EFFECTS OF LIFE SKILLS EDUCATION ON EMOTIONAL PROBLEMS, SELF-ESTEEM AND COPING MECHANISMS AMONG INSTITUTIONAL ADOLESCENTS IN KLANG VALLEY, MALAYSIA

MARJAN MOHAMMADZADEH

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By

MARJAN MOHAMMADZADEH

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

March 2017
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To my husband, Ali, for his endless love and support
To my mother, for her engorgements and prays
Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

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March 2017

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Faculty : Medicine and Health Sciences

Institutionalised children and adolescents are at greatly increased risk of serious psychological problems in their lifetime and exhibit various psychological, emotional and behavioural problems such as coping and adjustment problems, aggression, personality problems, low self-esteem, depression and stress. In light of the several mental and behavioural health issues among adolescents living in orphanages that require serious attention, the early detection of mental health challenges is important and can minimize these problems in adulthood.

The current study aimed to determine, if a life skills-based intervention programme could improve the emotional health, self-esteem and coping skills among adolescents in Klang Valley orphanages. Using multi-stage random sampling and based on inclusion and exclusion criteria, 271 adolescents, aged 12 to 17 years old who experienced mild to extra severe score in one of the objectives of DASS21 questionnaire (depression, anxiety and/or stress) were selected to participate in the study. This was a parallel subject-masked randomized controlled trial (RCT) with pre-, post- and four-month follow-up tests comprising two groups: intervention and control groups were randomly selected to receive the intervention programme (Life skills education) or the placebo education programme (COMBI programme).

The study instrument was a validated questionnaire booklet including: Depression, Anxiety and Stress Scale (DASS21), Rosenberg self-esteem scale (RSES) and Brief COPE scale. The intervention module was developed based on the WHO programme on life skills education and Coping-Stress Theory. Overall, 20 activities were developed for 12 intervention sessions in the form of “The Guideline for Trainers” booklet during the development and piloting process. Intervention sessions were held approximately twice weekly for each home, each lasting about two and half hours.
Mixed between-within subjects ANOVA were performed to assess the differences in the means of continuous variables within the 3 stages at baseline, post-test and 4-month follow-up in the intervention and control groups.

According to the results, there was a significant different in the mean score of depression (F=33.80, P<0.001, \( \eta^2 = 0.11 \)), anxiety (F=11.70, P=0.01, \( \eta^2 = 0.04 \)), stress (F=28.13, P<0.001, \( \eta^2 = 0.10 \)) and self-esteem (F=19.03, P<0.001, \( \eta^2 = 0.10 \)) among 3 stage of time as well as interaction between group and time (F=31.04, P<0.001, \( \eta^2 = 0.10 \); F=14.21, P<0.001, \( \eta^2 = 0.05 \); F=15.67, P<0.001, \( \eta^2 = 0.06 \); and F=13.29, P<0.001, \( \eta^2 = 0.05 \)) respectively for depression, anxiety, stress and self-esteem. Meanwhile, results of Mixed between-within subjects ANOVA showed there was not a significant difference in the mean score of depression (F=2.33, P=0.13) between groups.

For coping methods, the intervention program was significantly effective on the mean scores of majority of fourteen coping methods among 3 stage of time (p<0.05), expect religion (F=5.63, p=0.13) and humor (F=0.98, p=0.37). There was also no significant difference between groups in the mean score of self-distraction (F=0.25, p=0.61), venting (F=2.62, p=0.10) and acceptance (F=0.93, p=0.34) methods.

Overall, the results of the current study showed the intervention program can be introduced as an effective plan for improving mental health and coping methods among Malaysian institutional adolescents.
Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

KESAN KEMahirAN HIDUP PENDidIKAN ON EMOTIионаL MASALAH, SELF-ESTEEM DAN MEkanISME MENGHADAPI KALANGAN REMAJA INSTITUSI DI LEMBAH KLANG, MALAYSIA

Oleh

MARJAN MOHammADZADEH

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Institusi perlindungan kanak-kanak dan remaja mempunyai peningkatan risiko yang serius bagi masalah psikologi dalam kehidupan mereka yang dipamerkan dalam pelbagai bentuk sama ada dari segi psikologi, emosi dan masalah tingkah laku seperti penyesuaian dan pelarasan masalah, perilaku agresif, masalah personaliti, rendah keyakinan diri, kemurungan dan tekanan. Memandangkan terdapat beberapa isu-isu berkenaan masalah kesihatan mental dan tingkah laku dalam kalangan remaja yang tinggal di rumah anak yatim yang memerlukan perhatian serius, pengesan awal masalah kesihatan mental adalah penting dan boleh membantu mengurangkan masalah-masalah remaja.

