an effective member of

43

society. On the other hand, 'Counselling' helps individuals to analyse themselves in any new decision they make and relate it to their capabilities, achievements, interests and mode of adjustment. According to Al-Mseidin, et al. (2017), both guidance and counselling services are essential where adolescents come together – in secondary schools. They address those needs that enhance adjustment to the immediate environmental challenges that affect social growth and academic performance. In addition, through positive treatment such as CBT, will improve the low levels of social and academic adjustment, which it effect at educational outcomes (Al-Mseidin, et al., 2017).

According to Rogers (1961), counselling requires a series of direct contact with the individual in order to offer assistance in changing attitudes and behaviours. Effective counselling should be a definitely structured, permissive relationship. This allows for an understanding, to the extent required, to take positive steps in the new orientation. The fundamental goal of counselling is to increase the feeling of personal adjustment to, and effective interaction with, the immediate environment. Counselling services in the university counselling centres enable students to develop a positive attitude towards social and academic aspects in their new environment. Guidance and counselling help in orientation of new students, social relations, institution adaptability and study skills, and also when career placement has been mismatched.

2.4.1 The Characteristics of Adjustment

Numerous resources (e.g. Hamadinh, 2015; Abu-lil, 2011; Heba, 2017; Zaied, 2015) mentioned that the adjustment among Jordanian students involve four characteristics:

Dynamic, Standards, Relativity, and Function. The detailed explanation of the four characteristics is as follows:

1. Dynamic: According to Zaied (2015), this adjustment is a continuous dynamic process done by a man to his environment whereby when the environment changes, he is required to readjust; this adjustment responds to act of changing one's needs, and a variety of behaviours.

2. Standards: This adjustment is a normal concept that refers to certain values for instance adjustment to health, perfection or happiness, and maladjustment to disease deficiency, anomalies or unhappiness. There are differences in the perceptions among scientists with regard to this concept. In general, it refers to measuring the ability to adapt to the many conditions that faced by an individual or a group of individuals (Abu-lil, 2011; Zaied, 2015).

3. Relativity: Hamadinh (2015); Heba (2017) stated that relativity in adjustment issue seems evident particularly, in the modern society whereby cultural criteria differ among individuals depending on the style of accommodating in their family respectively. This accommodating may be more than that belongs to groups or friends in accordance with certain circumstances and standards in each community (Hamadinh, 2015).

4. Function: Zaied (2015) mentioned that adjustment involves a function of rebalancing in the environment whereby an individual is responsible for an adjustment to himself and his environment. Moreover, the individual can change the process of adjustment to himself by changing bad behavior patterns or his motives as well as

goals, and modifying them. Besides, Heba (2017) reported that the process of adjustment appears clearly in human adjustment if the barriers are strong, severe and surprising. Furthermore, adjustment is regarded as a continuous process because the human being is in a continuous movement in staffing his mutable motivations, especially when he needs to save his life and kind (Ibrahim, 2016).
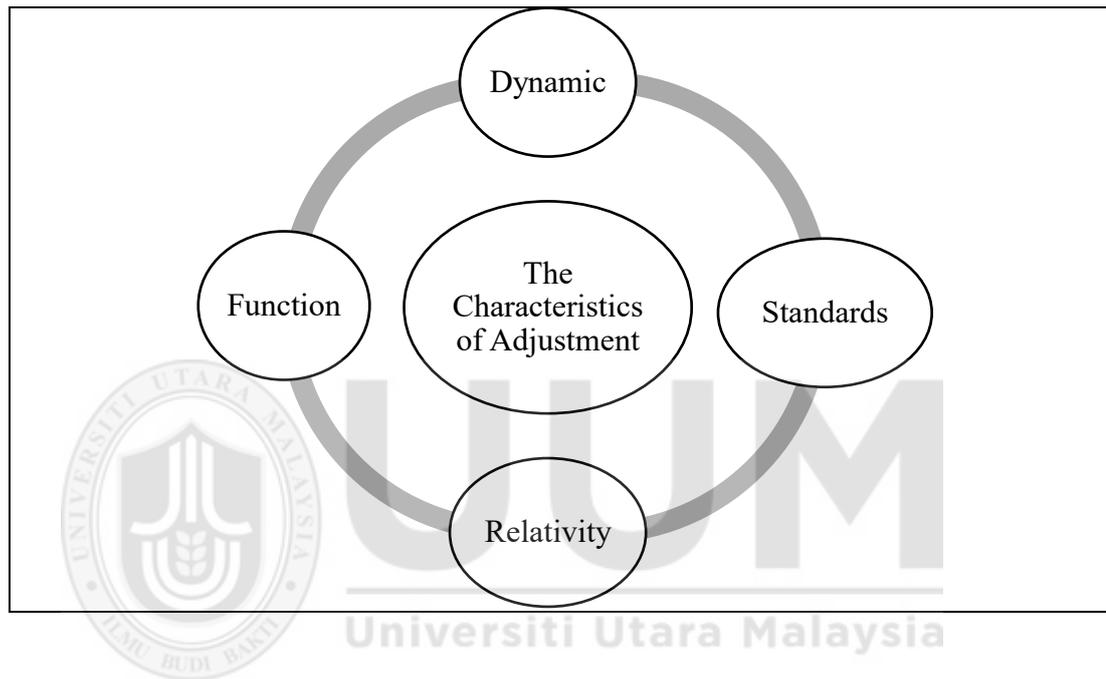
Figure 2.1. The Characteristics of Adjustment.

Source: Hamadinh (2015)

2.4.2 Adolescent Development and Social and Academic Adjustment

At-risk adolescent students are more likely to drop out of school than the general population. At-risk concept includes factors such as behaviour problems, low economic status, pregnancy, poor school attendance, low academic achievement, poor grades, and retention in grade level in the term. Therefore, "at risk" carries with it some important connotations (Ling, et al., 2015; Moore, 1999). Therefore, this

problem should be dealt with through investigating the reasons and trying to solve the same.

School adjustment is a broad construct of aspects like academic achievement, school satisfaction, school engagement and pro-social behaviour. Well-adjusted students value their learning, positively involve in classroom activities and receive high grades. (Kiuru, Nurmi, Aunola & Salmela–Aro 2009). Conversely, low adjustment results in low academic achievement, behavioural problems, discordant educational aspirations and school dropout (Raju & Rahamtula 2007; Vasalampi, Salmela-Aro, & Nurmi, 2009). Therefore, school adjustment is considered as one of the reasons which may result in "at risk" students.

Capuzzi and Gross (2014) identify some major warning characteristics of students at-risk of dropping out of school:

- Frequent absence from class in the regular school. Reasons could include school phobia, feigned illness, etc. which keeps them away from the arena of learning that would contribute to academic success.

- Failure at least in one grade, or failure in a significant number of subjects in the school programs.

- Chronically late arrival to individual classes and to school itself.

- Past academic failure and low performance in basic subjects of reading, writing, and mathematics, linked to low levels of social and academic adjustment.

47

Undoubtedly, the motivation of these students usually is at a very low level and it is necessary to increase this motivation for social and academic adjustment. They continually get low grades in school and this reinforces their belief that they are in this grade bracket, no matter what they do. These are students who rarely involve in the on-going life of their school community. They rarely participate in extracurricular activities or sports, and mostly avoid school events or functions. They also do not believe that education may be essential later for them to lead a happy, healthy, and satisfying life. What goes on in school is generally of no interest and boring for these 'at-risk' students and they make no pretence of obtaining anything useful from the academic process (Capuzzi & Gross, 2014).

This makes motivation, engagement, and achievement in school as important issues for young adolescents (Juvonen, Le, Kaganoff, Augustine, & Constant, 2004). These can have far-reaching consequences because most opportunities in contemporary society are linked to success in school. There is a lot of research which has sought to understand the factors that contribute to motivation, engagement and achievement during this stage of life, basically to seek the causes and solutions to this problem (Anderman & Maehr, 1994; Eccles, 2004; Chouinard, et al., 2017; Pomerantz & Wang, 2009; Simmons & Blyth, 1987; Roni, Inderawati & Hakim, 2017; Vaknin-Nusbaum, et al., 2017). While early research focused on the family and school context as the key influences on academic adjustment (Ryan, 2000), a growing number of studies have found that friends and peer groups are equally important where students' academic beliefs and behaviours are concerned (Rodkin & Ryan, 2012). Hanging out with friends who are themselves highly motivated, engaged and achievement oriented brings out these features in students, and vice versa. Several studies, using longitudinal

data and controlling for initial similarity, show that friends and peer groups mutually influence each other over time in their academic motivation, engagement and achievement (e.g., Ibrahim, 2017; Altermatt & Pomerantz, 2003; Berndt & Keefe, 1995; Kindermann, 2007; Ryan, 2000; Zara, 2017).

Adolescence is a 'difficult' period of dramatic changes - physical, cognitive, emotional, and social. In this environment of fluidity and change, the youth seek a sense of their own identity, independent of others (Erikson, 1968). They often probe the limits of acceptable behaviour by experimenting with alternative identities, roles, and behaviours.

Simultaneously, increased adult expectations and peer relationships make it more complex for responsible behaviour. Students with low level of social and academic adjustment do not have the ability to follow up their study, leading to low achievement. This generates bad feelings about their friends and their schools, leading to an 'at-risk 'situation among students. Many studies of adolescents have confirmed that the lack of social and academic adjustment are one of the main reasons for low academic achievement (e.g. Alawneh, 2016; Alqdah, 2016; Ashour, et al., 2010;Lee & Chen 2000; Olimat, et al., 2013).

2.4.3 Social and Academic Adjustment among Jordanian Students

According to Belal (2014), social and academic adjustment has been affecting refugee students in Jordan especially the Syrian refugee students since 2011. In addition, the studies conducted by Gharaebah (2014); Ibrahima (2017) also identified that refugee students in Jordan have a low level of social and academic adjustment perhaps due to

49

the fact that the host country is different than their own country and the nature of their forced displacement therein.

Since 2011, there have been many studies that focus on the investigation of the levels of social and academic adjustment among students such as (Gharaebah, 2014; Ibrahima, 2017; Abu-lil, 2011; Obaiedat, 2017; Zeati, 2015). The study done by Gharaebah (2014) confirmed that most Jordanian students who study along with refugee students suffer from low levels of social and academic adjustment which have a negative effect on their achievement. In addition, this is also agreed by Obaiedat (2017) that while students have low levels of social and academic adjustment, they also have a low level of achievement.

On the other hand, the study done by Hamadinh (2015) asserted that students who have low levels of social and academic adjustment have no motivation to learn and prefer to stay in the back of the classroom. Furthermore, Abo Lil (2016) also found that students who have low levels of social and academic adjustment will drop out of school easily. This is due to their inability to cope with the situation which causes them to withdraw from school.

Besides the negative effect of low levels of social and academic adjustment among Jordanian students in schools, there are also studies that confirm that students who have low levels of social and academic adjustment are affected with other students (Ibrahim, 2016; Obaiedat, 2017). In the study done by Obaiedat (2017), the researcher mentioned that 62% of the students who have low levels of social and academic adjustment could not build new relationships with others. Thus, this will make them feel that staying at home is much better than going to school.

2.4.3.1 The Dimensions of Adjustment among Jordanian Students

A review of past literature shows that the dimensions of adjustment among Jordanian students as identified by Hamadinh (2015); Obaiedat (2017) are based on the sense of social security. The dimensions include:

1. The recognition of social responsibility which refers to students being understanding of the rights of others and willing to build a healthy individual relationship with other individuals which creates the sense of belonging. This responsibility leads to a high level of adjustment (Hamadinh, 2015).

2. The extent to which the individual accepts the factors related to his psychological, mental, or physical abilities. For instance, the students know the limits of their abilities in their field of study, and the choice of the type of study which is intact and good (Obaiedat, 2017).

3. Students' success and satisfaction in his studies.

4. The extent and diversity of individuals' activity so that it is not limited to a particular type of activity, and development of social relations.

5. The extent of individuals' ability to face problems and challenges in life (Hamadinh, 2015; Obaiedat, 2017).

Two broad areas of adjustment are addressed in this study – Social Adjustment and Academic Adjustment. The explanation of the two areas as follows.

2.4.4 Social Adjustment

Social adjustment is the ability of a student to function successfully in the school while adapting to its rules and requirements (Huffines, 2002). This involves relationships with family, friends, and the school staff. According to Cook (1990), complying with rules and procedures of a school is school social adjustment. School adjustment is an adaptive behaviour, which is the degree to which the standards of personal independence are balanced with the social responsibility expected for a given age and cultural group (Beri, 2018; Miconi, et al., 2017; Snyder, 1991; Vishwakarma & Pal, 2017). Norford (1991) found that social development in children was strongly influenced by friendships and other activities. Friendships provided a basis for social competence. It gave a sense of self-worth and increased sensitivity to others, thereby enhancing social problem-solving skills.

As King (2004) pointed out, acquiring skills which help dealing with social changes helps the process of cognition and behaviour among individuals. It leads to identity rebuilding based on individual abilities. A significant relationship has been found between low achievement students and low level of social adjustment. There is a lack of student focus on academic performance resulting in a low level of performance (Kalvin, Bierman & Gatzke-Kopp, 2016; Graham, 2018; Ray & Elliott, 2006; Tarbox-Berry, et al., 2017).

Four factors that help to achieve social adjustment.

i) Satiating the personal and psychological needs among individuals such as staying alive, and affiliation appreciation from the community.

ii) Knowledge and acceptance of the self, i.e. the positive or negative thinking about oneself. An individual with positive thinking of oneself will be able to have social adjustment, and vice versa (Habit, 2003).

iii) The skills and abilities among the individual to initially achieve basic needs prior to reaching social adjustment.

iv) Flexibility or the ability to respond to external influences and dealing with social changes in a positive way to achieve social adjustment (Habit, 2003).

Levine and Levine (1996), in a study of social adjustment of transfer of high school students to a suburban high school, identified four aspects of social adjustment: competence, personal development, social integration and social adjustment for mobile high school students. They stressed the role of the high school teachers in the adjustment of new students.

2.4.4.1 Social Adjustment Fields

A review of past literature shows the social adjustment fields among Jordanian students namely study and family adjustment (Ibrahima, 2017; Tarwanih & Fineekh, 2012).

1. Study adjustment: Heba (2017) suggested that study adjustment contains the success of education at educational institution, the implementation, as well as a good relation between teacher and student. Ibrahima (2017) mentioned that this prepares the students to achieve good outcomes through an increase in the levels of cognitive emotionally and socially during school days. Tarwanih and Fineekh (2012) identified

that when the students achieve a good level in study adjustment, this will help them overcome some of the school problems such as low achievement, dropout and absence.

Furthermore, Heba (2017) also reported that when the students have a positive study adjustment, they likely possess a positive indicator which motivates them to increase their achievement and helps them establish a strong relationship with their classmates and teachers. Thus, this will contribute to a positive effect in their educational process.

2. Family adjustment: Tarwanih and Fineekh (2012) interpreted that family adjustment indicates family stability and the ability to achieve family requirements. Undeniably, most families that have stability will affect students in a positive way, which is, increasing the level of students' social adjustment (Ibrahima, 2017). On the other hand, Ibrahim (2016) reported that when a family does not have stability, this will lead to a reverse effect to the students. Hence, family adjustment is very important in order to develop the level of social adjustment which then will give positive educational outcomes. The next figure illustrates the social adjustment fields.
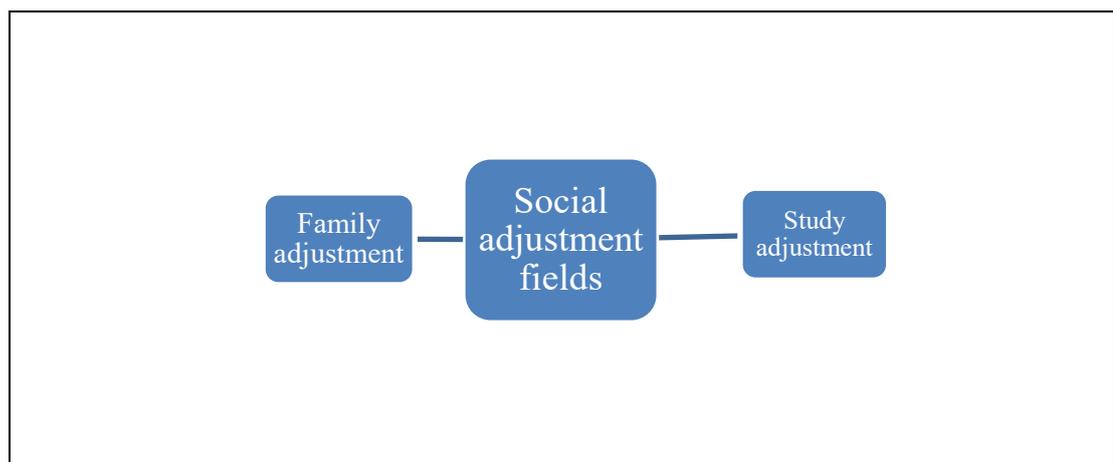
Figure 2.2. Social Adjustment Fields

2.4.4.2 Social Adjustment Strategies

A review of past literature shows that the individuals use strategies to help them increase and keep the levels of social adjustment (Belal, 2014; Abu-lil, 2011; Zaied, 2015). Following are some of these strategies:

1. Using support systems: the studies by Belal (2014); Zaied (2015) advocated that people who have a social support system have a high level of social adjustment, and self-esteem. In addition, there are three types of support systems: emotional support, financial support and information support (Abu-lil, 2011). In detail, the researcher mentioned that emotional support is related to motive of feelings which is provided by other persons. Financial support is related to the money provided by other persons in order to solve the problems faced by students. Information support is related to information which students need to help them solve and overcome the problems faced (Ibahima, 2017).

2. Using problem-solving skill: this strategy is used when the individual wants to develop the planning to overcome the threats and challenges that they face in life (Zaied, 2015). In addition, Belal (2014) described this strategy as an assistant factor to establish trust and develop efficacy. Thereafter, the individual would be able to overcome the threats and challenges in life by himself (Ibrahim, 2016).

2.4.4.3 Social Adjustment at School

Ugwuegbu (1975) found an association of social adjustment problems with academic performance of secondary school students. He collated the work of several researchers to arrive at the conclusion that students' academic performance can be related to

various aspects like social adjustment problems, study habits, degree of hard work, commitment, events, perseverance and preconceived convictions.

Previous research shows that a crucial element in overall social adjustment is the behaviour of youth at school. The context where youth spend most of their day is the school. It is in school that many important life-skill activities are engaged in: gaining academic knowledge; learning and practicing generalized skills like problem solving, time awareness, and responding to directions. More importantly it is in school they develop formative relationships with peers and adults. Any inappropriate behaviour at school interferes with learning tasks by distracting both the students themselves and the others around them. In addition, research has shown that Student behaviour at school is seen to influence the teachers' evaluation of students' academic performance (Kalvin, et al., 2016; Kosutzka, et al., 2018; Moran, et al., 2016; Polloway, Edward, Epstein, & Michael, 1994).

It is also seen that instructional methods, teaching strategies and techniques affect students' achievements in school (Li, Lam & Chan, 2018; Ugwuegbu, 1975). Thus, adding to social adjustment problems it is reported that study habits and strategies of instruction affect school academic achievement.

2.4.4.4 Social Adjustment Outside of School

While acknowledging the importance of the classroom as a setting for the youth, social activities outside of school also are crucial for development. Researchers like Bronfenbrenner (1979) have shown that the dynamic process of social adaptation and change are affected by social interactions with peers, friends, parents, siblings, relatives, and others.

Friendships are particularly important during adolescence, when teens detach themselves from the family for support (Carrasco, Alarcón & Trianes, 2018; Raffaelli & Duckett, 1989), replacing the family members with peers for at least some types of support (Zetlin & Murtaugh, 1988). The degree of positive peer relationships is very important for the youth's broader social adjustment (Bukowski, Newcomb, & Hartup, 1996; Parker & Asher, 1987; Tarbox-Berry, et al., 2017; Vishwakarma & Pal, 2017).

Therefore, participation in organized extracurricular groups substantially enrich the youth. The social, psychological, and educational benefits of extracurricular activities are well researched and shown to benefit academic performance (e.g., Blumenthal, Silbereisen, Pastorelli & Castellani, 2015; Kalvin, et al., 2016; Miconi, et al., 2017; Marsh, 1992; Camp, 1990). They also diminish the possibility of students' dropping out of school (Mahoney & Cairns, 1997).Therefore organized activities outside school, if adult-sanctioned, have an important influence even if they are not specifically school-sponsored.

2.4.5 Academic Adjustment

While social adjustment looked at adjusting to the rules and regulations of the school environment, academic adjustment is oriented specifically to academic learning. Baker and Syrik (1999) defined academic adjustment as "having a positive attitude toward setting academic goals, completing academic requirements, the effectiveness of the efforts to meet academic goals, and being successful in the academic environment" (p.39). Academic adjustment requires a clear sense of purpose and motivation to learn and meet academic demands. Therefore, through the above definition, it is clear that the existence of an educational goal, a plan to meet the same,

57

and motivation to successfully implement academic tasks all together sum up the gist of academic adjustment.

A broad concept of academic adjustment refers to the motivation for learning, a sense of purposefulness, action to comply with academic demands and satisfaction from the academic environment (Gerdes & Mallinckrodt, 1994; Hughes, Cao & Kwok, 2016). This requires developing practical skills. Zeidner (1992) lists the skills as: Learning skills, writing and summarizing, thinking and memorizing, coping with masses of reading materials, submitting papers, summarizing lectures, writing seminar papers, effective time management and taking exams.

Braxton (1999); Eslea (1999); Huynh and Fuligni (2017); Wang (2018) opined that how the individual adjusts to the environment facilitates progress in a learning situation. Several others (Baptiste, 1993; Ford, 1995; Jain, Tiwari & Awasthi, 2017; Rivas-Drake, 2011) described adjustment behaviour as the effort to manage those elements in a troubled person's environment that have already been mastered, reduced or tolerated.

According to Lazarus and Folkman (1987); Al-Qataee (1984); Langenkamp (2016), adjustment is basically an emotion-focused coping mechanism. Thus, they distinguished from problem-focused coping behaviour that requires strategies to confront and solve problems. Problems should be defined, alternate solutions generated and evaluated in cost-benefit terms. Whereas, according to Lazarus and Folkman (1987); Lopez and Jones (2017); Rumberger (2002); van Rooij, Jansen and van de Grift (2017), emotion-focused behaviour also includes strategies of positive reappraisal and defensive measures, such as avoidance, minimization, distancing,

58

selective attention, and positive comparison. They agreed with others (Bastien, Seifen-Adkins & Johnson, 2018; Krug, George, Hannon, & Glover, 1989; Langenkamp, 2016; Lee & Chen, 2000; Ryan, Shim & Makara, 2013) that problem-focused coping behaviour was more context-dependent whereas emotion-focused form of copying was influenced by personality factors. Ford and Thomas (1997); Lee and Chen (2000), clarified that students with health or medical problems and suffering from test or evaluative anxiety normally failed to adjust academically.

According to Russell and Petrie (1992); Zee and Koomen (2016), academic adjustment contains three basic aspects:

i) Forecasting for academic adjustment. This has three elements: academic factors (aptitude and ability, study skills, test anxiety, academic motivation, and self-efficacy with attribution); society factors (social support, life stress, work involvement, and family variables); and personality factors (standardized personality major, locus of control, self-esteem, and trait anxiety).

ii) Outcomes of academic adjustment. This is looked for in the same three elements of forecasting: academic performance, social adjustment, and personal adjustment.

iii) Intervention and treatment. It addresses and improves low level of academic adjustment and eases the academic adjustment process. Two elements comprise intervention and treatment: individual and group counselling, and the program provided in school by the counsellor (Russell & Petrie, 1992).

The studies by Al-Badareen and Ghaith (2013); Hamadinh (2015) confirmed that when an individual has a good level of Academic Adjustment, then there will be a positive effect on other education variables such as increasing self-efficacy and reducing academic stumbling. For example, a study done by Ibrahima (2017) confirmed that academic adjustment affects self-efficacy, where the students who obtained a low level of academic adjustment illustrated a low level of self-efficacy. Additionally, this is also agreed by Al-Badareen and Ghaith (2013) who asserted that students with high levels of academic adjustment illustrate high levels of academic achievement and performance. Moreover, the study conducted by Ibrahim (2016) also found that students who obtained low levels of academic adjustment illustrated low levels of academic achievement and performance.

Furthermore, Juhani (2016) also found that students who have low level of academic adjustment have a higher potential to stumble in their academic achievement. Similarly, it is also agreed by Side (2018) that when students have a high level of academic adjustment, it will give a positive effect on academic performance.

Numerous researchers (e.g. Al-Badareen & Ghaith, 2013; Aqib, 2018; Ibrahima, 2017; Juhani, 2016; Lakhdar, 2017) have shown that the academic adjustment is considered one of the most important aspects of general adjustment. In detail, Aqib (2018) deduced that academic adjustment is one of the most important elements that influence students' psychological well-being. Consequently, students who are able to engage in social adjustment in school are more prone to positive feelings. Thus, these positive feelings are then reflected through their higher achievement in academic performance. Moreover, Juhani (2016) also suggested that this will be contributing to the level of

acceptance and values, which most schools are working to develop among students. On the other hand, psychological stress which is related to school life and leads to school dropout can be overcome (Al-Badareen & Ghaith, 2013).

The study done by Juhani (2016) also identified that students with high levels of academic adjustment have a high level of ability to cope with academic difficulties. Additionally, these students will consider continuing their education. However, those who have a lower academic adjustment have a tendency to drop out of school. Furthermore, the results of the studies done by Ibrahima, (2017); Lakhdar (2017) also showed that students with high levels of academic adjustment manifest perseverance, efficiency, high concentration, and deep processing of information in making decisions. Aside from that, students with high levels of academic adjustment engage in activities and academic tasks with high concentration, enjoyment, independent study enjoyment, independent study and learning, self-exploration, and good level of social skills (Ibrahim, 2016). In contrast, Juhani (2016) found that low-achieving students often possess resistance in character, lack of independence, low self-reliance, and poor capacity in building relationship with others.

Furthermore, an understanding of academic adjustment can be drawn through the results of a study by Banikhaled (2010) which showed that students with high levels of academic adjustment choose academic assignments and activities that are difficult, complex and challenging. This is also agreed by Hamadinh (2015) who found that high-achieving students manifest more perseverance and determination in obtaining high academic performance. On the other hand, those with low academic adjustment will avoid difficult and complex tasks that require effort and perseverance. As a result,

students who refuse to take challenge of difficult and complex tasks will most likely obtain a low level of educational outcome as well as a low level of academic performance (Ibrahima, 2017). On the other hand, Ibrahim (2016) revealed that academic adjustment is highly correlated with self-efficacy towards academic achievement. This means that the higher the academic adjustment ability, the higher their self-efficacy towards academic performance. In addition, the aforementioned study also found that both academic adjustment and self-efficacy are highly related with individual skills and ability to excel in academic. Perhaps, from the findings it can be hypothesised that academic adjustment is an importance aspect that can improve the academic achievement among low-achieving high school students. Therefore, this study will employ the newly validated CBT manual to investigate it further.

In addition to that, Serayah (2014) identified that high-achieving students are more actively participative in school activities. They also manifest positive interactions with their classmates. In the study done by Banikhaled (2010), it was found that students who have positive levels of academic adjustment have a positive ability to manifest more perseverance and initiative. This is also agreed by Ibrahima (2017) who found that students who have high levels of academic adjustment are also positive, able to achieve a good academic performance, and motivated to complete the educational stages in school. In addition, the students will be so far from anxiety, tension and bleakness. This will overcome most educational problems that students face at school, and hence help them increase the levels of harmony as well as psychological compatibility (Side, 2018).

2.4.5.1 The Relationship of Family Climate to Academic Adjustment

Aqib (2018) opined that the process of socialization, one of the biggest burdens of the family. This includes earning individual skills to help one adapt to the environment in which he lives. What is done by the family is intentional and directed to form the personality of the individual in proportion to his sex and age. Furthermore, this is also agreed by Ibrahima (2017) where the researcher found that the family members give their support to students to become more adjusted through providing a positive environment that will have positive effects on the personality of students.

Moreover, the study done by Hamadinh (2015) also confirmed the relationship between family climate and students' academic adjustment. It was evinced that the students with high levels of academic adjustment get better results and become participative in different student programs besides having the ability to use time effectively and become less concerned.

In addition, the study done by Side (2018) also suggested that the level of academic adjustment is strongly related to the parents' attitudes and the prevailing psychological environment at home, which is different for each individual. In addition, Hamadinh (2015) showed that a family which is characterised by friendliness and love, away from violence and hatred, has a role in shaping students' behavioural pattern. This hence proves the positive relationship between family climate and the level of academic adjustment.

Overall, it is understood that the cohesive family atmosphere which is characterised by family relations, and a sense of confidence and tolerance promotes confidence in individuals leading them to being non-dependent (Aqib, 2018). This hence leads to

their independence in the provision of their needs and the establishment of the appropriate academic atmosphere. A good follow-up by parents is crucial to ensure the high levels of academic adjustment among students (Pourrazavi & Hafezian, 2017; Side, 2018).

2.5 Low Achievement Students

Low achievement is defined in different ways by different authors:

Olimat, et al. (2013) defined it as performance that is one standard deviation below the norm for a given population, regardless of ability. This may originate in social and economic disadvantage. Pinyopornpanish, et al. (2010) described low academic achievement as students who failed the exam or had to re-take it. Sutcliffe (1959) defined low achievement as a subject mark average of "D" and below, taken on the basis of total school students. Moreover, Hunt, Westenskow and Moyer-Packenham, (2017) identified that students' scores who obtain scored below 40% on mathematics were considered a low achievement.

Most of the literature from research link low academic achievement with learning disabilities. Surprisingly, these studies reveal that low achievement does not identify meaningfully different types of learning disabled students, as compared to the Aptitude-Achievement Discrepancy (Fletcher, et al., 2007). Fletcher et al. (2007) argue that AAD does not represent the true meaning of 'unexpected underachievement' which is an essential component of Low Achievement, which attributes learning disabilities solely to low achievement and not any other factors (Siegel, 1992). Though arbitrary, many practitioners designate any achievement score

below the twentieth percentile as the benchmark for learning disabilities qualification purposes (Fletcher et al., 2007). The causes are investigated thereafter.

Fletcher et al. (2007) distinguish expected, as opposed to 'unexpected', low achievement as attributable to low aptitude. Furthermore, Lyon et al. (2001) ponder how to differentiate low achievement arising from emotional disturbance, economic disadvantage, or inadequate instruction, as opposed to a true learning disability arising from deficit in one or more of the cognitive processes that underlie achievement. The regulations of the 'Individuals with Disabilities Education Act' stipulate that achievement-deficit due to an emotional disturbance, economic disadvantage, etc. should not be diagnosed as learning disability. Low achievement should be construed only as low academic functioning, which can be independent of ability and also does not imply a specific causation (Gresham, et al., 2006). This is for children exhibiting low achievement unrelated to IQ level. In addition, learning disabilities are thought to originate from cognitive dysfunction. But low achievement is a condition that may result from adverse environmental factors, associated say with poverty (Howard, 2007). Learning problems resulting from social and economic disadvantage are referred to as low achievement, and are said to represent a discrepancy between age and achievement only. However, some authors (Ysseldyke, et al., 1982) opine that underachievement (low achievement) is a distinct discrepancy between a child's ability (and not just age) and performance.

Consequently, the low achievement is linked to emotional (internal) and economic (external environment) aspects. Adjustment relates to the environment for the student, including economic, emotional, and 'foreign relationships' (peer and parents). Hence,

this illustrates the effect of environment on the relationship between low achievement and adjustment amongst students.

Undeniably, low achievement is a serious problem in the education context of society today. Substance abuse, suicide, and social maladjustment have been found to be linked with low achievement in school (e.g., Barwick & Siegel, 1996; Dalla & Antoniou, 2017; Hollingsworth, et al., 2017; Hung, Lee & Pan, 2017; Karacostas & Fisher, 1993; Maag, et al., 1994: McBride & Siegel, 1997). General social maladjustment, as a risk factor, increases with age as a child accumulates negative experiences of learning failures and develops a growing loss of self-esteem. It is usually seen that poor academic achievement is a strong predictor of high school drop-outs (Battin-Pearson, et al., 2000).

2.6 Summary of Previous Studies on RSCP, CBT-Interventions and Social and Academic Adjustment

Olimat, et al. (2013) mentioned that the issue of low achievement among students is considered as one the important educational issues in Jordan, whereby low levels of social and academic adjustment have caused low achievement among students. The Counselling Department in the Ministry of Education has actually addressed this issue in schools by carrying out Regular School Counselling Program (RSCP) among students. However, the RSCP needs to be re-evaluated as many counselling cases need to be followed up after the RSCP in order to avoid relapse (Banat, 2015). Further, Al-Badareen and Ghaith (2013) suggested that the RSCP needs to be updated in order to overcome certain weaknesses.

In terms of social and academic adjustments, there are many studies in Jordan (e.g. Gharaebah, 2014; Nassar, 2010; Olimat, et al., 2013) that recommend the intervention of counselling programs in order to improve the low level of social and academic adjustment among underachievers. Furthermore, the experimental investigation by Gharaebah (2014) concluded that the RSCP approach needs a lot of sessions during a full academic year considering that the existing positive results are few. Hence, Gharaebah (2014) recommended the use of new counselling approach by counsellors to improve the level of psychological and social adjustment among students. In a similar study done by Nassar (2010), it was reported that even though the RSCP has been carried out during the whole academic year, the levels of self-efficacy and academic adjustment among students evince slow positive results. Therefore, Nassar (2010) recommended the implementation of a good counselling program better than the RSCP.

From the pieces of literature reviewed, different authors unanimously agreed that the RSCP has weaknesses and needs to be updated or changed to other new counselling programs that can give benefits and results better than RSCP (Al-Badareen & Ghaith, 2013; Banat, 2015; Gharaebah, 2014; Nassar, 2010).

The empirical evidences from previous studies that address CBT-interventions among students show that CBT-interventions have a positive influence on academic functioning (Jr, 2010), academic success (Lyons, 2010), and attention deficiency (Abdalfahim, 2012; Ben-mustapha, 2013). Moreover, CBT gives additional and good academic benefits such as increasing passing rates and improving academic achievement which then contribute to positive social change (Jr, 2010). Further, the

increased levels of self-efficacy among students and improved participation in the classroom are also attributed to CBT (Keshi & Basavarajapp, 2013). Besides, considering the academic benefits aforementioned, CBT-interventions can produce good results in a short time between 6 to 12 weeks.

Nevertheless, despite acknowledging the weaknesses of RSCP (Al-Badareen & Ghaith, 2013; Banat, 2015; Gharaebah, 2014; Nassar, 2010) and its need to be updated or changed to other new counselling programs, CBT-interventions have been proven effective in a maximum duration, 12 weeks (Abdalfahim, 2012; Ben-mustapha, 2013; Jr, 2010; Lyons, 2010). Therefore, in conclusion, evidences from past experiments on CBT-interventions present positive findings relating to academic functioning, academic success and attention deficiency among students at several stages of education (Abdalfahim, 2012; Ben-mustapha, 2013; Jr, 2010; Lyons, 2010).

