DEPRESSION AND HOMESICKNESS AMONG IRANIAN STUDENTS IN UNIVERSITY MALAYA

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DEPRESSION AND HOMESICKNESS AMONG IRANIAN STUDENTS IN UNIVERSITY MALAYA

By

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Abstract:

Introduction: Studying abroad has become a norm and a "must do" purpose for many scholars. Over the last few years, Malaysia has become a popular destination for students from many Islamic countries including students from Iran. Many of the studies on international students are done among Asian students travelling to western countries.

Objective: This is a cross-sectional study aimed to investigate the prevalence of depression and homesickness among the Iranian students in University of Malaya and to see if there are any associated factors including level of religiosity and social support.

Methods: 201 Iranian students studying in University Malaya were recruited via convenience sampling, from the various faculties in the university, there was a 87% respond rate. Their sociodemographic information was collected and they were assessed using the Dundee Relocation Inventory (DRI), the Beck Depression Inventory (BDI), the Duke University Religiosity Index (DUREL) and the Multidimensional Scale of Perceived Social Support (MSPSS-E) to assess the participants' presence of homesickness, depression, religiosity and social support respectively. The SPSS version 21was used for analyzing the data.

Results: The prevalence of depression was found to be 33.8 % (n=68) among the participants. Depression was significantly associated with homesickness (OR= 7.739; 95% CI; 3.809-15.723), poor social support, (OR=0.481; 95% CI; 0.243- 0.951) and lower intrinsic religiosity (OR=0.467; 95% CI; 0.217-1.005).

The prevalence of homesickness was 44.3 % (n=89) among the participants. Homesickness was significantly associated with poor social support (OR=2.031; 95% CI; 1.046- 3.944), presence of

depression (OR=0.144; 95% CI; 0.72-0.287) and female gender (OR=2.440; 95% CI; 1.254-

4.747).

Conclusion: One third of Iranian students in University Malaya are suffering from depression and

it is associated with being homesick, poor social support and lower intrinsic religiosity. Almost

one in two Iranian students in University of Malaya are suffering from homesickness and it is

associated with the female gender, being depressed and presence of poor social support. It is

worthwhile noting that services for these international students will definitely help these students

cope and settle down better in achieving their undertaking.

Key words: homesickness, depression, religiosity, measurement, associated factors

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List of abbreviations

ARWU Academic Ranking of World Universities

BDI Beck Depression Inventory

DUREL Duke University Religion Index

IELTS International English Language Testing System

IR Intrinsic Religiosity

IPS Institute Postgraduate Studies

MSPSS Multidimensional Scale of Perceived Social Support

NORA Non- Organization Religious Activity

ORA Organizational Religious Activity

SPSS Statistical Package for Social Science

RC Religious Coping

SD Standard Deviations

TOEFL Test of English as a Foreign Language

UM University Malaya

Chapter 1: Introduction:

The global education market has changed tremendously over the last decade. The internationalization of higher education occurred with students moving from their home country to study abroad (Barron, Baum, & Conway, 2007). Increasing numbers of students travel to other countries for their tertiary education (Bhandari & Blumenthal, 2009; Böhm, Davis, Meares, & Pearce, 2002) making international student mobility an important part of global higher education (Mok, 2010; Verbik & Lasanowski, 2007). The growth in demand for international education has boomed (Bhandari & Blumenthal, 2009; Böhm et al., 2002) with countries such as the United Kingdom and United States being front runners as the most sought after destination for overseas students (A.A. de Araujo, 2011; Levin, 2010; Ryan & Carroll, 2005; Williams & Johnson, 2011). In later years, Australia, New Zealand and Canada have been seen excellent alternatives (Barron et al., 2007; Pyvis & Chapman, 2007). Students from all over the world are encouraged and are attracted to travel abroad to develop their personal advancement, abilities and acquire various skills (Kwai, 2009). Significant year-on-year growth was recorded in the late 1990s and early 2000s in most of the main English-language destinations with major source countries such as China and India providing a large number of enrolments each year (Verbik & Lasanowski, 2007).

Researchers have indicated the number of international students is likely to continue to increase, with the process bringing many benefits to the institutions and students alike (L. Brown, 2009; Knight, 2007). The record number of international students' enrollment seen in these countries

(Levin, 2010), contribute substantially to the country's economy (Böhm et al., 2002; A.A. de Araujo, 2011; Reynolds & Constantine, 2007).

While this is likely to benefit the students and the institutions, studies have found and many researchers have suggested that educational institutions take a closer look at the attitudes, frustrations, and needs of the foreign students integration (L. Brown, 2007; Brown & Holloway, 2008; Wu & Hammond, 2011). Although many international students complete their studies with relatively few difficulties, others experience troubles (Brisset, Safdar, Lewis, & Sabatier, 2010). Many studies have discussed the difficulties and the needs of international students. These students face challenges and these concerns are discussed below.

The paper will highlight the background literature as well explore the health and well-being of this population group specifically looking at the issue and impact of depression and homesickness. In scientific literature, homesickness is a subject of interest only in recent years (M. Stroebe, van Vliet, Hewstone, & Willis, 2002); it has not received due attention in research (M.A.l. van Tilburg, Vingerhoets, & van Heck, 1996). It is highly stressful for these young international students, leaving familiar people and environment (S. Fisher & B. Hood, 1987). **Homesickness** is common among college students and presents as a major stressor (Tochkov, Levine, & Sanaka, 2010) especially if intense or chronic (Thurber & Walton, 2010) as being homesick can make the move difficult and even unsustainable (M. Stroebe et al., 2002). homesickness has an adverse effect on the students psychological **health** and academic performance (Tochkov et al., 2010). Likewise, negative experiences in a new country/environment, can cause these students to feel hopeless, and the unrelenting state of hopelessness

maybe a manifestation of depression (Mori, 2000; S. Sümer, S. Poyrazli, & K. Grahame, 2008). Being homesick, depressed and hopeless impedes these students from achieving their goals. Understanding the experience of these international students has very important implications both for the students and the institution of higher learning.

University Malaya has more than nine hundred Iranian students pursuing their study. This research with focus on the Iranian students with the aim to investigate the prevalence of depression and homesickness, with any associated factors.

Chapter 2: Literature review

2-1: International students' mobility and its importance

A student going abroad to study is not a new phenomenon with the surge in student mobility occurring since 1999 (P.G. Altbach, Reisberg, & Rumbley, 2009; Bhandari & Blumenthal, 2009). Studying abroad at western higher education institutions for many students in Asia has begun even from as far back to latter half of the 19th century (Chan, 1999). International students, particularly from China, and also from Hong Kong, Malaysia and Singapore, have made the distant sojourned (Chan, 1999). The surge has been explained to occur as a result of greater social mobility, expanding higher education systems and available funding (P.G. Altbach et al., 2009; Böhm et al., 2002).

Providing children with high-quality education definitely provides a good start in their life (Chan, 1999; Siu, 1992). It is believed that removal from the familiar home environment give students the freedom from and the opportunity for self-discovery (L. Brown, 2009). This presented a thrilling stimulus for students to study in overseas institutions (P.G. Altbach & Knight, 2007). Additionally for the family and students, studying abroad meant acquisition of knowledge with the hopes of better employment prospect and lifetime earnings potential (Chan, 1999; Gray, Vitak, Easton, & Ellison, 2013). For some, travelling to a new country offers an opportunity to escape unstable home-country economic and political conditions (Ozturgut & Murphy, 2009). Corresponding to this, through the years, many Asian countries sought foreign trade and businesses aggressively to operate in their mainland thus the presence of international companies expanded rapidly across Asia, adding to the increasing need to employ new generation of International minded professionals (Siu, 1992).

These student educational exchanges for developing countries, are seen as critical components of building knowledge and intellectual capital for the nation and above all remaining competitive in the globalizing education evolution (Andrade, 2006; Bhandari & Blumenthal, 2009; A.A. de Araujo, 2011). Graduates from foreign countries are seen as vital to sharing knowledge, building intellectual capacity and most importantly to remain competitive in the expanding global market (Bhandari & Blumenthal, 2009; A.A. de Araujo, 2011). Even in Malaysia, the need to cope with increasing numbers of candidates for local university entrance placed pressure on local universities to meet expanding demands.