Kajian ini bertujuan untuk menentukan, jika program intervensi berasaskan kemahiran hidup boleh meningkatkan kesihatan emosi, keyakinankendiri dan kemahiran penyesuaian diri dalam kalangan remaja rumah anak yatim di Malaysia. Menggunakan persampelan rawak pelbagai peringkat dan berdasarkan penerimaan dan pengecualian kriteria, 271 remaja berusia 12 hingga 17 tahun yang mengalami skor yang sederhana dan teruk di dalam salah satu daripada objektif DASS21 soal selidik (kemurungan, kebimbangan dan / atau tekanan) telah dipilih untuk mengambil bahagian dalam kajian ini. Ini adalah selari dengankajian terkawal secara rawak (RCT) dengan ujian susulan pra, pasca dan empat bulan ujian sususlan yang terdiri daripada dua kumpulan: intervensi dan kawalan kumpulan telah dipilih secara rawak untuk menerima program intervensi (Pendidikan Kemahiran Hidup) atau program Pendidikan Plosebo (Program COMBI).

Instrumen kajian adalah sebuah set soal selidik yang telah disahkan termasuk: Skala Kemurungan, Kebimbangan dan Tekanan (DASS21), Skala Keyakinan Diri Rosenberg (RSE) dan skala RingkasCOPE. Modul intervensi telah dibangunkan berdasarkan program WHO mengenaiPendidikan Kemahiran Hidup dan Teori Penyesuaian-Tekanan. Secara keseluruhan, 20 aktiviti telah dibangunkan untuk 12 sesi
intervensi dalam bentuk "Garis Panduan untuk Jurulatih" dengan sebuah buku kecil semasa proses pembangunan dan kaijan rintis. Sesi intervensi telah diadakan dua kali seminggu bagi setiap rumah kira-kira dua setengah jam.

Campuran antara-dalam subjek ANOVA telah dijalankan untuk menilai perbezaan dalam melibatkan sistem pembolehubah berterusan dalam 3 peringkat pada peringkat penilaian asas, ujian pos dan 4 bulan ujian susulan dalam kumpulan intervensi dan kawalan.

Berdasarkan hasil keputusan, terdapat perbezaan yang signifikan dalam skor min kemurungan (F = 33.80, P <0.001, η² = 0.11), kebimbangan (F = 11.70, P = 0.01, η² = 0.04), tekanan (F = 28.13 , P <0.001, η² = 0.10) dan keyakinan kendiri (F = 19.03, P <0.001, η² = 0.10) bagi 3 peringkat masa serta interaksi antara kumpulan dan masa (F = 31.04, P <0.001, η² = 0.10; F = 14.21, P <0.001, η² = 0.05; F = 15.67, P <0.001, η² = 0.06, dan F = 13.29, P <0.001, η² = 0.05) masing-masing untuk kemurungan, kebimbangan, tekanan dan harga diri. Sementara itu, keputusan intervensi antara-dalam subjek ANOVA menunjukkan tidak ada perbezaan yang signifikan dalam skor min kemurungan (F = 2.33, P = 0.13) antara kumpulan.

Untuk kaedah penyesuaian, program intervensi adalah memberikan signifikan yang berkesan pada skor min bagi majoriti empat belas kaedah penyesuaian bagi 3 peringkat masa (p <0.05), mengharapkan agama (F = 5.63, p = 0.13) dan jenaka (F = 0.98, p = 0.37). Terdapat juga perbezaan yang signifikan antara kumpulan dalam skor gangguan diri (F = 0.25, p = 0.61), kaedah meluahkan (F = 2.62, p = 0.10) dan penerimaan (F = 0.93, p = 0.34).