2.7 Conclusion

All in all, previous studies have considered CBT as an essential intervention in solving various problems relating to psychology, clinical aspects, education, or counselling. In most of the literature, social and academic adjustments were accepted and employed as one of the counselling application theories in secondary schools. Additionally, most of the studies on the causes of the low achievement among the female students have discovered the relationship between the low levels of social and academic adjustment and low achievement of female students where the formal is found out to influence the latter. The literature of cognitive behaviour therapy was discussed through the review most of CBT techniques as well as the impact of CBT techniques interventions in education. Furthermore, the literature of social and academic adjustment was

discussed in the light of the theories of social and academic adjustment, especially the adjustment among Jordanian students. In conclusion, this study is indeed significant as it is hoped to address the issues of low levels of social and academic adjustment via the utilization of CBT techniques.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

Chapter three discusses the research design of this study. It describes the methodology that was employed for the purpose of data collection and analysis. First the research design, population and sampling, as well as instrumentation is described. This is followed by discussion of reliability and validity of the instruments. The pilot study and the procedures of data analysis was detailed concisely. Finally, ethical and legal considerations were also presented.

3.2 Research Design

According to Slavin (2002), the design of choice to make causal conclusions, particularly in evaluating educational innovations, should be quasi-experimental design. Application of CBT in quasi-experimental design has been addresses in a number of studies in the past studies (Thompson, 2014; Woidneck, Morrison & Twohig, 2014).Specifically, comparison and investigation of major differences of suggested dependent variables through the application of the pre-test and post-test is widespread in school counselling.

According to Privitera (2015), quasi-experimental design attempts to establish cause and effect between variables. Procedures and methods have to be in place to control the conditions in which observations are made to ensure correctness of cause-effect understanding. Control of conditions in quasi-experimental design requires manipulation and comparison. With this understanding, it is found that the main

question of the current study can best be answered through pre and post-test experimental design.

In addition, such a quasi-experimental design allows the researcher to manipulate the independent variable and so to test the relationship between the independent and dependent variable (Mertens, 2010; Wright, 2014). The authors confirm that the quasi-experimental research is conducted in an environment that permits a high level of control of extraneous variables (Mertens, 2010; Wright, 2014).At the same time, pre-test-post-test design allows the researcher to control internal validity threats such as maturation, history, instrumentation, testing and experimental mortality.

Mertens (2010) and Privitera, (2015) state that the quasi-experimental design involves independent and dependent variables. Two groups are used: the experimental group to which the treatment is applied, and the control group where no treatment is applied.

Hence, the current study used a quasi-experimental design in order to establish the cause and effect of the variables of the current study (social adjustment and academic adjustment), as well as to control the conditions in which observations are made to ensure correctness of the cause-effect understanding.

Table 3.1
The Design that was Used in the Present Study

Group	Pre-test	Treatment	Post-test
Experimental	O_1	X	O_2
Control	O_1	……	O_2

Note. O: AAS scale and SAS scale; O_1: pre-test; O_2: post-test; X: The intervention program is based on cognitive behaviour therapy.

The nonrandomized pretest-posttest control group design of the study of the study used a nonrandomized sample of 68 female students from one secondary female school who have obtained a low level of (Academic Adjustment Scale& AAS and Social Adjustment scale SAS) at pre-test. After that, the researcher divided the participants into two groups: the experimental group and the control group. Each group contained 34 students; the 68 chosen participants were non randomly assigned to each of the two groups experimental and control. The present study used Cognitive Behaviour Therapy CBT with group counselling. According to ASCA (2005) and Cormier, et al. (2016). The present study searched the impact of a training program based on cognitive behaviour therapy. The training program was adapted based on previous studies which used CBT as a treatment program (e.g. Keshi & Basavarajappa, 2013; Thompson, 2014; Woidneck, Morrison & Twohig, 2014; Zyromski, & Joseph, 2008); studies which looked at social adjustment (e.g. Abdulaziz, 2007; Huffines, 2002; Mathur, 1999); and studies which looked at academic adjustment (e.g. Adler, et al., 2008; Peterson et al., 2009). In this current study, the researcher used quasi-experimental design. Thus, pre-test was done on all study samples. The training program was applied to the experimental group only for eight weeks. The control group received a regular counselling program. After the

completion of the application of the training program, post-test was conducted on all members of the study.

3.3 Experimental Design Validity

This study employs the quasi-experimental design methodology comprising the common two types of validities; the internal and external validity.

3.3.1 Internal Validity

According to Wright (2014), and Heppner, Wampold, and Kivlighan (2008), internal validity refers to the fact that the changes observed in the dependent variable are the result of the effect of the independent variable, and not due to the effect of some extraneous variables. When extraneous variables are controlled, the validity of the data can be assured. The results can then be said to be the effect of the treatment.

Controlling extraneous variables gives a high degree of internal validity. According to Mertens (2010); Heppner, et al. (2008); and Wright (2014), the internal validity includes history, differential selection, maturation, testing, pre-testing, and instrumentation. Various procedures are to be followed to control for internal validity and these are detailed below.

History: When some unanticipated event occurs while the experiment is in progress, thereby affecting the results, the threat is identified as history (Mertens, 2010; Heppner, et al. (2008); Wright, 2014). The duration of the study will effect this factor. The longer the duration, greater the possibility that extraneous variables will affect the results, making it vulnerable. During the experiment neither of the students at both groups was involved in any activities, events or treatment.

73

Past studies which used the CBT with school academic (such as Keshi &
Basavarajappa, 2013; Lyons, 2010; Rice, 2008) used durations between 6 to 10 weeks
(to be precise, 10 weeks, 9 weeks, and 6 weeks respectively). The number of sessions
of those studies were between 6 to 16 sessions (9, 6, and 16 respectively). The current
study was 8 weeks, and 8 sessions, which was considered adequate for CBT
interventions.

Differential Selection: To address the possibility of dissimilar characteristics between
the participants in the experimental, and the control groups, the result would then be
recognized as group differences, not as the treatment of different variables (Merten,
2010). To overcome the threat of differential selection, the researcher did some
procedures in following:

The total number of students was equal in both groups where the experimental group
consisted of 34 students, and control group, 34 students. In addition, the students in
both groups have the same gender (female) because of the Jordanian government's
policy that emphasizes single-gender education. In terms of age, the students in both
groups are the same age, 16 years old. Whilst with regard to ethnicity, the study
involves only students from one ethnic background, Jordanian Arabs. In terms of the
number of sessions, both groups met for the same number of sessions, one session
peer week, with a total number of eight sessions during eight weeks. To minimize
threats, the students from both groups were reminded in every session not to discuss
what they have had learned during the eight-week sessions of the study. The
arrangement of the class has been placed in different building to avoid communication
during the experiment.

74

Maturation: According to Mertens (2010), Maturation refers to the biological or psychological changes that may occur in the participants during the treatment period. It is expected that as the current study was completed in eight weeks, this would be too short a period to affect the individuals biologically, psychologically, or mentally. According to Gentry and Campbell (2002) two months are adequate to overcome the maturation threat as the period is too short for any significant biological changes to take place. The researcher proposed to keep track of environmental changes, and if it transpires that students have confronted certain changes, at home or school that can affect them psychologically, those participants was excluded from the study.

Testing: This study used pre-test and post-test designs. This was considered a threat to validity. It is expected that with repeated tests, the participants know the contents of the tests and so can anticipate the same (Mertens, 2010). Therefore, studies using pre-test and post-test are said to have a potential threat to validity. However, the current study was conducted over eight weeks, which is not a short period to allow the participants to remember the tests. In addition, the present study applied two questionnaires, and not exams, for the secondary school students (Social Adjustment Scale SAS and Academic Adjustment Scale AAS). The nature of instruments used in the current study can overcome any validity threats.

Instrumentation: Instrumentation poses another threat to validity in studies that use both pre-test and post-test. It is possible that one test might be easier than the other test, in which case the changes observed in the dependent variable could be due to the nature of the instrument and not due to the independent variable (Mertens, 2010). So when the researcher uses different instruments at the pre-test and post-test, this threat

75

is surfaced. The current study used the same instruments, which were validated questionnaires, in pre-test and post-test. Hence, validity issue was negated.

Experimenter Effect: The style of the trainer or teacher and his/her relationship with students, may affect the results. For example if the style is of friendly relationship with students, it could be the main reason for the results and not necessarily the intervention. However, the school counsellors conducted the current study. It was ensured that the counsellors in both groups share similar characteristics like gender work experience and qualifications.

Table 3.2
The Characteristics to Both of Counsellors

Counsellor	Group	Age	Qualification	Experiences
A	Experimental group	31	Bachelor degree in counselling psychology	8
B	Control group	30	Bachelor degree in counselling psychology	7

Experimental Mortality: According to Mertens (2010), in a study that extends over a period of time there is a possible threat of drop-outs. This 'experimental mortality' poses a threat to validity, particularly if participants drop out of the experimental and control groups differentially. To overcome this, the current study obtained the approval from school for the study and this should ensure their cooperation in preventing drop-outs. In addition, the researcher kept track of students' attendance in the experiment. The present study has a fairly large sample of 68 students, divided into two groups experimental and control. This size should help reduce possibility of

experimental mortality. Moreover, the intervention of the current study was provided one session weakly, so, the counsellors provided the intervention and RSCP when all students were presented to school. Further, during the duration of the current study, all students were presented the intervention program and RSCP without any absent.

Table 3.3
Summary of Student's Attendance in 2 Groups during Intervention

Week	Date	E- N=34		C- N=34	
W-1	4th Sep.	Pre-test	N=34	Pre-test	N=34
W-2	11thSep.	Seassion-1	N=34		
	13th Sep.			Seassion-1	N=34
W-3	18thSep.	Seassion-2	N=34		
	20th Sep.			Seassion-2	N=34
W-4	25th Sep.	Seassion-3	N=34		
	27th Sep.			Seassion-3	N=34
W-5	2nd Oct.	Seassion-4	N=34		
	4th Oct.			Seassion-4	N=34
W-6	9th Oct.	Seassion-5	N=34		
	11th Oct.			Seassion-5	N=34
W-7	16th Oct.	Seassion-6	N=34		
	18th Oct.			Seassion-6	N=34
W-8	23th Oct.	Seassion-7	N=34		
	25th Oct.			Seassion-7	N=34
w-9	30th Oct.	Seasiion-8	N=34		
	1st Nov.			Seassion-8	N=34
W-10	6th Nov.	Post-test	N=34	Post-test	N=34

78

Subject Effect: This threat refers to the reflection of the participants themselves. There are possibilities in the changing of attitude, motivation or enthusiasm for the treatment among the subjects while the study is going on. This situation might potentially become a threat to the internal validity (Mertens, 2010; Heppner, et al., 2008; Wright, 2014). Hence, the researcher opted to not informing the participants in the study groups about the experimentation as the measure to overcome the threat.

3.3.2 External Validity

The external validity leads to possible dissemination of research results. Mertens (2010);Heppner, et al., 2008; Wright, 2014) agree that external validity contains Selection-Treatment Interaction, Setting-Treatment Interaction and Multiple-Treatment Interference. The external validity of the current study was investigated by looking at the following:

Selection-Treatment Interaction: This threat pertains to the sample and is present if the sample is not a true representation of the original population of the study. This means the researcher cannot generalise the results to the whole population. In this study, experimental samples were drawn from a Jordanian government school that comprised of local Jordanian citizens only. According to the statistics provided by the Ministry of Education, Jordan for the academic year 2016/2017, the total number of secondary female schools in Amman city was 97 schools. Hence, it is clear that the experimental sample represented a large part of the targeted population. All schools in Jordan operates under the Ministry of Education, Jordan and follow the same pattern in terms of school structure, instruction, curriculum and evaluation method under the required codes by the Ministry of Education, Jordan.

Setting-Treatment Interaction: This threat relates to control of treatment conditions such as class environment and noise. These conditions may affect the results not the treatment per se, as these conditions may affect the attention level among students (Mertens, 2010; Heppner, et al., 2008; Wright, 2014). The classroom environment in the secondary school is similar. So, the researcher applied the intervention in the experimental group and regular counselling in the control group in the same classroom environment for both groups.

Multiple-Treatment Interference: There is a possibility that participants received more than one treatment, hence, Mertense (2010); Heppner, et al. (2008); and Wright (2014) suggested that this is actually caused by an alternate treatment, not a designed treatment. To overcome this threat, permission to apply the treatment and request for confirmation that the participant would not receive any other treatment during the study period was sought from the parents and the school principals.

3.4 Population and Sampling

The low achievers or the non-performing female students from various secondary schools were the population of this study. They were accredited by the Jordanian Ministry of Education.

According to the statistics of the Ministry of Education of Jordan for the academic year 2016/2017, the number of secondary female schools in the capital Amman are 97schools, distributed amongst the five Directorates of Education in the city of Amman. Table 3.2 illustrate these numbers.

Table 3.4

Number of Secondary Female Schools in the City of Amman for the Academic Year 2016/2017.

#	Directorate of Education	Numbers of schools
1	DE brigade rod Amman	23
2	DE brigade Qweismeh	20
3	DE brigade Wadi Seer	16
4	DE Brigade Aljamah	14
5	DE brigade Marca	24
Total		97

A nonrandomized sampling is known as a non-probability sample which is chosen depending on the aim of the research and the characteristics of a population (Cohen, Manion & Manion, 2002). Privitera (2015) mentions, nonrandomized sampling is also called a subjective, judgmental or selective sampling. In addition, the researcher who uses nonrandomized sampling would depend on his judgment when choosing the respondents among the population to participate in the study (Ross, 2005). Further, in order to save time and money, the researcher often thinks that he could obtain a representative sample through using a sound judgment (Privitera, 2015).

Ross (2005) states that nonrandomized sampling could be useful in a situation when the researcher wants to reach out to a targeted sample quickly. Furthermore, nonrandomized sampling is perhaps the only suitable technique available if there are limited numbers of elementary data sources that could contribute to the research (Cohen, Manion & Manion, 2002; Ross, 2005).

The sampling framework for the current study comprised the secondary female students, age 16 years in Amman city in the Hashemite Kingdom of Jordan. The

numbers of secondary female students in those secondary female schools are varying but normally it is between 200 to 500 students. The numbers ineach secondary classroom also vary but normally the number of students in each classroom is between 30 to 40 students (ministry of education, 2017).

For this study, out of 97 schools, the researcher chose only one school using nonrandomized sampling (Mertens, 2010; Heppner, et al., 2008; Wright, 2014). The reason to have chosen only one school (Lamis Bint Amr Secondary female school) out of 97 is because of the nature of the research design, i.e. experimental intervention. It is not possible to conduct experimental intervention in multiple schools because of the rigour and care required by the intervention (Mertens, 2010; Heppner, et al., 2008; Wright, 2014). However, to overcome the small sampling size, the researcher made two groups for the experiment and control trails, which furthered help in examining the fidelity of the experiment.

After the secondary female school was chosen, all low achieving female students who obtained "D mark and below" were identified in accordance with some studies in Arab region (e.g. Alostad, 2014; Eassa & Suliman, 2011; Mohammad & Hammad, 2012; Salim, et. al., 2013) that consider students who obtained "D mark and below" as low achievers. Then two scales (AAS & SAS) were administered. After extracting the results of the scales, 68 female students who obtained low scores in the results from the chosen school made the total sample size. The female students were assigned non randomly into two groups: experimental group (34 students) and control group (34 students).

The experimental group received the treatment through the application of the program based on cognitive behaviour therapy (CBT-IP) while the control group received the regular counsellor program (RSCP). The groups of the present study are shown in Figure 3.1.
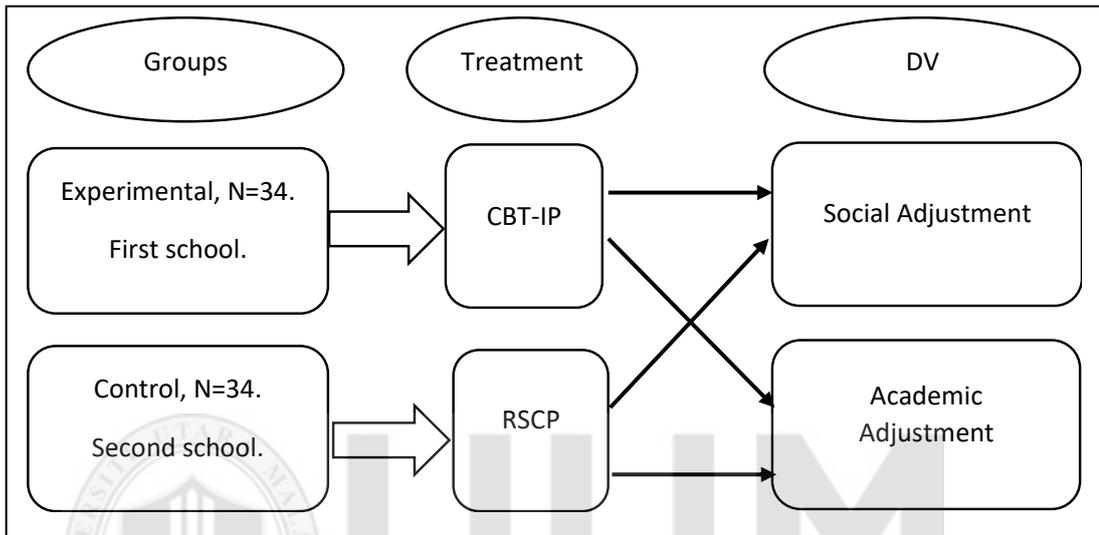
Figure 3.1. The Groups of the Present Study for the Study

3.4.1 Choosing the counsellors

After choosing one female secondary school, the researcher used two steps to choose the counsellors:

Step 1: The researcher looked for counsellors from the school. It is necessary that the counsellors should have - experience between 5-10 years, gender (female only), and a bachelor degree in counselling psychology. After choosing the counsellor, she provided the RSCP to group C.

Step 2: To apply the intervention of the current study, the researcher chose also a counsellor with same experiences of 5-10 years, gender (female only), a bachelor degree in counselling psychology, and age between 25-30 years. The personal details

were been the same as for female counsellor. In addition, the counsellor treated Experimental group by using the intervention of the current study CBT-IP. The table (3.2) show the characteristics between counsellors.

3.5 Procedure of Research

This section discussed the procedures of the present study. In addition, it explained the steps that were taken to obtain the approval from the school for the purpose of data collection and data analysis.

The present study researched one independent variable that has two levels: training program based on cognitive behaviour therapy and regular counselling program as used by the Ministry of Education in Jordan. There are two dependent variables: social adjustment and academic adjustment. Two groups formed a part of this study: one experimental group where the CBT Intervention Program was applied, and one control group where regular counselling program was applied. The procedure of the research was as follows:

1. The researcher adapted this newly treatment program of CBT based on previous studies which addressed CBT intervention with school students (e.g. Ahmad, et al., 2016; Drapean, et al., 2017; Keshi & Basavarajappa, 2013; Thompson, 2014; Woidneck, Morrison & Twohig, 2014; Walker, et al., 2017; Zyromski, & Joseph, 2008). Studies that addressed social and academic adjustment (e.g. Abdulaziz, 2007; Huffines, 2002; Hughes, et al., 2016; Jain, et al., 2017; Langenkamp, 2016; Mathur, 1999; Tarabox-Berry, et al., 2017). This newly CBT treatment had been validated by five professors in the field of educational counselling and counselling psychology

before the real study was conducted, and who have agreed to the treatment of CBT technique (Appendix D).

2. The researcher obtained the permission from the publisher or owner of the Academic Adjustment Scale (AAS) and Social Adjustment Scale (SAS) to apply it in the present study.

3. The researcher chose two counsellors from one school, the first one to apply the intervention program for the experimental group and the last one to apply the regular counselling program. Further, the researcher explained the aims of intervention program and each session to the counsellor who will apply the CBT-Intervention program.

4. The researcher obtained approval from (Lamis Bint Amr Secondary female school); to conduct this study.

5. A detailed timetable was set up to visit the school for the application of the pre-test, intervention program, RSCP and post-test.

6. The researcher applied the scales of the present study (social adjustment scale and academic adjustment scale) as a pre-test to all low achievement students who obtain "D" marks and lower at the basic courses (Arabic language, English language, Mathematics, Islamic religion, and Sciences) in the results of the end of the previous academic year 2016/2017. The number of female students who obtained "D" and lower were 110 students.

7. 68 female students were chosen non randomly from 110 students to become the participants of the current study. Prior to the selection, their parents were required to sign an informed consent form (Appendix A). Those who did not get the permission were withdrawn from the study. Then, they were divided non randomly into two groups: experimental and control. Each group was of (34) female students. In terms of the nature of building of the school, the school contains three buildings. Hence, the researcher split the students according to the buildings; the experimental group was in building (A), and the control group was in building (C). This procedure has helped the researcher overcome the mixing and meeting of students of both groups. All the participants were also reminded in every session that they were not allowed to discuss matters with other students during the eight weeks of the study.

8. The researcher and the first school counsellor met the student participants in experimental group to explain and d escribe the aims of the study.

9. The second school counsellor in school conducted the regular school counselling program RSCP for control group. At the same time, the first school counsellor conducted the intervention program CBT-IP in the experimental group. The period for applying the intervention program and regular counselling program was eight weeks; with one session peer week.

10. At the end of the duration of the programs, the researcher applied the scales (AAS & SAS) as a post-test to both groups - experimental group, and control group.

11. Statistical analyses was conducted to examine the hypotheses of the study.

| | | INTERVENTION PERIOD | POST-TEST |
| PRE-TEST | | | |

INTERVENTION GROUP

Cognitive Behavior Therapy

Increase low levels of social and academic adjustment.

Take off pre test

(Before actual pre-test)

Identify the low achievements

PRE-TEST

Week 1 (pre-sessions)

Apply SA-Scale & AA-Scale.

SUBJECTS

Secondary Female Students. Age: 16-17. Low Achievement students under "D".

POST-TEST

Week 8 (post-sessions)

After session 8.

Apply SA-Scale & AA-Scale.

CONTROL GROUP

Regular School Counselling

Increase low levels of social and academic adjustment.

Figure 3.2. The Procedure Framework

87

Table 3.5
Summary of Sessions Scheduled for the Two Groups

Pre-Treatment	(1) Meeting all student participants to explain the procedures of study. In addition, apply the scales as a pre-test to all participants.
	(2) Explaining to the first school counsellor the intervention steps and student evaluation after each session.
	(3) Confirming to second school counsellor that RSCP should provide to control group.

Week	Session	Events	
		Experimental group	Control group
First week	Session one	CBT-IP/ treatment	RSCP/ treatment
Second week	Session two	CBT-IP/ treatment	RSCP/ treatment
Third week	Session three	CBT-IP/ treatment	RSCP/ treatment
Fourth week	Session four	CBT-IP/ treatment	RSCP/ treatment
Fifth week	Session five	CBT-IP/ treatment	RSCP/ treatment
Sixth week	Session six	CBT-IP/ treatment	RSCP/ treatment
Seventh week	Session seven	CBT-IP/ treatment	RSCP/ treatment
Eighth week	Session eight	CBT-IP/ treatment	RSCP/ treatment
Post-treatment		Apply the scales as a post-test to all participants.	

Further on, this section covers the monitoring CBT-IP and RSCP, and the training program for counsellors.

3.5.1 Cognitive Behaviour Therapy Intervention Program (CBT-IP):

According to Keshi and Basavarajappa (2013), CBT-interventions give good academic benefits such as improving the level of self-efficacy among students, as well as increasing students' level of participation inside the classroom. Further, the CBT-

interventions produce good results in a few weeks which is 12-week maximum (Jr, 2010; Lyons, 2010).

The Cognitive Behaviour Therapy Intervention Program (CBT-IP) was developed by the researcher based on previous studies which addressed CBT (e.g. Abdalfahim, 2012; Ahmad, et al., 2016; Ben-mustapha, 2013; Drapean, et al., 2017; Keshi & Basavarajappa, 2013; Ngwoke, et al., 2013; Thompson, 2014; Woidneck, Morrison & Twohig, 2014; Walker, et al., 2017; Zyromski, & Joseph, 2008), and social and academic adjustment (e.g. Abdulaziz, 2007; Huffines, 2002; Hughes, et al., 2016; Jain, et al., 2017; Langenkamp, 2016; Mathur, 1999; Tarabox-Berry, et al., 2017). Further, the intervention of the current study was based on the basic steps of CBT techniques with changes in the details and contents to ensure its suitability to the social and academic adjustment among Jordanian students. In addition, Adler, et al. (2008), and Peterson et al. (2009) indicate ways to improve and increase the low levels of social and academic adjustment among low achievement female students in secondary female schools.

The study consisted of eight training sessions at a rate of one session per week for eight weeks, with the duration of each training session being 45 minutes. The reason for making it into eight sessions is due to the number of sessions conducted by previous studies which is equal to, or less than eight sessions (for example, the number of sessions in the study done by Abdalfahim (2012); Ben-mustapha (2013); Lyons (2010); Ngwoke, et al. (2013) is 8, 7, 6, and 8 respectively. In addition, the number of dimensions of social and academic adjustment is 8hence, and the arbitrators suggested, the eight training sessions followed the number of dimensions. The session includes:

Step 1: greeting the students and preparing them by dividing them into five groups of seven students each (duration 2 minutes).

Step 2: one of two CBT techniques was used in each session (cognitive restructuring technique and self-management technique). (Duration 20 minutes).

Step 3: The students were provided educational attitudes related to their academic and social adjustment problems. The educational attitudes were provided through work-papers that address how the student's attitude suffers from problems of academic or social adjustment. The number of questions depend on the nature of the technique.

In details, this step was further elaborated as follows:

i. The work-papers were provided to each member of the group.

ii. The work-papers were discussed between members in the group through answers to the questions.

iii. The work-papers were discussed amongst all seven groups and the counsellor identified the best solutions to the educational attitude.

iv. Agreement was reached with all the students in choosing the best solution to the educational attitude (duration 20 minutes).

Step 4: Homework was provided to students which contained another educational attitude similar to the work-papers. This was discussed at the start of the next session (duration 3 minutes).