The cross-border movements of students provided opportunities not only for the foreign students, it included expansion and big business for universities and other business providers i.e. the growing international market for academic and higher sector for education (P.G. Altbach, 2004; P.G. Altbach & Knight, 2007; L. Brown, 2009). The presence of international students is seen as bringing strong academic backgrounds which is set to enhance cultural diversity of their respective campuses other than making significant contributions to an institutions' revenue stream, teaching and research (Andrade, 2006; Bhandari & Blumenthal, 2009; L. Brown, 2009; A.A. de Araujo, 2011; McClure, 2007). The presence of both the international and domestic student population is seen as a cultural potpourri, offering students the opportunity to improve their cross-cultural communication skills and knowledge (A.A. de Araujo, 2011; Mok, 2010). This created competition among institutes of higher learning to attract international students, and has become fiercer through the years between the host /receiving countries (Li & Kaye, 1998; Zheng, 2014). Many tertiary institutions have upgraded their international perspectives curricular providing a

more rounded education e.g. opportunities to learn about other cultures and enhancing foreign language programs, and providing cross-cultural understanding (P.G. Altbach & Knight, 2007; A.A. de Araujo, 2011). For tertiary level of education, this provided opportunity to advance research and knowledge capacity and to increase cultural understanding generating new ideas and knowledge (P.G. Altbach & Knight, 2007; Knight, 2007; Mok, 2010). Many students benefit from the cross-cultural contact with increase in employment opportunities (A.A. de Araujo, 2011; Mok, 2010). Tapping into researching educational achievement of Asian was seen as an example of improving the education system in the United States (Siu, 1992). Having international students now is seen as enhancing the competitiveness, prestige, and strategic alliances of colleges and universities around the world (P.G. Altbach & Knight, 2007). Thus with overseas universities expanding their curricular and allowing students access to higher education in countries where local institutions cannot meet the demand, boosted the interest of students world-wide (P.G. Altbach et al., 2009).

At the turn of the millennium, student mobility reached a staggering number, with estimated 7.2 million students studying outside their home country (Böhm et al., 2002). Though before English speaking countries such as America, England and later Australia were popular destination, several other countries in Asia and Asia Pacific region has stepped up their efforts to internalized and attract international students (Bhandari & Blumenthal, 2009; Mok, 2010). Higher institutions have consequently noted a change in the student population occurring resulting in challenges for local and foreign students alike as well as the teaching staffs (Ryan & Carroll, 2005). Of late, many universities have further boasted their university programs offering direct university linkages and joint research opportunities to attract further international students (Bhandari & Blumenthal, 2009;

L. Brown, 2009; Mok, 2010). The rising number of international students has resulted in new private universities some for-profit sector, have been established in many host countries (P.G. Altbach & Knight, 2007). This is mainly to cope to the growing demand for international education.

On the part of the students, there are many factors that affect their decision on the country of choice (Bhandari & Blumenthal, 2009; Mazzarol & Soutar, 2001), including:

- 1) cost and quality of higher education program
- 2) the professional credentials for future careers
- 3) the student's perception that an overseas course of study is better than a local one
- 4) availability and acceptance to a specialization
- 5) linguistic and geographical links between home and country of destination
- 6) students' intention to migrate after graduation

In a study by Brooks and Waters (2009), among UK students and undergraduates, studying overseas represents a second chance at success after the students' initial application to their first choice institution was rejected. It is also seen as a means of 'escape' from various pressures and expectations, and escape to a new life abroad, avoiding failure at home (Brooks & Waters, 2009; J. Waters, Brooks, & Pimlott-Wilson, 2011).

2-2 International students' mobility and growing concerns

The term **sojourner** has been used to describe such culture travelers, they are temporary visitors returning home after achieving their aims (Bochner, 2003). International students are seen as being

individuals who travel beyond their countries of origin for a particular purpose and for a specified period of time and during this time, relationships are establish with members of the host society (Bochner, 2003).

Seeking academic excellence and future prospective with moving to a new country to study is now a common occurrence (Brisset et al., 2010). Studying abroad is increasingly becoming a common and expected experience for many young adults (Brisset et al., 2010). These young people travel abroad trying to gain entry into the 'best' schools and universities to accumulate academic credentials to be successful (J. Waters et al., 2011). It is a "norm" that young people are expected to do well i.e. continue their education into tertiary education and achieving a degree (Irwin & Elley, 2011; Vincent & Ball, 2007). Pressures are placed on these young adults to succeed (Irwin & Elley, 2011; Vincent & Ball, 2007) and going abroad is often associated with entry and success from a top-ranking, prestigious university(A. M. Waters, Zimmer-Gembeck, & Farrell, 2012).

The appeal of studying in western, English-speaking countries is strong especially among very young adolescents from East Asia (Kuo, 2006). While exciting and promising, this experience also presents challenges and difficulties (Brisset et al., 2010; Z. Zhang & Brunton, 2007). International students face significant challenges above and beyond those of their local peer, and these difficulties and problems often complicate the life of these students (M. Alavi & S.M.S. Mansor, 2011; Nilsson, Butler, Shouse, & Joshi, 2008; Sherry, Thomas, & Chui, 2010). There are growing concerns with regards to the serious risks associated with this complex and growing phenomenon of international student mobility, with some of the concerns being (L. Brown, 2009; Knight, 2007):

- 1) risks associated with commercialization and modification of education programs,
- 2) the increase in the number of low-quality providers
- 3) brain drain
- 4) cultural adjustments
- 5) personal change
- 6) the loss of cultural identity

International students were from before defined as individuals enrolled in institutions of higher education who are on temporary student visas and are **non-native English speakers** (Andrade, 2006). The Organisation for Economic Co-operation and Development (2011) report showed that Asian students occupy 52% of the international student population worldwide with China and India as the top two exporters of foreign students across the globe (P.G. Altbach et al., 2009). Moving to a new environment is an important life event (Selmer, 1999; Ward, Bochner, & Furnham, 2001). The move between societies or cultures without doubt involves some personal contact between dissimilar individuals due to cultural differences and exposure to unfamiliar physical and social manifestations (Bochner, 2003; A. Furnham & Bochner, 1986; Ward et al., 2001). At the very least, the educational systems and language are very different from the one they have been exposed to previously (Ryan & Carroll, 2005). Adjustment takes place as the person comes into contact with the new and unfamiliar culture (Ryan & Carroll, 2005; Ward et al., 2001) and this can be unsettling, particularly if the transition is abrupt (Bochner, 2003; Ward et al., 2001). Most will experience some degree of culture shock (L. Brown, 2007; A. Furnham, 1993; A. Furnham

& Bochner, 1986; Ward et al., 2001), while others experience adjustment difficulties (Ramsay, Barker, & Jones, 1999).

The research on overseas students only appeared after the 1950s, when there was a out pouring of interest on their social and psychological problems (Ward et al., 2001; Y. Zhou, Jindal-Snape, Topping, & Todman, 2008). Asian international students particularly experience a great deal of unfamiliarity in almost every aspect of their life in the Western countries (Toyokawa & Toyokawa, 2002; Q. Wang & Hannes, 2013; J. Zhang & Goodson, 2011). Different terms have been put forth to describe the complexity of psychological sufferings experienced by international students in their migration experiences, such as "uprooting disorder" (Zwingman, 1978) or "foreign student syndrome". Ward (1967) explained a syndrome as foreign student syndrome the characteristics are described in Table 2-1. Even though these finding are not new, they are still considered important in literatures (D. Bhugra & O. Ayonrinde, 2004) as not only is it common, its occurrence has the high potential to generate frustration, miscommunication, and mutual incomprehension (D. Bhugra & O. Ayonrinde, 2004).

Table 2-1: foreign student syndrome (described by Ward in 1967)

	Foreign student syndrome characteristics
1	A disheveled appearance.
2	non-specific somatic complaints
3	passive and withdrawn style
4	Seeking help for physical problems

In some countries and communities, international students have suffered from discrimination on grounds of race, religion and culture, gender and have been confronted with circumstances which pose a threat to their safety, dignity and security (European Association for International Education, 2005). Other studies have looked into the issues of difficulties and the needs of international students; they face challenges in respect to (L. Brown, 2007; Brown & Holloway, 2008; Toyokawa & Toyokawa, 2002; Wu & Hammond, 2011; Z. Zhang & Brunton, 2007):

- language proficiency and ability,
- academic expectations and educational goals,
- social integration, norms and values,
- socio-cultural influences, including loneliness, loss of social networks, relationships with host nationals,
- leisure activities,
- Home-stay experiences.

Thus it can be seen that while such experiences have beneficial consequences to many, however cultural shock may be occurring and threatening to some (Bochner, 2003). Moving to the new culture and unfamiliar contact is a **noxious and a painful experience** for the sojourner/ students with possible outcomes of negative emotions reaching for some a clinical diagnosis (Bochner, 2003). J.W. Berry, Kim, Minde, and Mok (1987) categorize the changes into five general areas:

- 1) physical changes like a new place to live;
- 2) cultural changes;

- 3) different sets of social relationships;
- 4) biological changes like new nutritional status and
- 5) changes in one's psychology, behavior and mental health status

People have "broken down", send home as they could not cope (Bochner, 2003; Brisset et al., 2010). Culture shock reflects some of the feelings and experiences of the travelers who suddenly find themselves in new, strange, or unfamiliar places (Bochner, 2003; Ward et al., 2001). These students will inevitably meet others who are dissimilar to themselves in appearance, ancestry, values and customs (Brisset et al., 2010; Ward et al., 2001; Y. Zhou et al., 2008). Adjustment describes the process that occurs between these students and their new environment e.g. academic environment and often is associated with issues such as different educational background, learning styles, study habits in addition to the culture and language differences (Ramsay et al., 1999). While for most, such cross-cultural contact enriches the lives of the students (or the host citizens), the opposite occurs for others (Bochner, 2003). The adjustment difficulties faced by these students often result in psychological problems, such as symptoms of depression, anxiety, loneliness, and social isolation (Kim, 2012).