Secara keseluruhan, hasil kajian terkini menunjukkan program intervensi boleh diperkenalkan sebagai perancangan yang berkesan untuk meningkatkan kesihatan mental dan kaedah penyesuaian diri dalam kalangan remaja rumah anak yatim di Malaysia.
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I also wish to thank Universiti Putra Malaysia (UPM) for providing required amenities for my PhD.
I certify that a Thesis Examination Committee has met on 15 March 2017 to conduct the final examination of Marjan Mohammadzadeh on her thesis entitled "Effects of Life Skills Education on Emotional Problems, Self-Esteem and Coping Mechanisms among Institutional Adolescents in Klang Valley, Malaysia" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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<th>Description</th>
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<tr>
<td>3SQ</td>
<td>Secondary School Stressors Questionnaire</td>
</tr>
<tr>
<td>ADHD</td>
<td>Attention Deficit Hyperkinetic Disorder</td>
</tr>
<tr>
<td>AGQ</td>
<td>The aggression questionnaire</td>
</tr>
<tr>
<td>ASCAPAP</td>
<td>the Asian Society of Child and Adolescent Psychiatry and Allied Professions</td>
</tr>
<tr>
<td>BDI</td>
<td>Beck Depression Inventory</td>
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<tr>
<td>CAMH</td>
<td>Child and Adolescent Mental Health</td>
</tr>
<tr>
<td>CBCL</td>
<td>The Child Behavior Checklist</td>
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<tr>
<td>CDI</td>
<td>Children Depression Inventory</td>
</tr>
<tr>
<td>CRC</td>
<td>Convention on the Rights of the Child</td>
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<tr>
<td>CVI</td>
<td>Content Validity Index</td>
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<tr>
<td>DASS</td>
<td>Depression, Anxiety, Stress Scale</td>
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<tr>
<td>DAWBA</td>
<td>Well-Being Assessment</td>
</tr>
<tr>
<td>DSM</td>
<td>Diagnostic and Statistical Manual of Mental Disorders</td>
</tr>
<tr>
<td>EFA</td>
<td>Educational For All</td>
</tr>
<tr>
<td>GHQ</td>
<td>Goldberg's Health Questionnaire</td>
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<tr>
<td>HADS</td>
<td>Hospital Anxiety and Depression Scale</td>
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<tr>
<td>ICT</td>
<td>Information and communications technology</td>
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<tr>
<td>I-CVI</td>
<td>Item-level Content Validity Index</td>
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<tr>
<td>IPC/HR</td>
<td>Interpersonal Communications/Human Relations Skills</td>
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<tr>
<td>JKM</td>
<td>Social Welfare Department</td>
</tr>
<tr>
<td>KSSM</td>
<td>Kurikulum Standard Sekolah Menengah</td>
</tr>
<tr>
<td>KSSR</td>
<td>Kurikulum Standard Sekolah Rendah</td>
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<tr>
<td>LSE</td>
<td>Life skills Education</td>
</tr>
<tr>
<td>LSI-CF</td>
<td>Life-skills Development Inventory-College Form life skills</td>
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<tr>
<td>MDD</td>
<td>Major Depressive Disorder</td>
</tr>
<tr>
<td>MINI Kid</td>
<td>Mini International Neuropsychiatric Interview for children and adolescents</td>
</tr>
<tr>
<td>MPSS</td>
<td>Mood and physical symptoms scale</td>
</tr>
<tr>
<td>NGO</td>
<td>A non-governmental organization</td>
</tr>
<tr>
<td>NHMS</td>
<td>National Health and Morbidity Surveys</td>
</tr>
<tr>
<td>PF/HM</td>
<td>Physical Fitness/Health Maintenance Skills</td>
</tr>
<tr>
<td>PISA</td>
<td>The Program for International Student Assessment</td>
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<tr>
<td>PTSD</td>
<td>Post-Traumatic Stress Disorder</td>
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<tr>
<td>RA</td>
<td>Research Assistant</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>RCMAS</td>
<td>Revised Children's Manifest Anxiety Scale</td>
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<td>S-CVI</td>
<td>Content Validity Index for Scales</td>
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<tr>
<td>SDQ</td>
<td>Strength and Difficulties Questionnaire</td>
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<tr>
<td>SSSM</td>
<td>Soalselidik Stressor Sekolah Menengah</td>
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<tr>
<td>STAI</td>
<td>State-Trait Anxiety Inventory</td>
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<td>TASO</td>
<td>The AIDS Support Organization</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNAIDS</td>
<td>The Joint United Nations Program on HIV/AIDS</td>
</tr>
<tr>
<td>UNGASS</td>
<td>United Nations General Assembly Special Session</td>
</tr>
<tr>
<td>UNICEF</td>
<td>The United Nations Children's Fund</td>
</tr>
<tr>
<td>USAID</td>
<td>The United States Agency for International Development</td>
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<td>WHO</td>
<td>World Health Organization</td>
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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Worldwide, an estimated 153 million children ranging from newborns to age 18 have lost one or both parents. Every day, 5760 more children lose at least one parent ("Orphan statistics, facts and figures," 2012). There is no exact definition or an absolute state of development for an orphan. Different sources point various definitions of an orphan and orphanhood, especially with regard to age and parental status (Atwine, Cantor-Graae, & Bajunirwe, 2005).