Next figure illustrate the steps to CBT-Intervention program (CBT-IP):


```
┌──────────────┐    ┌──────────────┐    ┌──────────────┐    ┌──────────────┐
│  Preparing   │    │     CBT      │    │ Educational  │    │   Homework   │
│     the      │ ⇒  │  techniques  │ ⇒  │  attitudes   │ ⇒  │              │
│   students   │    │   was used   │    │              │    │              │
└──────────────┘    └──────────────┘    └──────────────┘    └──────────────┘
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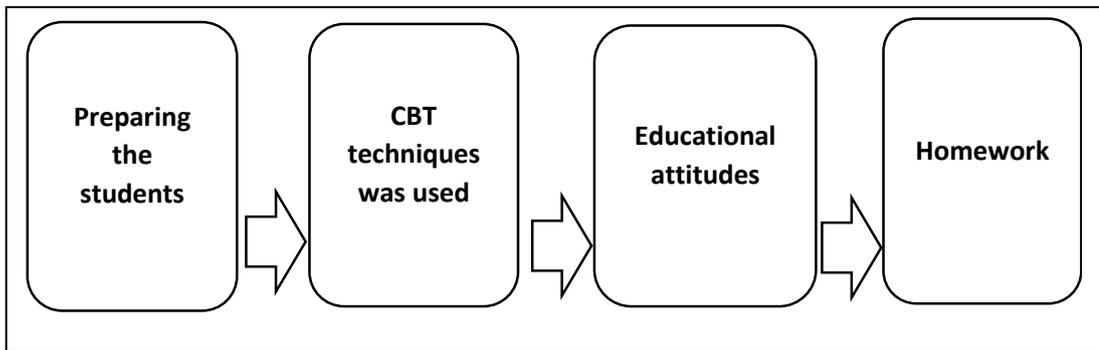
Figure 3.3. The Steps to CBT-Intervention Program (CBT-IP)

The researcher linked the dimensions of social and academic adjustment in the intervention of the current study to students' educational, social and academic attitudes. In addition, the attitudes were applied to the counselling groups whereby the students were first, divided into five groups. Then, work papers were provided to each group containing problems relating to educational, social and academic attitudes that need to be solved through discussion within the group. Thereafter, each group informed and discussed with other groups to treat and solve the problems. At the end of session, the counsellor provided and explained the homework. From the homework, the researcher identified whether the students learned, and whether the lessons gained from each session affect students' lifestyle.

The intervention was provided and applied by counsellor. The researcher trained and explained the intervention steps, as well as the students' evaluation at the end of each session, to the counsellor. This took two days, with two hours per day.

Two techniques of CBT was used at the intervention of the current study, the first technique is cognitive restructuring strategies and the second technique is self-management strategies. In details, self-management strategies involved seven steps: The rational of the therapy, Discrimination Response, Recording the response, Draw the response graphically, Show data, Information analysis, and Homework. Moreover, figure 3.3 illustrates the self-management strategies steps.
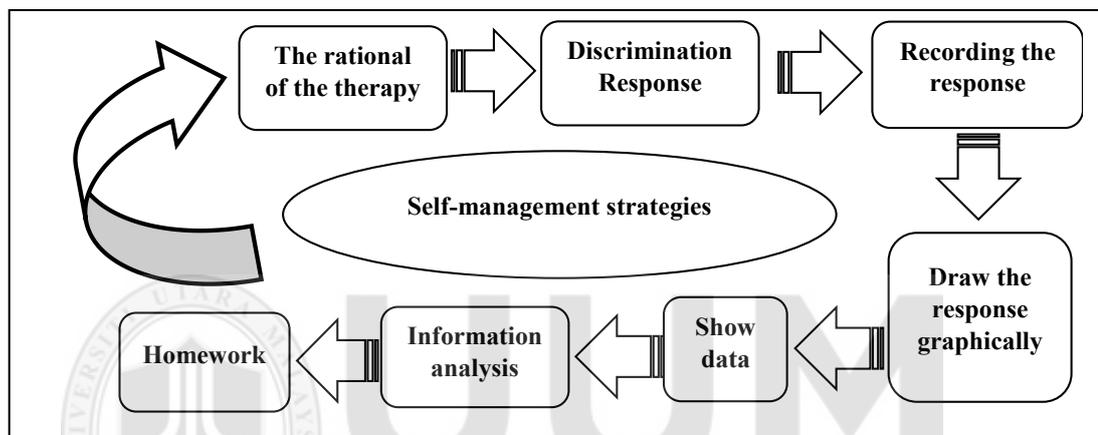
*Figure 3.4.*The Steps of Self-Management Strategies

Similarly, cognitive restructuring strategies involved four steps: identify automatic thoughts, address cognitive distortions, accept rational conclusion, and homework. Figure 3.4 illustrates the steps of cognitive restructuring strategies.
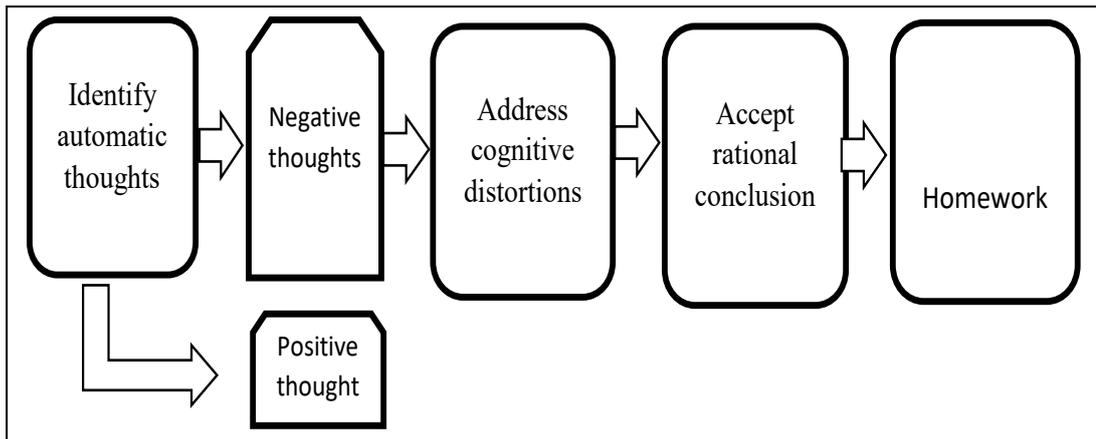
*Figure 3.5.*The Steps of Cognitive Restructuring Strategies

In addition, through the second step of cognitive restructuring strategies (address cognitive distortions) is addressed the negative thoughts through restructuring the negative ideas self-talking, and self-enhanced talking to achieve the self-cationic ideas. Further, figure 3.5 illustrates how is been address cognitive distortions through an example, the example illustrates the situation to meet new person with negative and positive ideas.
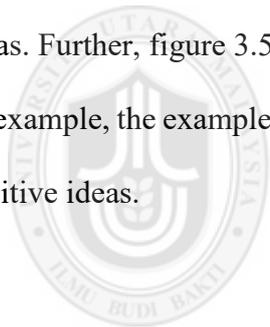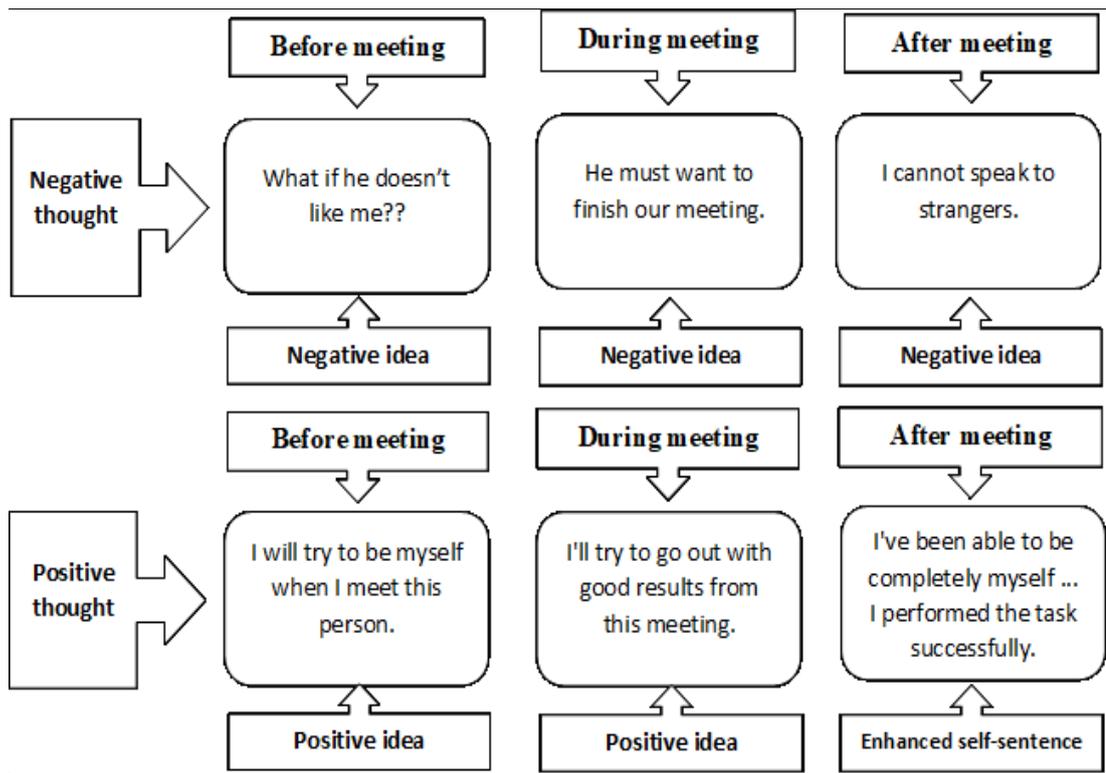
Figure 3.6. An Example to How is been Address Cognitive Distortions through Self-Management Strategies
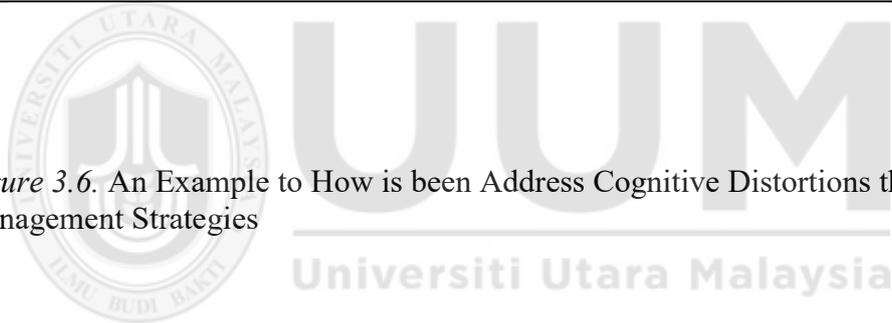
Table 3.6
The Topics and CBT-IP Techniques in Each Session Used During the Experiment in Counselling

Week	Session	Topic of Session	CBT Techniques
Week 1	Session-1	School Environment	Cognitive Restructuring Technique
Week 2	Session-2	Curricular adjustment	Self-Management Technique
Week 3	Session-3	Maturity of Goals and Level of Aspiration	Cognitive Restructuring Technique
Week 4	Session-4	Family Environment	Self-Management Technique
Week 5	Session-5	Personal Efficiency: Planning and Use of Time	Self-Management Technique
Week 6	Session-6	Study Skills and Practices	Self-Management Technique
Week 7	Session-7	Community Environment	Cognitive Restructuring Technique
Week 8	Session-8	Personal Relation with Teachers and Students	Cognitive Restructuring Technique

The Validity of the Treatment

The content validity of the treatment was investigated by five professors who are experts in counselling education and counselling psychology in order to obtain the validity of the program. In addition, the comments from the professors were taken into consideration and changes were made accordingly. The professors recommended a more detailed explanation of the steps and the duration of each of the step.

3.5.2 Regular School Counselling Program (RSCP):

While the experimental group took the treatment, the control group was taken through the Regular School Counselling Program (RSCP) by school counsellor.

The RSCP was prepared by the school counselling department of the Ministry of Education in Jordan. This program was administered through group counselling and guidance (in the classroom), individual counselling, case study, and interviews (group and individual). This treats psychological, academic and social problems, including academic and social adjustment, with an aim to improve the psychological health among school students.

The RSCP was prepared depending on the selective approach taken from the counselling theories based on the nature of case (Ministry of Education, 2017). For example, to improve the level of social adjustment among students, the RSCP depends on humanity counselling theory and is conducted using the empathy technique or expression of immediate interpersonal feelings technique during group counselling and guidance. Another example, to improve the level of academic adjustment among students, the RSCP depends on Behavioural Theory and is conducted using the systematic desensitization technique or Modeling technique during group counselling and guidance. In addition, the RSCP needs a long time with many sessions in order to obtain positive results. According to Banat (2015), the RSCP needs to involve re-evaluation due to many cases require continuing follow up to avoid relapse. Moreover, the researcher suggested updating the RSCP to overcome the above weaknesses (Khawaldih & Tanous, 2018).

Moreover, the aims of RSCP were to provide students at all stages solutions to their academic and psychological problems; to help students through providing counselling services; and to follow-up the behaviour of students inside and outside schools (Ministry of Education, 2017). In addition, all these services focus on solving the

academic and psychological problems among students, one of these problems being "low levels of social and academic adjustment". The solutions were provided through the counsellor, where the counsellor applies many tools such as group counselling and individual counselling. According to the counselling department of the ministry of education, there are some details that should be filled by the counsellor before beginning group counselling:

i. The title of problem that the counsellor wants to solve (the problem: low levels of social and academic adjustment).

ii. The norm, viz. the intensity and repetition of behaviour.

iii. The aim, which should contain the duration and the extent to which the right behaviour should be achieved. For example, to achieve time management skills of schoolwork, in one month at least 70% of the skills should be achieved. This aim should be realistic.

iv. The procedural methods to achieve the aim through using: psychological scales, questionnaires, observation, and interview.

Moreover, the counsellor would apply a number of steps during the group counselling as follow:

Step 1: meet with students to evaluate their cases and to write their personal details.

Step 2: identify the meeting day, one time weekly with 45 minutes as a duration of each meeting. The meeting day would be for all 34 students at control group.

Step 3: provide the RSCP which contains:

i. Greet the students.

ii. Illustrate the reason for group counselling, which is to solve the low level of social and academic adjustment by writing on the white-board.

iii. Give the students an idea of how low levels of social and academic adjustment happen, by writing it on the white-board.

iv. Give the students the solutions to increase levels of social and academic adjustment, by writing it on the white-board or reading the solutions from a pamphlet.

vi. Give advice and guidance for the student's commitment to apply the solutions.

vii. Finally, evaluation of classroom guidance in group counselling.

The following table illustrates the topics and RSCP techniques used during the regular counselling.

Table 3.7

The Topics and RSCP Techniques in Each Session Used During the Regular
Counselling

Week	Session	Topic of session	RSCP techniques
Week 1	Session-1	School Environment	Modelling Technique
Week 2	Session-2	Curricular adjustment	Systematic Desensitization Technique
Week 3	Session-3	Maturity of Goals and Level of Aspiration	Modelling Technique
Week 4	Session-4	Family Environment	Empathy technique
Week 5	Session-5	Personal Efficiency: Planning and Use of Time	Modelling Technique
Week 6	Session-6	Study Skills and Practices	Modelling Technique
Week 7	Session-7	Community Environment	Empathy Technique
Week 8	Session-8	Personal Relation with Teachers and Students	Empathy Technique

3.5.3 Comparisons between CBT and RSCP

This section discusses the differences between CBT and RSCP relating to the nature of syllabus of RSCP used in schools in Jordan under the monitoring by the Counselling Department at the Ministry of Education, Jordan, and between the syllabuses of CBT.

According to Banat (2015), the RSCP takes a long time to produce results, whereby in natural cases, the results will be shown more than six months, and in complex cases, the results will be shown at the end of academic year. However, the CBT techniques need a few weeks to obtain good results normally between 6 to 12 weeks (Ahmad, et al., 2016; Ben-mustapha, 2013). Furthermore, Khawaldih and Tanous (2018)

mentioned that the RSCP depends on indoctrination relating to the role of counsellor to give instructions and guidance to students, and students to receive the instructions and guidance in counselling session. However, through CBT techniques, the relationship between counsellor and students during the session is participatory, whereby the counsellor functions as a facilitator (Ben-mustapha, 2013; Keshi & Basavarajappa, 2013).

In addition, there is no sustainability and development of counsellor skills in RSCP, due to the aim of RSCP which is just to give instructions and guidance to students without any development for the counsellor's part (Gharaebah, 2014). Meanwhile, Ahmad, et al., (2016) identified that CBT gives a counsellor the possibility to develop himself by looking at the latest CBT techniques applied in schools. In RSCP, there is a difficultly to use the same technique in dealing with children and adults, where every technique is suitable only to a certain age group. For example, the modelling technique could be used only for adults, not children. Hence, the application of RSCP is limited to a certain age group (Khawaldih & Tanous, 2018). Nonetheless, CBT which has multiple techniques gives the counsellor more options to use the techniques at several educational stages, including for children and adults (Abdalfahim, 2012; Lyons, 2010).

Moreover, in RSCP techniques, there is no possibility of alteration from one counsellor to another due to the fact that each counsellor has a group of students they monitor from the beginning to the end of an academic year (Banat, 2015; Gharaebah, 2014). However, according to Ben-mustapha (2013), in CBT, the counsellor could send the student to other counsellors in order to achieve best results. The reason for

applying this procedure is because the counsellor believes that other counsellors could help the student in the best way based on experience or knowledge they have with regard to CBT techniques (Keshi & Basavarajappa, 2013).Khawaldih and Tanous (2018) reported that in RSCP, there is no possibility to follow up the case outside the session, where the counsellor just gives instructions and guidance during the session. In addition, in RSCP, there is no homework given to students which could give opportunity to the counsellor to measure the levels of improvement among students. Whilst, on the other hand, the CBT techniques gives homework to students, by which the counsellor is able to look at the feedback and follow up with the students after the sessions (Abdalfahim, 2012; Ben-mustapha, 2013).

In the same vein, Gharaebah (2014) stated that sometimes the session ends without a solution provided to the students due to the fact that the techniques in normal cases are not suitable, and that RSCP has limited techniques. Hence, there are no more options that the counsellor can use. Meanwhile, the CBT techniques give the counsellor the possibility to end the session ends with a solution depending on the training the students have with regard to their life skills which are useful to establish the best solutions himself (Ahmad, et al., 2016). Whilst, the RSCP gives no possibility to develop and improve the skills that the counsellor lacks of, such as unconditional acceptance and empathy, the elements which are considered as the bases of the relationship between counsellor and student (Khawaldih & Tanous, 2018). However, to obtain good results from CBT techniques, it is necessary that the counsellor acquires the basic elements of each technique as well as looks at the latest studies about those techniques (Ahmad, et al., 2016; Ben-mustapha, 2013).

101

Further, in many cases, the students may relapse and return to the problem after sessions since the RSCP does not give feedback, homework, and is unable to follow up with the students' development (Banat, 2015; Gharaebah, 2014). Meanwhile, because the CBT techniques depend on feedback, homework and are able to follow up the students after each session, the students will not suffer from relapse and return to the problem (Abdalfahim, 2012). Finally, Khawaldih and Tanous (2018) mentioned that the RSCP have no possibility to develop and update the techniques to keep pace with new problems among students. This point is however considered as a strong advantage to CBT techniques, whereby Ahmad, et al. (2016) reported that CBT techniques have the possibility to keep pace with new problems among students through updates found in latest research.

All in all, based on the previous studies that compare between RSCP and CBT, that address CBT techniques in schools (Abdalfahim, 2012; Ahmad, et al., 2016; Ben-mustapha, 2013) and that address RSCP (Banat, 2015; Gharaebah, 2014; Khawaldih & Tanous, 2018), it is noted that the CBT techniques are considered better than that of RSCP due to the positive benefits brought about by the CBT techniques and the weaknesses of the RSCP. Thus, the current study tries to improve the levels of social and academic adjustment by using CBT techniques.

3.5.4 Monitoring CBT-IP and RSCP Intervention

Overall, the researcher checked that the intervention CBT-IP was happening in the experimental group and RSCP was happening in the control group. This was done through: visited to the school and followed-up of the sessions one by one. In addition, the researcher evaluated the counsellor who applied the CBT-IP through follow up the

homework of the students. The homework transfers the learning effect from the sessions to the student's life style. By seeing the homework, the researcher assessed whether the students learned or not.

3.5.5 Training Program for the Counsellor

The researcher met the chosen counsellor to explain, through the following steps, what should happen at control group:

Step 1: met with the counsellor and greet her.

Step 2: explain the regular counselling about social and academic adjustment problems, the main points of which are:

i. illustrate the aim of program where the aim to increase the low level of social and academic adjustment among low achievement female students in secondary school.

ii. Confirm that the regular counselling program was used by group counselling for 8 weeks with one session weekly. The regular counselling program should be as it was provided by the Ministry of Education.

Step 3: Confirm the procedures that were used during each session. The procedures were:

i. Greet the students.

ii. Illustrate the reason for group counselling which is to solve the low level of social and academic adjustment, by writing on the white-board.

iii. Explain to the students how low level of social and academic adjustment happens, by writing it on the white-board.

iv. Give students the solutions to increase the levels of social and academic adjustment, by writing it on the white-board or reading the solutions from a pamphlet.

vi. Give advice and guidance to students for their commitment to apply the solutions.

vii. Finally, evaluation of the classroom guidance in group counselling.

Similarly, the researcher met the chosen counsellor, to explain what should happen at experimental group. The steps for these are:

Step 1: meet the counsellor and greet her.

Step 2: explain the CBT-IP about social and academic adjustment problems, the main points of which are:

i. illustrate the aim of CBT-IP, which is to increase the low level of social and academic adjustment among low achievement female students in secondary school.

ii. Confirm that the duration of CBT-IP will be 8 weeks, with one session weekly. The CBT-IP should depend on cognitive behaviour therapy.

Step 3: confirm the procedures which were used during each session. The procedures were:

i. Greet the students and prepare them by dividing them into five groups, with each group containing five students (duration 2 minutes).

ii. One of two CBT techniques (cognitive restructuring technique and self-management technique) was used in each session. (Duration 20 minutes).

iii. Provide educational attitudes related to their academic and social adjustment problems among students. The educational attitudes were provided through work-papers that address how the student's attitude suffers from problems of academic or social adjustment. The number of questions depend on the nature of the technique.

In addition, this step was further elaborated as follows:

i. The work-papers were provided to each member of the group.

ii. The work-papers were discussed between members in the group through answers to the questions.

iii. The work-papers were discussed amongst all five groups and the trainer will identify the best solutions to the educational attitude.

iv. Agreement was reached with all the students in choosing the best solution to the educational attitude (duration 20 minutes).

v. Homework was provided to students which contains another educational attitude similar to the work-papers. This was discussed at the start of the next session (duration 3 minutes).

3.6 Data Collection

In order to data collection to the present study, the researcher used   two scales: the first scale is Social Adjustment Scale (SA-Scale) and the second scale is Academic Adjustment Scale (AA-Scale) in pre-test and post-test. SA-Scale was prepared by Fudah (2008) with 33 items and 3 dimensions as well as with 5-point Likert scale. Similarly, AA-Scale was developed from Henry Barrow Scale by Nassar (2010. the scale contains 43 items with 5 dimensions and 5-point Likert scale. both scales depend on self-report by students.

3.7 Instrumentation

The Academic Adjustment Scale (AAS) and the Social Adjustment Scale (SAS) were the two tools utilized in seeking the answer to the present study.

3.7.1 Academic Adjustment Scale (AAS):

According to Sahawneh (1989), Henry Barrow developed the academic adjustment scale that involves five sections: Curricular adjustment such as 'I think that sometimes I find study enjoyable'; maturity of goals and level of aspiration such as 'I have a strong desire to succeed', personal efficiency: planning and use of time such as 'I feel guilty about the time lost without study'; study skills and practices such as 'my mind is easily distracted during study; and personal relation with teachers and students such as 'I hesitate to question tutors about points unclear to me'. Further, figure 3.5 illustrates the dimensions of Academic Adjustment Scale (AA-Scale).

106
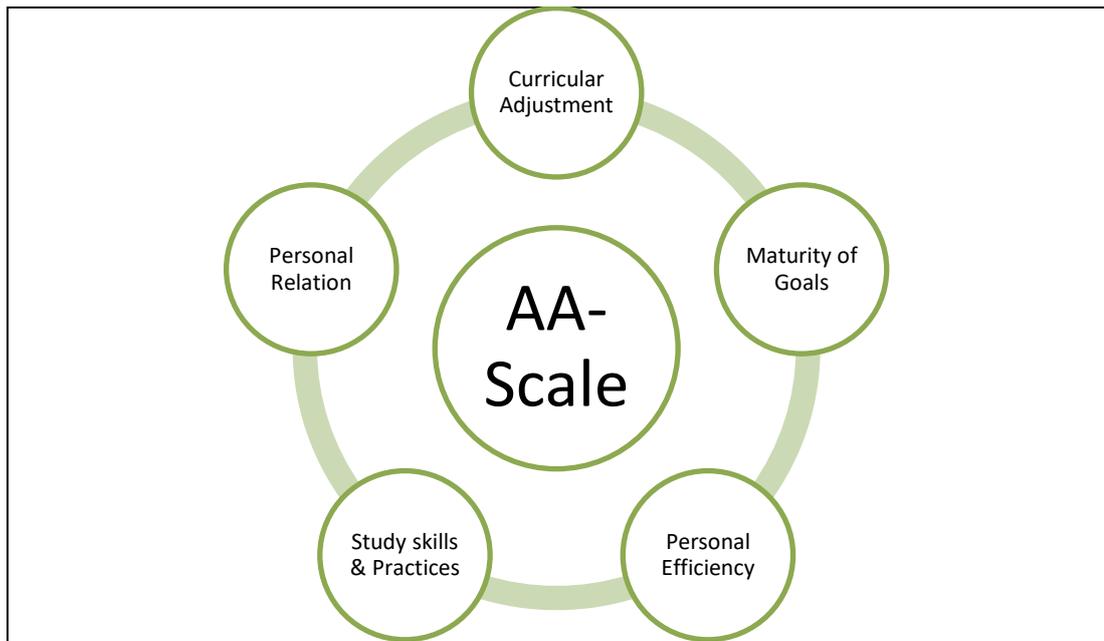
Figure 3.7. The Dimensions of Academic Adjustment Scale (AA-Scale)

In line with the above, Sahawneh (1989) translated the academic adjustment scale from Henry Barrow scale to Arabic language. Then, Nassar (2010) developed the scale to suitable the secondary students, with totally 43 items –see appendix C-. The validity test was established by Sahawneh by applying it on a sample of 55 students in the secondary stage. All items were rated on a 5-point Likert scale:5 = Always; 4 = Very Often 3 = Sometimes; 2 = Rarely; 1= Never, for positive items; and 1 = Always; 2 = Very Often; 3 = Sometimes; 4 = Rarely; 5 = Never, for negative items. The minimum score was 43 and the maximum score was 129.In addition, the scale has three score categories: Low= under 100, Medium= 100-157, and High= more 157.

The test consistency was established with a Cronbach's alpha 0.81. The Cronbach Alpha for each of the five sections was: the first section, Curricular adjustment, 0.85; the second section, the level of ambition and maturity goals, 0.76; the third section,

personal effectiveness in planning and exploiting time, 0.77; the fourth section, academic skills, 0.79; and the last, the personal relationships with teachers and students, 082.

For the purpose of the present study, the researcher extracted the reliability of the Academic Adjustment Scale AAS through provide it to 100 female students from (Ruqya Bint Al-Rasool Secondary School for Girls). The researcher used two methods to extract the reliability of AAS and the results were as a follow:

Cronbach's alpha: In table below the Cronbach's alpha showed acceptable value (0.801). This means the questionnaire is ready to be used for data collection.

Table 3.8
Show the Cronbach's Alpha of the Academic Adjustment Scale AAS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.801	.789	43

For all the 43 items in table above, showed acceptable range of Cronbach's alpha. Since the overall Cronbach's alpha is accepted then no need to readjustment and retest of the pilot study.

Spearman Brown split half: This method used also to determine the reliability of the questionnaire by dividing the questions into two parts to find out the correlation between these parts. The table below showed that high correlation between these parts (0.617) i.e. high consistency observed if the questions are grouped (Spearman-Brown Coefficient = 0.763).

Table 3.9
Show the Spearman Brown Split Half of the Academic Adjustment Scale AAS

Cronbach's Alpha	Part 1	Value	.581
		N of Items	22[a]
	Part 2	Value	.752
		N of Items	21[b]
	Total N of Items		43
Correlation Between Forms			.617
Spearman-Brown Coefficient	Equal Length		.763
	Unequal Length		.763
Guttman Split-Half Coefficient			.755

3.7.2 Social Adjustment Scale (SAS):

Fudah (2008) prepared the social adjustment scale among adolescents, involving three sections: school environment, family environment, and community environment. The total number of items are 33 –see appendix B-. The validity test was established by Fudah by applying it on a sample of 35 students in the secondary stage. All items were rated on 5-point Likert scale:5 = Always; 4 = Very Often 3 = Sometimes; 2 = Rarely; 1= Never, for positive items; and 1 = Always; 2 = Very Often; 3 = Sometimes; 4 = Rarely; 5 = Never, for negative items. The minimum score was 33 and the maximum score was 132. In addition, the scale has three score categories: Low= under 77, Medium= 77-121, And High= more 122.Moreover, figure 3.6 illustrates the dimensions of Social Adjustment Scale (SA-Scale).

109
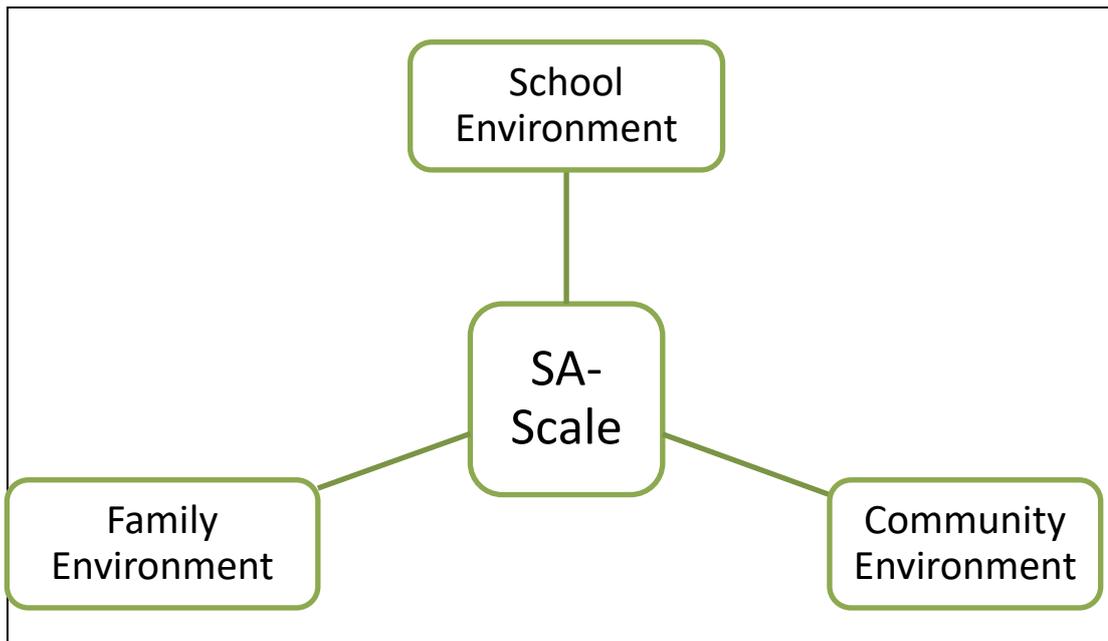
Figure 3.8. The Dimensions of Social Adjustment Scale (SA- Scale)

The test consistency was established with a Cronbach's alpha 0.90. The Cronbach Alpha for each of the three sections was: the first section, school environment, 0.88; the second section, family environment, 0.94; and the third section, community environment, 0.83. Further, the Test consistency had a Pearson correlation coefficient 0.92. The Pearson correlation coefficient for each of the three sections was: the first section, school environment, 0.89; the second section, family environment, 0.96; and the last section, community environment, 0.86.

For the purpose of the present study, the researcher computed the reliability of the Social Adjustment Scale SAS through provide it to 100 female students from (Ruqya Bint Al-Rasool Secondary School for Girls). The researcher used two methods to extract the reliability of SAS and the results were as a follow:

Cronbach's alpha: In table below the Cronbach's alpha showed acceptable value (0.791). This means the questionnaire is ready to be used for data collection.

Table 3.10
Show the Cronbach's Alpha of the Social Adjustment Scale AAS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.791	.821	33

For all the 33 items in table below, showed acceptable range of Cronbach's Alpha. Since the overall Cronbach's alpha is accepted then no need to readjustment and retest of the pilot study.

Spearman Brown split half: This method used also to determine the reliability of the questionnaire by dividing the questions into two parts to find out the correlation between these parts. The table below showed that high correlation between these parts (0.762) i.e. high consistency observed if the questions are grouped (Spearman-Brown Coefficient = 0.865).

Table 3.11
Show the Spearman Brown Split Half of the Social Adjustment Scale AAS

Cronbach's Alpha	Part 1	Value	.588
		N of Items	17[a]
	Part 2	Value	.672
		N of Items	16[b]
	Total N of Items		33
Correlation Between Forms			.762
Spearman-Brown Coefficient	Equal Length		.865
	Unequal Length		.865
Guttman Split-Half Coefficient			.865

The Validity of the instruments

The content validity of the both scales (SAS & AAS) was investigated by five professors (the same professors who investigated the content validity of treatment, who are experts in counselling education and counselling psychology) to obtain the validity of the scales. The professors affirmed that both scales (SAS & AAS) are suitable for the sampling of the current study.

3.8 Pilot Test

In ensuring the reliability and validity of the tools and training programs, a pilot study was conducted. The pilot study offered the opportunity to identify the clarity of the training program which was conducted using CBT besides the effectiveness of the social adjustment and academic adjustment scales. The duration of the study was eight weeks; this duration is according to previous study that addressed CBT as a counselling intervention.

To achieve content validity of the program, the researcher was provide the program to five Professors in the field of counselling psychology, and counselling education.

3.9 Analysis of Data

This particular section tables the data analysis of the present study. The data were gathered from the questionnaires distributed to all participants from both the experimental and the control group as a pre-test. A training program was later provided to the experimental group. The control group, on the other hand, was provided with the Regular Counselling (RSCP). After eight weeks, upon the completion the intervention program (CBT-IP), another set of questionnaires were

112

administered, also on both groups, but this time as a post-test. By employing pair T-test and ANCOVA, the tested hypotheses were analysed.

Anabhan (2004) mentioned that paired-samples t tests is statistic test used to compare one sample in two different time in order to investigate if there any different effect between two times (pre and post-test).

According to Abu-zaid (2010); Tabachnick and Fidell (2013), ANCOVA is considered a suitable statistics in quasi-experimental designs due the possibility of control for factors that cannot be randomized but that could be measured on an interval scale. Furthermore, ANCOVA is used to test the interaction and major effects that related to categorical variables on a continuous dependent variable, controlling for the effects of selected other continuous variables. As well as, the control variables called the "covariates" (Abu-zaid, 2010; Tabachnick & Fidell, 2013).

In addition, ANCOVA also could be used as a way to overcome unwanted variance on the dependent variable, this advantage allows the researcher to raise the level of test sensitivity (Abu-zaid, 2010; Tabachnick & Fidell, 2013).

Other using to ANCOVA is to determine if there are any significant differences between two or more independent groups on a dependent variable (Abu-zaid, 2010).

Further, the Paired Samples T-test is used to compare two means that are from the same group as well the two means typically represent two different times such as pre-test and post-test. Moreover, the aim of the Paired Samples T-test is to determine if there is a difference between paired observations on a particular result is significantly

different from zero (Abu-zaid, 2010). Hence, the current study used ANCOVA to remove the effect of the covariate variable (pre-test). In order to make sure that the changes in students' responses at post-test are due to the intervention program of the current study, and not because of the effect of pre-test, ANCOVA, not ANOVA, was applied. Further, the current study used quasi-experimental design which does not allow random assignment of students to both groups; control and experimental.

3.10 Conclusion

In a nutshell, this present chapter put forward the scientific methodology employed in this study. The general scientific methodology was described in the introduction section. The population and sampling were later explained where the researcher elaborated the nature of the society studied, and the methods in selecting the sample. In fact, this chapter also included the discussion of both the independent and dependent variables.

The pilot test and procedures that were followed in the current are also described. The chapter concluded with a discussion of the statistical analyses that was used to analyse the results of the performance of students on the pre-test and post-test.

CHAPTER FOUR
DATA ANALYSIS AND FINDINGS

4.1 Introduction

Chapter four deals with the findings of this research. Basically, the demographic characteristics of the subjects of the study, differences among the control and experimental groups in the pre and post-tests, and predictors of final outcomes are all explained in this chapter. In fact, the explanation of each research question, the hypotheses testing, and employment of univariate analysis between and within groups, is also the presented in this chapter.

4.2 Demographic Characteristics of Study's Subjects

The demographic information of the experimental and the control groups is presented in Table4.1. It is evident that the approximate sample sizes for both the experimental group and the control group are well-balanced, both at 50% each.

Table 4.1
Demographic Characteristics of Participated Students

Demographic Variables	Category	Frequencies (F)	Percentage Frequencies (%F)	Frequencies (F)	Percentage Frequencies (%F)
		Experiment		Control	
Gender	Female	34	50	34	50
Age	16 years	34	50	34	50
family career	government sector	24	70.6	22	64.7
	self-employed sector	10	29.4	12	35.3
Average monthly income	Less than 1000 JD.	21	61.8	21	61.8
	1000-1500 JD. *	12	35.3	11	32.3
	Greater than 1500 JD.	1	2.9	2	5.9
Level of academic achievement	Low level of academic achievement	34	50	34	50
Nationality	Jordanian	34	50	34	50

* JD: Jordan Dinar, 1 JD= 1.41 US Dollar

4.3 Test of Hypothesis