As a medical model, stress has been commonly and extensively studied in the international students (Jackson, Ray, & Bybell, 2013) with international student reported to experience more psychological problems than local students (C.J. Yeh & Inose, 2010). Stress as defined by McGrath (1976) and Schuler (1980) as a dynamic condition in which the individual is confronted with constraints, or demands on having or doing what one desires and for which resolution is perceived to have uncertainty, leading to important outcomes. Kyriacou (2001) viewed stress as

a negative emotional experience triggered by the perception that their situation constitutes a threat to their self-esteem or well-being. The pressure to perform often leads to problems of stress for the students concerned as additionally they have to adapt to a new culture/ environment yet are expected to perform (Siu, 1992). "Shock' is understood as the stimulus for gaining and achieving of culture-specific skills that are required to engage in the new social interactions (Y. Zhou et al., 2008). 'Shock' stems from inherently stressful life change while adjustment is regarded as an active process of managing stress at different systemic levels, both at the individual and situational level (Y. Zhou et al., 2008). Like-wise culture shock is seen as intense upon arrival in a new country and is often noted for its transitory nature, while adjustment, is the first stage of adaptation that sojourners go through (L. Brown, 2007). Feeling alone and abandoned correlates with the emergence of psychological symptoms (Brisset et al., 2010). With other symptoms of culture shock being emergence of physical illness, low self-esteem and morale, social isolation, dissatisfaction with life, bitterness, homesickness, disorientation, anxiety, depression, role strain, identity confusion, stress, loneliness, self-doubt, hostility, distress, personality disintegration, helplessness, irritability, fear, and self-deprecation (J. W. Berry, 1994; A. Furnham, 1993, 2014; A. Furnham & Bochner, 1986). In an ethnographic study of the adaptation experience of a sample of postgraduate international students in the United Kingdom by L. Brown (2007), culture shock was experienced by nearly all the students surveyed, with one of the most commonly cited symptoms being stress related to the demands of their intensive master's course. The experience and presence of stressors in the environment of these students all the way through the process of acculturation brings about physiological and psychological state of stress (L. Brown, 2007).

- J. W. Berry (1992) J. W. Berry (2005) refers to acculturation as the process of acquiring:
 - 1. new cultures e.g. values, beliefs, and language,
 - 2. culture-specific behaviors (e.g., music, dress, food, and sport), and
 - 3. attitudes

The process occurs through interactions with the individuals in a hosting country through a long-term process, sometimes taking years and at times centuries (J. W. Berry, 1992; J. W. Berry, 2005). The acculturation process other than being a continuous process, is multifaceted involving cultural and psychological changes associated with the degree of the acquisition of the new cultural characteristics, behaviors, thinking patterns, and self-identification (J. W. Berry, 2005; Rudmin, 2009). It as well involves various forms of mutual accommodation, leading to some longer-term psychological and socio-cultural adaptations between both groups (J. W. Berry, 2005). These international students are forced to encounter very different social and institutional contexts in the new environment and this can be unsettling (Bochner, 2003; S. Poyrazli & Grahame, 2007). Psychological conflict and distress causing personality disintegration can arise from incompatible cultural norms when traditional mental schemas (habits of perception, cognition and emotion) are not maintained (Rudmin, 2009). Students interact with and participate in their academic and social communities and how well these communities provide the necessary support to promote a healthy adjustment for these students (S. Poyrazli & Grahame, 2007).

Zapf (1991) explains cross-culture transitions as follows: As long as a person is interacting with others who share the same worldview, he or she may not consciously aware of the particular patterns of meaning assumed. Through contact with persons who see the world differently that an individual becomes **acutely aware** of the cultural patterns he or she is using, is not or no longer

similar to theirs (Zapf, 1991). In this situation, a person may **experience frustration and disorientation** as predictions break down, incoming stimuli do not match familiar patterns, and actions are misinterpreted by others (Zapf, 1991).

The level of stress, anxiety and irritability amongst foreign and local students in United State were investigated by M.V. Fritz, D. Chin, and V. DeMarinis (2008). The investigators assessed whether factors such as language barrier, financial problems and being faraway from family and friends generate more stress and anxiety for international students than local students (Marie Väfors Fritz, Dorothy Chin, & Valerie DeMarinis, 2008; Thorstensson, 2001). Though there was no significant difference in the pattern of distress between the two groups, the difficulties of not being able to work and of socially related problems were perceived as more severely affecting the European and the Asian groups, compared to the locals. The Asian students were more disturbed with language barrier while the European students were more distressed with being far away from their family and friends. Similarly C.J. Yeh and Inose (2010) in a sample of 359 international undergraduate and graduate students from a large university in the United States found that English proficiency was an important predictive factor for acculturative distress. This study similarly found acculturative stress differed among international students from different countries; international students from Europe experienced less acculturative stress than their counterparts from Asia, Central/Latin America, and Africa. The apprehension about students' English language fluency and its influenced on the students' adjustment ability has been supported by other studies with research citing language difficulties appear to be the most challenging issue for the majority of international students (Andrade, 2006; Mori, 2000). The English language is the center of the global language system and is a common cross-border language with the English used frequently

in many oral and written communication (Sawir, 2005; Selmer, 2006). The English language has been recognized as a global and international language for many decades now (Sawir, 2005; Selmer, 2006). Competency in the language is required by many people for their practical life with incomprehensible languages creating a frightening barrier (Sawir, 2005). Lacking in English language skills in overseas students place them are at a severe disadvantage as this will likely to affect their desire to seek out social interactions and thus create negative feelings about their ability to be successful in their new environment (C. P. Chen, 1999; Mori, 2000). Their academic performance would certainly be affected with subsequent impact on their psychological adjustment (Lin & Yi, 1997). (S. Poyrazli & Lopez, 2007) and (S. Poyrazli & Grahame, 2007) found students with higher levels of English proficiency experienced lower levels of acculturative stress.

The other difficulties that have been found to be associated with adjustment issues in international student are:

- a) Areas of culture: These international students may experience adjustment strains within their host environment due to the cultural differences (A.A. de Araujo, 2011; Hashim, 2003; Reynolds & Constantine, 2007). All societies and communities are dynamic; travelling between societies inevitably involves personal contact between culturally dissimilar individuals, and in the case of the international students exposure to unaccustomed physical and social manifestations (Bochner, 2003).
- b) Social support: International students are more likely to be strained by the lack of social support in the host countries (Baba & Hosoda, 2014; Chia, 2009; S. Poyrazli & Lopez, 2007). Leaving family and friends, and a their home culture, often results in international

students finding themselves simultaneously grieving for missed persons and places (K. Kegel, 2009; Mori, 2000). For many international students, the warmth and comfort are often found and solely confined to their own national groups (Bulthuis, 1986).

- c) Initial transition stage (S. Poyrazli & Grahame, 2007): It is not surprising that studies have found during their initial transition into the university, greater adjustment difficulties and more distress are reported by these international students as they tend to experience greater academic and personal needs (R. Hechanova-Alampay, T.A. Beehr, N.D. Christiansen, & R.K. Van Horn, 2002; Leong & Sedlacek, 1989; S. Poyrazli & Grahame, 2007). Homesickness finances, and housing represented the three most difficult areas of adjustment for the 747 international students surveyed in the study by Stafford, Marion, and Salter (1978).
- d) duration of stay in host country (L. Wilton & M.G. Constantine, 2003) with L. Wilton and M.G. Constantine (2003) reporting greater length of stay is associated with lesser psychological distress
- e) the course itself e.g. unfamiliarity with course structure or educational system (Mori, 2000; Ozturgut & Murphy, 2009; K. Thomas & Althen, 1989) and duration of course (Katsikas & Panagiotidis, 2011).
- f) perceived discrimination or prejudice (A.A. de Araujo, 2011)
- g) homesickness (A.A. de Araujo, 2011): homesickness correlates with the adjustment issues of student sojourners (A.A. de Araujo, 2011; S. Poyrazli & Lopez, 2007).