Generally, an orphan is deemed as a person who has lost his both parents. However, based on the revised The Joint United Nations Program on HIV/AIIDS (UNAIDS) definition a child aged 18 and below who has lost one parent is called orphan (Heymann, Earle, Rajaraman, Miller, & Bogen, 2007). Previously, UNAIDS believed that losing both parents or a mother for children aged under 15 is the appropriate definition for the orphanhood (Doku, 2012).

There are currently about 70 million orphans in Asia, giving this region the largest absolute number of orphans in the world ("Worldwide orphan facts, figures and statistics ", 2012). Approximately 12% of orphans are less than 6 years old, 33% between 6 and 11 years old and the rest are between 12 and 18 years old, however, the age distribution of orphans is strongly depends on countries and areas (Fawzy & Fouad, 2010).

According to Tolfree (1955), an institutional or residential care has been defined as “a group living arrangement for children in whom care is provided by remunerated adults who would not be regarded as traditional careers within the wider society”. In many countries, orphanages are a common institutional care subset (Workye, 2015).

In many cases, adolescents may stay in an orphanage until the age of 18 or until they have completed a certain educational course. Then, they are often asked to leave the orphanage without consideration of how prepared they are to live independently (Lynch, 2007). Most of them will receive no entitlements, health insurance, food subsidies or significant support from the government or their caregivers after leaving their institute. Compared to non-orphanage youth, their situation is critical in view of low financial and lack of emotional parental support (Smith, 2014).

In many cases, the care and support provided by institutions basically focus on biological needs such as nutrition, primary health care and basic education and not
psychological and behavioural health issues (Lynch, 2007). Therefore, the institutionalized adolescents and youth, who missed a major source of social support in the form of parents, are most likely to attract to peer- networks as an alternative support to gain emotional stability and reduce the negative effects of parental lack. With no life skills education, they will be an easy target for criminal organizations (Jung, 2014).

In Malaysia, based on UN statistics, there have been more than 400,000 children who have been orphaned in 2015 and this number is rising dramatically (Lakshiny, 2015a). Orphanages are still the most common method of placement of orphans compared with fostering and adoption and thousands of homes have been set up across the country to look after them ("Monitoring the situation of children and women, orphan estimates," 2009).

It is estimated that more than 50,000 orphan children could be found in orphanage homes all around Malaysia. According to Social Welfare Department (JKM) statistics for orphanages registered under JKM in 2013, there are 35 government-run and 90 registered private homes for orphans and 117 for disabled children in the country and around 1150 and 5188 children stay in registered government and private homes respectively. Majority of orphanages and shelter homes in Malaysia have not been registered yet. Therefore, there is no detailed statistics and exact number of homes and the children living in (Lakshiny, 2015a).

In addition, although it seems that orphanage is only a place for orphans with no parents to live, only a few percentages of their inhabitants are truly have no parents. Others, on the other hand, do have at least one parent (mostly mother) but various issues such as poverty, abuse and violence have made them to live in the orphanage homes, apart from their parents (Mahathir, 2010).

According to Lumos, an international non-governmental organization (NGO) registered in Britain, less than 10% of eight million children and adolescents living in orphanages are real orphans, the majority of them have at least one living parent. They live in orphanages because their parent(s) are not able to look after them (Nair, 2014).

Perhaps, millions of children and adolescents living in orphanages or any other forms of institutional care are one of the most vulnerable groups in the world. Because of the lack of appropriate care and education, they are always at increased risk of violence, abuse, neglect and mental and physical harms (Csaky, 2009).