The data was explored for any unusual behavioural patterns. The data with unusual patterns were transformed to meet the criteria of normality. This prepared the data for parametric tests (Mertens, 2010; Slavin, 2002; Wright, 2014). ANCOVA is used in the current study to remove the effect of the covariate variable (pre-test) particularly to make sure that the changes in students' responses in the post-test are due to the intervention program applied, not because of the effect of the pre-test. Hence, ANCOVA are employed to test the research hypothesis.

4.3.1 Hypothesis 1.1 Testing Social Adjustment

Ho1.1: 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).

Table 4.2
The Results of Paired-Samples T-tests for the Control and Experimental Groups at Pre-Test and Post-Test in Social Adjustment Scale SAS

Group	Paired Differences	Mean	SD	T	Df	p	N
Experimental	Pre-test	49.65	10.1	-19.94	33	.001	34
	Post-test	77.68	8.7				
Control	Pre-test	49.68	7.04	-1.95	33	.060	34
	Post-test	51.44	7.81				

Paired t test was the appropriate statistical test that was used to find out the difference in normally distributed dependent variables, for the same subjects at different times (pre and post intervention) of the experimental group. A significant difference was found in the total score of Social Adjustment Scale SAS between pre and post-test of the experiment group, where higher mean of Social Adjustment Scores were observed in the post-test as compared to the pre-test. In the control group there was no significant difference in the total score of Social Adjustment Scale SAS between the pre and post-test, as shown in Table 4.2.

Figure 4.1. Means of Control and Experimental Groups at Pre and Post-Tests in Social Adjustment Scale

Figure 4.1 shows higher mean of the total score of Social Adjustment Scale SAS for the experimental group as compared to the control group in the post-test, while no differences were observed in the pre-test.

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 variables included two groups: Experimental and Control. The dependent variable was the participants' post-test scores (Social Adjustment Scale SAS) and the covariate was the participants' pre-test scores. The results are shown in Table 4.3 and Table 4.4.

Table 4.3

ANCOVA Results for and Descriptive Statistics to Social Adjustment Scale (SAS)

Groups	Pre-test Score		Post-test Score		N
	Mean	SD	Mean	SD	
Experiment group	49.65	10.1	77.68	8.7	34
Control group	49.68	7.04	51.44	7.9	34
Sources	SS	df	Ms	F	Sig.
Corrected Model	13826.6a	3	4608.87	123.72	.001
Intercept	1609.84	1	1609.84	43.21	.001
Group	722.72	1	722.72	19.40	.001
SAS .pre	2083.52	1	2083.52	55.93	.001
Group * SAS .pre	93.87	1	93.87	2.52	.117
Error	2384.17	64	37.25		
Total	299624	68			
Corrected Total	16210.77	67			

Note: a. R Squared = .853 (Adjusted R Squared = .846), b. Computed using alpha = .05.

Table 4.4

Pairwise Comparisons at Post-Test to the Control and Experimental Groups at Post-Test of Social Adjustment Scale Scores (SAS)

Group	Mean Difference	Std. Error	Sig.[a]	95% Confidence Interval for Difference	
				Lower	Upper
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 showed that there were statistically significant differences among groups at post-test, indicating a significant main effect for the intervention program (Table 4.3). Multiple comparisons revealed significant differences between the control group and experimental group. Also, the mean difference between the experimental group and control group was statistically significant (Table 4.4). Moreover, the means showed that participants in the experimental group performed well, with participants in the control group performing poorly.

The results showed 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.

4.3.2 Hypothesis 1.2 Testing Social Adjustment (School Environment SE)

Ho1.2: There is no significant difference between pre-test and post-test on school environment between experimental and control groups.

Table 4.5
The Results of Paired-Samples T-tests for the Control and Experimental Groups at Pre-Test and Post-Test in School Environment (SE)

Group	Paired Differences	Mean	SD	T	df	p	N
Experimental	Pre-test	20.12	4.16	-18.72	33	.002	34
	Post-test	33.74	3.53				
Control	Pre-test	20.09	4.22	-1.39	33	.173	34
	Post-test	20.35	4.01				

According to the paired t test, there was significant difference in the score of SE dimension between pre and post-test of experiment group, where higher mean of the SE dimension scores were observed with post-test than pre-test. In the control group, there was no significant difference found in the SE score between pre and post-test, as shown in Table 4.5.
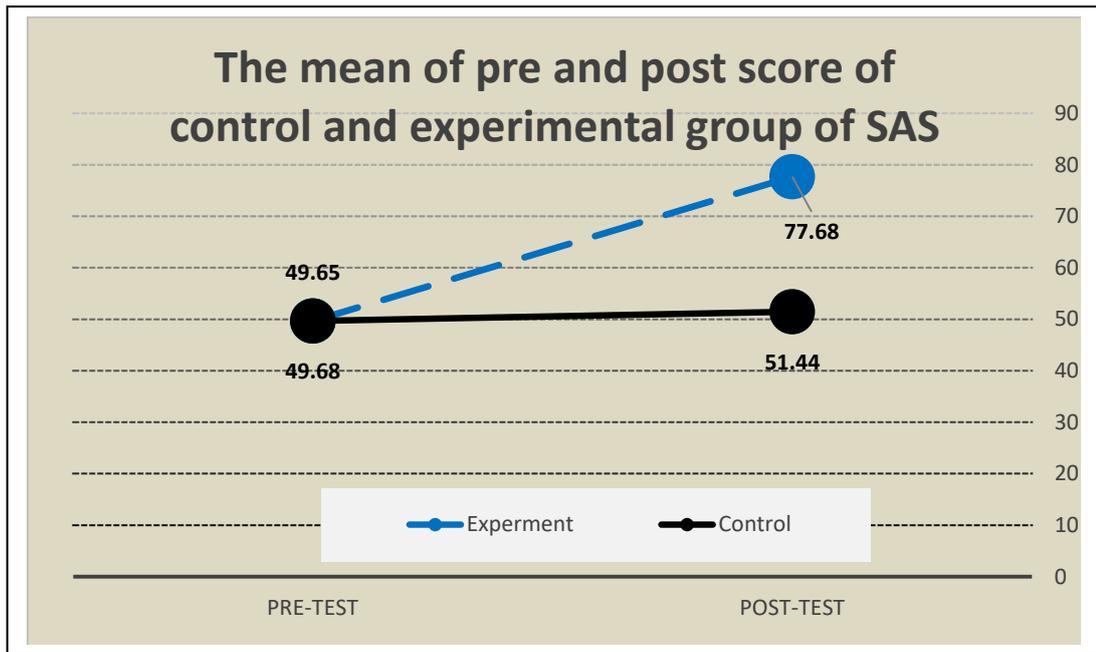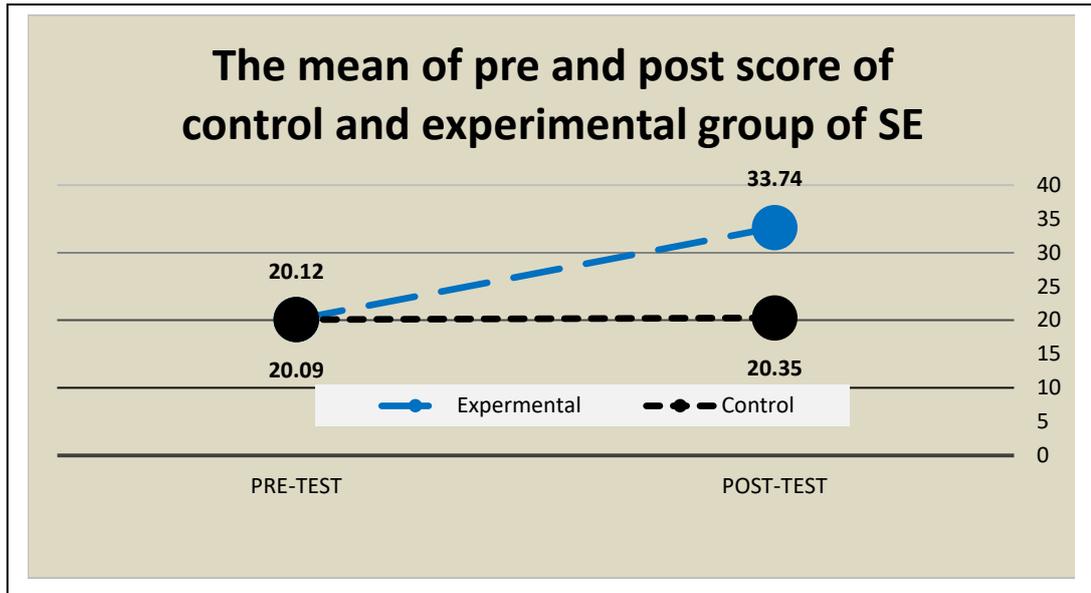
Figure 4.2. Means of Control and Experimental Groups at Pre and Post-Tests in School Environment (SE)

Figure 4.2 shows higher mean of the total score of SE dimension for the experimental group as compared to the control group in post-test, while no difference was observed in pre-test.

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 variables were: Experimental and Control. The dependent variable was the participants' post-test scores (school environment Scores SE) and the covariate was the participants' pre-test scores. The results are shown in Table 4.6 and Table 4.7.

121

Table 4.6
ANCOVA Results for and Descriptive Statistics to School Environment (SE)

| Groups | Pre-test Score | | Post-test Score | | N |
	Mean	SD	Mean	SD	
Experiment group	20.12	4.16	33.74	3.53	34
Control group	20.09	4.22	20.44	4.43	34
Sources	SS	df	Ms	F	Sig.
Corrected Model	3603.74a	3	1201.25	201.71	.001
Intercept	573.8	1	573.8	96.35	.001
Group	428.29	1	428.29	71.92	.001
SE.pre	456.74	1	456.74	76.7	.001
Group * SE.pre	96.18	1	96.18	16.15	.001
Error	381.13	64	5.96		
Total	53719	68			
Corrected Total	3984.87	67			

Note: a. R Squared = .904 (Adjusted R Squared = .900), b. Computed using alpha = .05.

Table 4.7
Pairwise Comparisons at Post-Test to the Control and Experimental Groups at Post-Test of School Environment (SE)

| Group | Mean Difference | Std. Error | Sig.ᵃ | 95% Confidence Interval for Difference | |
				Lower Bound	Upper Bound
Experimental VS. Control	12.95*	.59	.00	11.78	14.12

Based on estimated marginal means.
* The mean difference is significant at the .05 level. a. Adjustment for multiple comparisons: Bonferroni.

One-way ANCOVA results showed that there were statistically significant differences among groups at post-test, indicating a significant main effect for the intervention program (Table 4.6). Multiple comparisons revealed significant differences between the control group and experimental group. The mean difference between the experimental group and control group was statistically significant (Table 4.7). Moreover, the means showed that participants in the experimental group performed well, with participants in the control group performing poorly.

The results showed 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.

4.3.3 Hypothesis 1.3 Testing Social Adjustment (Family Environment FE)

Ho1.3: There is no significant difference between pre-test and post-test on family environment between experimental and control groups.

Table 4.8
The Results of Paired-Samples T-tests for the Control and Experimental Groups at Pre-Test and Post-Test in Family Environment (FE)

Group	Paired Differences	Mean	SD	T	df	p	N
Experimental	Pre-test	15.85	3.07	-21.36	33	.004	34
	Post-test	27.85	3.13				
Control	Pre-test	15.82	2.80	-1	33	.325	34
	Post-test	16.03	3.29				

According to paired t test, there was significant difference in the score of the dimension 'family environment FE' between pre and post-test of the experimental group, where higher mean was seen in family environment for the post-test than the pre-test. For control group there was no significant difference between pre-test and post-test for this dimension, as shown in Table 4.8.
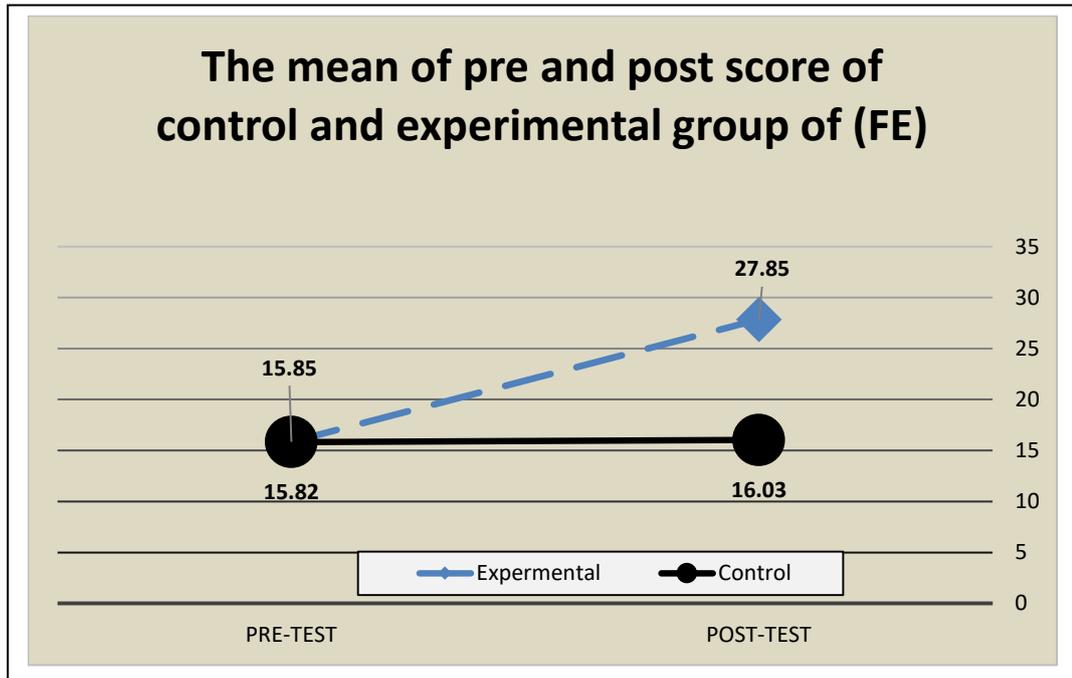
Figure 4.3. Means of Control and Experimental Groups at Pre and Post-Tests in Family Environment (FE)

Figure 4.3 shows a higher mean of the total score of FE dimension for the experimental group as compared to the control group in post-test, while no difference was observed in pre-test.

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 variables were the two groups: Experimental and Control. The dependent variable was the participants' post-test scores (family environment FE) and the covariate was the participants' pre-test scores. The results are shown in Table 4.9 and Table 4.10.

Table 4.9

ANCOVA results for and descriptive statistics to Family Environment (FE).

Groups	Pre-test Score		Post-test Score		
	Mean	SD	Mean	SD	N
Experiment group	15.85	3.07	27.85	3.13	34
Control group	15.82	2.79	16.03	2.89	34
Sources	SS	df	Ms	F	Sig.
Corrected Model	2751.13a	3	917.04	192.66	.002
Intercept	202.65	1	202.65	42.58	.001
Group	266.09	1	266.09	55.9	.002
FE .pre	338.09	1	338.09	71.03	.002
Group * FE.pre	59.98	1	59.98	12.6	.124
Error	304.64	64	4.76		
Total	35792	68			
Corrected Total	3055.77	67			

Note: a. R Squared = .900 (Adjusted R Squared = .896), b. Computed using alpha = .05.

Table 4.10
Pairwise Comparisons at Post-Test to the Control and Experimental Groups at Post-Test of Family Environment (FE)

Group	Mean Difference	Std. Error	Sig.ª	95% Confidence Interval for Difference	
				Lower Bound	Upper Bound
Experimental VS. Control	11.36*	.51	.00	10.34	12.38

Based on estimated marginal means.
* The mean difference is significant at the .05 level. a. Adjustment for multiple comparisons: Bonferroni.

One-way ANCOVA results showed that there were statistically significant differences among groups at post-test, indicating a significant main effect for the intervention program (Table 4.9). Multiple comparisons revealed significant differences between the control group and the experimental group. The mean difference between the experimental group and the control group was statistically significant (Table 4.10). Moreover, the means showed that participants in the experimental group performed well, while participants in the control group performed poorly.

The results showed 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.

4.3.4 Hypothesis 1.4 Testing Social Adjustment (Community Environment CE)

Ho1.4: There is no significant difference between pre-test and post-test on Community Environment between experimental and control groups.

Table 4.11
The Results of Paired-Samples T-tests for the Control and Experimental Groups at Pre-test and Post-test in Community Environment (CE)

Group	Paired Differences	Mean	SD	T	df	p	N
Experimental	Pre-test	28.03	4.17	-24.77	33	.002	34
	Post-test	49.38	5.68				
Control	Pre-test	28.03	4.44	-.83	33	.414	34
	Post-test	28.21	4.72				

According to paired t test, there was a significant difference in the score on the dimension 'Community Environment CE' between pre and post-test of the experiment group, where a higher mean score on CE was observed with post-test as compared to pre-test. For the control group there was no significant difference in the score of the same dimension between pre and post-test, as shown in Table 4.11.
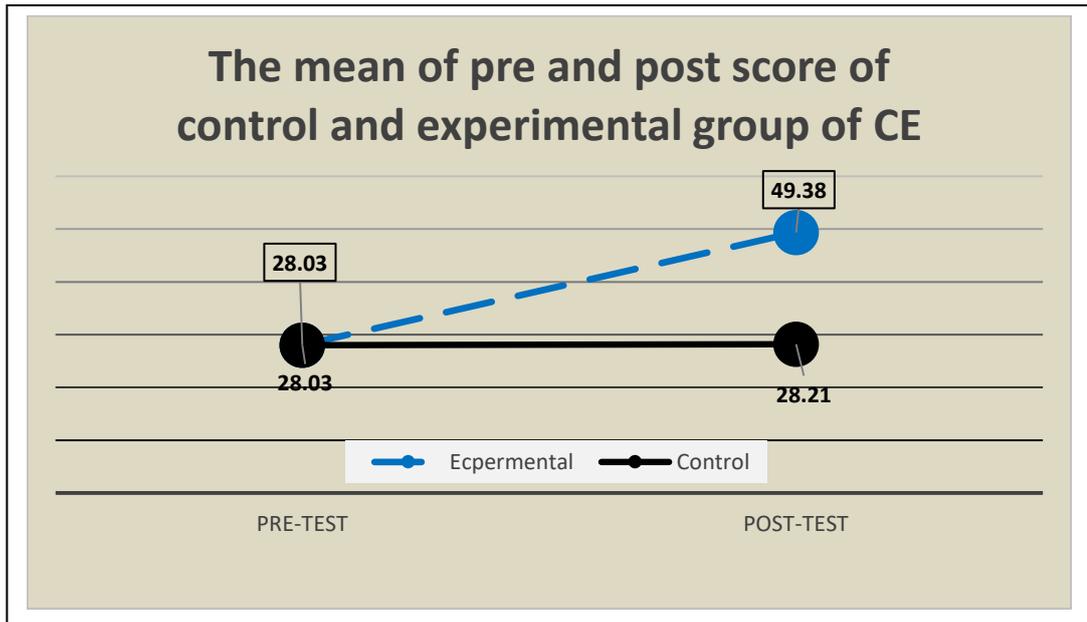
Figure 4.4. Means of Control and Experimental Groups at Pre and Post-Tests in Community Environment (CE)

Figure 4.4shows higher means of the total score of CE in the experimental group compared to the control group in post-test, while no difference was observed in pre-test.

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 variables were the two groups: Experimental and Control. The dependent variable was the participants' post-test scores (Community Environment CE) and the covariate was the participants' pre-test scores. The results are shown in Table 4.12 and Table 4.13.

Table 4.12
ANCOVA Results for and Descriptive Statistics to Community Environment (CE)

| Groups | Pre-test Score | | Post-test Score | | N |
	Mean	SD	Mean	SD	
Experiment group	28.03	4.17	49.38	5.68	34
Control group	28.03	4.44	28.21	4.39	34
Sources	SS	df	Ms	F	Sig.
Corrected Model	8588.46a	3	2862.82	220.04	.002
Intercept	325.05	1	325.05	24.98	.002
Group	347.88	1	347.88	26.74	.001
CE .pre	908	1	908	69.79	.002
Group * CE .pre	32.06	1	32.06	2.46	.121
Error	832.66	64	13.01		
Total	111760	68			
Corrected Total	9421.12	67			

Note: a. R Squared = .902 (Adjusted R Squared = .898), b. Computed using alpha = .05.

Table 4.13
Pairwise Comparisons at Post-Test to the Control and Experimental Groups at Post-Test of Community Environment (CE)

| Group | Mean Difference | Std. Error | Sig.ᵃ | 95% Confidence Interval for Difference | |
				Lower Bound	Upper Bound
Experimental VS. Control	19.79*	.87	.00	18.05	21.54

Based on estimated marginal means.
* The mean difference is significant at the .05 level. a. Adjustment for multiple comparisons: Bonferroni.

One-way ANCOVA results showed that there were statistically significant differences among groups at post-test, indicating a significant main effect for the intervention program (Table 4.12). Multiple comparisons revealed significant differences between the control group and experimental group. The mean difference between the experimental group and the control group was statistically significant (Table 4.13). Moreover, the means showed that participants in the experimental group performed well, with participants in the control group performing poorly.

The results showed that the two groups had significant difference in their performance in the 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.

4.3.5 Hypothesis 2.1 Testing Academic Adjustment

Ho2.1: There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on total of Academic Adjustment scores (AAS).

Table 4.14
The Results of Paired-Samples T-tests for the Control and Experimental Groups at Pre-test and Post-test in Academic Adjustment Scale (AAS)

Group	Paired Differences	Mean	SD	T	df	p	N
Experimental	Pre-test	81.88	9.1	-22.46	33	.003	34
	Post-test	110.56	12.13				
Control	Pre-test	81.85	8.70	-.23	33	.822	34
	Post-test	81.91	9.17				

Paired t test is the appropriate statistical test used to find out the difference in normal distributed dependent variables for same subjects at different times of experiment group. There was significant difference in the total score of Academic Adjustment Scale AAS between pre and post-test of experiment group, where higher means of Academic Adjustment scores were observed with post-test than with pre-test. For the

130

control group there was no significant difference found in the total score of Academic

Adjustment Scale AAS between pre and post-test, as shown in Table 4.14.
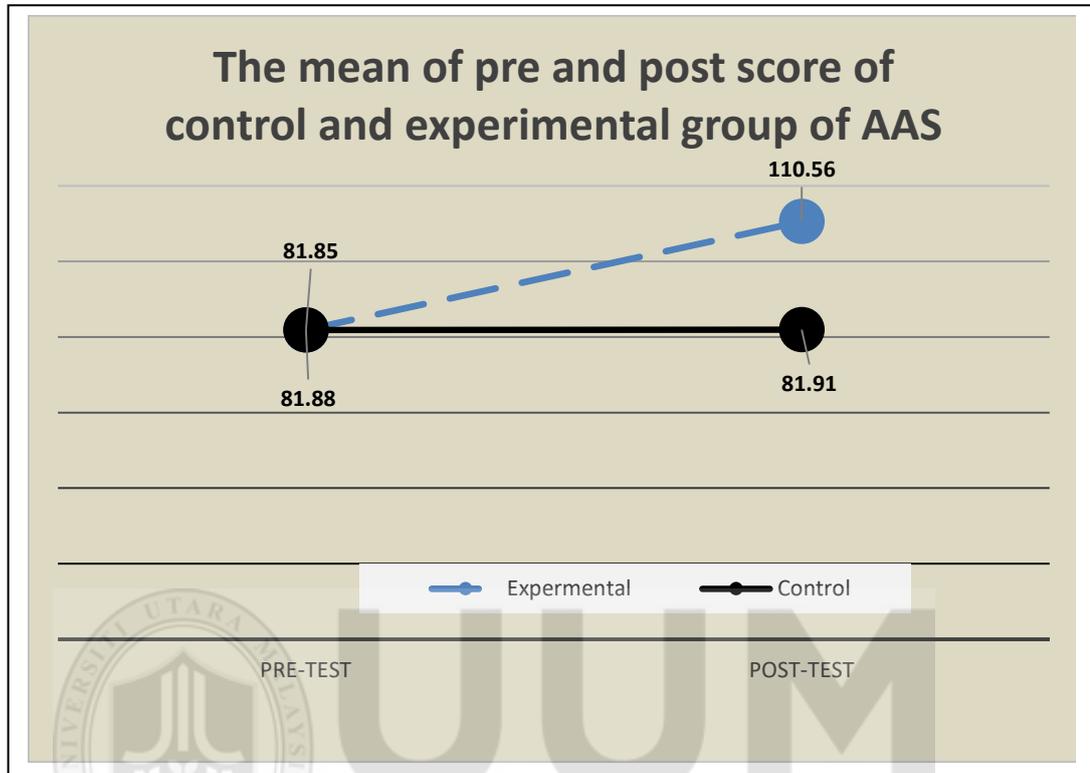
Figure 4.5. Means of control and experimental groups at pre and post-tests in Academic Adjustment Scale (AAS)

Figure 4.5 shows a higher mean of the score of Academic Adjustment Scale AAS of

the experimental group compared to the control group in post-test, while no difference

was observed in the pre-test.

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 variables included two groups: Experimental and Control. The dependent variable was the participants' post-test scores (AAS Scores) and the covariate was the participants' pre-test scores. The results are shown in Table 4.15 and Table 4.16.

Table 4.15
ANCOVA results for and descriptive statistics to Academic Adjustment Scale (AAS)

Groups	Pre-test Score		Post-test Score		N
	Mean	SD	Mean	SD	
Experiment group	81.88	9.1	110.56	12.13	34
Control group	81.85	8.7	81.91	9.17	34
Sources	SS	df	Ms	F	Sig.
Corrected Model	19688.79a	3	6562.99	221.83	.004
Intercept	85.34	1	85.34	2.88	.094
Group	146.38	1	146.38	4.95	.030
AAS .pre	5722.72	1	5722.72	193.43	.001
Group * AAS .pre	.21	1	.21	.01	.933
Error	1893.45	64	29.59		
Total	651346.00	68			
Corrected Total	21582.24	67			

Note: a. R Squared = .912 (Adjusted R Squared = .908), b. Computed using alpha = .05.

Table 4.16
Pairwise Comparisons at Post-test to the Control and Experimental Groups at Post-test of Academic Adjustment Scale (AAS)

Group	Mean Difference	Std. Error	Sig.[a]	95% Confidence Interval for Difference	
				Lower Bound	Upper Bound
Experimental VS. Control	28.06*	1.31	.00	25.44	30.67

Based on estimated marginal means.
* The mean difference is significant at the .05 level. a. Adjustment for multiple comparisons: Bonferroni.

One-way ANCOVA results showed that there were statistically significant differences among groups at the post-test, indicating a significant main effect for the intervention program (Table 4.15). Multiple comparisons revealed significant differences between

the control group and the experimental group. The mean difference between the experimental group and control group was statistically significant (Table 4.16). Moreover, the means showed that participants in the experimental group performed well, with participants in the control group performing poorly.

The results showed that the two groups had a 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.

4.3.6 Hypothesis 2.2 Testing Academic Adjustment (Curricular Adjustment CA)

Ho2.2: There is no significant difference between pre-test and post-test on curricular adjustment between experimental and control groups.

Table 4.17
The Results of Paired-Samples T-tests for the Control and Experimental Groups at Pre-test and Post-test in Curricular Adjustment (CA)

Group	Paired Differences	Mean	SD	T	df	p	N
Experimental	Pre-test	14.15	2.95	-19.16	33	.004	34
	Post-test	21.18	3.06				
Control	Pre-test	13.97	3.08	-1.04	33	.304	34
	Post-test	14.12	3.22				

According to Paired t test, there was significant difference in the score of curricular adjustment dimension between pre and post-test of the experiment group, where a higher mean was observed for the curricular adjustment dimension scores at the post-

133

test as compared to the pre-test. In the control group there was no significant difference in the score of curricular adjustment between pre and post-test, as shown in Table 4.17.

Figure 4.6. Means of control and experimental groups at pre and post-tests in Curricular Adjustment (CA)

Figure 4.6 shows higher mean score of the curricular adjustment dimension for the experimental group compared to the control group in post-test, while no difference was observed in the pre-test.

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 variables were two groups: Experimental and Control. The dependent variable was the participants' post-test scores (curricular adjustment Scores

134

CA) and the covariate was the participants' pre-test scores. The results are shown in

Table 4.18 and Table 4.19.

Table 4.18
ANCOVA Results for and Descriptive Statistics to Curricular Adjustment (CA)

| Groups | Pre-test Score | | Post-test Score | | N |
	Mean	SD	Mean	SD	
Experiment group	14.15	2.95	21.18	3.06	34
Control group	13.97	3.08	14.12	3.22	34
Sources	SS	df	Ms	F	Sig.
Corrected Model	1338.7a	3	446.23	179.81	.003
Intercept	75.4	1	75.4	30.38	.002
Group	75.200	1	75.2	30.30	.004
CA .pre	476.9	1	476.9	192.16	.001
Group * CA .pre	8.2	1	8.2	3.3	.074
Error	158.83	64	2.48		
Total	22674	68			
Corrected Total	1497.53	67			

Note: a. R Squared = .894 (Adjusted R Squared = .889), b. Computed using alpha = .05.

Table 4.19
Pairwise comparisons at post-test to the control and experimental groups at Post-test
of Curricular Adjustment (CA)

| Group | Mean Difference | Std. Error | Sig.a | 95% Confidence Interval for Difference | |
				Lower Bound	Upper Bound
Experimental VS. Control	6.9*	.38	.001	6.14	7.67

Based on estimated marginal means.
* The mean difference is significant at the .05 level. a. Adjustment for multiple comparisons: Bonferroni.

One-way ANCOVA results showed that there were statistically significant differences

among groups at post-test, indicating a significant main effect for the intervention

program (Table 4.18). Multiple comparisons revealed significant differences between

the control group and experimental group. The mean difference between the

experimental group and control group was statistically significant (Table 4.19).

Moreover, the means show that participants in the experimental group performed well, with participants in the control group performing poorly.

The results showed that the two groups had a significant difference in their performance in the 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.

4.3.7 Hypothesis 2.3 Testing Academic Adjustment (Maturity of Goals and Level of Aspiration MGLA)

Ho2.3: There is no significant difference between pre-test and post-test on maturity of goals and level of aspiration between experimental and control groups.

Table 4.20
The Results of Paired-Samples T-tests for the Control and Experimental Groups at Pre-test and Post-test in Maturity of Goals and Level of Aspiration (MGLA)

Group	Paired Differences	Mean	SD	T	df	p	N
Experimental	Pre-test	15.12	2	-13.07	33	.003	34
	Post-test	20.59	2.84				
Control	Pre-test	15.03	2.28	-.52	33	.609	34
	Post-test	15.12	2.11				

According to paired t test, there was significant difference in the score of 'maturity of goals and level of aspiration 'dimension between pre and post-test in the experiment group, where a higher mean of the score on the maturity of goals and level of aspiration dimension was observed with post-test as compared to pre-test. In the control group

136

there was no significant difference in the score of maturity of goals and level of aspiration between pre and post-test, as shown in Table 4.20.

Figure 4.7. Means of Control and Experimental Groups at Pre and Post-tests in Maturity of Goals and Level of Aspiration (MGLA)

Figure 4.7 shows a higher mean for the maturity of goals and level of aspiration dimension for the experimental group as compared to the control group in the post-test, while no difference was observed in pre-test.

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 variables included two groups: Experimental and Control. The dependent variable was the participants' post-test scores (maturity of goals and level of aspiration Scores MGLA) and the covariate was the participants' pre-test scores. The results are shown in Table 4.21 and Table 4.22.

Table 4.21
ANCOVA Results for and Descriptive Statistics to Maturity of Goals and Level of Aspiration (MGLA)

Groups	Pre-test Score		Post-test Score		N
	Mean	SD	Mean	SD	
Experiment group	15.12	1.1	20.59	2.84	34
Control group	15.03	2.28	15.12	2.11	34
Sources	SS	df	Ms	F	Sig.
Corrected Model	705.19a	3	235.06	69.22	.001
Intercept	42.994	1	42.99	12.66	.001
Group	13.4	1	13.4	3.95	.041
MGLA.pre	190.53	1	190.53	56.1	.002
Group * MGLA.pre	.370	1	.37	.11	.743
Error	217.340	64	3.4		
Total	22596	68			
Corrected Total	922.53	67			

Note: a. R Squared = .764 (Adjusted R Squared = .753), b. Computed using alpha = .05.

Table 4.22
Pairwise Comparisons at Post-test to the Control and Experimental Groups at Post-test of Maturity of Goals and Level of Aspiration (MGLA)

Group	Mean Difference	Std. Error	Sig.[a]	95% Confidence Interval for Difference	
				Lower Bound	Upper Bound
Experimental VS. Control	5.13*	.45	.00	4.23	6.04

Based on estimated marginal means.
* The mean difference is significant at the .05 level. a. Adjustment for multiple comparisons: Bonferroni.

One-way ANCOVA results showed that there were statistically significant differences among groups at post-test, indicating a significant main effect for the intervention program (Table 4.21). Multiple comparisons revealed significant differences between the control group and experimental group. The mean difference between the

experimental group and control group was statistically significant (Table 4.22). Moreover, the means showed that participants in the experimental group performed well, with participants in the control group performing poorly.

The results showed 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.

4.3.8 Hypothesis 2.4 Testing Academic Adjustment (Personal Efficiency: Planning and Use of Time PEPUT)

Ho2.4: There is no significant difference between pre-test and post-test on personal efficiency: planning and use of time between experimental and control groups.

Table 4.23
The Results of Paired-Samples T-tests for the Control and Experimental Groups at Pre-test and Post-test in Personal Efficiency: Planning and Use of Time (PEPUT)

Group	Paired Differences	Mean	SD	T	df	p	N
Experimental	Pre-test	16.41	1.81	-15.73	33	.004	34
	Post-test	22.59	2.70				
Control	Pre-test	16.59	1.94	-1.28	33	.209	34
	Post-test	16.88	2.14				

According to paired t test, there was significant difference in the score for the personal efficiency: planning and use of time dimension between pre and post-test of experimental group, where a higher mean of the personal efficiency: planning and use

of time dimension was observed with the post-test as compared to the pre-test. In the control group there was no significant difference in the score of personal efficacy between pre and post-test, as shown in Table 4.23.
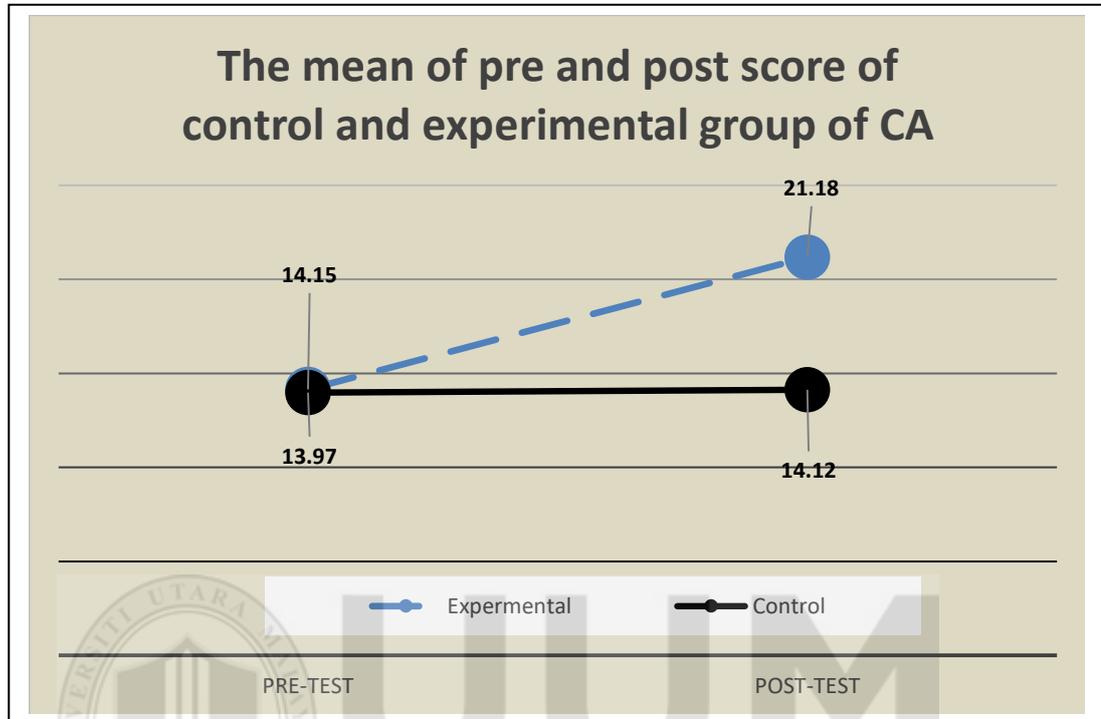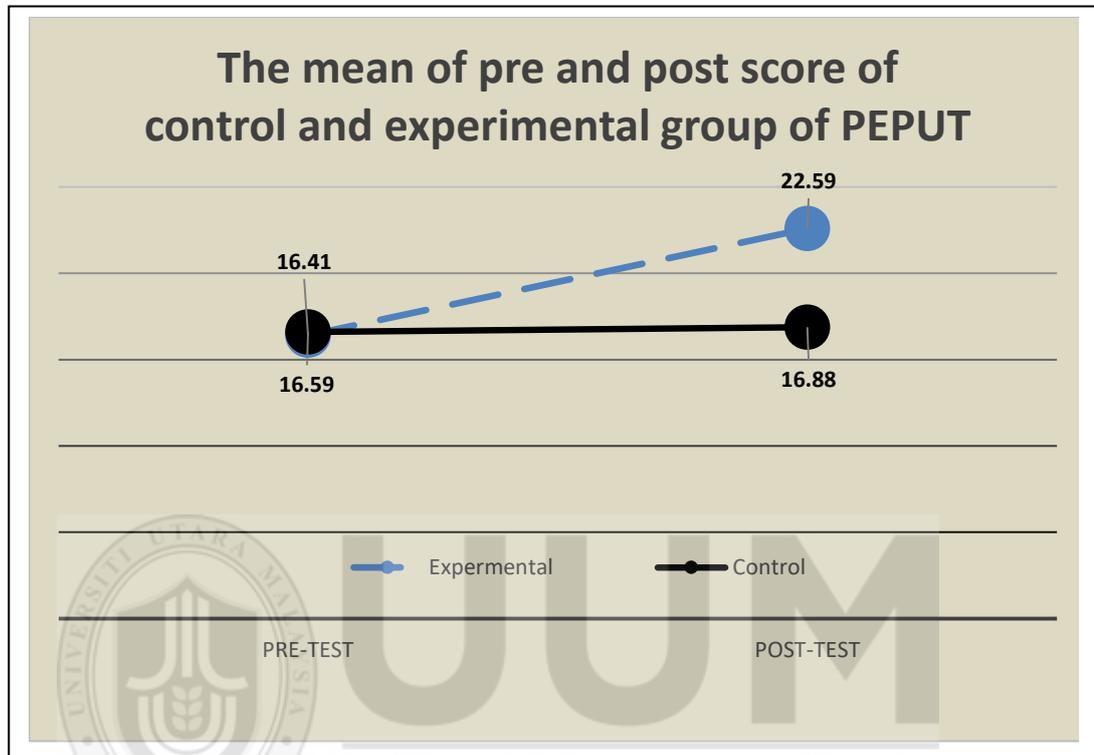

Figure 4.8. Means of Control and Experimental Groups at Pre and Post-tests in Personal Efficiency: Planning and Use of Time (PEPUT)

Figure 4.8 shows a higher mean of the score of personal efficiency: planning and use of time dimension for the experimental group as compared to the control group in post-test, while no difference was observed in pre-test.

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 variables included two groups: Experimental and Control. The dependent variable was the participants' post-test scores (personal efficiency: planning and use of time Scores PEPUT) and the covariate was the participants' pre-test scores. The results are shown in Table 4.24 and Table 4.25.

Table 4.24
ANCOVA Results for and Descriptive Statistics to Personal Efficiency: Planning and Use of Time (PEPUT)

| Groups | Pre-test Score | | Post-test Score | | N |
	Mean	SD	Mean	SD	
Experiment group	16.41	1.81	22.59	2.7	34
Control group	16.59	1.94	16.88	2.14	34
Sources	SS	df	Ms	F	Sig.
Corrected Model	719.14a	3	239.71	67.85	.004
Intercept	28.72	1	28.72	8.13	.006
Group	9.9	1	9.9	2.80	.005
PEPUT.pre	163.84	1	163.84	46.38	.003
Group * PEPUT.pre	.22	1	.22	.06	.805
Error	226.1	64	3.53		
Total	27430	68			
Corrected Total	945.24	67			

Note: a. R Squared = .761 (Adjusted R Squared = .750), b. Computed using alpha = .05.

Table 4.25
Pairwise Comparisons at Post-test to the Control and Experimental Groups at Post-test of Personal Efficiency: Planning and Use of Time (PEPUT)

| Group | Mean Difference | Std. Error | Sig.[a] | 95% Confidence Interval for Difference | |
				Lower Bound	Upper Bound
Experimental VS. Control	5.85*	.46	.00	4.94	6.77

Based on estimated marginal means.

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

One-way ANCOVA results showed that there were statistically significant differences among groups at post-test, indicating a significant main effect for the intervention program (Table 4.24). Multiple comparisons revealed significant differences between

the control group and experimental group. The mean difference between the experimental group and control group was statistically significant (Table 4.25). Moreover, the means showed that participants in the experimental group performed well, with participants in the control group performing poorly.

The results showed 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.

4.3.9 Hypothesis 2.5 Testing Academic Adjustment (Study Skills and Practices SSP)

Ho2.5: There is no significant difference between pre-test and post-test on study skills and practices between experimental and control groups.

Table 4.26
The Results of Paired-Samples T-tests for the Control and Experimental Groups at Pre-test and Post-test in Study Skills and Practices (SSP)

Group	Paired Differences	Mean	SD	T	df	p	N
Experimental	Pre-test	18.09	2.19	-11.35	33	.004	34
	Post-test	22.97	2.78				
Control	Pre-test	18.26	2.09	-1.58	33	.124	34
	Post-test	18.56	2.27				

According to paired t test, there was significant difference in the score of the study skills and practices dimension between pre and post-test for the experimental group, where a higher mean score of the study skills and practices dimension was observed

142

with post-test as compared to pre-test. In the control group there was no significant difference in the score of study skills and practices between pre and post-test, as shown in Table 4.26.
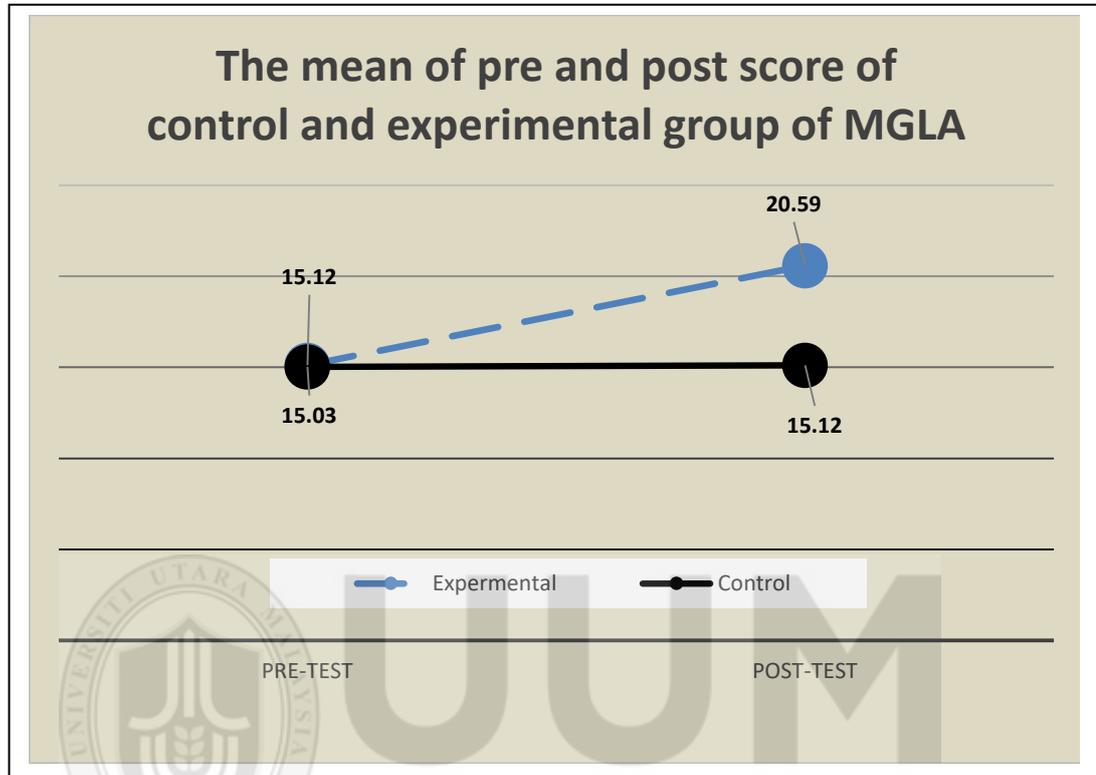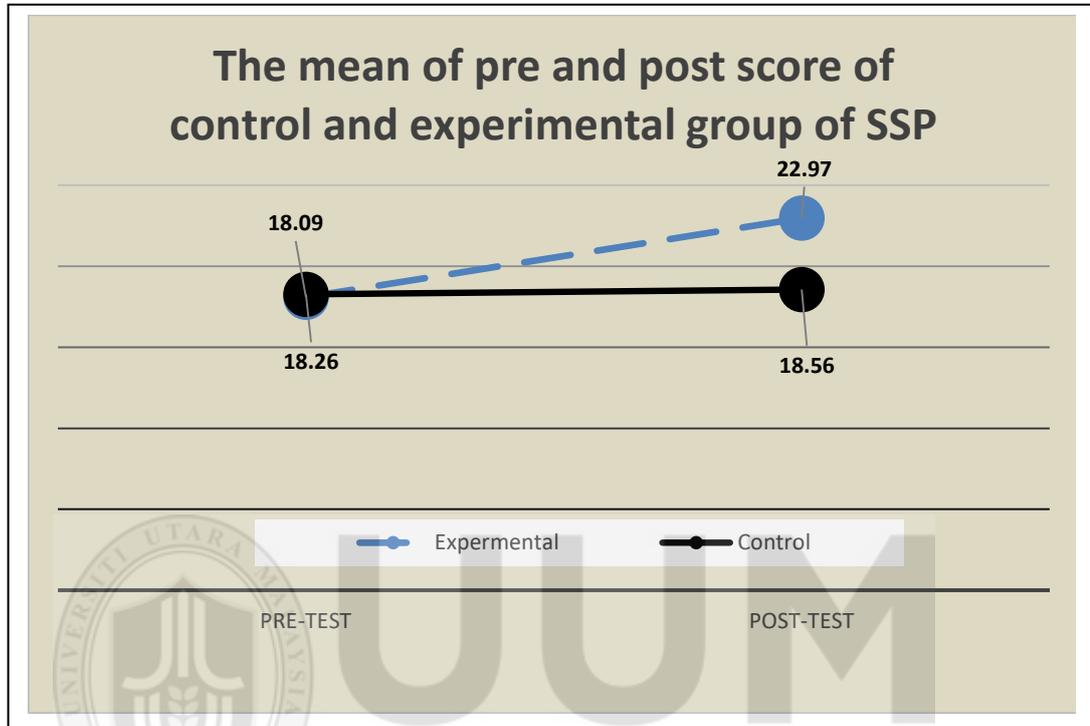

Figure 4.9. Means of Control and Experimental Groups at Pre and Post-tests in Study Skills and Practices (SSP)

Figure 4.9 shows a higher mean score of study skills and practices dimension for the experimental group as compared to the control group in post-test, while no difference was observed in pre-test.

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 variables included two groups: Experimental and Control. The dependent variable was the participants' post-test scores (study skills and practices Scores SSP) and the covariate was the participants' pre-test scores. The results are shown in Table 4.27 and Table 4.28.

Table 4.27
ANCOVA results for and descriptive statistics to Study Skills and Practices (SSP)

Groups	Pre-test Score		Post-test Score		N
	Mean	SD	Mean	SD	
Experiment group	18.09	2.19	22.97	2.78	34
Control group	18.26	2.09	18.56	2.27	34
Sources	SS	df	Ms	F	Sig.
Corrected Model	529.46a	3	176.49	49.81	.002
Intercept	34.49	1	34.49	9.74	.003
Group	23	1	23	6.49	.013
SSP.pre	194.57	1	194.57	54.91	.003
Group * SSP.pre	7.02	1	7.02	1.98	.164
Error	226.78	64	3.54		
Total	30076	68			
Corrected Total	756.24	67			

Note: a. R Squared = .700 (Adjusted R Squared = .686), b. Computed using alpha = .05.

Table 4.28
Pairwise Comparisons at Post-test to the Control and Experimental Groups at Post-test of Study Skills and Practices (SSP)

Group	Mean Difference	Std. Error	Sig.a	95% Confidence Interval for Difference	
				Lower Bound	Upper Bound
Experimental VS. Control	4.55*	.46	.00	3.64	5.47

Based on estimated marginal means.
* The mean difference is significant at the .05 level. a. Adjustment for multiple comparisons: Bonferroni.

One-way ANCOVA results showed that there were statistically significant differences among groups at post-test, indicating a significant main effect for the intervention program (Table 4.27). Multiple comparisons revealed significant differences between the control group and the experimental group. The mean difference between the

experimental group and control group was statistically significant (Table 4.28). Moreover, the means showed that participants in the experimental group performed well, with participants in the control group performing poorly.

The results showed 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.

4.3.10 Hypothesis 2.6 Testing Academic Adjustment (Personal Relation with Teachers and Students PRTS)

Ho2.6: There is no significant difference between pre-test and post-test on personal relation with teachers and students between experimental and control groups.

Table 4.29
The Results of Paired-Samples T-tests for the Control and Experimental Groups at Pre-test and Post-test in Personal Relation with Teachers and Students (PRTS)

Group	Paired Differences	Mean	SD	T	df	p	N
Experimental	Pre-test	18.12	3.37	-13.01	33	.004	34
	Post-test	23.24	2.54				
Control	Pre-test	18.00	2.94	-1.93	33	.062	34
	Post-test	18.47	2.63				

According to the paired t test, there was significant difference in the score of the personal relation with teachers and students dimension between pre and post-test of the experimental group, where a higher mean of the personal relation with teachers and students dimension was observed with post-test as compared to the pre-test. In the

145

control group no significant difference was found in the score of personal relation with teachers and students between pre and post-test, as shown in Table 4.29.