For numerous college and international students being homesick is part and parcel of moving away be it an actual or anticipated separation from home (Archer, Ireland, Amos, Broad, & Currid, 1998; Thurber & Walton, 2010). Homesickness is the distress or impairment caused by the separation from home and it was earlier studied in children and among children entering boarding school (Fisher, Frazer, & Murray, 1986). Fisher et al. (1986) reported three studies where a complex cognitive/motivational/ emotional state occurred in children attending a new boarding school, and this state corresponds to the children being homesick. Evidence of **homesickness** were found in the diaries and letters written by boarding school pupils, student and university students and a former soldier (Fisher, 1988). The prevailing situation that was noted in these subjects were, all revealed a sense of loneliness, depression, emotional distress and a preoccupation with and longing for home (Fisher, 1988).

Homesickness is commonly reported among college students (Fisher, Murray, & Frazer, 1985; B. Hendrickson, D. Rosen, & R.K. Aune, 2011; Hussain, Guppy, Robertson, & Temple, 2013; K. Kegel, 2009; Scopelliti & Tiberio, 2010; M.A.l. van Tilburg et al., 1999). Homesickness' covers reactions to a number of circumstances which involve separation from familiar and loved people and places (S. Fisher & B. Hood, 1987; Fisher et al., 1985). In first-year university students Fisher et al. (1985) and S. Fisher and B. Hood (1987) found a predominance of features associated with loss, i.e. missing parents, family and friends or familiar faces; missing familiar surroundings, feeling insecure and missing the comforts home. It is as well considered as a component of culture shock (S. Poyrazli & Lopez, 2007), and as a form of grief (Fisher, 1988; Fisher et al., 1985).

Of recent, studies have report the presence and impact of being homesick in international college students (C. P. Chen, 1999; Mori, 2000; Sandhu & Asrabadi, 1994). Homesickness is considered a major problem to settling into the new university system (S. Poyrazli & Lopez, 2007; Thurber & Walton, 2010), with research suggesting:

- a) homesickness as a reaction to separation and the absence of significant others, to habitual places and activities (Archer et al., 1998; M.A.L. van Tilburg et al., 1996)
- b) homesickness can be understood through the social-cognitive model of depression as a grief-like reaction (Archer et al., 1998; M.A.L. van Tilburg et al., 1996). The intense longing for home is accompanied by a depressive mood and a variety of somatic complaints (M.A.L. van Tilburg et al., 1996), with sufficient data associating homesickness with the onset of depression (Leff, Roatch, & Bunney, 1970; Thomson & Hugh, 1972).

The early work on homesickness found homesickness as an illness in young people who were isolated in strange countries (M.A.L. van Tilburg et al., 1996), with Baier and Welch (1992) stating it is often missed or not acknowledged, and even among adults homesickness is at times experienced with embarrassment and denial. Baier and Welch (1992) described homesickness as the homesickness feeling is processed interpersonally and often not processed by the individual themselves and that it can happen to anyone, children or adults.

Researchers have described feeling homesick as missing family, missing friends, feeling lonely, adjustment problems, and with constant ruminations of home (Willis, Stroebe, & Hewstone, 2003), with presence of feeling extremely insecure (Baier & Welch, 1992) with the presence of extreme

"disliking the new environment" (Archer et al., 1998). In the DSM-IV (American Psychiatric Association, 1994), homesickness can be categorized as adjustment disorder. If homesickness is not severe enough and it does not cause severe impairment in functioning, it can be viewed as a normal reaction being away from home (M.A.L. van Tilburg et al., 1996). Severe homesickness maybe be seen as adjustment disorder with depressed mood or adjustment disorder with physical complaints and either as acute or chronic adjustment disorder (M.A.L. van Tilburg et al., 1996). (Fisher (1988); S. Fisher and B. Hood (1987)) and Baier and Welch (1992) consider homesickness to be a characteristic of reactive depression. This has been supported by other studies, showing the strong association with depression (Verschuur, Eurelings-Bontekoe, & Spinhoven, 2004).

It is difficult leaving family, friends and a home culture in pursuit of an academic opportunity abroad (K. Kegel, 2009) with international students frequently finding themselves having to simultaneously feeling sad for the missed persons and places, while having to build new social networks and adjusting to new cultural and environmental demands (C. P. Chen, 1999; Mori, 2000). Varying rates in the prevalence of homesickness have been reported, but it has been shown to affect people from all cultures and all age groups (M.A.L. van Tilburg et al., 1996) and more commonly during their first year of study (Fisher et al., 1985), with differences are related to coping styles (M. Stroebe et al., 2002).

Successful adaptation to a new university and to a new country often requires effort and flexibility (Brisset et al., 2010). The students must adjust and often do so by using their coping strategies they use to deal with new culture (A.A. de Araujo, 2011). People engaging in cross-cultural encounters need to be resilient, to adapt, and develop coping strategies and tactics (Y. Zhou et al., 2008). A

transitional process unfolds over time as students learn to cope with the demand and necessities of the new environment (Al-Sharideh & Goe, 1998). The process can be made more manageable and less traumatic by such factors as adequate preparation and social support, along with acceptance by the new culture. Whether individuals travel alone or with family, how the new country welcomes them, their legal status and economic factors all play a role in their adjustment to migration (D. Bhugra & O. Ayonrinde, 2004). The adaptation problems as been hypothesized as occurring due to (Thorstensson, 2001; Y. Zhou et al., 2008):

- 1) Predisposing factors such as individual characteristics e.g. grief and bereavement as a result or response to the loss of control and possibly resulting in further loss. Other individual characteristics include financial and other interpersonal problems (Mori, 2000). Brisset et al. (2010) found attachment anxiety and attachment intimacy predicted psychological distress among Vietnamese students studying in France.
- 2) Mental health changes as a consequence of migration experiences, including negative life events, lack of social support networks and the impact of value differences.

2-3: Religious coping skills in university students:

For many individuals, religion is a basic part of their lives and can result in a range of benefits for psychological well-being, mental health and therefore increasing the quality of life (Chai, Krägeloh, Shepherd, & Billington, 2012; Ivtzan, Chan, Gardner, & Prashar, 2013; Van Dyke & Elias, 2007). It is believed that religion presents its positive consequences with providing coping skills that will help individuals during stressful events.(Ano & Vasconcelles, 2005; Kenneth I Pargament et al., 1990).

The term religiosity is synonymous with terms such as religiousness, faith, belief, piousness, devotion, and holiness (Holdcroft, 2006). There are many ways of describing being religious with the most frequent way of portraying religious orientation as comprising two poles (Allport & Ross, 1967):

- 1. Some people have a religious orientation that is primarily *extrinsic*. The extrinsic orientation addresses the issue of immature faith that serves as a means of convenience for self-serving goals (Holdcroft, 2006; Tiliopoulos, Bikker, Coxon, & Hawkin, 2007). The extrinsic religiosity component is the self-serving and practical outlook on religion that provides the believer with comfort in recovery and rescue (Holdcroft, 2006; Tiliopoulos et al., 2007). These individuals are disposed to use religion for their own ends, such as status, sociability, and self-justification, and often selectively shape a creed to fit their own ends (Holdcroft, 2006; Maltby & Day, 2003; Tiliopoulos et al., 2007).
- 2. While others have a *intrinsic* religious orientation with religion providing people with a meaning-endowing framework in terms of which all life is understood. The intrinsic orientation refers to a mature form of religious sentiment that serves as a master motive and guide for one's way of life (Holdcroft, 2006; Tiliopoulos et al., 2007). Individual described as having an intrinsic orientation towards religion are described as committed to their religious beliefs, and the influence of religion is evident in every aspect of their life (Maltby & Day, 2003).

Allport and Ross (1967) further elaborate this distinction by articulating that "the extrinsically motivated person uses his religion, whereas the intrinsically motivated lives his religion".

The orientation provides a fourfold typology (G.M. Herek, 1987) of:

- 1. *Intrinsic* (high on intrinsic, low on extrinsic),
- 2. Extrinsic (high on extrinsic, low on intrinsic),
- 3. Non-religious (low on both), and
- 4. *Indiscriminately pro-religious* (high on both).

The intrinsic outlook uses religious teachings to inform their everyday interactions with others, they love their neighbor; for them "there is no place for rejection, contempt, or condescension" toward other human beings (Allport & Ross, 1967).

The orientation impacts patterns of thinking and can be seen having as positive and negative religious coping (RC) (Kenneth I Pargament et al., 1990; K.I. Pargament, Smith, Koenig, & Perez, 1998). Patterns of positive RC are as expressions of spirituality and having a secure relationship with God (Kenneth I Pargament et al., 1990), with people reportedly turning to positive RC mechanisms i.e. looking for a stronger relationship with God after a trauma, or to handle major life stressors (Kenneth I Pargament et al., 1990; K.I. Pargament et al., 1998).