Based on the Faith to Action Initiative report in 2014, in many cases, institutional settings are not able to reach the developmental and educational needs of the children and adolescents. In the absence of parental attention and care, there is no replacement for affection, love and the sense of security that only family can provide. Institutional care are never be able to fulfill all of the physical, emotional and developmental requirements of children (Workye, 2015). So, children and adolescents living in
orphanages have been associated with lack of essential abilities and skills to encounter daily difficulties, making them a vulnerability group in dealing with future adulthood issues. This can cause serious problems, disabilities and social handicap in their life (Jung, 2014).

Studies showed that lots of the institutionalized children and adolescents are more likely to have tragic histories of violence, abuse, parent-child conflict and school difficulties compared to non-institutionalized children and adolescents (Gavița, David, Bujoreanu, Tiba, & Ionuțiu, 2012).

1.2 Problem Statement

Children and adolescents brought up in foster cares and orphanages are exposed to various emotional and behavioral difficulties such as anti-social behavior, aggression, anxiety and depression (Simsek, Erol, Öztop, & Münir, 2007). It is expected that institutionalized children show emotional and behavioral problems three to seven times more than others in their age and from same socio-economic history (Gavița et al., 2012).

The lack of basic knowledge, awareness and skills contribute to vulnerability of the institutionalized children. Therefore, regardless of the nature of the problem, one of the effective answers might be to purposefully use a continuous positive preventive approach for improving life-styles of these children (Lehmann, Havik, Havik, & Heiervang, 2013). A host of prevention and intervention programs have been developed to help institutional children for enhancing their mental health. Life skills education (LSE) is one of them, referring to a large group of emotional, social and interpersonal skills that help individuals to decide wisely, communicate effectively, improve their personal management abilities and have a healthy and fruitful life (Vaidya, 2014).

Lack of life skills has a negative effect on the methods being used in the challenging situations in daily life (Gerami, Ahmadi, Safat, & Farsi, 2015). Therefore, it is obvious that children and adolescents living in orphanages or any other kind of institutions have a double need for continuous systematic life skills based education to be successful in the life challenges (Lehmann et al., 2013).

According to Social Welfare Department (JKM) statistics, more than 50,000 orphan children are living in orphanage homes all around Malaysia. Majority of orphanages and shelter homes in Malaysia have not been registered yet. Therefore, there is no detailed statistics and exact number of homes and the children living in (Lakshiny, 2015a). Absence of even a reliable statistics of the number of orphanages and their residents (Nair, 2014) shows the institutional children and adolescents in Malaysia mostly are under-supported, underserved and vulnerable.
Only a few studies have examined the psychological and behavioral well-being of institutional children and adolescents or conducted educational interventions. Therefore, information in this area is very limited. For example, a local study in three orphanages in Kelantan reported alarming figures whereby 3.9%, 18.9% and 27.8% orphans reported severe, moderate and mild level of depression, respectively. It showed a high percentage of depression among institutionalized adolescents in Malaysia (J. Ramli, Yahaya, & Lazin, 2010).

Lack of life skills-based education put Malaysian adolescents at bigger risk of mental and behavioral problems. Absence of appropriate information and skills to cope with the special life changes during adolescence period also can cause many physical, mental and behavioral difficulties among Malaysian adolescents (Kuldas, Hashim, & Ismail, 2015). A strategic life skills approach program is required to empower Malaysian adolescents to reach their full potential and abilities in their pathway to successful adulthood. Undoubtedly, vulnerable adolescents including institutional adolescents’ need for life skills education is much higher than their normal peers (UNICEF, 2012).

Therefore, some of the current study’s search questions arise as follow;

1. What is the prevalence of emotional problems and low self-esteem among adolescents living in orphanages in the study location?

2. What are the most frequent coping mechanisms among adolescents living in orphanages in the study location?

3. How effective is the LSE module to reduce emotional problems, enhance self-esteem and improve coping mechanisms among adolescents living in orphanages in the study location?