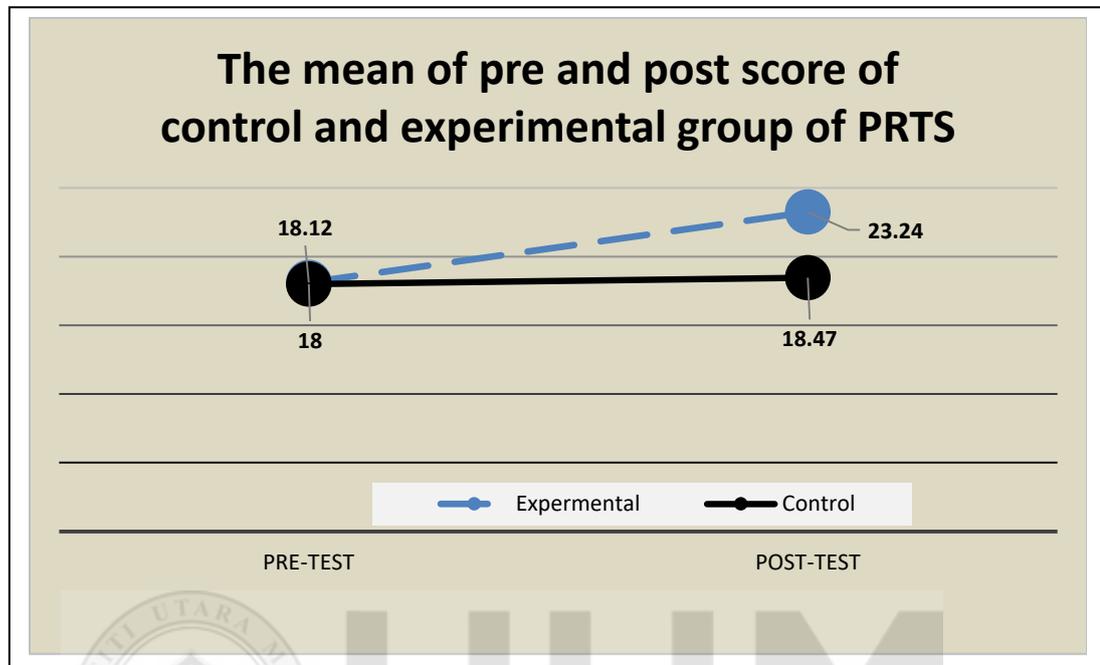
Figure 4.10. Means of Control and Experimental Groups at Pre and Post-tests in Personal Relation with Teachers and Students (PRTS)

Figure 4.10 shows a higher mean score of the personal relation with teachers and students dimension of the experimental group as compared to the control group in post-test, while no difference was observed in pre-test.

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 variables included two groups: Experimental and Control. The dependent variable was the participants' post-test scores (personal relation with

teachers and students Scores PRTS) and the covariate was the participants' pre-test

scores. The results are shown in Table 4.30 and Table 4.31.

Table 4.30
ANCOVA Results for and Descriptive Statistics to Personal Relation with Teachers and Students (PRTS)

Groups	Pre-test Score		Post-test Score		N
	Mean	SD	Mean	SD	
Experiment group	18.12	3.37	23.24	2.54	33
Control group	18.00	2.94	18.47	2.63	34
Sources	SS	df	Ms	F	Sig.
Corrected Model	675.55a	3	225.18	95.455	.004
Intercept	150.26	1	150.26	63.695	.001
Group	38.11	1	38.11	16.155	.002
PRTS.pre	289.17	1	289.17	122.580	.002
Group * PRTS.pre	8.73	1	8.73	3.699	.059
Error	150.98	64	2.36		
Total	30396	68			
Corrected Total	826.53	67			

Note: a. R Squared = .817(Adjusted R Squared = .809), b. Computed using alpha = .05.

Table 4.31
Pairwise comparisons at post-test to the control and experimental groups at Post-test of Personal Relation with Teachers and Students (PRTS)

Group	Mean Difference	Std. Error	Sig.ª	95% Confidence Interval for Difference	
				Lower Bound	Upper Bound
Experimental VS. Control	4.69*	.37	.00	3.94	5.43

Based on estimated marginal means.
* The mean difference is significant at the .05 level. a. Adjustment for multiple comparisons: Bonferroni.

One-way ANCOVA results show that there were statistically significant differences

among groups at post-test, indicating a significant main effect for the intervention

program (Table 4.30). Multiple comparisons revealed significant differences between

the control group and experimental group. The mean difference between the

experimental group and control group was statistically significant (Table 4.31).

147

Moreover, the means showed that participants in the experimental group performed well, with participants in the control group performing poorly.

The results showed that the two groups had significant differences 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.

4.4 Conclusion

This chapter described the data analysis for testing each research question and then presented the findings. In the current study data was collected in two stages. First stage was a pilot study to collect data that addressed the validity and reliability of the instruments for the current study In the main study which was the second stage, data was collected over 8 weeks through an experimental design that included the intervention. Before starting the intervention, pre-test data was collected separately for the experimental and control groups. After the 8 week period of intervention was completed, post-test data was collected separately for the experimental and control groups.

Two Research Questions were posed relating to secondary female students' social and academic adjustment. The first analysis focused on Research Question 1 to test for significant difference among secondary female students' social adjustment, and it's

dimensions (school environment, family environment, and community environment).

The analysis was done for experimental and control groups in pre-test and post-test.

Table 4.32
The Summary of Hypothesis for Research Question 1

Number	The hypothesis	Statue
Ho1.1	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 scale scores (SAS).	Rejected
Ho1.2	There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on school environment scores.	Rejected
Ho1.3	There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on family environment scores.	Rejected
Ho1.4	There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on community environment scores.	Rejected

The general linear model, the analysis of covariance, ANCOVA, was chosen as the main instrument to compare the means of the experimental, and the control group. In testing the effect of CBT intervention techniques on social adjustment and its dimensions on both group, the within group ANCOVA was performed. Analysis was made by looking at the differences in the mean between the pre-test and the post-test. A significant difference in all variables was discovered in the scores of pre-test and post-test.

149

The second analysis focused on Research Question 2 to test for significant difference among secondary female students' academic adjustment and it's dimensions (curricular adjustment, maturity of goals and level of aspiration, personal efficiency: planning and use of time, study skills and practices, and personal relation with teachers and students). The analysis was done for experimental and control groups in pre-test and post-test.

Table 4.33
The Summary of Hypothesis for Research Question 2

Number	The hypothesis	Statue
Ho2.1	There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on total of academic adjustment Scale scores (AAS).	Rejected
Ho2.2	There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on curricular adjustment scores.	Rejected
Ho2.3	There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on maturity of goals and level of aspiration scores.	Rejected
Ho2.4	There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on personal efficiency: planning and use of time scores.	Rejected
Ho2.5	There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on study skills and practices scores.	Rejected
Ho2.6	There is no significant difference between experimental and control groups in terms the difference between pre-test and post-test scores on personal relation with teachers and students scores.	Rejected

To compare the means of experimental and control groups, ANCOVA was chosen as the main instrument. A within Group ANCOVA was also performed to test the effect of CBT techniques intervention on social adjustment and it's dimensions in experimental and control groups. The analysis looked at the mean difference between pre-test and post-test. The scores of pre-test and post-test demonstrated that for all variables there was a significant difference.

CHAPTER FIVE

DISCUSSION, IMPLICATION AND RECOMMENDATION

5.1 Introduction

In the following sections, the limitations, implications, and directions for future research are discussed based on the results of the present study which looked at the social adjustment, academic adjustment and CBT techniques intervention to secondary female students.

The purpose of this study was (1) to examine whether the is any difference in the subject's (i.e. secondary female students) social adjustment related components in terms of relationship between adolescent and school environment, relationship between adolescent and family, and relationship between adolescent and the community after exposure to the CBT techniques intervention. (2) to examine whether there is any difference in the subject's (among secondary female students) academic adjustment related components in terms of Curricular adjustment, maturity of goals and level of aspiration, personal efficiency: planning and use of time, study skills and practices and personal relation with teachers and students after exposure to the CBT techniques intervention. These issues were examined through design of an experiment. Social adjustment and academic adjustment among secondary female students were also measured.

5.2 Overview of Research and Findings

The Cognitive Behaviour Therapy (CBT) has acceptance at educational counselling to enhance the levels of Social and Academic Adjustment. Before discussing the results, a brief review of the research questions and the results are presented.

Research Question 1 (Social Adjustment): Is there any difference between the experimental and control groups at pre-test and post-test on Social Adjustment in terms of School Environment, Family Environment and Community Environment?

The result of the analysis by one-way ANCOVA do postulate positive significant differences between pre-test and post-test scores of the treatment and control groups on Social Adjustment (School Environment, Family Environment and Community Environment). Accordingly through the eight weeks of experimentation, the mean difference observed from graphs' of the treatment group gradually increase over time.

Research Question 2 (Academic Adjustment): Is there any difference between the experimental and control groups at pre-test and post-test on Academic Adjustment in terms of Curricular adjustment, maturity of goals and level of aspiration, personal efficiency: planning and use of time, study skills and practices and personal relation with teachers and students?

The mean score of the treatment group at various stages of the pre-test and post-test, as demonstrated by the result of ANCOVA, has shown significant difference. A significant difference was found of the experimental group in the curricular adjustment, maturity of goals and level of aspiration, personal efficiency: planning and use of time, study skills and practices and personal relation with teachers and

153

students. The mean score has also demonstrated a progressive increase in the pre-test and post-test, with the CBT intervention formulated for the treatment group.

5.3 Discussion on Social Adjustment

The level of Social Adjustment, entailed from the result of this study is explained in this subsection. The three dimensions involved are School Environment, Family Environment and Community Environment. The overall scores of Social Adjustment will be hypothesis one (H01) as well as the assumptions emerging from these (hypotheses formulated) suggested three dimensions that are hypothesis two (H02), hypothesis three (H03) and hypothesis four (H04) which are discussed concurrently. The data presented in the table 4.2, 4.3 and 4.4 (Social Adjustment), table 4.5, 4.6 and 4.7 (School Environment), table 4.8, 4.9 and 4.10 (Family Environment) and table 4.11, 4.12 and 4.13 (Community Environment) have suggested that there are overall significant differences between the pre-test and post-test of the control and treatment variables which were found to be all statistically significant.

5.3.1 Discussion of Hypothesis 1.1

The first hypothesis of the current study is measuring the Social Adjustment among secondary female students. the first hypothesis state that: "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)."

The groups graph (Figure 4.1) illustrated that over eight weeks period the level of Social Adjustment significantly increased. The results of the current study show that there is a significant difference between experimental and control groups between pre-

154

test and post-test scores on Social Adjustment Scores. The results conform with previous studies such as Al-Abdullat (2008) which showed that the level of social adjustment improves through using an intervention program. The results also conform with previous studies that applied cognitive behaviour therapy CBT (e.g. Albano et al., 1995; Heimbrg et al., 1996; Iarussi, et al., 2016; Michel, et al., 2003; Madboli, 2009), which confirmed that the CBT is an excellent intervention to improve many educational problems such as social relationship (Madboli, 2009), social phobia (Albano et al., 1995; Heimbrg et al., 1996), counselling (Iarussi, et al.,2016), and Generalized Anxiety Disorder (Michel, et al., 2003). In addition, these studies also confirmed that the CBT was a useful treatment wherein the students acquired experience, confidence and awareness through applying cognitive and behavioral techniques which contributed to overcoming these problem (Albano et al., 1995; Heimbrg et al., 1996; Michel, et al., 2003; Madboli, 2009).

This is true with the current study, the students have gained confidence which contributed to improving their social skills such as communication skills. They are not afraid this led to an increase in the level of social adjustment. This due that the CBT techniques enhance the confidence among students through apply the number of procedures that help students to increase the level of confidence. Other benefit for CBT intervention showed students becoming more interactive during treatment sessions, as they acquired educational experiences which helped them to be more interactive (Albano et al., 1995; Heimbrg et al., 1996; Michel, et al., 2003; Madboli, 2009).Kumara and Kumar (2016) summarized that when used CBT among students adolescents most of the them change for the better. In details, through used CBT the improvements on social and psychological skills will be done. Thus, this reason leads

155

to positive outcomes of the current study, where the social skills among female students were increased through using CBT-Intervention due the effect of CBT on social skills then the academic performance was improved.

On the other hand, the control group had experienced a stability in the result in the levels of social adjustment after being guided with regular counselling. Further, without CBT-intervention, the control group show no improvement between pre and post-test. Thus, this show that the students did not improve their social adjustment. This might be due that the regular counselling to improve the levels of social adjustment did not have more motivation toward female students.

5.3.2 Discussion of Hypothesis 1.2

Hypothesis 2 of the current study deals with school environment among secondary female students. It states: "There is no significant difference between pre-test and post-test on school environment between experimental and control groups."

Based from the groups graph in Figure 4.2 the experimental group graph illustrated that over eight weeks period the level of School Environment SE significantly increased as a dimension from SA-Scale. In addition, the results of the current study show that there is a significant difference between pre-test and post-test on SE between experimental and control groups. The result conforms with previous studies (AlAbdullat, 2008; Chui & Chan, 2017; Hawashin, 1995) which showed an improve level of social adjustment especially with SE through using intervention programs. The results also conform previous studies that applied cognitive behaviour therapy CBT (e.g. Barakat, 2012; Faqi, 2012; Matzner, 2012; Spek et al., 2008). These studies confirmed that the CBT is an excellent intervention to improve many educational

156

problems such as alexithymia (Faqi, 2012; Matzner, 2012; Spek et al., 2008) and lack of expression of emotions (Barakat, 2012).

Furthermore, these studies mentioned that the CBT was considered a useful treatment because it is a collection of techniques which are important to change cognitive distortions through focusing on a positive discussions with others, which helps the students to overcome and correct cognitive distortions (Barakat, 2012; Faqi, 2012; Matzner, 2012; Spek et al., 2008).

On the other hand, the control group had experienced a stability in the result in the levels of School Environment SE after being guided with regular counselling. Moreover, without CBT-intervention, the control group show no improvement between pre and post-test. Thus, this show that the students did not improve their school environment. This might be because the regular counselling to improve the low levels of SE are considered not suitable to secondary students. Other reason, perhaps due that the regular counselling to improve the low levels of SE did not have more motivation toward students.

As stated in the current study, the students who face a problem in their relationship with school environment, such as teachers and the principal, show a decreased level of social adjustment. However, CBT has the ideal techniques to change and remove cognitive distortions, enabling students to acquire a positive discussion, for example self-management technique develops a positive self-talking among students through good planning as well as good practice to achieve her goals. Then, this procedure helps students to overcome this problem leading to improved school environment SE.

5.3.3 Discussion of Hypothesis 1.3

Hypothesis 3 of the current study deals with family environment among secondary female students. This states: "There is no significant difference between pre-test and post-test on family environment between experimental and control groups."

The results demonstrate significance differences for the third hypothesis. With the intervention formulated for the experimental group (cognitive behaviour therapy CBT) it was found that the mean score increase progressively at post-test through the eight weeks of experimentation. Moreover, the results of the current study show that there is a significant difference between pre-test and post-test on family Environment (FE) between experimental and control groups. The results are consistent with previous studies (Al-Abdullat, 2008; Hawashin, 1995; Moshahid, 2015) which show improved level of social adjustment especially with FE through using an intervention program. The results are also consistent with previous studies that applied cognitive behaviour therapy CBT (e.g. Bakeer, 2011; Lotfi, et al., 2011; Waggoner & Irene, 1998; Salman, 2006). These studies showed that CBT is an ideal intervention to improve many educational problems in order to improve self-concept and achievement motivation (Bakeer, 2011; Waggoner & Irene, 1998), and reduce anxiety symptoms (Lotfi, et al., 2011).

Moreover, these studies identified that the CBT was considered a useful treatment because the CBT techniques have important features which help students to change thought distortions through focusing on changing the negative behaviours that prevent students from achieving success (Bakeer, 2011; Lotfi, et al., 2011; Waggoner & Irene, 1998; Salman, 2006).

158

Moving over to the control group, the mean value of pre and post-test are not significantly difference to Family Environment. Therefore, there are no difference between pre and post-test values. In this regards the regular counselling of Family Environment shows that there is no positive effects of regular counselling on the levels of Family Environment among students. Furthermore, without CBT-intervention, the control group show no improvement between pre and post-test. Hence, this show that the students did not improve their Family Environment.

Therefore, the results of the current study confirmed that students who face a problem of FE have decreased levels of social adjustment. CBT is considered an ideal therapy to overcome the problem of thought distortions related to the family. This therapy leads to improvement in the level of social adjustment especially FE.

5.3.4 Discussion of Hypothesis 1.4

Hypothesis 4 of the current study deals with the community environment among secondary female students. This hypothesis states: "There is no significant difference between pre-test and post-test on community environment between experimental and control groups."

The result of the experimental group graph (figure 4.4) shows that over the eight weeks period the level of community environment (CE) scores among secondary students significantly improved on the chart presented. Further, the results show that there is a significant difference between pre-test and post-test on CE between experimental and control groups. The results are consistent with previous studies (AlAbdullat, 2008; Chui & Chan, 2017; Hawashin, 1995) which showed that there was an increase and

improvement in the level of social adjustment, and with CE, through using an intervention programs.

In addition, the results are consistent with previous studies that applied cognitive behaviour therapy CBT (e.g. Hyung, Chung, & Lee, 2005; Keshi & Basavarajappa, 2013; Liza, 2010; Othman, 2009). These studies showed that the CBT is an ideal intervention to improve many educational problems such as low self-esteem (Hyung, Chung, & Lee, 2005), low self-efficacy (Keshi & Basavarajappa, 2013; Liza, 2010), and Sense of Social Responsibility (Othman, 2009).Moreover, these studies confirmed that the CBT techniques were useful treatments because they could be applied in a short period with strong positive outcomes (Hyung, Chung, & Lee, 2005; Keshi & Basavarajappa, 2013; Liza, 2010; Othman, 2009). This result shows that the CBT intervention is suitable to treat many problems, especially educational problems, and we can obtain good outcomes during in a short period.

On the other hand, the control group had experienced a stability in the result in the levels of CE after being guided with regular counselling. In addition, without CBT-intervention, the control group show no improvement between pre and post-test. Thus, this show that the students did not improve their CE. This might be because the regular counselling to improve the levels of CE are considered not suitable to secondary students. Other reason, perhaps due that the regular counselling to improve the low levels of CE did not have more motivation toward students.

Hence, the results of the current study confirmed that a short period is considered a main reason to obtain a positive outcome. Moreover, students who face educational problems are seeking to solve these problem in a short time; when they feel that the

160

problem is solved directly, they will trust this technique as ideal. This confidence will
be one main reason to achieve success.

5.4 Discussion on Academic Adjustment

This subsection will explain the level of Academic Adjustment based on the result of
the study that measures level of Academic Adjustment using five dimensions, namely,
Curricular adjustment, maturity of goals and level of aspiration, personal efficiency:
planning and use of time, study skills and practices and personal relation with teachers
and students. the overall scores of Academic Adjustment will be hypothesis five (H05)
as well as the assumptions emerging from these (hypotheses formulated) suggested
five dimensions that are hypothesis six (H06), hypothesis seven (H07), hypothesis
eight (H08), hypothesis nine (H09) and hypothesis ten (H010) which are discussed
concurrently. The data presented in the table 4.14, 4.15 and 4.16 (Academic
Adjustment), table 4.17, 4.18 and 4.19 (Curricular Adjustment), table 4.20, 4.21 and
4.22 (Maturity of Goals and Level of Aspiration), table 4.23, 4.24 and 4.25 (Personal
Efficiency: Planning and Use of Time), table 4.26, 4.27 and 4.28 (Study Skills and
Practices) and table 4.29, 4.30 and 4.31 (Personal Relation with Teachers and
Students) have suggested that there are overall significant differences between the pre-
test and post-test of the control and treatment variables which were found to be all
statistically significant.

5.4.1 Discussion of Hypothesis 2.1

Hypothesis 5 of the current study deals with the Academic Adjustment among
secondary female students. It states: "There is no significant difference between

experimental and control groups in terms of the difference between pre-test and post-test scores on total of Academic Adjustment Scores (AAS)."

The groups graph (Figure 4.5) illustrated that over eight weeks period the level of academic adjustment significantly increased. Furthermore, the results of the current study show that there is a significant difference between pre-test and post-test on Academic Adjustment between experimental and control groups. The results are consistent with previous studies (AlAbdullat, 2008; Moshahid, 2015; Ford, 1996; Petrides, Fredrickson, & Furnham, 2004; Zeidner, 2005) which report the treatment and improvement in the level of academic adjustment through using intervention programs. The results are also concordant with previous studies that applied cognitive behaviour therapy CBT (e.g. Ahmad, et, al., 2016; Arefi, 2012; Khanehkeshi, 2014; Rice, 2008; Sharma et al., 2010). These studies are concordant that the CBT and it's techniques are ideal intervention to treat many educational problems such as Academic stress (Arefi, 2012; Khanehkeshi, 2014; Sharma et al., 2010), slow learner children (Ahmad, et, al., 2016) and increased anxiety (Rice, 2008).

Furthermore, these studies mentioned that the CBT techniques have many features which are considered useful for students such as ease of application and being effective in attracting students which feature is important in the treatment process. Moreover, they also mentioned that CBT has many options which allows us to choose the suitable technique for students (Arefi, 2012; Khanehkeshi, 2014; Rice, 2008; Sharma et al., 2010).

As opposed to the academic adjustment score of the control group, the mean value of pre and post-test are not significantly difference to academic adjustment. Therefore,

there are no difference between pre and post-test values. In this regards the regular counselling of academic adjustment shows that there is no positive effects of regular counselling on the levels of academic adjustment among students. Furthermore, without CBT-intervention, the control group show no improvement between pre and post-test. Hence, this show that the students did not improve their academic adjustment.

In the current study, the students interacted positively with the intervention because the intervention techniques used were suitable to them and, at the same time, these techniques were easy to apply and had a direct positive outcome. These features provided good motivation to go ahead and complete the intervention program.

5.4.2 Discussion of Hypothesis 2.2

Hypothesis 6 of the current study deals with the curricular adjustment among secondary female students. This hypothesis states: "There is no significant difference between pre-test and post-test on Curricular Adjustment between experimental and control groups.

Based from the groups graph in Figure 4.6 the experimental group graph illustrated that over eight weeks period the level of Curricular Adjustment significantly increased as a dimension from AA-Scale. In addition, the results of the current study show that there is a significant difference between pre-test and post-test on curricular adjustment between experimental and control groups. The results are concordant with previous studies (AlAbdullat, 2008; Ford, 1996; Petrides, Fredrickson, & Furnham, 2004; Zeidner, 2005; Yadak, 2017) which report the treatment and improvement in the level of academic and curricular adjustment through using an ideal intervention program

(CBT). The results are also concordant with previous studies that applied cognitive behaviour therapy CBT (e.g. Lee et al., 2007; Lochman, 1992; Ronald, 2010).These studies are concordant that the CBT and it's techniques are an ideal intervention to treat many educational problems such asaggressive behaviour (Lochman, 1992) and issues of self-efficacy and locus of control (Ronald, 2010).

In addition, these studies identified that the nature of CBT interventions makes them effective in dealing with academic aspects and so could be used to treat educational problems (Lee et al., 2007; Lochman, 1992; Ronald, 2010). Moreover, Lee et al. (2007); Lochman (1992); Ronald (2010). They confirmed that CBT techniques could be carried out easily inside classrooms.

On the other hand, the control group had experienced a stability in the result in the levels of Curricular Adjustment after being guided with regular counselling. Furthermore, without CBT-intervention, the control group show no improvement between pre and post-test. Thus, this show that the students did not improve their Curricular Adjustment. This might be because the regular counselling to improve the low level of Curricular Adjustment are considered not suitable to secondary students. Other reason, perhaps due that the regular counselling to improve the level of Curricular Adjustment did not have more motivation toward students.

The current study shows that the level of curricular adjustment among students was improved and increased, due the nature of CBT techniques that could be applied inside classrooms. This improvement led to increased level of academic adjustment and positive effectiveness on academic performance.

5.4.3 Discussion of Hypothesis 2.3

Hypothesis 7 of the current study deals with the maturity of goals and level of aspiration among secondary female students. The hypothesis states: "There is no significant difference between pre-test and post-test on maturity of goals and level of aspiration between experimental and control groups."

The results demonstrate significance differences for the seventh hypothesis. With the intervention formulated for the experimental group (cognitive behaviour therapy CBT) it was found that the mean score increase progressively at post-test through the 8 weeks of experimentation. Moreover, the results of the current study show that there is a significant difference between pre-test and post-test on maturity of goals and level of aspiration between experimental and control groups. The results are consistent with previous studies (AlAbdullat, 2008; Ford, 1996; Jdaitawi, et al., 2011; Petrides, Fredrickson, & Furnham, 2004; Zeidner, 2005), which treatment and improvement in academic adjustment for maturity levels of goals and levels of aspiration through using an ideal intervention program (CBT). The results of the current study are consistent with previous studies that addressed cognitive behavior therapy - CBT (e.g. Abas, Hosain & Fathi, 2017; Esherbiny, 2015; Ghamari et al., 2015; Kearney & Albano 2004; Ngwoke et all., 2013). These studies concordant that the CBT and it's techniques are ideal intervention to treat many educational problems such as school refusal (Esherbiny, 2015; Kearney & Albano 2004), anxiety symptoms (Ghamari et al., 2015), emotional intelligence (Abas, Hosain & Fathi, 2017) and low achievement orientation (Ngwoke et all., 2013).

165

Furthermore, these studies mentioned that CBT techniques are effective for academic aspects due to the nature of CBT techniques which are suited for treating educational problems and easy to carry out with students in classrooms (Esherbiny, 2015; Ghamari et al., 2015; Kearney & Albano 2004; Ngwoke et al., 2013). Moreover, the researchers also identified that the CBT interventions could be carried out for a short period with positive outcome.

Moving over to the control group, the mean value of pre and post-test are not significantly difference to maturity levels of goals and level of aspiration. Therefore, there are no difference between pre and post-test values. In this regards the regular counselling of maturity levels of goals and level of aspiration shows that there is no positive effects of regular counselling on the levels of maturity levels of goals and level of aspiration among students. Furthermore, without CBT-intervention, the control group show no improvement between pre and post-test. Hence, this show that the students did not improve their maturity levels of goals and level of aspiration.

As seen in the results of the current study, the maturity levels of goals and level of aspiration among students was improved and increased, because of the nature of CBT techniques that could be applied in a short period with positive outcome. In addition, this feature is perfect to overcome many educational problem especially that of maturity of goals and levels of aspiration which are considered as important aspects of academic performance. Students do need to plan and have good goals which helps them increase the level of academic performance.

5.4.4 Discussion of Hypothesis 2.4