A study conducted by Hsu et al (2009) indicated an association between religiosity and social and psychological quality of life. It suggested that religious coping strategies may have weakened the negative relationship between quality of life and stress amongst foreign students in New Zealand (Gardner, Krägeloh, & Henning, 2013). The relationship between religiosity, quality of life, distress and coping capability were investigated more detailed by Chai et al. (2012). The level of religiosity and its associations were assessed amongst international and local students in New Zealand. There was no significant difference in level of religiosity of foreign and local students. However, they found that Asian students to have higher level of religiosity than European students.

This study also demonstrated that Asians had lower scores regarding physical and environmental quality of life than Europeans, and that the first group to employ religious coping skills to diminish stress more than second group. Furthermore the employment of religious coping strategies could improve social and psychological quality of life for Asian student, however, it was not effective for European students (Gardner et al., 2013).

The majority of studies on religious coping strategies and their relationship with the stress have been done in western countries with Christin subjects (Ano & Vasconcelles, 2005). There is fewer studies with Muslim subjects, though its rate has increasing trend in recent years. (Abu-Raiya & Pargament, 2011). Studies conducted in Muslim universities such as Iran, Egypt, Algeria, Kuwait and Qatar indicated a positive correlation between religiosity and mental health and psychological well-being (Abdel-Khalek, 2012; Abdel-Khalek & Naceur, 2007; Gardner et al., 2013).

2-4: Malaysia and international student

Of late with the volatile economy and crisis, there has been lesser availability of scholarships resulting in more stringent selection of students (Böhm et al., 2002; Verbik & Lasanowski, 2007). The pattern has changed dramatically since the 1990s, and more so post September 11 (Morshidi, 2008). This has resulted in the opportunity for tertiary education centers to grow in Asia (Andrade, 2006; Böhm et al., 2002; Verbik & Lasanowski, 2007). This provided higher education institutions in Asia the prospect to grow, develop and possibly dominate the global demand for international higher education (Böhm et al., 2002; Verbik & Lasanowski, 2007). It is estimated that Asia represent more than half of the total global demand in international higher education (Böhm et al.,

2002). Within Asia, almost 50 percent of total demand is represented by students from China and India (Böhm et al., 2002; Morshidi, 2008).

Over the last few years, Malaysia through its government policies and initiatives has developed the country's own strategies to attract foreign students (Yusoff & Chelliah, 2010). Malaysia has similarly seen an **increasing number of** international students as many other universities around the world with Malaysia planning to seek 100,000 international students annually (Aziz & Abdullah, 2012; Lim, 2013). Malaysia has emerged as a strong contender, together with Singapore and China as major student destination (Verbik & Lasanowski, 2007), with international students flooding the national scene since the mid of 1990 (Morshidi, 2008). To date, there are increasing numbers of universities accepting higher numbers of students each year in Malaysian universities corresponding to the government's call to make Malaysia an important global player in world education (M. Alavi & S.M.S. Mansor, 2011; Aziz & Abdullah, 2012). Malaysia's main source of international students is from Asia, due to its similar socio-cultural and religion similarities and linguistic traits, the use of English as medium of instruction, and lower tuition fees and living costs (Verbik & Lasanowski, 2007). Malaysia was able to absorb more than 40,000 international student in 2005 (Morshidi, 2008; Saad, Yunus, & Embi, 2013). The country continues to receive a growing number of students from Africa and the Middle East, due to the efforts to recruit students from these regions mainly after the 9/11 attacks with the impact of September 11 has seen a decreasing number of new applications from Middle Eastern countries to the United States (Aziz & Abdullah, 2012; Morshidi, 2008). In 2013, Education Minister Tan Sri Muhyiddin Yassin, who was then as well the deputy Prime Minister of Malaysia stated that the goal of the Malaysian government was to attract 200,000 international students by the year 2020 (Bernama, 2013; Chi, 2011). Muhyiddin stated that the increase in foreign student numbers would be worth an estimated RM600 billion to the country's economy (Chi, 2011). To date, Malaysia had achieved a world ranking of 11th in terms of total international student population from around the world (Chi, 2011).

2-5: University Malaya and international students

Institutions of higher learning have shown phenomenal growth in Malaysia during the early 90s' (Lim, 2013). These institutions have been recognized as a service provider for the country with 20 public and 40 private universities in Malaysia attracting approximately 90,000 international students in 2010 (Ministry of Higher Education, 2011). **University Malaya** (UM) is the highest-ranking Malaysian institution and is a public research university (Chapman, 2013; International Student Forum, 2014). The university is Malaysia's oldest university, being established in 1949, based on a merger of several existing colleges in neighboring Singapore. University Malaya was the first Malaysian institution to be included in the top 500 of the Shanghai Jiao Tong University's 2011 Academic Ranking of World Universities (ARWU)(Cheng, 2011). Additionally the university was the only Malaysian institution that has made it to the top 200 of the QS World University Rankings 2011/2012 (The Star, 2011). The university has 12 Faculties, 5 Institutes, 2 Academies, 3 Centers (table 2-2).

Table 2-2: University Malaya's statistical information (presented by IPS)

	University Malaya
Unites	12 Faculties, 5 Institutes, 2Academies, 3 Centers
Offering courses	Pre-university, undergraduate, and postgraduate level
Staff	2000 academic staff, 300 professors
Number of students	13,841 Undergraduate students,11566 post graduate students
International	3, 262 from more than 80 countries
students	

UM has been taking International students since several years ago. The majority of University Malaya's international students are postgraduate students. In 2006 UM took 1458 (17.66 %) postgraduate international students versus 6787 (82.32%) local students. Its rate increased from 17.66% (1458 students) in 2006 to more than 23% in recent years. The number of postgraduate international students' intake has been on a rising trend. It was 2022, 2521 and 2645 in 2007, 2008 and 2009 respectively. This trend has steadily grown until 2012, a slight decrease occurred in 2013 (table 2-3).

Table 2-3: postgraduate students in UM

	Enrolment of postgraduate student according to academic sessions							
Session	2006/	2007/	2008/	2009/	2010/	2011/	2012/	2013/
	2007	2008	2009	2910	2011	2012	2013	2014
Local	6787	6902	7384	7968	8302	8521	8686	8822
students								
Percent	82.32%	77.34%	74.55%	75.07%	75.39%	75.38%	75.53%	76.27%
Internation	1458	2022	2521	2645	2709	2782	2844	2744
al students								
Percent	17.68%	22.66%	25.45%	24.92%	24.60%	24.61%	24.66%	23.72%
Total	8245	8924	9905	10613	11011	11303	11530	11566

2-6 Iranian students and studying overseas

It is estimated more than 40,000 Iranian students are studying abroad in 2012 (ICEF Monitor, 2012). This trend has continued to provide the country's economy with important skills and maintaining a link between the country and the rest of the world Iran becomes increasingly isolated internationally (ICEF Monitor, 2012). In addition, places in Iran's top public universities, are determined by a national entrance exam, which are extremely competitive with lucrative and popular fields such as medicine, difficult to get into (ICEF Monitor, 2012). For those whose

families can afford it, studying abroad is the better option as earning a prestigious degree, puts students in line for the best jobs when they return home (ICEF Monitor, 2012).

From 1900 to 1940s with the Reza Shah ruling the country, the Iranian government granted full scholarships to the sons of high-ranking officials and noble families to pursue their studies in European countries e.g. in France, Belgium, Great Britain, Sweden, Switzerland, and Germany. After World War II, the Shah Reza Pahlavi's shift their focus to sending students to an America due to the shift in international power relationships (Moshfegh, 1989). The number of Iranian students in the United States increased significantly to a staggering 50,000 to 75,000 (Lockyear, 1979). Iran became the largest single contributor to the international student population in 1974/75 and held this position until 1981/82 (Moshfegh, 1989). The main reasons behind this influx of students were (Moshfegh, 1989):

- a. Iran did not have enough higher education institutions then to accommodate students who wanted to further their education.
- b. Oil revenue made many families wealthy enough to send their children abroad for an education without.
- c. Students with overseas education secured better future careers, income and social status.
- d. The government supported the motion that by sending students overseas, would aid the country's development.

By 1986 Iran no longer appeared in the list of the top 15 with the 1979 Iranian Revolution resulting in a change of political power to religious leaders with several events following the Islamic revolution (Moshfegh, 1989). Many Iranian students ultimately found it impossible to pursue their

education further in the United States or other western countries, where they were often under such constant, critical social and emotional pressure added with lack of financial support as a factor (Moshfegh, 1989).

More recently, safety consideration and well-being have been factored into the decision-making process of Iranian students studying aboard (Morshidi, 2008) with new players in Asia e.g. Malaysia, China and the Middle East (United Arab Emirates) emerging as regional education centers by attracting several hundred thousand international students to their countries (Verbik & Lasanowski, 2007). September 11 became a significant chapter in the history of international student mobility (Morshidi, 2008). The event became a very complex dimension in Asian regionalism in higher education, predominantly in relation to international student mobility particularly in the Arab/Muslim World, with Malaysia attracting many from the Middle East and Arab countries (Morshidi, 2008; Saad et al., 2013).