1.3 Significance of Study

Improving emotional health and behavioral health among adolescents living in orphanages has significant impact on reducing their mental and behavioral problems in adulthood (Erango & Ayka, 2015). The importance of enhancing mental and behavioral health condition among orphaned adolescents becomes even more vital considering that institutional children and adolescents are part of the community and will be the future adults and parents. Therefore, their mental health plays an important role in determining general health condition of the community (Ssewamala, Neilands, Waldfogel, & Ismayilova, 2012)

Developing a life skill educational module based on specific needs of Malaysian adolescents in orphanages has significant effect on improving mental and behavioral
health in orphanages as well as empowering their residence to reach their full abilities in their pathway to successful adulthood. The module used in the current study focuses on Malaysian adolescents’ special situation, challenges and issues based on their own viewpoint of life skills’ needs and priorities as well as using the experience and knowledge of experts in this area.

Due to targeting a group of adolescents living in orphanages with the aim of investigating their emotional health elements, namely depression, anxiety and stress as well as self-esteem, the findings of the current study could be used in helping vulnerable children and adolescents in Malaysia to enhance their mental health. Furthermore, the most common methods used by participants of the study to cope with their life challenges are analyzed. To the searchers’ best knowledge, until now there is no intervention research (based on LSE) on emotional and behavioral problems among Malaysian adolescents in Malaysian orphanages.

The findings of the current study enhance the knowledge and information about the mental and behavioral problems of Malaysian institutionalized orphans. Furthermore, it encourages educational officials and researchers in children and adolescents’ health area to extend their plans using life skill based educational programs for improving general health among Malaysian vulnerable children and adolescents including those who are living in orphanages.

1.4 Objectives

1.4.1 General Objectives

This study aimed to determine the effects of life skills education on the emotional problems, self-esteem and coping mechanisms among Malaysian institutional adolescents.

1.4.2 Specific Objectives

1. To conduct screening (eligibility) study to identify participants with emotional problems, based on DASS21;

2. To determine the socio-demographic characteristics, psychological characteristics (the level/prevalence of emotional problems and the level/prevalence of low self-esteem) as well as the frequency of using coping strategies (Based on Brief COPE scale) by participants, separately in intervention and control groups;

3. To determine the influence of the coping mechanisms on emotional problems as well as the influence of emotional problems characteristics on self-esteem;
4. To develop and implement the life skills education module to reduce emotional problems and improve self-esteem and coping mechanisms among the participants in the study;

5. To evaluate the effects of the educational program on emotional problems, self-esteem and coping mechanisms among the participants by comparing:

   ▪ Mean scores of depression, anxiety and stress among participants between (intervention and control groups) and within (during pre-, post and 4 month follow-up tests) groups;

   ▪ Mean scores of self-esteem among participants between (intervention and control groups) and within (during pre-, post and 4 month follow-up tests) groups;

   ▪ Mean scores of coping mechanisms among participants between (intervention and control groups) and within (during pre-, post and 4 month follow-up tests) groups;

1.5 Research Hypothesis

The main research hypotheses were formulated as follows:

✓ There is a significant difference in emotional problems mean scores between intervention and control groups in pre-, post and 4 month follow-up tests.

✓ There is a significant difference in self-esteem mean score between intervention and control groups in pre-, post and 4 month follow-up tests.

✓ There is a significant difference in coping mechanisms mean score between intervention and control groups in pre-, post and 4 month follow-up tests.

1.6 Definition of Terms

**Life Skills:** In this study, life skills are defined based on WHO definition including: Problem solving and Decision-making, Critical thinking and Creative thinking, Communication and interpersonal skills, Self-awareness and empathy, coping with emotions, and coping with stress.
Orphanage/home: In this study orphanage/home is defined as the non-government residence that a group of children and adolescents permanently or temporally live in.

Emotional problems: In the current study, “emotional problems” are defined and measured as three domains/factors of DASS including: depression, anxiety and stress, ranged normal to extra severe.

Self-Esteem: In the current study, self-esteem is defined based on the Rosenberg self-esteem scale divided into low and high self-esteem.

Coping Mechanisms (Methods/Strategies): In the current study, coping mechanisms are defined and measured under 14 subscales based on Brief Cope scale including:

Interventional/Educational program: The Interventional/Educational program in this study points to a group of life skills educational activities that were developed or adopted based on WHO/UNICEF definition of life skills education aimed to decrease emotional problems, increase self-esteem and enhance coping mechanism among participants in the program.
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