Hypothesis 8 of the current study deals with personal efficiency: planning and use of time among secondary female students. The hypothesis states: "There is no significant difference between pre-test and post-test on personal efficiency: planning and use of time between experimental and control groups."

The result of the experimental group graph (figure 4.8) shows that over the eight weeks period the level of personal efficiency: planning and use of time scores among secondary students significantly improved on the chart presented. Furthermore, the results of the current study show that there is a significant difference between pre-test and post-test on personal efficiency: planning and use of time between experimental and control groups. The results are concordant with previous studies (AlAbdullat, 2008; Ford, 1996; Petrides, Fredrickson, & Furnham, 2004; Quan, et al., 2014; Zeidner, 2005) which reported the treatment and improvement of academic adjustment in the level of personal efficiency: planning and use of time, through using excellent intervention programs.

The results of the current study are consistent with previous studies that addressed cognitive behavior therapy CBT (e.g. Kairmi & Venkatesan, 2009; Khanehkeshi, 2014; Lee et al., 2007). These studies consistent that CBT and it's techniques are ideal interventions to treat many educational problems such as Academic stress (Khanehkeshi, 2014; Lee et al., 2007) and Mathematics anxiety (Kairmi & Venkatesan, 2009).Further, these studies confirmed that CBT techniques are effective in academic aspects due to the nature of CBT techniques which attract students and guide them to solve educational problems by themselves (Kairmi & Venkatesan, 2009;

167

Khanehkeshi, 2014; Lee et al., 2007). In addition, these studies also mention that the positive outcomes of CBT would be apparent in a short period.

On the other hand, the control group had experienced a stability in the result in the levels of personal efficiency: planning and use of time after being guided with regular counselling. Further, without CBT-intervention, the control group show no improvement between pre and post-test. Thus, this show that the students did not improve their levels of personal efficiency: planning and use of time. This might be because the regular counselling to improve the low level of personal efficiency are considered not suitable to students. Other reason, perhaps due that the regular counselling to improve personal efficiency did not have more motivation toward students.

The results of the current study confirm that the level of personal efficiency: planning and use of time among students was improved and increased due to the nature of CBT intervention, where features such as an attractive and positive outcome in a short period enable students to be confident about these techniques, which in turn guarantees positive outcomes. In addition, this features would be perfect to solve many educational problems that could be faced by students, especially for personal efficiency: planning and use of time. Planning as well as time management are considered as important aspects to achieve a good level of personal efficiency and of course would increase the level of academic performance.

5.4.5 Discussion of Hypothesis 2.5

Hypothesis 9 of the current study deals with study skills and practices among secondary female students. The hypothesis states: " There is no significant difference

between pre-test and post-test on study skills and practices between experimental and control groups."

The groups graph (Figure 4.9) illustrated that over eight weeks period the level of study skills and practices significantly increased. Furthermore, the results of the current study show that there is a significant difference between pre-test and post-test on study skills and practices between experimental and control groups. The results are consistent with previous studies (Al-Abdullat, 2008; Ford, 1996; Hughes, Cao, & Kwok, 2016;Petrides, Fredrickson, & Furnham, 2004; Zeidner, 2005) which report treatment and improvement in academic adjustment for the level of study skills and practices through using good intervention programs. The results of the current study are consistent with previous studies that addressed cognitive behaviour therapy CBT (e.g. Bakeer, 2011; Faqi, 2012; Lotfi et al., 2011; Salman, 2006).These studies consistent that the CBT techniques are considered ideal treatment interventions to treat many educational problems such as alexithymia (Faqi, 2012), issues of self-concept (Bakeer, 2011) and anxiety (Lotfi et al., 2011; Salman, 2006). Moreover, these studies mentioned that CBT techniques have some features which contribute to facilitate the treatment of educational issues faced by students (Bakeer, 2011; Faqi, 2012; Lotfi et al., 2011; Salman, 2006).

On the other hand, the control group had experienced a stability in the findings of study skills and practices scores at post-test, after being taught with regular counselling. Therefore, there are no difference between pre and post-test values. In this regards the regular counselling of study skills and practices shows that there is no positive effects of regular counselling on the levels of study skills and practices among

169

students. Furthermore, without CBT-intervention, the control group show no improvement between pre and post-test. Hence, this show that the students did not improve their study skills and practices.

The results of the current study confirmed that the level of study skills and practices among students was increased and improved because of the features of CBT intervention which are suitable for educational aspects, thereby enabling counsellors to choose more suitable techniques for students. Thus, these features will be useful for education counselling. Furthermore, to improve and increase the level of study skills and practices, the counsellors need to make sure to use and apply a technique that enables students to practice and apply study skills that would be useful to increase the level of academic adjustment as well as academic performance. Of course these are available as CBT techniques through using cognitive restructuring techniques.

5.4.6 Discussion of Hypothesis 2.6

Hypothesis 10 of the current study deals with personal relation with teachers and students among secondary female students. The hypothesis states: "There is no significant difference between pre-test and post-test on personal relation with teachers and students between experimental and control groups."

Based from the groups graph in Figure 4.10 the experimental group graph illustrated that over eight weeks period the level of with personal relation with teachers and students significantly increased as a dimension from AA-Scale. In addition, the results of the current study show that there is a significant difference between pre-test and post-test on personal relation with teachers and students between experimental and control groups. The results are consistent with previous studies (AlAbdullat, 2008;

170

Ford, 1996; Petrides, Fredrickson, & Furnham, 2004; Zeidner, 2005), which reported treatment and improvement of academic adjustment in the aspect of level of personal relation with teachers and students through using ideal intervention programs.

The results of the current study are concordant with previous studies that worked on cognitive behavior therapy CBT (e.g. Elsherbiny, 2015; Othman, 2009; Qasim, 2014; Rice, 2008). These studies are consistent that CBT techniques are ideal treatment interventions to treat and improve some educational problems such as school refusal (Elsherbiny, 2015), sense of social responsibility (Othman, 2009), anxiety (Rice, 2008) and concerns of students (Qasim, 2014). Furthermore, these studies confirmed that CBT interventions have some features which contribute to achieve a good outcome easily and in a short period, with high effectiveness for the treatment of educational problems that are faced by students (Elsherbiny, 2015; Othman, 2009; Qasim, 2014; Rice, 2008).Further, Moreover, Saravanan, Alias and Mohammed (2017) indicated that students could adjust to the new atmosphere through using CBT, as well as the CBT is effective for activating the maladaptive behaviours.

On the other hand, the control group had experienced a stability in the result in the level of with personal relation with teachers and students after being guided with regular counselling. In addition,, without CBT-intervention, the control group show no improvement between pre and post-test. Thus, this show that the students did not improve their level of personal relation with teachers and students. This might be because the regular counselling to improve the level of personal relation with teachers and students are considered not suitable to secondary students.

171

The results of the present study show that the level of personal relation with teachers and students among students increased due of the nature of CBT techniques which have features such as easy to conduct within a short period, as well as the positive effectiveness of these techniques which allows students to develop and grow their relationship with teachers and students. The conduct of a group of practices leads to improvement in the level of relationship with teachers and students.

5.5 Implication

Though the current study has some limitations, of the present study, its critical review of the literature and the results seen from analysis offer constructive contributions to both theory as well as practice in school counselling. Since its origins in 1960, Cognitive Behaviour Therapy CBT and it's techniques are considered as excellent therapy through practical applications and knowledge. Major contributions from psychologists, therapists and researchers of psychiatric disturbances have helped the techniques to evolve. This section deals with the theoretical and practical implications of the present study on theory, as also for those directly involved in this study viz. clients and school students. Also discussed in detail are the major theoretical implications of the methodological and instrumentation aspects.

5.5.1 Theoretical Implication

5.5.1.1 Methodology

CBT has emerged since 1960 in the US and the UK to address the threat of psychiatric disturbances. Beck's theory of CBT was used to treat psychiatric disturbances like anxiety, depression, schizophrenia, and so forth. It has been proven to be of great substance in the psychology and psychotherapy domains. Several studies (e.g. Arefi,

172

2012; Barakat, 2012; Faqi, 2012; Khanehkeshi, 2014; Lotfi, et al., 2011; Salman, 2006) highlighted the effectiveness of CBT in psychology and psychotherapy. In fact, since the theory has evolved, the recognition of social adjustment and academic adjustment as school problems has taken a concrete form. Social adjustment consists of a set of validated instructions that emerged from empirical findings (AlAbdullat, 2008; Hawashin, 1995). It has been recommended in a number of studies to examine the effects of social adjustment in the classroom setting (AlAbdullat, 2008; Hawashin, 1995).

Furthermore, previous instructions and their effects on academic outcome and students' functioning have been examined and tested in various conditions. Academic adjustment consists of a set of validated instructions that emerged from empirical results (AlAbdullat, 2008; Ford, 1996; Petrides, Fredrickson, & Furnham, 2004; Zeidner, 2005). It has been recommended in a number of studies to examine the effects of academic adjustment in the classroom setting (AlAbdullat, 2008; Ford, 1996; Petrides, Fredrickson, & Furnham, 2004; Zeidner, 2005).

The results of the present study makes substantial methodological contributions to CBT theory (Beck's theory of CBT) by studying social adjustment and academic adjustment in an experimental setting. The examination of CBT in schools has lent more credibility to the theorized applications of CBT in practical situations through the positive findings of the present study. On the same note, the current study was conducted based on Cognitive Behaviour Therapy Theory (Beck's Theory of CBT). The findings of the current study provided a good evidence to carry out CBT in schools to improve the low levels of social and academic adjustment among students. The

CBT intervention as in the current study contributes to the improvement of the levels of social and academic adjustment among low achieving female students. This is because it focuses on (i) cognitive restructuring technique which helps student restructure negative thoughts cognitively and replace them with positive thoughts. For example, the students have negative thoughts about academic failure, and then after sessions of CBT interventions (cognitive restructuring technique), the students replace the negative thoughts (academic failure) with positive thoughts (academic success), (ii) Self-management technique which helps students reorganize their studies in order to achieve academic success. For example, the students are unable to manage their school schedule, and then after sessions of CBT interventions (self-management technique), the students become able to program their schedule because the technique equips them with the skill.

Further, the current study was also conducted based on Bandura's Social Learning Theory of social adjustment. The theory focuses on environmental elements surrounding students (colleagues, school environment, and family environment) and the relationships between students and colleagues, school environment, and family environment (Lakhdar, 2017). All these relationships affect students' personality and hence, their academic results (Essa, 2017). The students who have a good relationship with colleagues, school environment, and family environment will feel comfortable and satisfied, thus they will focus on school tasks and will be able to achieve academic success (Ibrahima, 2017). In addition, social learning theory seeks to develop and grow students' self-efficacy by improving their social skills due the close connection between social skills and academic success.

Moreover, the current study was also carried out based on Cognitive Development Theory of academic adjustment that focuses on accommodation and assimilation in students' schema that serve as the basic elements of the theory. For instance, the student replaces the wrong way in his study skills and planning, and improves his relationship with the teacher and other students in order to attain good academic outcomes through accommodation. Further, by using assimilation, the student merges new ideas relating to maturity of goals and curricular adjustment in his schema to suit the academic requirements and achieve positive academic performance.

Therefore, the findings of the present study provide good evidences to the importance of improving the levels of social and academic adjustment among students. Hence, the current study offers constructive contributions to theories (i) Beck's CBT theory to be practiced in school counselling by using CBT techniques, (ii) Social learning theory and Cognitive Development Theory to improve the levels of social and academic adjustment among students through school counselling. However, many more replications of the experimental design would be required to further validate the CBT as a school counselling program that aim to improve and increase the levels of social adjustment and academic adjustment. The current study may serve as a direction for those who would like to conduct CBT as a school counselling program in schools.

5.5.1.2 Practical Implication

The practical implication of this study contributes significantly to the education and counselling environments in Jordan. The practical contribution in this study is explained in detailed in the following section.

5.5.1.2.1 For Social Adjustment, Academic Adjustment and Education Counselling Reform in Jordan

The Great King Abdullah II and Queen Rania are the two prominent figures who initiated the education reformation in Jordan through the introduction of the National Education Counselling (2002). The reformation is part of the Jordanian Vision 2020 which concerns about the future of learning looking at all angles that support the leaning process which has crowned school counselling as an essential aspect. The Jordanian education ministry has made consistent effort to apply these reforms in teaching and learning processes in order to improve the school environments by applying school counselling program which include modern and positive theories of which CBT theory is considered as one to improve and increase the levels of adjustment among secondary students.

The current study addressed important aspects like social adjustment and academic adjustment that affect the learning process. The findings and the intervention program of the present study of social adjustment and academic adjustment through using CBT as a positive therapy will definitely contribute to school counselling of Jordanian students. Furthermore, the CBT module in the current study is considered a new contribution of knowledge due to addressed social and academic adjustment among underachieving students in secondary schools. The importance of the newly developed CBT module is significantly related to overcome the issue of low achievement among female students in Jordan. In addition, this intervention module was constructed based on the needs of Jordanian culture. Moreover, this module has significantly improved the students' social and academic adjustment if compared with the traditional counselling used in school. Therefore, this intervention module should be further used for other low-achieving Jordanian female high school students.

176

5.5.1.2.2 For Educational Counselling Policy Makers

The results of the present study may inform education counselling policy makers about the positive feasibility of conducting the CBT as a positive school counselling therapy among secondary students. The counselling outcomes of CBT may enhance and encourage the educational counselling policy makers to guide school counsellors to help them expand their counselling styles and develop the counselling techniques. It also considers students' evaluation in a school setting and so enhances applying CBT inside schools. In addition, the present study will help to enhance the understanding of adjustment among Jordanian students through increase and improvement in the levels of social adjustment and academic adjustment due to effect of CBT as a positive therapy. Therefore, the school counsellors will be able to focus on their counselling practices in a more meaningful way, depending on the needs of their students.

5.6 Limitations

The researcher has understood that highlighting the limitation of the current study will help guide future studies using similar experimental design. These limitations can also be seen as recommendations for future studies. The limitation of the current study had also been discussed earlier in Chapter one.

5.6.1 Generalization of Findings

In spite of the fact that each school represents a common student population, repeating the current study, to validate the current findings in different samples and educational stages as well as different cultural backgrounds, could provide more evidence in favour of CBT theory as a positive therapy which increases and improves the levels of social adjustment and academic adjustment.

177

5.7 Recommendations

According to the results and discussions to the current study, the followings are the recommendations for future study:

i. The newly developed CBT syllabus by the researcher to improve social adjustment and academic adjustment should be used as a pilot project conducted to other Jordanian high school students. Thus, by expanding the CBT modules to other schools, it will help in reducing low achievers in relation to social and academic adjustment. Perhaps, it will also help Jordanian high school students deal with the immigrants from neighbouring countries such as Palestine and Syria.

ii. The newly developed CBT model also should be used by Jordanian high school students regardless of gender. Perhaps with minor modification of the syllabus, it will help the Ministry of Education employ the model to male students.

iii. In order to understand more about CBT, it is suggested to conduct the CBT as a positive therapy on other educational counselling issues such as student-drop, test anxiety, as well as social media addiction through using qualitative data from multiple sources of information such as observations, ethnographic study, parent interviews, teacher interviews, students and counsellors.

iv. The present study obtained data from secondary female students through self-reports. Hence, some relations may be overestimated from students due to bias and shared variance. Hence, it is also suggested to conduct the CBT with several studies in order to the generalization of the findings among secondary school female students.

v. Future studies could treat other variables with CBT techniques, for example low level of psychological security, anger, and shyness among secondary school female students as these issues could have an effect on academic performance.

vi. The sample size of the quasi experiment in the current study is suitable for the purpose of this study. However, for policy making purposes of Jordanian Education System. Thus, it is also suggested a larger sample size should be used over many secondary school female students on different provinces in Jordan.

5.8 Conclusion

The current study aims to investigate the level of social adjustment and academic adjustment among female secondary school students in Jordan due to the belief that when the level of social adjustment and academic adjustment increase, the level of academic performance in secondary schools will also rise. In the study, secondary female students underwent an intensive treatment under experimental design, with the treatment including CBT techniques to support social adjustment and academic adjustment for 8 weeks duration in group counselling. The counsellor who administered the intervention therapy was chosen for intervention and thoroughly trained on the basic instructions derived from previous studies in the CBT techniques theory. This procedure helped the researcher to compare secondary female students' responses on two baseline's - one at pre-intervention and another at post-intervention. The secondary female students reported their response by filling the SAS and AAS on theoretically derived variables on pre-intervention and post-intervention.

After the intervention program, a significant difference was demonstrated in the levels of social adjustment and academic adjustment within both groups including the control group which was not exposed to the intervention program. This has been shown in the ANCOVA analysis. In fact, the samples from the experimental groups demonstrated an obvious difference in the social and academic adjustment, after the period of intervention therapy.

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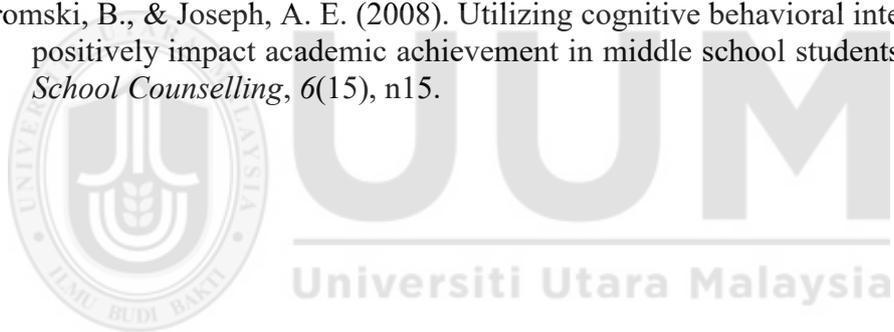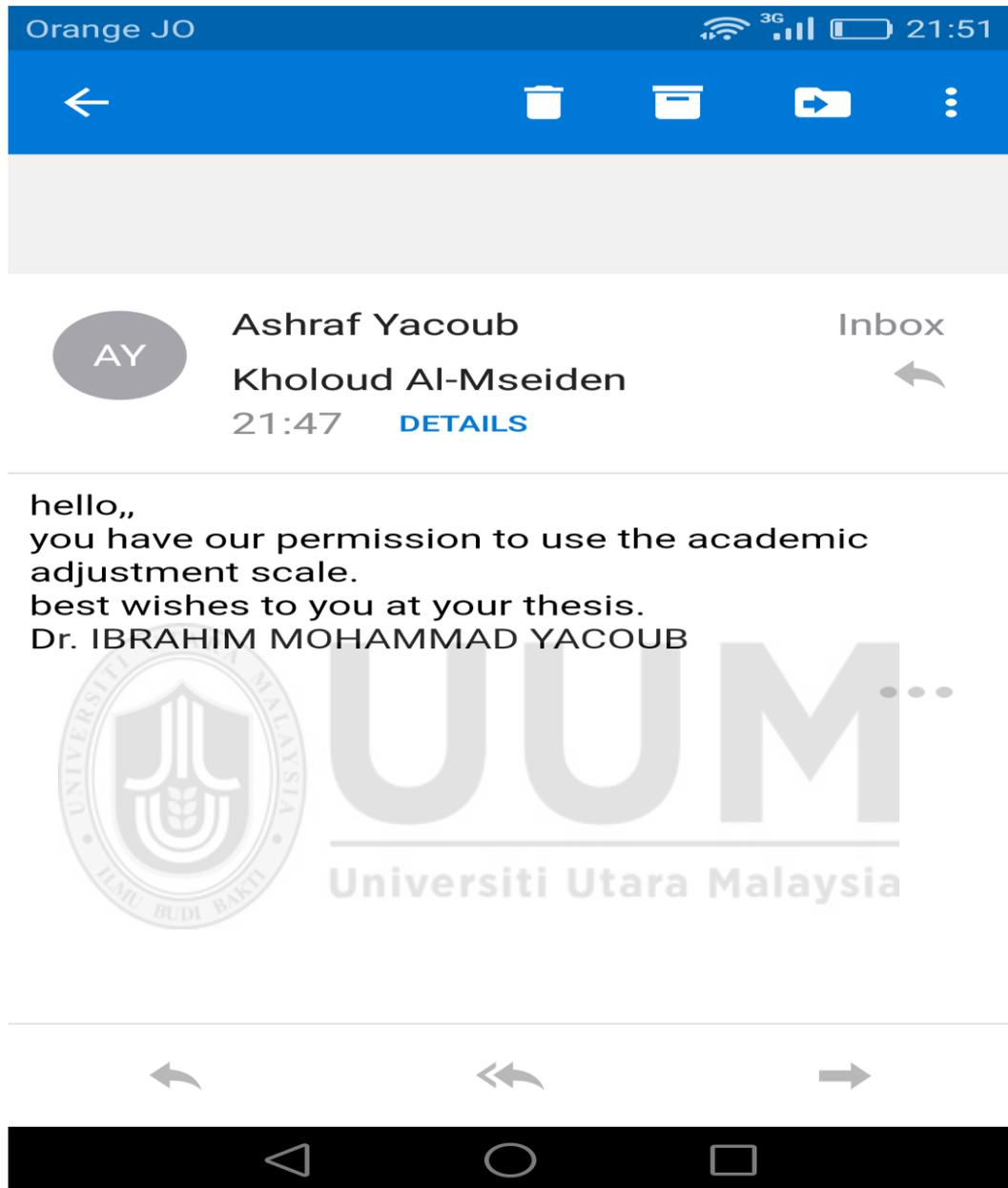
Appendix A
The Permissions

A: Permission to use and apply Social Adjustment Scale:
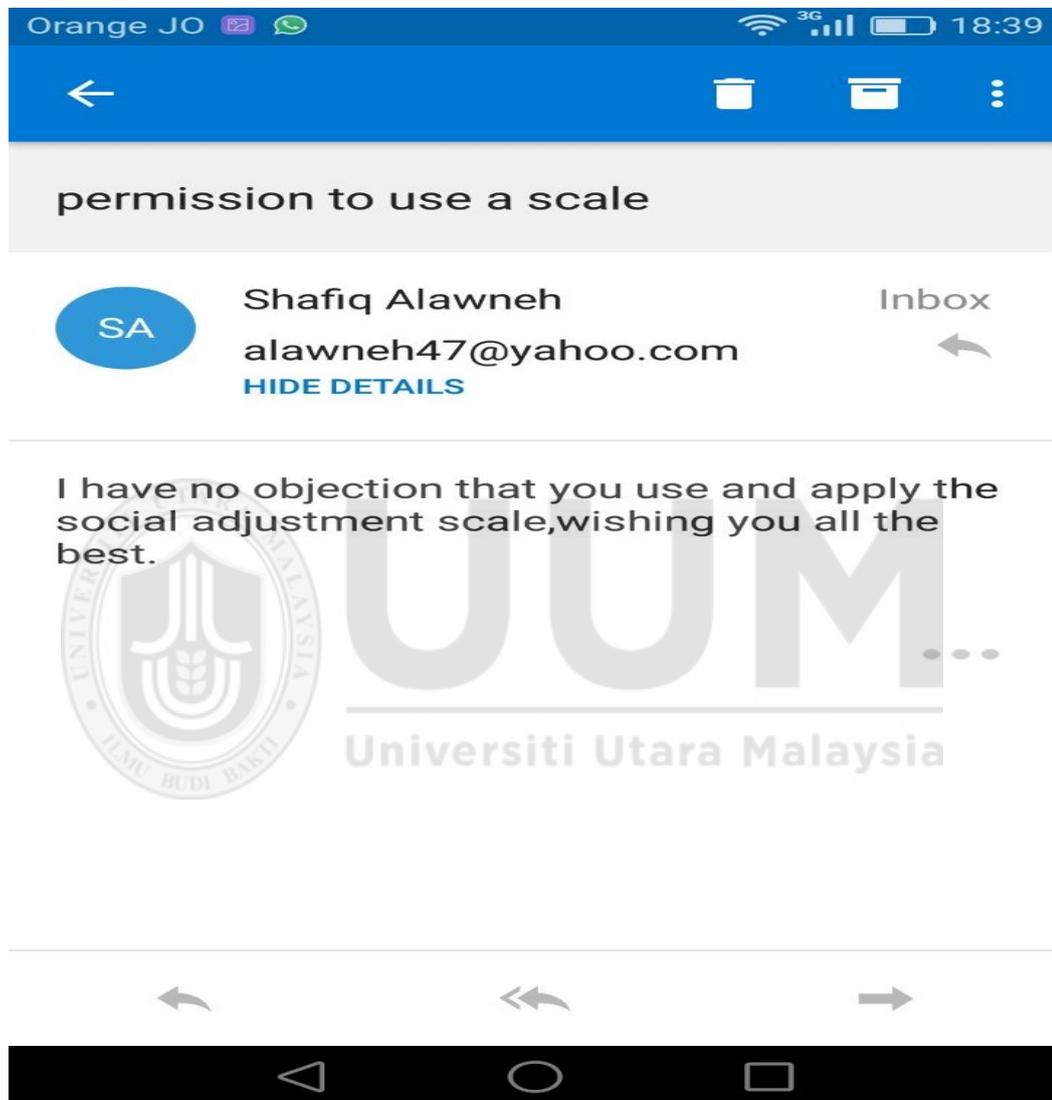
B: Permission to use and apply Academic Adjustment Scale:

C: Permission to apply Cognitive Behavior Therapy-Intervention in school:

بسم الله الرحمن الرحيم

MINISTRY OF EDUCATION

Ref.No 3/10/13463
Date 8/3/2017

Directorate of Education of Marka District/Capital Governorate

Subject: Educational Research

This is to notify that Mrs. Kholoud Imhammad Meqbel is conducting a study entitled "*The Effectiveness of Cognitive Behavior Therapy on Social and Academic Adjustment among Low-achievement Female Students in Jordan*" in partial fulfillment of the requirements for the doctoral degree in Psychological & Educational Counseling and at Universiti Utara Malaysia. Thus, researcher needs to utilize the study tools upon a sample of students in your schools.

Hopefully, you will facilitate the student's mission and provide any possible help for her provided that you check the tools with the enclosed ones.

Best Regards

Minister of Education

CC/ Managing Director of Planning and Educational Research
CC/Director of Educational Research and Development
CC/Acting Head of Division of Educational Research
A copy for file 3/10
Enclosed: (10) pages

THE HASHEMITE KINGDOM OF JORDAN
TEL:+962 6 5607181 FAX:+962 6 5666019 P.O.BOX:1646 AMMAN, 11118 JORDAN. ELECTRONIC WEBSITE: www.moe.gov.jo

D: Permission from school:
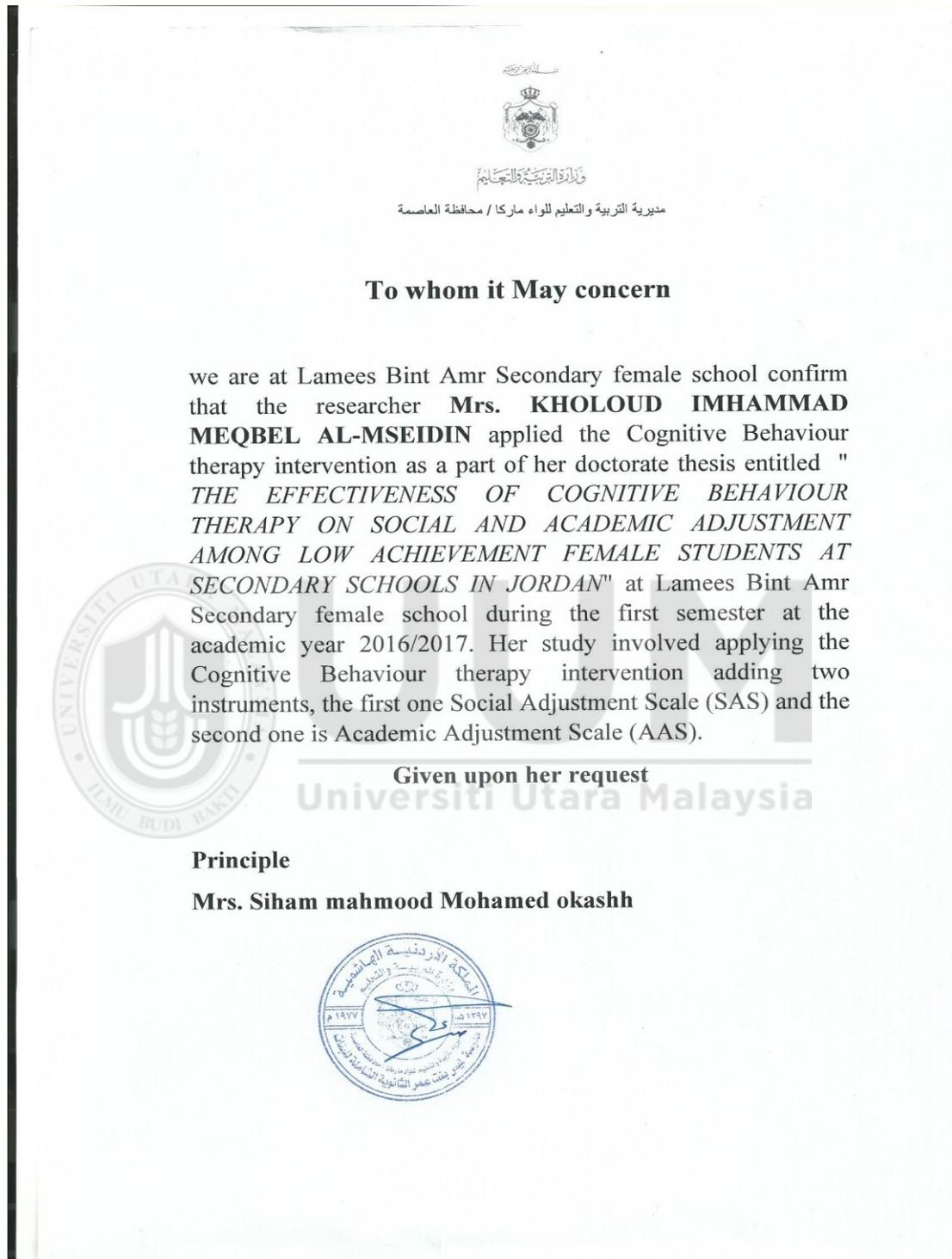
E: Permission from parents (English version):

Dear parent:

I am a doctorate student from Universiti Utara Malaysia, Malaysia. I am conducting a research study on the effectiveness of Cognitive Behaviour Therapy on Social and Academic Adjustment among Low Achievement Female Students in Jordan. I would like to include your Daughter in my research study because it fits the criterion for the population required for the present study. The study will take place in usual classroom during regular counselling classes in selected classes.

Participation by your Daughter in the current study will benefit to increase and improve the levels of Social and Academic Adjustment among her. Further, the research data will be made available only to the persons in school and conducting the research. No reference will be made in oral or written reports that could link your Daughter to the research.I look forward to working with your Daughter. Hence, I will wait your approval through signature this letter.If there are any questions at any time about the study or the procedures, please me any time at the given number.

Respectfully

Kholoud Imhammad Al-Mseiden

Parent signature:

Student signature:

F: Permission from parents (Arabic version):

<div dir="rtl">

موافقة على المشاركة في الدراسة

ولي أمر الطالبة: _____

أنا طالبة دكتوراه من جامعة أوتارا الماليزية، ماليزيا. أقوم بدراسة بحثية حول فعالية العلاج السلوكي المعرفي في رفع مستوى التكيف الاجتماعي والأكاديمي بين الطالبات منخفضات التحصيل في الأردن. أود تضمين ابنتك في دراستي البحثية. ستجري الدراسة في الفصول الدراسية المعتادة خلال فصول الارشاد المنتظمة في فصول محددة. ستفيد مشاركة ابنتك في الدراسة الحالية في زيادة وتحسين مستويات التكيف الاجتماعي والأكاديمي فيما بينها. علاوة على ذلك، ستتاح بيانات البحث فقط للأشخاص في المدرسة وإجراء البحث. لن تتم الإشارة في التقارير الشفوية أو الخطية التي قد تربط ابنتك بالبحث. أتطلع للعمل مع ابنتك. ومن ثم، سأنتظر موافقتك من خلال التوقيع على هذه الرسالة. إذا كان هناك أي أسئلة في أي وقت حول الدراسة أو الإجراءات، يرجى مني في أي وقت على الرقم المحدد.

وتفضلوا بقبول فائق الاحترام

خلود امحمد المسعدين

مخصص لتوقيع ولي الأمر:

مخصص لتوقيع الطالب:

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Appendix B Social Adjustment Scale (English version)

Instruction: The scale items relate to social adjustment. The total of items are 33 each item describes an aspect of social adjustment. Moreover, the scale consists from five of Likert scale (Always, Very Often, Sometimes, Rarely, and Never). Please, read each item carefully and put (X) in a more response which it express yourself.

Name of student: Gender: Male ☐   Female ☐

Age:

Nu.	Items	Scales				
		Always (5)	Very Often (4)	Sometimes (3)	Rarely (2)	Never (1)
1	I enjoy with my classmates at school.					
2	I find all respect and good dealing at school.					
3	I feel that I have a good standing among my classmates.					
4	I feel relieved when I speak with my classmates about my personal problems.					
5	I have fun when I go out with my friends for entertainment.					
6	The social activities practice grows my personality.					
7	I feel confident when I do the					

	voluntary works in my community.
8	I feel happy when I do the voluntary works in my community.
9	It is easy to ask helping from others.
10	I like to spend time home only.
11	I feel happy for the occasions which enables to meet individuals from opposite gender.
12	I feel happy when I am with people.
13	It is easy to be familiar with new friends.
14	My family respects my ideas and opinions.
15	I'm glad to give my time to help my friends.
16	I like staying at the backstage on social occasions.
17	I make sure to participate in the culture and social activities which are held at the community.
18	It is difficult to speak in front of people.
19	I like to have a few friends.
20	I feel happy when I participate in family social activities.
21	I try to help my siblings and

	friends to solving problems.
22	I like provide the helping to my classmates at school.
23	I respect my teachers even when they do something annoying to me.
24	I find it difficult to speak with some I just met recently.
25	It is easy to making new friends with opposite gender.
26	I have common interests with my classmates.
27	I feel comfortable when I speak with my teachers.
28	I make sure I participate at social activities in school.
29	The school helps me to solve my problems.
30	I enjoy meeting my family at dining table.
31	I feel happy when I help doing things at home.
32	I try to make jokes at home when it's boring.
33	It is easy to live in harmony with my family.

Social adjustment scale (Arabic language version)

التعليمات: ترتبط فقرات المقياس بالتكيف الاجتماعي. إجمالي فقرات المقياس 33 فقرة تصف

كل بعد من أبعاد التكيف الاجتماعي. علاوة على ذلك ، يتكون المقياس من خمسة من مقياس

ليكرت (دائمًا ، في كثير من الأحيان ، في بعض الأحيان ، نادرًا ، وغير مطلقًا). يرجى قراءة

كل فقرة بعناية ووضع (X) بنفسك عنها تعبر أكثر استجابة في.

أبدا	نادرا	أحيانا	غالبا	دائما		
					الفقرة	الرقم
1	2	3	4	5		

البعد الأول: علاقة الطالبة مع المدرسة (7 فقرات)

					أستمتع بوجودي مع زميلاتي في المدرسة.	1
					أجد كل احترام ومعاملة حسنة في المدرسة.	2
					أحب تقديم المساعدة لزميلاتي في المدرسة.	3
					أحترم معلماتي حتى عندما يفعلون ما قد يضايقني.	4
					أشعر بالارتياح عندما أتحدث مع المعلمات.	5

217

6	أحرص على المشاركة في النشاطات الاجتماعية التي تقام في المدرسة.
7	تساعدني المدرسة في حل المشكلات التي تواجهني.

البعد الثاني: علاقة الطالبة مع أسرتها (8 فقرات)

8	يسعدني أن أقضي أكبر وقت ممكن في المنزل.
9	تحترم عائلتي أفكاري وآرائي.
10	أشعر بالسعادة عندما أشارك بالنشاطات الاجتماعية العائلية.
11	أحاول مساعدة إخوتي في حل مشاكلهم الخاصة.
12	أشعر بالمتعة عندما أجتمع مع عائلتي على المائدة.
13	أشعر بالسعادة عندما أساعد في أعمال المنزل.

14	أحاول أن أبعث الفرح في البيت عندما يكون الجو مملا.
15	أنسجم بسهولة مع أفراد عائلتي.

البعد الثالث: علاقة الطالبة مع المجتمع المحلي (18 فقرة)

16	أشعر أن لي مكانة حسنة بين أصدقائي.
17	أشعر بالارتياح عندما أتكلم مع صديقاتي عن مشاكلي الخاصة.
18	أشعر بالمتعة عندما أخرج مع صديقاتي للتسلية.
19	أشعر بالثقة تجاه الأعمال التي أقوم بها في مدينتي.
20	أشعر بالسعادة عندما أشارك في عمل اجتماعي في مدينتي.
21	من السهل ان اطلب المساعدة من الآخرين.

219

22	يسعدني أن أضحي بوقتي وراحتي لمساعدة صديقاتي.
23	أحب البقاء في المؤخرة أو على الهامش في المناسبات الاجتماعية.
24	أحرص على متابعة النشاطات الثقافية والاجتماعية التي تقام في مدينتي.
25	يصعب عليّ التكلم أمام الجماهير.
26	أفضل أن يكون لي عدد قليل من الصديقات المقربات جدا.
27	أجد صعوبة في الحديث مع فتاة تعرفت عليها حديثا.
28	يسهل عليّ تكوين صداقات مع الجنس الآخر.
29	لدي اهتمامات مشتركة مع صديقاتي.
30	ممارسة النشاطات الاجتماعية تنمي شخصيتي.

31	أشعر بالسرور في المناسبات التي تتيح لي الالتقاء بالجنس الآخر.
32	أشعر بالسعادة عندما أكون بين الناس.
33	من السهل أن أتعرف على صديقات جدد.

221

Appendix C Academic Adjustment Scale (English language version)

Instruction: The scale items relate to academic adjustment. The total of items are 43 each item describes an aspect of academic adjustment. Moreover, the scale consists from five of Likert scale (Always, Very Often, Sometimes, Rarely, and Never). Please, read each item carefully and put (X) in a more response which it express yourself.