Additionally one of the main concerns with regards to Middle Eastern students studying abroad is the loss of cultural identity (Knight, 2006) and English as the international language of the world (Aliakbari & Monfared, 2014). In Iran, English is considered a foreign language and is taught from junior high school onward (Gol, 2013). However, learning English as a foreign language has become very popular during the past years (Gol, 2013). Among Iranian students, many factors affect their decision to studying abroad. Some of these items are related to the home country's social, economic, political and environmental condition and some depends on the facilities and privileges presented by host country. Though this present study is not assessing these items,

however, in pre-research interview with Iranian students studying in UM, these students mentioned the below reasons for selection of Malaysia for their study.

- 1. Welcoming university.
- 2. English speaking country
- 3. Easy visa process
- 4. Weather (having both rain and sun shine)
- 5. Staying in a live country
- 6. cultural similarities
- 7. Easy visa process for family and visitors
- 8. Pre-requisite to move in a developed country
- 9. Having same religion
- 10. Reasonable cost

According to the statistical information presented by the director of International student exchange of Ministry Of Science of Iran, 55,686 Iranian students studied overseas in year 2013/2014. (Entekhab.ir, 2013). The percentage of Iranian students' level is shown in Table (2-4).

Table 2-4: The number of Iranian students studying overseas in year 2013/2014

Students	n	%
PhD	22,586	40.6 %
Master	23,000	43.1%
Undergraduate	91,004	16.3 %
Total	55,686	100%

The statistic also indicated that Malaysia with 8883 intake was to top country for taking student from Iran. United States with 7341 and Canada with 5238 student located in second and third place respectively (Table 2-5).

Table 2-5: Iranian students studying overseas

Country	n	%
Malaysia	8883	15.95 %
United state	7341	13.18 %
Canada	5638	10.12 %
Germany	3504	6.29 %
Turkey	3364	6.04 %
United Kingdom	3228	5.79 %
others	23728	42.61 %
total	55686	100 %

Among 55,686 Iranian students studying abroad only 419 are scholarship students and the rest are self-sponsor (Entekhab.ir, 2013).

2-7 University Malaya and Iranian students

According to statistical information of IPS center, UM has taken students from more than 80 countries. It is of interest that Iran with almost 77 million population (World Bank, 2014) is the top country for sending international students to university Malaya. For the past 5 years almost 30 percent of UM international students were Iranian .The highest rate was 34 percent in 2011 and lowest one was 27 percent in 2007. After 2011 it decreased to 32 percent in 2012 and 29 percent in 2013 respectively. Indonesia with almost 3 times population equal to 234 million (World Bank, 2014) located in second place and Iraq and China are the third and fourth countries respectively (Table 2-6).

Table 2-6 the rate of 3 top countries' post graduate students in University Malaya

Year Iran		Indonesia		Iraq		Total intranasal	
	n	%	n	%	n	%	students
2009	720	27%	443	17%	213	8%	2645
2010	863	32%	430	16%	174	6%	2709
2011	935	34%	419	15%	160	5%	2782
2012	936	32%	441	15%	159	5%	2844
2013	793	29%	401	14%	146	5%	2744

Table 2-6 indicates that Overall rate of Iranian post- graduate students is decreasing steadily.

However, the decreasing rate of new students' enrollment has been very surprising since 2012.

It may result in a critical fall in Iranian students' rate in the future (Table 2-7).

Table 2-7: The number of enrolment of first year Iranian post-graduate student. (According to IPS statistical information.)

	First year Iranian students' enrolment in first semester of	n
1	2011	869
2	2012	490
3	2013	234
4	2014 (until 4/8/2014)	219

2-8 Depression and homesickness among university students

Depression is one of the most common psychological disturbances among university students (Ibrahim et al., 2013; Lyubomirsky, Kasri, & Zehm, 2003). Studies reported more vulnerability and higher prevalence of depression in university students than in the general population (Bayati, Beigi, & Salehi, 2009; Ibrahim, Kelly, Adams, & Glazebrook, 2013; Nerdrum, Rustøen, & Rønnestad, 2006; Ovuga, Boardman, & Wasserman, 2006). Plenty of studies employed the General Health Questionnaire (GHQ) to show the high rate of psychological problems including depression and anxiety in university students. A study conducted in Singapore by Ko et al.(1999) indicated that 57% of medical students and about 47% of law students were emotionally disturbed

(Ko, Kua, & Fones, 1999). MOHD SIDIK, Rampal, & Kaneson (2003), in a local medical university in Malaysia, investigated emotional disturbance amongst medical students using the same questionnaire. They found 41.9% of students to be emotionally disordered. Their study showed social support of family members and lecturers as protective factors while the pressure of exams was a risk factor for the disturbance (MOHD SIDIK, Rampal, & Kaneson, 2003). Tabatabaee et al.'s (2013) study on Iranian students studying in Beheshti University in Iran demonstrated a negative correlation between level of depression and perceived social support (Tabatabaee, 2013). Khan et al. (2006) conducted a research to determine the prevalence of depression and anxiety and their associations among medical students in Karachi University in Pakistan. In their study, 70% of students were found to be depressed or suffering from anxiety. The analysis of associated factors demonstrated that, apart from academic stressors, other risk factors including a family history of depressive or anxiety disorders, losing one of the relatives over the past one year and drug abuse could be precipitating factors for their depression and anxiety (Khan, Mahmood, Badshah, Ali, & Jamal, 2006). Jadoon et al. (2010) used the Aga Khan University Anxiety and Depression Scale to assess depression and anxiety among medical students in Multan in Pakistan. They found depressive and anxiety symptoms in 43.8 % of students. Their study demonstrated significant association between the female gender and depression and anxiety. However, locality, age and total family income did not show significant association with the depression and anxiety. They found the least rate of disturbance in the fourth year of study (Jadoon, Yaqoob, Raza, Shehzad, & Choudhry, 2010). Bayati et al. (2009) conducted a study to find the prevalence of depression and anxiety among Iranian students in Arak University in Iran. They used the GHQ-28 questionnaire for their research. The study indicated psychological disturbance in 52.3 % of the students and the most important risk factors were female gender, an uninteresting

study major, uncertainty about future and having a family history of depression (Bayati et al., 2009). Other studies used more specific tools to assess the level of depression. Lewinsohn et al. (1993) reported depression amongst 17% of students using Beck Depression Inventory for their research. Their study showed that depression had a negative correlation with the duration of study. However, there was no significant association between depression and age of students, their marital status, gender and the level of interaction (Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993). Tjia et al. (2005) also employed the Beck Depression Inventory to investigate the prevalence of depression amongst medical students in a private medical university in the USA. Their study indicated depression in 15.2% of students, with 20.4% of them having suicidal thoughts (Tjia, Givens, & Shea, 2005). Sidana et al. (2012) investigated the prevalence of depression among medical students in New Delhi. They found 21.5 % of students to be depressed. The study indicated a significantly higher rate of depression in first year students, in students with poor academic results and, surprisingly, in students with excellent academic performance as well. The study did not show a higher rate of depression in female students (Sidana et al., 2012).

It is believed that international students may perceive more stress and that depression can be more common amongst international students in comparison with local students (Dinesh Bhugra & Oyedeji Ayonrinde, 2004). According to a study published in the United Kingdom in 1961 and later in 1988 cited by Furnham, it was found that foreign students studied at higher education level in the United Kingdom's universities had greater rates of psychological problems in comparison with British students. The highest rate was 28% seen in Iranian, Iraqi and Nigerian students. Psychological issues were found to be 22% among Egyptian and Turkish students. The students from Indian subcontinent showed the least problems (18%) compared with other nationalities. This study indicated psychological problems only amongst 14% of local students (Dinesh Bhugra &

Oyedeji Ayonrinde, 2004). Nilsson et al. (2004) found a rate of 34% of the Asian international students in the study reporting feeling depressed, down, blue and unhappy, while another 20% reporting feeling nervous, tense, worrying too much (Nilsson, Berkel, Flores, & Lucas, 2004). M. Wei, Russell, Mallinckrodt, and Zakalik (2004) reported an almost similar rate of about 30% among Asian international students (M. Wei et al., 2004). Most of the research studied Asian international students in the United States, as the United States has served as a temporary home to so many students choosing to pursue a higher education abroad (S. Poyrazli & Grahame, 2007; E. Wang, Newton, Matsuo, & Pascoe-Chavez, 2013; K. T. Wang et al., 2012).