Name of student: Gender: Male ☐ Female ☐

Age: Level of achievement: High ☐ Moderate ☐ Low ☐

Nu.	Items	Scales				
		Always (5)	Very Often (4)	Sometimes (3)	Rarely (2)	Never (1)
1	I'm concerned to study field at secondary stage.					
2	I focus on craftworks over the follow up my school work.					
3	I'm seriously thinking to change my secondary field.					
4	The moving from primary stage to secondary stage is hard and annoying.					
5	I think that sometimes I find study enjoyable.					
6	I feel that the school work often needing considerable effort and time.					
7	Genuinely, I like the study.					
8	Sometimes I feel that the continuation on study is carelessness.					
9	I feel that I have a strong motive to secondary study.					

10	I hope to achieve my goals through my secondary study.
11	Overall, I'm seeking to obtain to high score at secondary stage.
12	I feel to change my interests very fast.
13	I feel to harmony reduction with myself when I addressing the problems and daily responsibilities.
14	I have a strong desire to succeed.
15	My feeling annoys me that I have not any rank all the word.
16	I feel sometimes carelessness about affairs which it has an important of my personal advantage.
17	I plane to my work previously on next days.
18	I cannot manage my time between studying, sleeping and weak up.
19	My achievement reduce because I have a lot of interested and outdoor activities.
20	I feel guilty about the lost time without study.
21	I spend most of my time to external readings which related to my field.
22	I often attend to school without prepare my lessons.
23	I achieve my school works without parents teacher insistence.

24	I feel that I wait a good mood when I wont to study.
25	I plane to my courses in orderly form which make it easier for learning the study topics
26	I need to some times to prepare myself before studying began.
27	I waste my time often on papers flip.
28	When I finished my schoolwork, I feel that I did not achieve unless few (little).
29	Sometimes I study when someone else told me to study.
30	My mind is easily distracted during study.
31	My mind is easily distracted during classroom.
32	I begin the preparing to exams before beginning it a few days.
33	The summarize, taking the nots and identify the main points wonted are challenge.
34	Mostly I waste my time on studying details are not significant and unrelated to exam.
35	I think the teachers are honest and frank when they deal with me.
36	I hesitate to question tutors about points unclear to me.

37	I feel to reviews of hatred from my teachers.
38	I feel that the teachers deals with students arrogance and grow.
39	I think that some of teachers incurious if I learn something at the classroom.
40	I think that the teachers feel to enjoyable through embarrassment me in front of my classmates.
41	I hate the tips when it related what I should to do.
42	My classmates success when they exploitation my through personal relationships with me.
43	I annoyed if someone else restrict me.

Academic Adjustment Scale (English language version)

التعليمات: ترتبط فقرات المقياس بالتكيف الأكاديمي. إجمالي فقرات المقياس 43 فقرة تصف

كل بعد من أبعاد التكيف الأكاديمي. علاوة على ذلك، يتكون المقياس من خمسة من مقياس

ليكرت (دائمًا ، في كثير من الأحيان ، في بعض الأحيان ، نادرًا ، وغير مطلقًا). يرجى قراءة

كل فقرة بعناية ووضع (X) بنفسك عنها تعبر أكثر استجابة في.

أبدا	نادرا	أحيانا	غالبا	دائما	الفقرة	الرقم
1	2	3	4	5		

					البعد الأول: التكيف المنهجي (8 فقرات)	
					أوجه اهتماما بالغا لنوع الدراسة التي اخترتها بالثانوية.	1
					أهتم بعدد الاعمال المهنية لدرجة أنني لا أستطيع التركيز في دراستي.	2
					أفكر بشكل جدّي بتغير نوع التخصص الثانوي.	3

226

4	أجد الانتقال من مرحلة التعليم الأساسي إلى مرحلة التعليم الثانوي صعبة ومزعجة أحيانا.
5	أعتقد أن الدراسة ممتعة.
6	أشعر أن العمل المطلوب في الكثير من المواد يتطلب جهدا ووقتا كبيرا.
7	أحب الدراسة بصدق.
8	أشعر أحيانا أن الاستمرار في الدراسة مضيعة للوقت.

البعد الثاني: مستوى الطموح ونضج الأهداف (8 فقرات)

9	أشعر بأنه لدي دافع قوي للدراسة الثانوية.
10	أتأمل تحقيق أهدافي من خلال دراستي الثانوية.
11	أسعى عموما للحصول على أعلى الدرجات التي أقدر عليها.

12	أشعر بتغير اهتماماتي بسرعة.
13	أشعر بنقص الانسجام مع نفسي عند تناول المشكلات والمسؤوليات اليومية.
14	لدي رغبة قوية للنجاح.
15	يضايقني شعوري أنني لا موقع لي في هذا العالم.
16	أشعر أحيانا باللامبالاة والفتور تجاه الأمور التي لها أهمية بالغة في مصلحتي الشخصية.

البعد الثالث: الفاعلية الشخصية في التخطيط واستغلال الوقت (9 فقرات)

17	أخطط مسبقا لعملي في الأيام القادمة.
18	أجد صعوبة في برمجة وقتي بين الدراسة والنوم والاستيقاظ.
19	ينخفض تحصيلي الدراسي بسبب كثرة اهتمامي ونشاطاتي الخارجية.

20	أشعر بالذنب على الوقت الضائع دون دراسة.
21	أقضي معظم وقت بدراسات خارجية في نطاق تخصصي.
22	كثيرا ما أحضر إلى المدرسة دون تحضير دروسي.
23	أنجز أعمالي الدراسية دون إلحاح من الوالدين والأساتذة والآخرين.
24	أشعر بأنني أنتظر المزاج المناسب للدراسة.
25	أخطط للمواد الدراسية بشكل منظم يسهل عليّ تعلم موضوعات الدراسة.

البعد الرابع: المهارات والممارسات الدراسية (9 فقرات)

26	أحتاج إلى بعض الوقت لتهيئة نفسي قبل البدء بالدراسة.

27	أضيع وقتي غالبا في تقليب صفحات الكتاب.
28	ينتابني بعد الانتهاء من الدراسة بأنني لم أنجز الا القليل.
29	أدرس أحيانا الاستماع لأحاديث الآخرين.
30	يتشتت ذهني بسهولة أثناء الدراسة.
31	من السهل أن يتشتت ذهني بالحصة الصفية.
32	أبدأ بالاستعداد للاختبارات قبل أيام من موعدها.
33	أجد صعوبة بالتلخيص وأخذ الملاحظات وتحديد النقاط الرئيسية المطلوبة.
34	غالبا ما أضيع وقتا كبيرا في دراسة تفاصيل غير هامة لا صلة لها بالاختبار.

البعد الخامس: العلاقات الشخصية مع المدرسين والطلاب (9 فقرات)

35	أجد أن المعلمات صادقات وصريحات في تعاملهم معي.
36	أتردد في سؤال المعلمات عن النقاط غير الواضحة لي.
37	أشعر بنظرات الحقد والكراهية من بعض المعلمات.
38	أشعر بأن المعلمات ينظرن نظرة استعلاء وكبر إلى طالباتهم.
39	أعتقد أن بعض المعلمات غير مهتمات اذا تعلمت شيئا في الحصة أم لا.
40	أعتقد أن بعض المعلمات يشعرن بالمتعة بإحراجي أمام زميلاتي الطالبات.
41	أكره تقديم النصائح لي بشأن ما يجب أن أعمل.
42	تنجح زميلاتي باستغلالي من خلال علاقاتهم الشخصية معي.

| 43 | أنزعج من ممارسة الضبط عليّ من قبل الآخرين. |

Appendix D the CBT-Intervention

The First Session

The Session Title: The personal effectiveness with planning and use of time.

The Aim of the Session: training student about planning skills and the use of time.

The Dimension of the Academic Adjustment Scale: The personal effectiveness in the planning and use of time.

The Tools: Whiteboard and worksheets.

The Session Duration: 40 minutes.

Session Steps

The First Step: Prepare students for the session by distributed them into five groups, each group contain five students (the duration: two minutes).

The Second Step: The counsellor explains to the students the following points:

a.   **The Rational of the Therapy**: the counsellor explains the reason for using this strategy (Self-Management - Self Monitoring) to be more aware, and how these procedures will help the student in overcome his problem as in the following example:

"Soa'ad is a high school student... says that she has difficult in programming her time between study, sleep, and wake up. And she feels guilty about that....

Here the counsellor tells students: You just have to keep a diary... about studying, sleep and waking up…and list the three tasks in the table as follows :

The Main Task	The Subtask	The Implementation Time	Implemented	Not Implemented	My Feelings
Waking up in the Morning	Eating breakfast	6 a.m.	✓		I feel good
	Advance Preparation	4 p.m.	✓		I feel good
Studying	Making Homework	4:30 p.m.	✓		I feel good
	Review Lessons	5 p.m.	✗		I feel guilty
	Prepare for Tests	5:30 p.m.	✓		I feel good
Sleeping		8 p.m.	✓		I feel good

b. **Discrimination Response**: Here the counsellor helps students to identify the target behavior that want to change it which is: the student performs the three main functions (waking up, studying, and sleeping) on time and according to the proposed schedule above.

For example, the student wakes up in the morning, at six o'clock every day for eight weeks, another example: the student sleeps at eighth p.m. every day for eight weeks.

Another example: the student has a fixed time for the academic subtasks every day for eight weeks.

c. Recording the Response: here the students have to identify the precedents of negative behavior (the difficulty of programming time between waking up, studying and sleeping) and the precedents are: Staying up for late hours, eating fast food late,

234

not to study daily, taking stimulants before/during/ after the school, visit friends, delay or procrastination, moving from task to another without completing the first, self-punishment (guilty feelings).

The counsellor helps students to determine what's happened after their target behavior that the counsellor wants to change it, which is here that the student performs three main tasks (waking up, studying, sleeping) on a specific time according to the training proposed schedule:

Sleep early, not eating fast food late, studying daily, not eating stimulants, add new extra time for emergency (visits), the effective delegating for some tasks, prioritization and accomplish tasks on time, self-reward to complete tasks on time.

d.   Draw the Response Graphically: draw the desired behavior; the student performs the three tasks (waking up, studying, and sleeping) on time according to the training schedule above:

Note: promoting behavior to performance the main tasks (waking up, studying, and sleeping) on time according to the training proposed schedule every day for eight weeks, and not promoting the behavior of difficulty programming time for the three tasks.

Note: The number of times for the three main tasks performance by putting stars and non - performance by assigned with signal ✖ during the first and then the second week, and then..... The eighth week, Then calculates the total of completed tasks in

235

order to feel about accomplishment and success, then rewarding himself in if his achievement increased and punishment himself by deprivation of liked activities with the same number of times for the non-performance of the three tasks and so on.

e. **Show Data**: the counsellor encourages the students to show the Chart information as the effect of self-control over when the data presented graphically in front of members of other groups. Such as high and low and the stability of the desired behavior and discuss it in front of members of the group, with a stated his feelings about his performance of tasks in on time or non-performance.

f. **Information Analysis**: Here the counsellor asked the student to bring the data weekly for eight weeks, and displays his performance graph of the three main tasks with the times specified in the counselling sessions in order to monitor and analyze it, encourages students in sessions to compare their data with the main objective of the desirable behavior "his performance". This data used to indicate if the behavior is moving in the desired direction or not.
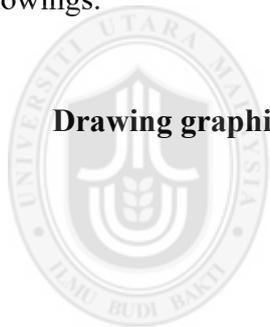
g. **Giving Homework to the Groups**:

"Huda is a student in the high school, she said: that she frequently going to school without prepare for lessons and feel guilty for that".

With the following table and through the understanding of the self-control strategy... and after seeing the previous example ... the main task is to prepare the lesson … divided the material course into small tasks: taking notes and list it, asking questions, doing homework, reviewing the lesson, and preparing lesson test.

The Main Task	The subtask	The Implementation Time	Implemented	Not Implemented	My Feelings
Preparing the Lesson	Taking Notes and list it Asking Questions Making Homework Reviewing the Lesson Preparing Lesson Test				

• **Response Discrimination**: identify the unwanted behavior in the above example and identify the target behavior you want to change it.

• **Response Listing**: monitoring the behavior precedents and the behavior followings.

• **Drawing graphically** the five tasks during the whole week.

<div align="center">**The Second Session**</div>

The Session Title: Study skills and practices.

The Aim of the Session: Training student about study skills and practices.

The dimension of the academic adjustment scale: Study skills and practices.

The Tools: Whiteboard and worksheets.

The Session Duration: 40 minutes.

<div align="center">**Session Steps**</div>

The First Step: Prepare students for the session by distributed them into five groups, each group contain five students (the duration: two minutes).

The Second Step: The counsellor explains to the students the following points:

a.   The Rational of the Therapy: the counsellor explains the reason for using this strategy (Self-Management - Self Monitoring) to be more aware, and how these procedures will help the student in overcome his problem as in the following example:

"Mon'a is a high school student... says that she has distractibility in classroom and she feels guilty about that...

Here the counsellor tells students: You just have to keep a diary... about the focus distractibility… then, you will record the name of hindrance to each study subject per-day to one week as next table:

Study Subject: Math		The Evaluation	
Name of Hindrances	Day	Been Overcome	Not Been Overcome
The Place Is Not Suitable	First		
Daydreaming	Second		
The Accumulation of Lessons	Third		
Test Anxiety	Fourth		
Health and Family Problems	Fifth		
	Sixth		
	Seventh		

b. **Discrimination Response**: Here the counsellor helps students to identify the target behavior that want to change it which is: Increase her ability to focus during the classroom through identify the name of hindrances to each study subject peer-day for one week according to the proposed schedule above.

For example, the math subject (the place is not suitable ➡ such as the student seat at leaving room which contents TV during study practice) so, she should not study at TV's room because she will distractibility during math study.

c. **Recording the Response**: here the students have to identify the precedents of behavior (choose the suitable place) which will increase the ability of student on focus during the study.

The precedents of behavior (choose the suitable place):

1. Suitable flashlight.

2. The light reflection just on the book.

3. Seating on the suitable ventilation place.

4. Choose a quiet place.

5. Do not watch TV and lesson the radio.

d. **Draw the Response Graphically**: draw the desired behavior; the students train to increase her ability on focus during the study practice (through choose a quiet place) which it have a conditions (the precedents of behavior) on time according to the training schedule above:

Note: promoting behavior to choose a suitable place to study according to the training proposed schedule every day for a week, and not promoting the behavior of do not choose a suitable place to study.

Day	The Main Task (Choose a Suitable Place)
First	X*****
Second	****x***x**
Third	**x**x
Fourth	***x****x*****
Fifth	******x******
Sixth	****x**
Seventh	********

Note: The number of times for the main task performance by putting stars and non - performance by assigned with signal "X" during the first and then the second day, and then..... The eighth day, Then calculates the total of completed tasks in order to feel about accomplishment and success, then rewarding himself in if his achievement increased and punishment himself by deprivation of liked activities with the same number of times for the non-performance of the main task and so on.

e.   Show Data: the counsellor encourages the students to show the Chart information as the effect of self-control over when the data presented graphically in front of members of other groups. Such as high and low and the stability of the desired behavior (choose a suitable place) and discuss it in front of members of the group, with a stated his feelings about his performance of tasks in on time or non-performance.

f.   Information Analysis: Here the counsellor asked the student to bring the data weekly for eight weeks, and displays his performance graph of the main tasks with the times specified in the counselling sessions in order to monitor and analyze it, encourages students in sessions to compare their data with the main objective of the desirable behavior "his performance". This data used to indicate if the behavior is moving in the desired direction or not.

g.   Giving Homework to the Groups:

""Manal is a student in the high school, she said: that she begins the exams preparation before the exams begin on some days... so, she finds a difficult to exams management ... therefore, she feel guilty for that"".

With the following table and through the understanding of the self-control strategy... and after seeing the previous example ... the main task is to exams management … divided the exams management into four stages: preparing to the exams since first day preparing to the exams before enough exams time, preparing to the exams before 24 hours to exams, and exams management during exams.

The Main task	The Subtask	The Implementation Time	Implemented	Not Implemented	My Feelings
Exams Management	Preparing to the Exams Since First Day				
	Preparing to the Exams Before Enough Exams Time				
	Preparing to the Exams Before 24 Hours to Exams				
	Exams Management during Exams				

• **Response Discrimination**: identify the unwanted behavior in the above example and identify the target behavior you want to change it.

242

• **Response Listing**: monitoring the behavior precedents and the behavior followings.

• **Drawing graphically** the four stages during the whole week.

The Third Session

The Session Title: The personal relationships between teachers and students.

The Aim of the Session: The student be capable of positive thinking and intellectual contortions

The Dimension of the Academic Adjustment Scale: The personal relationships between teachers and students.

The Tools: Whiteboard and worksheets.

The Session Duration: 45 minutes.

The First Step: Prepare students for the session through divided them into five groups, each group containing five students (two minutes duration).

The Second Step: Explain the importance of self-talking and how self- negative beliefs influence on the performance and negative ideas, this is shown through modeling some examples, self-enhanced talking, positive thoughts, self-cationic ideas, negative thoughts and explain the idea before, during and after the problem positions (8 minutes) .

The modeling: the counsellor tells to students that in the case to meet someone for the first time, we might think of negative ideas.

After that she explained the example above through the following table by using the whit board:

244

Before Meeting: what if he doesn't like me?? ➔ Negative idea.

During Meeting: he must want to finish our meeting. ➔ Negative idea.

After Meeting: I can't speak to strangers. ➔ Negative idea

Here the counsellor gives some examples of positive ideas for self-enhanced in the same situation.

Before Meeting: I will try to be myself when I meet this person➔ Positive idea.

During Meeting: I'll try to go out with good results from this meeting➔ Positive idea.

After Meeting: I've been able to be completely myself ... I performed the task successfully➔ an enhanced self-sentence.

The Third Step: Distributed worksheets for students which have a social position (26 minutes).

Work sheet

Please the following situation and fill the following tables.

Sarah is a high school student she said that" she always hesitated for asking the teacher about the unclear points during the lesson….. I can feel myself… I became stress for that…. I know that I have to ask her about these points…but I scared…. I feel that the
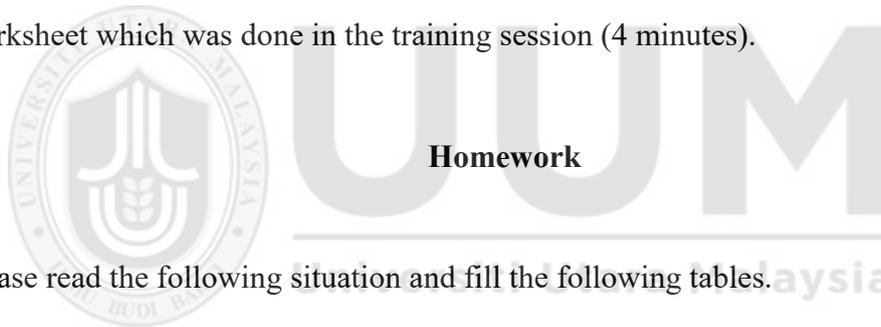
teacher will impressed me….and I will looks like a fool…am sure that my question is wrong….no ……no….it's not allowed to ask …I will wait till someone else ask.

Now, according to what you have learned and understood, please reformulate the previous situation with using positive ideas and self-enhanced sentences.

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………………………………………………………………………".

The Fourth Step: The Homework.

The counsellor offers the homework to students and explains to apply the same worksheet which was done in the training session (4 minutes).

Homework

Please read the following situation and fill the following tables.

Sarah is a high school student she said that" she always hesitated for asking the teacher about the unclear points during the lesson….. I can feel myself… I became stress for that…. I know that I have to ask her about these points…but I scared…. I feel that the teacher will impressed me….and I will looks like a fool…am sure that my question is wrong….no ……no….it's not allowed to ask …I will wait till someone else ask.

Now, according to what you have learned and understood, please reformulate the previous situation with using positive ideas and self-enhanced sentences.

246

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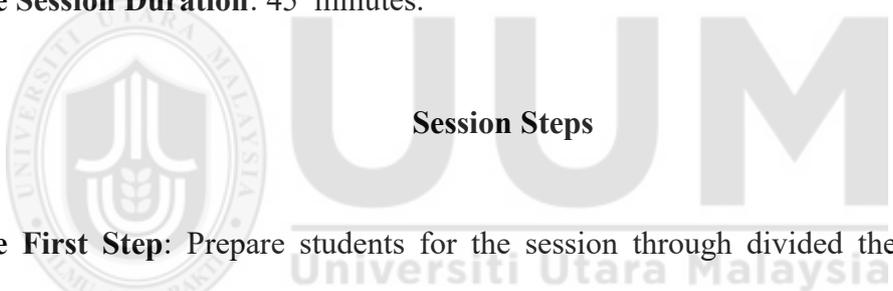…………………………………………………………………".

The Session Title: Maturity of goals and level of aspiration.

The Aim of the Session: The student be capable of Goals determination and prioritization

The Dimension of the Academic Adjustment Scale: Maturity of goals and level of aspiration.

The Tools: Whiteboard and worksheets.

The Session Duration: 45 minutes.

Session Steps

The First Step: Prepare students for the session through divided them into five groups, each group containing five students (two minutes duration).

The Second Step: Explain the importance of self-talking and how self- negative beliefs influence on the performance and negative ideas, this is shown through modeling some examples, self-enhanced talking, positive thoughts, self-cationic ideas, negative thoughts and explain the idea before, during and after the problem positions (8 minutes) .

The modeling: the counsellor tells to students: "that in the case to obtain (B) degree at secondary stage ".

248

After that the counsellor explained the example above through the following table by using the whit board:

Before Beginning the Goal Applying: what if the study subjects will be tough?? ➔Negative idea.

During Beginning the Goal Applying: Must be these study subjects are greater than my abilities. ➔ Negative idea.

After Beginning the Goal Applying: I cannot success. ➔ Negative idea

Here the counsellor gives some examples of positive ideas for self-enhanced in the same situation.

Before Beginning the Goal Applying: I'll try to be as much as challenges. ➔ Positive idea.

During Beginning the Goal Applying: I'll try to divide the subjects to tasks and will apply one by one. ➔ Positive idea.

After Beginning the Goal Applying: the task was well ... were overcome the challenges. ➔ An enhanced self-sentence.

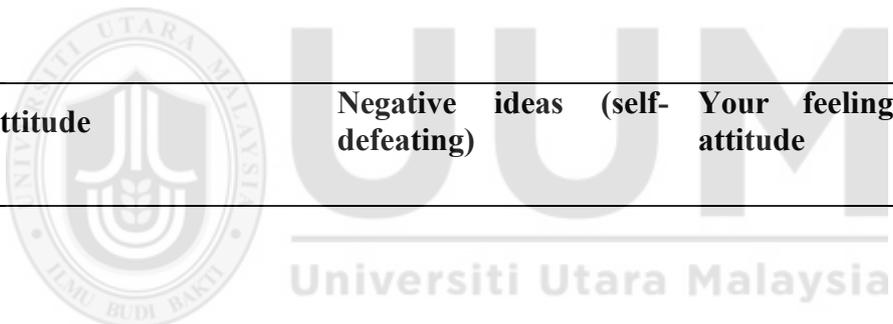**The Third Step**: Distributed worksheets for students which have a social position (26 minutes).

Work sheet

Please the following situation and fill the following tables.

"Leelyan is a high school student she said that" she feels lack of concordance with myself when I daily face my problems and responsibilities .. also, I don't know what I want .. the study at secondary stage due to me a crisis in my life ... just when I think about my study tasks, I lost study motivation ... then, I sometimes feel loss".

Now, according to what you have learned and understood, please, fill the next 2 tables according to counsellor's instructions:

First Table:

Attitude	Negative ideas (self-defeating)	Your feeling to the attitude

Second table:

Situation	Negative Idea	Positive Idea	An Enhanced Self-Sentence
Before Attitude			
During Attitude			
After Attitude			

Now, please reformulate the previous situation with using positive ideas and self-enhanced sentences.

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The Fourth Step: The Homework.

The counsellor offers the homework to students and explains to apply the same worksheet which was done in the training session (4 minutes).

Homework

Please read the following situation and fill the following tables.

Hanan is a high school student she said that " I disturb that I haven't a position in my world... and mostly i want to seat at last class .. I feel the indifference to everything what happened at the class.. Even the things which have an important to me .. this feel really disturb ... so, what I do? ... whatever, there is no one care about me".

251

Now, according to what you have learned and understood, please, fill the next 2 tables according to counsellor's instructions:

First Table:

Attitude	Negative Ideas (Self-Defeating)	Your Feeling To The Attitude

Second Table:

Situation	Negative Idea	Positive Idea	An Enhanced Self-Sentence
Before Attitude			
During Attitude			
After Attitude			

Now, please reformulate the previous situation with using positive ideas and self-enhanced sentences.

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The Fifth Session

The Session Title: The personal effectiveness with planning and use of time.

The Aim of the Session: Training student about planning skills and the use of time.

The Dimension of the Academic Adjustment Scale: The personal effectiveness in the planning and use of time.

The Tools: Whiteboard and worksheets.

The Session Duration: 45 minutes.

Session Steps

The First Step: Prepare students for the session by distributed them into five groups, each group contain five students (the duration: two minutes).

The Main Task	The Subtask	The Implementation Time	Implemented	Not Implemented	My Feelings
Waking up in the Morning	Eating breakfast	6 a.m.	✓		I feel good
	Advance preparation	4 p.m.	✓		I feel good
Studying	Making homework	4:30 p.m.	✓		I feel good
	Review lessons	5 p.m.	✗		I feel guilty
	Prepare for tests	5:30 p.m.	✓		I feel good
Sleeping		8 p.m.	✓		I feel good

The Second Step: The counsellor explains to the students the following points:

a. **The Rational of the Therapy**: the counsellor explains the reason for using this strategy (Self-Management - Self Monitoring) to be more aware, and how these procedures will help the student in overcome his problem as in the following example:

"Soa'ad is a high school student... says that she has difficult in programming her time between study, sleep, and wake up. And she feels guilty about that....

Here the counsellor tells students: You just have to keep a diary... about studying, sleep and waking up…and list the three tasks in the table as follows :

254

b. **Discrimination Response**: Here the counselor helps students to identify the target behavior that want to change it which is: the student performs the three main functions (waking up, studying, and sleeping) on time and according to the proposed schedule above.

For example, the student wakes up in the morning, at six o'clock every day for eight weeks, another example: the student sleeps at eighth p.m. every day for eight weeks.

Another example: the student has a fixed time for the academic subtasks every day for eight weeks.

c. **Recording the Response**: here the students have to identify the precedents of negative behavior (the difficulty of programming time between waking up, studying and sleeping) and the precedents are: Staying up for late hours, eating fast food late, not to study daily, taking stimulants before/during/ after the school, visit friends, delay or procrastination, moving from task to another without completing the first, self-punishment (guilty feelings).

The counsellor helps students to determine what's happened after their target behavior that the counsellor wants to change it, which is here that the student performs three main tasks (waking up, studying, sleeping) on a specific time according to the training proposed schedule:

Sleep early, not eating fast food late, studying daily, not eating stimulants, add new extra time for emergency (visits), the effective delegating for some tasks, prioritization and accomplish tasks on time, self-reward to complete tasks on time.

d. **Draw the Response Graphically**: draw the desired behavior; the student performs the three tasks (waking up, studying, and sleeping) on time according to the training schedule above:

Note: promoting behavior to performance the main tasks (waking up, studying, and sleeping) on time according to the training proposed schedule every day for eight weeks, and not promoting the behavior of difficulty programming time for the three tasks.

Note: The number of times for the three main tasks performance by putting stars and non - performance by assigned with signal ✖ during the first and then the second week, and then..... The eighth week, Then calculates the total of completed tasks in order to feel about accomplishment and success, then rewarding himself in if his achievement increased and punishment himself by deprivation of liked activities with the same number of times for the non-performance of the three tasks and so on.

e. **Show Data**: the counsellor encourages the students to show the Chart information as the effect of self-control over when the data presented graphically in front of members of other groups. Such as high and low and the stability of the desired behavior and discuss it in front of members of the group, with a stated his feelings about his performance of tasks in on time or non-performance.

f. **Information Analysis**: Here the counsellor asked the student to bring the data weekly for eight weeks, and displays his performance graph of the three main tasks with the times specified in the counselling sessions in order to monitor and analyse it, encourages students in sessions to compare their data with the main objective of the

256

desirable behavior "his performance". This data used to indicate if the behavior is moving in the desired direction or not.

g. **Giving Homework to the Groups**:

"Huda is a student in the high school, she said: that she frequently going to school without prepare for lessons and feel guilty for that".

With the following table and through the understanding of the self-control strategy... and after seeing the previous example ... the main task is to prepare the lesson … divided the material course into small tasks: taking notes and list it, asking questions, doing homework, reviewing the lesson, and preparing lesson test.

The Main Task	The Subtask	The Implementation Time	Implemented	Not Implemented	My Feelings
Preparing the Lesson	Taking Notes And List It				
	Asking Questions				
	Making Homework				
	Reviewing The Lesson				
	Preparing Lesson Test				

- **Response Discrimination**: identify the unwanted behavior in the above example and identify the target behavior you want to change it.

- **Response Listing**: monitoring the behavior precedents and the behavior followings.

- **Drawing graphically** the five tasks during the whole week.
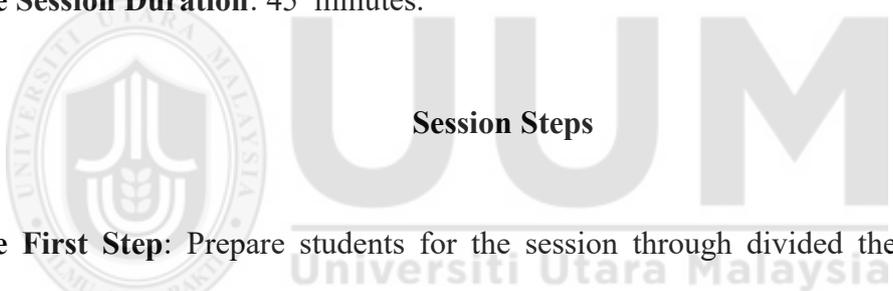
The Sixth Session

The Session Title: The student's relation with school environment.

The Aim of the Session: Training student to form positive attitudes toward school and her classmates through (conversation & Good treatment).

The Dimension of the Social Adjustment Scale: The student's relation with school environment.

The Tools: Whiteboard and worksheets.

The Session Duration: 45 minutes.

Session Steps

The First Step: Prepare students for the session through divided them into five groups, each group containing five students (two minutes duration).

The Second Step: Explain the importance of self-talking and how self- negative beliefs influence on the performance and negative ideas, this is shown through modeling some examples, self-enhanced talking, positive thoughts, self-cationic ideas, negative thoughts and explain the idea before, during and after the problem positions (8 minutes) .

The modeling: the counsellor tells to students: " that in the case to feeling uncomfortable when you conversation the teacher ".

259

After that the counsellor explained the example above through the following table by using the whit board:

Before Beginning the Goal Applying: what if the teacher does not respect me??➔ Negative idea.

During Beginning the Goal Applying: Must be the teacher despise my words and she like if I'm not in school.➔ Negative idea.

After Beginning the Goal Applying: I do not deserve to be student in school.➔ Negative idea

Here the counsellor gives some examples of positive ideas for self-enhanced in the same situation.

Before Beginning the Goal Applying: I'll try to tactfully speak with teacher. ➔ Positive idea.

During Beginning the Goal Applying: there are a different in education level between me and teacher .. she will appreciate it.. ➔ Positive idea.

After Beginning the Goal Applying: the task was well ... I were able to Briefly speak ... I did well.. ➔ an enhanced self-sentence.

The Third Step: Distributed worksheets for students which have a social position (26 minutes).
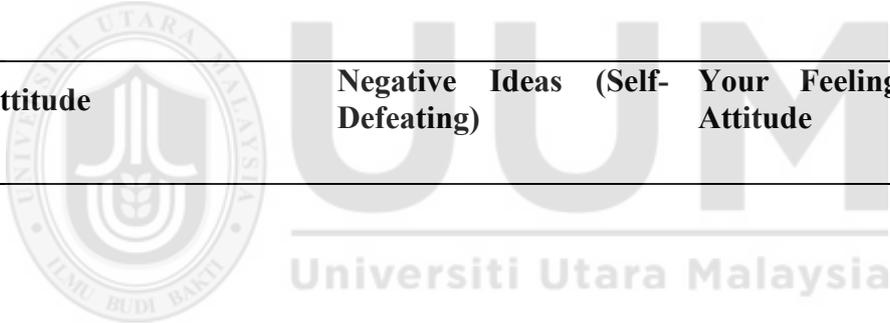
Work sheet

Please the following situation and fill the following tables.

"Maryam is a high school student she said that" i do not enjoy in school ... the most bad thing you always think to students courtesy and you have to bear their credulity ... oh my God .. i feel this thing will not end...".

Now, according to what you have learned and understood, please, fill the next 2 tables according to counsellor's instructions:

First Table:

Attitude	Negative Ideas (Self-Defeating)	Your Feeling to the Attitude

Second table:

Situation	Negative Idea	Positive Idea	An Enhanced Self-Sentence
Before Attitude			
During Attitude			
After Attitude			

Now, please reformulate the previous situation with using positive ideas and self-enhanced sentences.

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The Fourth Step: The Homework.

The counsellor offers the homework to students and explains to apply the same worksheet which was done in the training session (4 minutes).

Homework

Please read the following situation and fill the following tables.

Zain is a high school student she said that " I do not respect the teachers ... because there are always bother on their comments and a lot of homework ... I feel I stick on their courtesy .. and talk with her ... I wish to remove this nightmare (the teachers) ... even I forced to courtesy ...".

Now, according to what you have learned and understood, please, fill the next 2 tables according to counsellor's instructions:

First Table:

Attitude	Negative Ideas (Self-Defeating)	Your Feeling to The Attitude

Second Table:

Situation	Negative Idea	Positive Idea	An Enhanced Self-Sentence
Before Attitude			
During Attitude			
After Attitude			

Now, please reformulate the previous situation with using positive ideas and self-enhanced sentences.

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263

The Seventh Session

The Session Title: The relationship between adolescent with her family.

The Aim of the Session: Training student to form positive attitudes toward family and home through (problem solving & help offering).

The Dimension of the Social Adjustment Scale: The relationship between adolescent with her family.

The Tools: Whiteboard and worksheets.
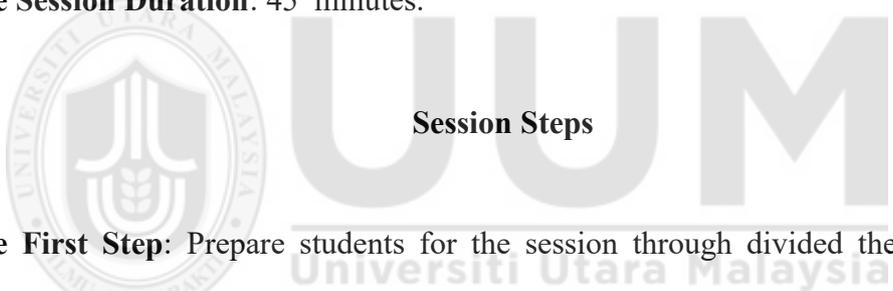
The Session Duration: 45 minutes.

Session Steps

The First Step: Prepare students for the session through divided them into five groups, each group containing five students (two minutes duration).

The Second Step: Explain the importance of self-talking and how self- negative beliefs influence on the performance and negative ideas, this is shown through modeling some examples, self-enhanced talking, positive thoughts, self-cationic ideas, negative thoughts and explain the idea before, during and after the problem positions (8 minutes) .

The modeling: the counsellor tells to students: "that in the case to problem occurring with a member of your family. ".

264

After that the counsellor explained the example above through the following table by using the whit board:

Before Beginning the Goal Applying: what if I intervened in the problem .. and one of them got angry from me?????➔ Negative idea.

During Beginning the Goal Applying: It is bound to my words perhaps will lost my respect ..➔ Negative idea.

After Beginning the Goal Applying: I always my intervened corrupts things.➔ Negative idea

Here the counsellor gives some examples of positive ideas for self-enhanced in the same situation.

Before Beginning the Goal Applying: I'll try to be neutral. ➔ Positive idea.

During Beginning the Goal Applying: I'll try to be calm down.. ➔ Positive idea.

After Beginning the Goal Applying: I were able to fix the problems between both of them... good work.➔ An enhanced self-sentence.

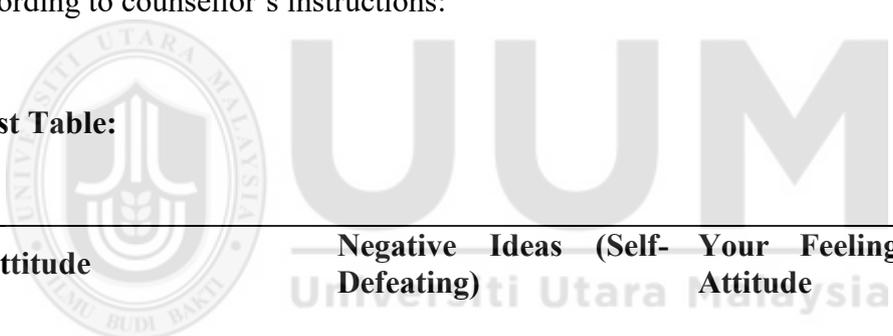**The Third Step**: Distributed worksheets for students which have a social position (26 minutes).

Work sheet

Please the following situation and fill the following tables.

"Fatima is a high school student she said that " my family make me nervous. so, I always happy to be outside the home .. there is no one respect my opinion ... I do not feel as a good member in family... there is no one ask me or take my counselling... I feel a loathing... no one understand me in home .. each one lives in his private world ...".

Now, according to what you have learned and understood, please, fill the next 2 tables according to counsellor's instructions:
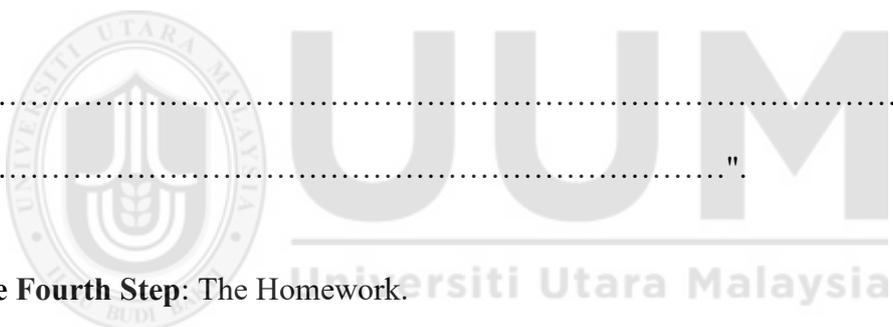
First Table:

Attitude	Negative Ideas (Self-Defeating)	Your Feeling to the Attitude

Second Table:

Situation	Negative Idea	Positive Idea	An Enhanced Self-Sentence
Before Attitude			
During Attitude			
After Attitude			

Now, please reformulate the previous situation with using positive ideas and self-enhanced sentences.

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The Fourth Step: The Homework.

The counsellor offers the homework to students and explains to apply the same worksheet which was done in the training session (4 minutes).

Homework

Please read the following situation and fill the following tables.

" Najla is a high school student she said that " I always be courtesy .. If i want to participate in community event .. and the big problem is to forced to attend events ...

267

I feel alienation ... I do not comport with my family members ... oh my God .. I forced to stay with my family ..."

Now, according to what you have learned and understood, please, fill the next 2 tables according to counsellor's instructions:

First Table:

Attitude	Negative Ideas (Self-Defeating)	Your Feeling to the Attitude

Second Table:

Situation	Negative Idea	Positive Idea	An Enhanced Self-Sentence
Before Attitude			
During Attitude			
After Attitude			

Now, please reformulate the previous situation with using positive ideas and self-enhanced sentences.

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The Eighth Session

The Session Title: the relationship between adolescent with her community.

The Aim of the Session: Training student to form positive attitudes toward community and their individuals through (Express an opinion & establish new friends).

The Dimension of the Social Adjustment Scale: the relationship between adolescent with her community.

The Tools: Whiteboard and worksheets.
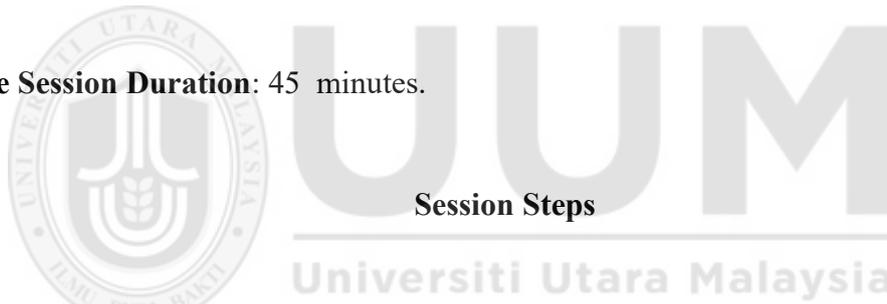
The Session Duration: 45 minutes.

Session Steps

The First Step: Prepare students for the session through divided them into five groups, each group containing five students (two minutes duration).

The Second Step: Explain the importance of self-talking and how self- negative beliefs influence on the performance and negative ideas, this is shown through modeling some examples, self-enhanced talking, positive thoughts, self-cationic ideas, negative thoughts and explain the idea before, during and after the problem positions (8 minutes) .

The modeling: the counsellor tells to students: "that in the case to speak in social occasion ".

270

After that the counsellor explained the example above through the following table by using the whit board:

Before Beginning the Goal Applying: what if this individuals do not like me ?????➔ Negative idea.

During Beginning the Goal Applying: It is bound to this individuals want to be silent or leave ..➔ Negative idea.

After Beginning the Goal Applying: I'm walkout person ... I do not deserve the attending.➔ Negative idea

Here the counsellor gives some examples of positive ideas for self-enhanced in the same situation.

Before Beginning the Goal Applying: I'll try to be my self and briefly when I will speak. ➔ Positive idea.

During Beginning the Goal Applying: I'll try to eye-contact with audience and to be in my natural .. ➔ Positive idea.

After Beginning the Goal Applying: I were able to be myself ... I achieve the task in successful ...➔ an enhanced self-sentence.

The Third Step: distributed worksheets for students which have a social position (26 minutes).

271

Work sheet

Please the following situation and fill the following tables.

"Zainab is a high school student she said that " I find a big problem when I speak in front of audience ... just when I think about the speaking I feel nausea and tachycardia ... then, many eyes follow me ... and waiting my mistake .. I can not imagine that ... I prefer to silent and stay at the back stage ...".

Now, according to what you have learned and understood, please, fill the next 2 tables according to counsellor's instructions:

First Table:

Attitude	Negative Ideas (Self-Defeating)	Your Feeling to the Attitude

Second Table:

Situation	Negative Idea	Positive Idea	An Enhanced Self-Sentence
Before Attitude			
During Attitude			
After Attitude			

Now, please reformulate the previous situation with using positive ideas and self-enhanced sentences.

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The Fourth Step: The Homework.

The counsellor offers the homework to students and explains to apply the same worksheet which was done in the training session (4 minutes).
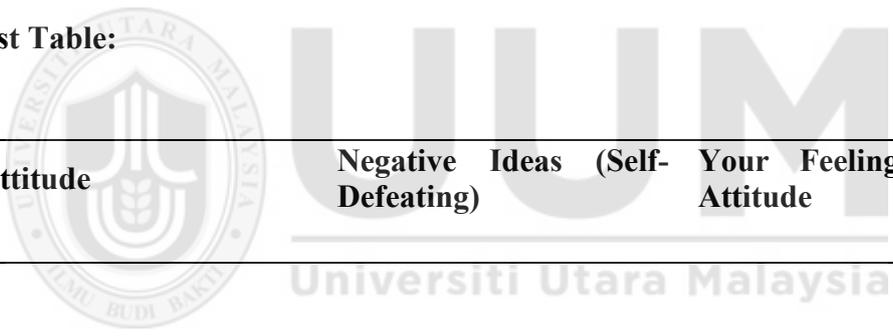
Homework

Please read the following situation and fill the following tables.

Hadel is a high school student she said that " I find a big problem to find new friends ... I always wait other person to begin the speaking with me .. what if the other person do not find any common interests ... or the person could be aggressive ... and I do not know her reaction ... ".

Now, according to what you have learned and understood, please, fill the next 2 tables according to counsellor's instructions:

First Table:

Attitude	Negative Ideas (Self-Defeating)	Your Feeling to the Attitude

Second Table:

Situation	Negative Idea	Positive Idea	An Enhanced Self-Sentence
Before Attitude			
During Attitude			
After Attitude			

Now, please reformulate the previous situation with using positive ideas and self-enhanced sentences.

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Appendix EList of arbitrators to the CBT-Intervention:

First one: Dr. Hussein M. A.Tarawneh.

CV

Personal knowledge:-

Name: Dr. Hussein M. A.Tarawneh

Nationality: - Jordanian

Marital State: - Married.

Religion: - Muslim

E-mail: Malzubi.c@ksu.edu.sa; myadz2001@yahoo.com

Phone: KSA: 55022046442456; Jordan 55026000022000

Address: Jordan- Amman.

P.Box: 540017

Zip Code: 11937

Qualifications:-

- B.S in Psychology, Jordan University (1983).

\-   Diploma in counselling and Guidance, Jordan University (1987).

\-   M.A in Psychology, Mu`ta University (1999).

\-   PhD in Educational & psychological Counselling, The World Islamic & Educational University (2015).

Academic Experiences:-

1-   Associate Professor, in Balqa application University, Jordan (2016-until now).

2-   Counsellor of medical psychological from King Hussein medical centre, Amman, Jordan 2009-2016.

3-   Certification of therapist on clinical psychology from 2011.

Training programs:

1-   One year course in neuro – Psychometric training in 2004. In Ain Shams University Cairo   from 1-10 -2003 – 1-10 -2004.

2-   Six month course of training in mental disorder & behavioral   treatment from 27 January 1990, to the end of July, 1990, at the medical academy in Egypt.

3-   four months course in   intermediate English language from a may 1987 to the end of September 1987, at King Hussein medical center.

4-   12 months course in   Army psychology from UN, at Liberia from 2006-2007.

Conferences:

1. Participation in the Arab 3rd psychiatry conference, Amman – Jordan 4 -16 April - 1987.

2. Paper in (aspect of deliberate self – harm) in the scientientific medical day of internal medicine department 2nd, of December 1993 Amman – Jordan.

3. Paper in (psychiatric families towards mental llless, in Jordan) in the 9th nursing day, in 4th may 1997 Amman –Jordan.

4. Paper in (the relation between type of deliberate self harm and two type of personality (depressed and border line personality) in the 9th nursing day in 4th may 1997 Amman –Jordan.

5.   Paper in (Psychological Tests in Psychiatry), the 1st Scientific Psychiatric Day of Royal Medical Services Collaboration with the Jordanian Medical Council, October, 1999, Jordan.

6.   Paper in (the effect of deep- muscle relaxation technique on both self- esteem and locus of control among patient seen at AL-Hussein Hospital in the 3rd Scientific Day for Allied Health Profession 23-24 may, 2000, Amman-Jordan.

7.   Paper in (Effects of muscle relaxation &gradual decrease of smoking as a way to quit) in the last tobacco control scientific Day in the 1st of June 2000, Amman – Jordan.

8.   Participant in the meeting substance misuse: the challenges for the new millennium September 6- 8 2000 Amman – Jordan. for the regional meeting in the middle east.

9.   Paper in the Bell and Bad method to treat children with nocturnal enuresis, 12 Scientific Day for Nursing, New Perspective for Nursing Practice, 11-7-2001, Amman - Jordan.

10.   Paper in the Differences in Depression Aggression, Death Anxiety and Neuroticism between Nurses Working In Critical Care Areas and Other and Nurses at King Hussein Medical Center, Jordan-Amman, January 24, 2002.

11.   Paper in the Primary Nocturnal Enuresis Among School Children In Jordan , The 7th scientific Day Of Pediatric Department ,Amman- Jordan ,20 June,2002 .

12.   Paper in The Differences between ICU Nurses and Other Nurses in Depression Aggression, Depression, Death Anxiety and Neuroticism at King Hussein Medical Center 13th scientific Nursing Day, Amman -Jordan, August 18, 2002.

13.   Paper in the Role of Behavioral Psycho Therapy for Patients Who Develop Claustro Phobia in MRI Radiology Department, The 1st scientific Nursing Day, AL-Zaytoonah University Of Jordan,

And September 25-26, 2002.

14.   Paper in the Psychological Assessment of Patients on Renal Dialysis and Those Who Had Renal Transplant at king Hussein Medical Center, the 4th Scientific Day for Allied Health Professions, King Hussein Medical Center, September 25, 2002.

15.   Paper in the Prevalence of Psychological Disorder among Patient Sustained Head Injury, the 2nd International Conference of Jordanian Royal Medical Services, Amman- Jordan, 7-10/October/ 2003.

16.   Second EMACAPAP Research Seminar In Child & Adolescent Psychiatry, Anxiety Disorders, February 25 – March 3, 2005, Sharm EL –Shekh, Egypt.

17.   Paper in the Clinical Characteristics Of The Wechsler Intelligence Scale For Children Revised (Egypt Version) : Children With Deficit /Hyper active Disorder ,The 15th Scientific Day For Nursing and Allied Health professions ,Royal Rehabilitation Center , Amman –Jordan , 12 September , 2005

Published Researches:

1.   Safe Management Of Disturbed Patient (Brief report) , Scientific Committee For 5th International Nursing Conference ,Faculty Of Nursing –The University Of Jordan , September 25 -27 ,2001 .

2.   Primary Nocturnal Enuresis Among School Children In Jordan , Saudi Journal Of Diseases And Transplantation , Saudi ,February ,2002 .

3. Differences Between Renal Dialysis and Renal Transplant Patients On Depression , Hypochondriasis and Social Introversion Scales , The Arab Journal Of Psychiatry (2002) Vol. 13 No. 2 Page (123 -133) .Egypt.

Second one: Ghssan Jamal Smadi.

CURRICULUM VITAE

Personal knowledge:-

Name: Ghssan Jamal Smadi

Nationality: - Jordanian

Marital State: - Married.

Religion: - Muslim

E-mail: ghssansmadi171971@gmail.com

Phone: Jordan 00962799637650

Address: Jordan- Amman City.

Qualifications:-

1) Higher Diploma in education from Mutah University- Jordan, 1995.

2) Bachelor psychology from Damascus University- Syria -1992.

Academic Experiences:-

1) Member of School Counselling and Health Psychology Department, Ministry of Education, Jordan (2008 - now).

2) School Counselor, Ministry of Education (1995- 2008).

Training Courses

Nm.	Name of course	Organization	Year
1	Improve the performance of group counselling among school counselors.	Ministry of Education	2008
2	Training new school counselors	Ministry of Education	2009
3	Improve the performance of individual counselling among school counselors.	Ministry of Education	2009
4	Development of school counselor	Ministry of Education	2010
5	Leadership in Education	Ministry of Education with CAAID	2012
6	INTIL	Ministry of Education	2013
7	Increase the levels of self-efficacy among school counselors.	Ministry of Education with USAID	2013
8	Increase the levels of professional-efficacy among school counselors.	Ministry of Education with USAID.	2015

Third one: Soheel Mousa Mahmmoud Shawaqfeh.

CURRICULUM VITAE

Personal knowledge:-

Name: Soheel Mousa Mahmmoud Shawaqfeh.

Nationality: - Jordanian

Marital State: - Married.

Religion: - Muslim

E-mail: sohsh20022002@yahoo.com

Phone: Jordan 00962796487095

Address: Jordan- Amman City.

Qualifications:-

1) Bachelor psychology from University of Jordan- Amman -1991.

2) Master degree in counselling psychology from University of Jordan- Amman -2002.

Academic Experiences:-

1) A head of School Counselling and Health Psychology Department at Ministry of Education, Jordan (2009 - now).

2) Member of School Counselling and Health Psychology Department, Ministry of Education, Jordan (2005 - 2009).

3) School Counsellor, Ministry of Education (1992- 2005).

Training Courses

Nm.	Name of course	Organization	Year
1	Development of older school counsellors	Ministry of Education	1994
2	Development of new school counsellors	Ministry of Education	1997
3	Measurements and Tests	Ministry of Education	2000
4	Improve the performance of group counselling among school counsellors.	Ministry of Education	2001
5	Improve the performance of individual counselling among school counsellors.	Ministry of Education	2001
6	International Computer Driver License ICDL	Ministry of Education	2002
7	Psychosocial Support Following Disasters	UNICEF	2004

8   INTIL1,2 and 3   Ministry of Education 2004-2007

9   Protect the Child from Abuse Jordan River Foundation   2006

10   Increase the levels of self-efficacy among school counsellors.   Ministry of Education with USAID   2008

11   Leadership in Education   Ministry of Education with CAAID   2009

12   Social Work Evidence-Based Assessment And Intervention Columbia University   2010

13   Social Work Perspectives On Family Violence   Columbia   University 2010

14   Social Work Perspectives on Family Violence   Columbia   University 2010

15   Increase the levels of professional-efficacy among school counsellors. Ministry of Education with USAID. 2010

Researches published

1.   The effectiveness of the cognitive restructuring program in controlling irrational thoughts. University of Jordan, 2001.

2.   The impact of group counselling program on the reduction of irrational ideas associated with social relations among a sample of secondary students, ministry of Jordan, 2004.

3.   Evaluation of the work of the school counsellors advisor from the point of view of school principals, ministry of Jordan, 2005.

Fourth one: Bani-Rshaid, Abdullah Mohammad Hamad.

cv

Personal Information:

Name: Bani-Rshaid, Abdullah Mohammad Hamad

Gender: Male

Nationality: Jordanian

Address: In United Arab Emirates

Mobile: - Abu Dhabi // 00971563443015

E-mail: cisyu2011@yahoo.com

*Work experience:

 - 2015 -2018 , Assistant Professor, ALHOSN University, United Arab Emirates.

2014 - 2015 , Assistant Professor, University of Hail, Saudi Arabia professor.

 -2011 - 2014 , counselor and educational, and the Ministry of Education, Jordan.

 -2010 -2011 , Lecturer, King Saud University, Saudi Arabia.

288

- 2007-2010 counselor and educational, Ministry of Education, Jordan.

*Education:

*   2013/2014, PhD in psychological counseling - Yarmouk University, Irbid, Jordan. A very good grade.

*   2009/2010 Master psychological counseling - Yarmouk University, Irbid, Jordan. A very good grade.

*   2006/ 2007: Bachelor of Psychological Counseling - Yarmouk University, Irbid, Jordan. A very good grade is high.

*   Specialist and Trainer for Family Counseling and Solving family problems. American – Canadian Board for professional Training.

*   Specialist and Trainer for premarital and Marital Counseling, American – Canadian Board for professional Training.

Awards:

Achieving the best educational research at the level of the Arab world, 2018, Hamdan Bin Rashid Al Maktoum Award for Outstanding Educational Performance.

Research:

- School Activates and its Relationship to both Self-Acceptance and Moral Maturity among

Middle School Students in the Emirate of Abu Dhabi in United Arab Emirates, Journal of Excellence, Hamdan Bin Rashid Al Maktoum Award for Distinguished Academic Performance, 1/5/2018, United Arab Emirates, Dubai.

-Psychological flexibility and its relationship to marital adjustment among a sample of married couples in the Emirate of Abu Dhabi, the sender for publication, Journal of Educational and Psychological Sciences, University of Bahrain.

- Relationship between compulsive buying and depressive symptoms among males and females ‹Journal of Obsessive-Compulsive and Related Disorders, JOCRD 322, 19-May-2017.

-Voluntary work and its relationship with self-esteem among college students, the magazine of Education and Psychology, King Saud University, No. 56 0.2016.

- The effect of modifying the negative self-statements and to improve the communication skills to modify the attachment patterns of unsafe ninth and tenth grades in Irbid District students. Quds Open University Journal for Research Educational and Psychological Studies 0.2014.

* <u>Books</u>: -

- Life skills, the world of books, Jordan, Dar Al fiker For publication**.**

*<u>Courses</u>:

• mental health of the child, by four weeks, EDRAAK Foundation in collaboration with the Faculty of Medicine at Harvard University.

• Behavioral Psychotherapy Techniques professional certificate40 training hours, Toronto International Career University.

• training course to deal with crises university, University of Hail, 2015.

• International Diploma in IT Skills (ICDL).

• professional Psychotherapy cognitive emotional, groups and support professional certificate, 40 training hours, Toronto International Career University.

•statistical analysis training course (SPSS), Hail University of 0.2015.

•Training of Trainers Certificate, for the rehabilitation of young men and women to assume responsibility required of them to make their communities better places to live for themselves and their families, building competencies of information technology network company.

•The training program to enhance the workers in family counseling skills by 15 hours of training, which was held during the period T. 8/5/2010 until 20/5/2010 m, the National Council for Family Affairs with support from the Dutch embassy.

• cycle Qualify Friends volunteers to work with children at risk, Yarmouk University in collaboration with the Ministry of Social Development and the Quest Scope Foundation for Social Development in the Middle East.

• Success skills , , Yarmouk University in cooperation with ENJAZ of the institution.

• A course in how to be a leader , Yarmouk University in cooperation with ENJAZ of the institution.

• A course in basic life skills - Yarmouk University in collaboration with the Centre or Nawar community development - Oman, at a rate of 10 training / 2006 hours.

• Computer cycle comprehensive. Comprehensive training course in Computer, Glory Centre, in collaboration with the Ministry of Education by 100-plus hours of 25/06/2002 to 25/08/2002. Excellent degree.

• English Language course.

• cycle on the protection of children from abuse-psychological counseling -mash Department of Education.

• provide protection and psychological and social care for children in situations cycle -mash crises of Education in partnership with Eoncv .20-25 / 5/2008.

*Experience:

•a member of the unit of psychological and Student Counseling, University of Hail.

•Member of the Quality Assurance Unit, Psychological Counseling Center, University of Hail.

•practical training in psychiatric clinics and diagnosis of mental disorders by DSM IV DSM.IV)), by 300 hours of training, Princess Basma Teaching Hospital, psychiatric clinics, the Ministry of Health, Irbid.

•Participate in the Friends program dealing with children at risk -otefal events, experience for a year and two months with at-risk children in Muhammad bin Qasim Center (events center Irbid.)

•specialized training in psychological counseling.

•Head of the Social and Cultural Committee of the training center of the Friends of Children at Risk (Friends Club at-risk children, Faculty of Education, University of Yarmouk.

•a coach, teacher training workshop in educational administration and the protection of children from abuse, three training days.

•Participate in guiding the Eighth Congress in 2009 entitled "Towards safe school environment" and the role of domestic violence ", the Ministry of Education.

• Participate in "youth group network program transfer in Al Koura" and include the following skills: Microsoft program to develop computer skills, project management, facilitation and cooperation, and communication, effective listening, public speaking, time management, crisis management, and holding effective meetings, and to find solutions to problems ,, and conducting research and surveys and field surveys, and financial literacy, career counseling, resume writing, and training on

interviewing skills. With the youth and the Jordan River Foundation transfer network group.

*<u>Skills</u>:

• scientific research skills.

• Preparation Academic Programs section of academic and institutional funds, effectiveness and quality.

• preparation in courses associated with the units.

• find him communication skills.

• The use of the internet in an excellent manner

• The ability to communicate with others in an excellent manner.

• Leadership and organization skills and time management.

•the application of psychological theories excellent manner.

•find it and correct application of psychological tests.

•the application of IQ tests find it and correct it.

•find it the work of an individual counseling sessions and guidance of collective excellent manner.

•interview skills, case studies and information gathering.

•advanced skills in the use of technology in teaching (Abbaraerod provide lessons, use of elearning systems.

•Ability to preparing and presenting lectures.

•Ability to work effectively in a pluralistic and diverse environment.

•Ability to creativity and authoring and editing written materials.

•literacy skills planning and program implementation.

•know-how computerized student data systems.

• community service.
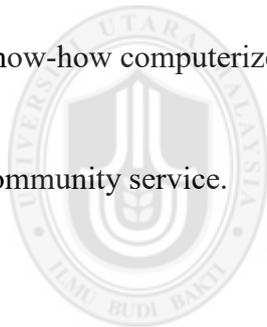
Fifth one: Atef Hasan Shwashreh.

Curriculum Vitae

Name   : Atef Hasan Shwashreh

Nationality   : Jordanian.

Marital Status   : Married.

D & P of Birth   : 1969, Jordan.

Social Security No.   : 9691008947

ACADEMIC QUALIFICATION:

1-   **PhD** in *Psychology* from Yarmouk University in 2004.

      GPA: 88.4%.

      Title of thesis: *Examining A Causal Model For Problem Solving*

Ability

2- **Professional Diploma** in Clinical Psychology / German Jordanian University

3- **MA** in *Psychology* from Jordan University in 1994.

  GPA: 82.4%.

  Title of thesis: *Relation Between The Speed Of Thinking And The Academic Achiev*

  According To Variables Of Gender and Dp Specialization.

  Subjects: Students of the second secondary class.

4- **MA** /in women studies from Jordan University in 2011

  Title of thesis: The Social And Psychological Needs Of Battered Women In Amman City

5- **BA** in *Psychology* from Jordan University in 1991.

6- **High school**: -Jordan in 1987.

      GPA: 85.1%.

EXPERIENCE:

Practical Experiences; Employment History:

1. currently: Trauma Program Manager at Institute for Family Health/Noor AL-Hussein Foundation

2. **Training consultant/ psychotherapist** at Mutmaennah Medical Center in Riyadh / Saudi Arabia

3. (2009-2010) **Lecturer**/ Jordan University/psychology department for one year

4. (2002-2009) **Full time faculty member** at the Arab Open University, Amman, 2002- 1/8/2009

5. (2005-2009**) General manager**, Arab Open University teaching centers for 4 years

6. **Psychology researcher** / Jordanian center for social researches, since 2009

7. **General manger**, Jordan Rasoun Center for Women Studies

8. (Present) **Educational and psychological consultant** / Women Foundation Anti Violence

9. (1992-2001**) Full time counselor** worked at the Jordanian ministry of Education and in KSA for 10 years

TRAINING & COURSES:

1- Advanced course in the *Analytical Statistics* using SPSS and AMOS programs in computers

2- A course on the *Psychology Of Open Education* under title: Strategies and Issues

3- A course on *Scientific Research*

4- A course on *Students Learning Evaluation* at (AOU)

5-   A course on *impulse Behavior For The University Students and The Ways To Deal With The Issues*

ACHIEVEMENTS & ACTIVITIES:

1- A joint research on the *Human Nature Since Puberty in The Light of the Holy Quran*, certified for publishing in <u>*Annajah University Magazine*</u>

2- A joint research on the *Effectiveness Of Training Program In Developing The Social Skills* for a sample of adolescents

3- A case study research on the *Effectiveness Of An Educational Supervision Program In Provoking Achievement Motivation For A Student Suffering From Low Motivation In Academic Achievement* published in the <u>*Action Research Magazine*</u>, Vol. (1) No. (1). Please refer to: http://www.aou.jo/research/research 4.doc

4- An article on the *challenges That The Academic Supervisors Face At AOU*, <u>*Afaaq magazine*</u> No.32, Oct. 2006.

5- Participated in a conference on *the national criteria for developing teachers professionally* in cooperation with the Ministry of Education and the public and

private universities. Here, I participated in formulating the third part of planning for education at the Ministry of Education /Jordan from 16-18 of May 2006.

6-   Attended a conference on *The Role Of The Arab Private Organizations In Achieving The Developmental Goals For The Third Millennium* under title: <u>partnership for building the future in Kuwait</u> from 18-20 of Dec 2006.

7-   Participated in a paper on *Open Universities Education And Adults Learning* in a conference on *Developing Programs And Curricula For Adults In Light Of Quality* at <u>Adults Education Center</u> at Al-ayn University/ Cairo from 4-16 of April 2006.

8-   Attended a conference at the <u>University Of Science And Technology/Jordan</u> on the *Arab Women In The Academic Work And Science* from 18-30 of April 2008.