A.A.Eslamei et al. (2002) conducted a study to find the prevalence of depression in medical students attending Gorgan University of Medical Science in Iran. They employed the Beck Depression Inventory for their study and found about 10% of medical students to be depressed There was no significant difference between male and females in term of prevalence of depression (A.A.Eslamei, M.A.Vakili, & J.Faraji 2002). Unlike A.A. Eslamei et al. and Hadavi et al.'s (2012) studies found depressive symptoms among 50.7% of students of Refsanjan University in Iran using the Beck Depression Inventory(Hadavi & Rostami, 2012). Similarly Ahmari et al. (2012) found depressive symptoms in majority (55.2%) of students of Qum University of Medical Science in Iran. However, just 3.2% of them were suffering from severe depression and the percentage of depression was 14.8% and 37. 2% for moderate and mild, respectively. The research also demonstrated that 82% of students had positive attitudes towards religious beliefs and the others (18%) had negative attitudes. This study showed a negative correlation between negative attitudes and depression. In the other words, negative attitudes towards religion were found to be a risk factor for depression in Iranian students (Ahmari 2012). Beygi et al. (2011) assessed the

level of religious attitude and its relation with mental health amongst students studying in the Arak University of Medical Science in Iran. They used the GHQ-28 questionnaire and Khodayary Fard's Religious Attitude Ouestionnaire for the study. The study indicated high religious attitude in 82% of students and it showed that there was a positive correlation between high religious attitude and mental health. This study also showed a negative correlation between students' mothers' education level and the students' religious attitudes. It means mothers with high levels of education reared children with lower religiosity. A lower level of mental health in married students was another finding of this research. (Mohammad Beygi, 2011). Aghakhani et al. (2011) reported depression amongst 52% of Urmia University of Medical Science in Iran. No association between duration of studying, gender, and the major of students with prevalence of depression was found (Aghakhani et al., 2011). Ghaderi et al. (2009) investigated the level of depression, anxiety and stress amongst Iranian international postgraduate students compared with Indian postgraduate students in University Mysore in India. For the study *Depression and Anxiety Stress Scale* (DASS) was used. Surprisingly, the level of disturbance among Iranian students were significantly less than local students. This study also did not indicate any difference between the level of disturbance between males and females (Ghaderi, Kumar, & Kumar, 2009).

Homesickness has been described as a psychological reaction to the absence of familiar surroundings and significant others (Archer et al., 1998; S. Poyrazli & Lopez, 2007; Willis et al., 2003). Feeling homesick can be a reaction for separation from familiar and loved people and places (S. Fisher & B. Hood, 1987; Fisher et al., 1985; M.A.L. Van Tilburg et al., 1996; Willis et al., 2003). According to some researchers, homesickness may be considered as a form of grief (Fisher, 1988; Fisher et al., 1985). Due to the elusive nature of homesickness, the exact definition has not been consented yet (Karen Kegel, 2009; Margaret Stroebe, Vliet, Hewstone, & Willis,

2002). Homesickness has been reported as one of the most frequent concerns of international students studying in the USA(Karen Kegel, 2009; Yi & Lin). Several studies demonstrated higher levels of homesickness, distress, anxiety and less social support in international students compared with the local ones (Regina Hechanova-Alampay, Terry A Beehr, Neil D Christiansen, & Roger K Van Horn, 2002; Rajapaksa & Dundes, 2002). Poyrazli et al. (2007) found that the rate of homesickness among international students in USA is higher than that of locals and that homesickness may be presented with depressive symptoms (Baba & Hosoda, 2014; S. Poyrazli & Lopez, 2007). In a study conducted by Fisher et al. (1985) an average of 60 -70% of students reported homesickness in the first week at the university (Fisher et al., 1985). Rajapaksa et al (2002) reported homesickness in 30 % of international students (Karen Kegel, 2009; Rajapaksa & Dundes, 2002). Research has indicated association of homesickness with the onset of depression (Baier & Welch, 1992; Leff et al., 1970; Thomson & Hugh, 1972). Hendickson et al. (2011) investigated the relationship between homesickness and a friendship network among international students studying in Hawaii University. International students with more friends from their host country were found to be less homesick and more satisfied (Blake Hendrickson, Devan Rosen, & R Kelly Aune, 2011). Yeh et al. (2003) found a negative correlation between social connectedness and homesickness. They also reported less acculturative distress in international students with good social support (Karen Kegel, 2009; Christine J Yeh & Inose, 2003). Poyrazli et al (2007) found poor English proficiency as a critical predictive factor for acculturative distress and homesickness (Karen Kegel, 2009; S. Poyrazli & Lopez, 2007). The association of age and gender with homesickness among international students was not consistently demonstrated in different researches (Karen Kegel, 2009; S. Poyrazli & Lopez, 2007; Christine J Yeh & Inose, 2003).

2-9 Studies conducted in Malaysia

Alavi et al. (2011) investigated the most important distressing factors amongst overseas students in University Technology Malaysia (UTM). They selected 135 student via systemic and stratified samplings and then sent Mooney problem questionnaires to them. 232 items are categorized in 11 main factors in this instruments. These 11 factors are as follow:

- 1. Financial, occupation and lifestyle problems
- 2. Family issues
- 3. Emotional problems and personal relationship
- 4. Recreational and entertainment and social problems
- 5. Sexual and marriage problems
- 6. Psychological socialization
- 7. Adaptation issues with academic tasks
- 8. Religious and moral
- 9. Adapting with future career issues
- 10. Health related issues
- 11. Curriculum and Method of Teaching Problems

The assessment showed the most distressing category amongst UTM international students were two factors.

1-recreational and social problems such as lack of opportunities for exercise, not having time for music and art, not having sport skills, lack of enough time for themselves, being uncomfortable in visiting people, problems with continuing conversations.

2-Problems with the university's programs and methods of teaching like, ignoring students' needs by college, difficulty to find the required books, boring classes, problems regarding lectures personality, lack of helpful advisor, not having opportunity to discuss with lecturers, having lots of assignments. (Masoumeh Alavi & Syed Mohamed Shafeq Mansor, 2011).

Faleel et al (2012) conducted a research in 3 universities of Selangor state in Malaysia to find out the relationship of social support and stress with depression and coping capability amongst international and domestic students. Two hundred students via convenience sampling were chosen to participate in this study. They found a significant association between the level of social support and coping ability. They also revealed that coping capacity has negative relationship with depression. Furthermore their study showed a positive relationship between depression and stress and a negative relation of coping skills and stress. It may be interesting that their study did not indicate any significant difference of stress level and coping ability between international and local students(Faleel, Tam, Lee, Har, & Foo, 2012). Alahdad (2012) investigated married Iranian international students 'problems studying in Universiti Teknologi Malaysia (UTM). The research indicated that financial problems, employment, recreational activities and curriculum were the most important problems amongst Iranian students in UTM (Alahdad, 2010). Rajab et al. 's (2013) study in UTM found acculturative stress including homesickness among majority of international students. That study reported mild homesickness among 87 (23%) students, moderate level in 228 (60%) and severe one in 63 (17%) international students. They employed Acculturative Stress Scale for International Students (ASSIS) for their research on UTM undergraduate students (Rajab, Rahman, Panatik, & Mansor).

Chapter 3: Rational of study and objectives

3-1 Rational of study

Malaysia is going to be the hub of high level international education in Asia. It will bring not only thousands of dollars to this country but it also can be considered as an important indicator of development of the universities. Absorbing more and more international student and being competitive with countries such as United States, United Kingdom and Canada needs professional assessments of disturbing and adjustment issues of international students. Unlike the above named counties, just few studies have been conducted to find out the rate of psychological problem and their associated factors in Malaysian universities. Iran as the top country between 80 countries to send international students to University Malaya might get more attention of University Malaya's managers. In 2011, Iranian postgraduate students provided 34 percent of high level international students in University Malaya (table 2-6). However, this rate has been decreasing since 2012. It may indicate the necessity of more focus of host country's managers on Iranian students 'issues. This study designed to assess the level of homesickness and depression as important factors influencing quality of life of international students. It may assist the managers to improve the international students' programs and promote their quality of life and well-being. The study may also encourage other researchers to conduct more and more studies to find out the most important precipitating factors for depression and homesickness among Iranian students.

Studying Iranian students' problems would also be important for the home country as the sponsor and supporter, because improving quality of life of students can improve their academic performance and facilitate higher achievements for them.

3-2 General objective

The general objective of this study is to assess the prevalence of depression and homesickness among Iranian students and their associations.

3-3. Specific objectives

- 1. To determine the level of depression within Iranian students.
- 2. To determine the level of homesickness within Iranian students.
- 3. To determine the associated factors for depression including homesickness, religiosity, social support, English knowledge, length of stay in Malaysia, marital status, gender, age, the person staying with, experiences of staying overseas.
- 4. To determine the associated factors for homesickness including depression, religiosity, social support, English knowledge, length of stay in Malaysia, marital status, gender, age, the person staying with, experiences of staying overseas.

3-4: Hypothesis

1. Depression is prevalent among Iranian students studying in University Malaya.

2. Homesickness is prevalent among Iranian students studying in university Malaya.

3. Homesickness, social support, religiosity and demographic factors are significantly

associated with the level of depression among Iranian students in University Malaya.

4. Depression, social support, religiosity and demographic factors are significantly

associated with the level of homesickness among Iranian students in University Malaya.

CHAPTER 4: METHODS

4.1 Study design:

This study was a cross sectional study conducted from March 2014 to July 2014 in University

Malaya to assess the level of depression and homesickness and their associations amongst Iranian

students. Samples were recruited via convenience sampling in the University Malaya.

Locations for identification of Iranian student were as follow.

1- Central library of University Malaya

2- Institute postgraduate studies (IPS) of University Malaya.

3- University of Malaya Iranian scientific and cultural association.

4- The libraries in different faculties of university Malaya including

45

- 1) Faculty of Engineering of University Malaya
- 2) Faculty of Medicine of University Malaya
- 3) Faculty of Science of University Malaya
- 4) Faculty of Computer Science and Information Technology of University Malaya
- 5) Faculty of Education of University Malaya
- 6) Faculty of Language and Linguistics of University Malaya
- 7) Faculty of Built Environment of University Malaya
- 8) Faculty of Business and Economy of University Malaya
- 9) Faculty of Art and Social Science of University Malaya
- 10) Faculty of Business and Accountancy of University Malaya
- 5- Food courts and coffee shops inside the University Malaya.

4-2 Study population

Iranian students from University Malaya were the study population.

4-3 Inclusion criteria

- 1. Iranian student from University Malaya.
- 2. Subjects who were registered in a full time studying in University Malaya.
- 3. Subjects who were able to understand Persian and English language.
- 4. Subjects more than 18 years old
- 5. Subjects who were consented

4-4 Exclusion criteria:

Subjects who refuse to participate in the study

4-5 Ethical Approval:

To conduct the study in University Malaya the ethical approval from Ethic committee of University Malaya Medical center was obtained (Reference Number: 1059.2).

The participant consent was also obtained before the study.

4-6 Sample size calculation.

Sample size was determined by the following formula:

Description:

n = required sample size

t = confidence level at 95% (standard value of 1.96)

m = Precision, margin of error at 5% (standard value of 0.05)

p = estimated prevalence of major depression =16%

The prevalence of depression in different studies in general population is ranged from 5.8 to 10.7 for 12 month prevalence and 15.1 to 17.8 for lifetime prevalence (Bijl, Ravelli, & Van Zessen, 1998; Hasin, Goodwin, Stinson, & Grant, 2005; Jacobi et al., 2004; Kringlen, Torgersen, & Cramer, 2001). Some studies with university students are reporting much higher rates of depression than the general population (Ibrahim et al., 2013). Vredenburg et al (1993) in a critical reappraisal study demonstrated similar rate of depression among students and general population (Vredenburg, Flett, & Krames, 1993). Thus 16 % was estimated for the study.

Sample size was determined by the following formula:

$$n = \underline{t^2 \times p(1-p)}$$

 m^2

$$n= 1.96 \times 0.16(1-0.16) / 0.05$$

 $n=3.8416x\ 0.16x0.84/0.0025$

n = 0.463/0.0025

n=185

4-7Procedure

After obtaining ethic approval from University Malaya ethic committee, the above mentioned

locations in University Malaya were visited. Iranian student were identified in those locations.

Then they were explained about the nature, objective, procedure and requirement of the study. A

brief written explanation as participant information sheet also was provided for them.

Students who agreed to participate in the study and fulfilled all criteria for taking part in the

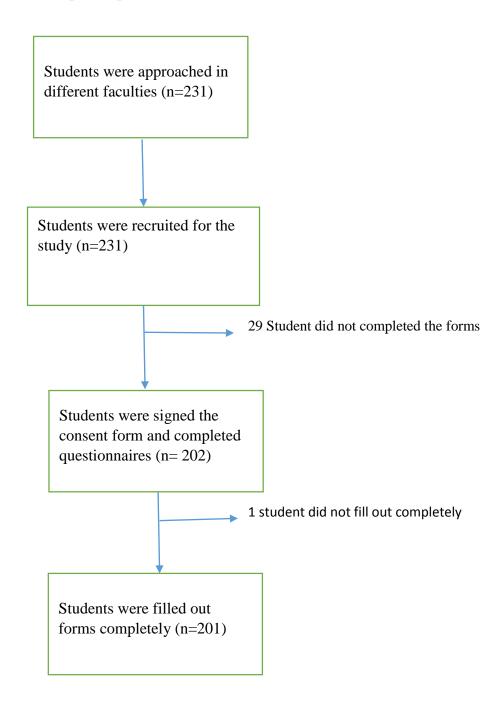
research were recruited for the study. A written consent form was given to them to be signed and

then a set of self- rated questionnaire were presented to them separately. The research was strictly

confidential. To provide confidentiality the set of questionnaires was presented to the participants inside an envelope. The questionnaires did not get any number and did not require the participants to write their name.

According to the information given By IPS and University Malaya Iranian Scientific and Cultural Association (UMISCA) the total number of Iranian students studying in university Malaya was about 950. Convenience sampling was chosen for recruitment of samples. 231 students were approached in different faculties and all were eligible to participate in the study. Completing forms at the time was preferable and suggested to the students. 202 consent form were signed and the set of forms were completed and given back on the spot by them. 29 students took the consent form and the set of questionnaires to read and fill those out in next session. However, they were not seen in the next sessions. Amongst the filled out forms just one was rejected because not fully completed (Shown in chart 1-4).

Chart 4-1: Recruitments of participants.



During research some of the participants were found mentally disturbed and seeking help.

According to ethical rules such students must not have been left without treatment. Therefore they were referred to psychiatry clinic for more assessment and required intervention.

The set of questionnaire were including:

- 1. Socio-demographic and Personal Characteristics Questionnaire.
- 2. Multidimensional Scale of Perceived Social Support (MSPSS)
- 3. Duke University Religiosity Index (DUREL)
- 4. Dundee Relocation Inventory (DRI)
- 5. Beck Depression Inventory (BDI)

University Malaya as an international university is presenting all of its subjects in English. Having sufficient English knowledge is one of the main conditions for the registration of students. English knowledge of participants has been recognized by the departments with submission of IELTs certification, interview or after passing some English courses held by the faculties before starting the main course. Therefore English version of questionnaire was used for the research.

4-8 Measurement tools

4-8-1 Socio-demographic and Personal Characteristics Questionnaire:

A questionnaire was prepared to ask the participants' age, religion (Islam, Christian, Zoroastrian, others...), gender (female, male), marital status (married, single, divorcee, widow), course of study, faculty, studying level (bachelor, master's, PhD), monthly income of the participant (most of Iranian students are working with some academic staff in different departments as research assistant and can earn some money monthly), length of staying in Malaysia, people staying with (parents, spouse etc.), length of staying overseas before coming to Malaysia and English certification (IELTS or TOFEL overall score).

4-8-2 Multidimensional Scale of Perceived Social Support (MSPSS)

Participants' perceived social support was assessed Multidimensional Scale of Perceived Social Support(Zimet, Dahlem, Zimet, & Farley, 1988). It is including 12 self-rated questions regarding the subjects' feeling about their emotional support. The questionnaire is assessing the perceived support of family (questions number 3, 4, 8 and 11), friends (questions number 6, 7, 9 and 12) and others (questions number 1, 2, 5 and 10).

The level of agreement of participant is rated from 1 to 7. Score one is given for very strongly disagreement and 7 for very strongly agreement and the other scores can be given to less strong agreement between those. Therefore obtaining the higher score in this scale will demonstrate higher perceived social support from family, friends and other sources of support.

MSPP has been translated to different languages and widely used in several studies. The reliability and validity of different versions of MSPSS has been examined in so many studies. (Kazarian & McCabe, 1991; Wongpakaran, Wongpakaran, & Ruktrakul, 2011) (Talwar & Abdul Rahman, 2013). The English version of this scale was selected for our research.

4-8-3 Dundee Relocation Inventory (DRI)The intensity of homesickness was measured using the Dundee Relocation Inventory that developed by Fisher in 1989 (Newland & Furnham, 1999). There are four version of questionnaire (A, B, C, D) and the Version C was used in this study. This version is assessing homesickness with a brief question including 9 questions to show the intensity of the homesickness. Getting higher score in the Dundee Inventory Scale shows more intense feeling of homesickness. The total score ranged from 9 to 45.

4-8-4 Duke University Religion Index (DUREL)

The Duke University Religion Index (DUREL) was selected to assess the level of religiosity among the Iranian students. This scale was created by Koenig, Parkerson et al. (1997) and it contains 5 items to investigate three aspects of religiosity (AA & CG, 2010; H. G. Koenig & Büssing, 2010):

- 1- Organizational religious activity (ORA) such as attending in the mosque/ church or Friday prayer. The ORA is assessed by question number 1, this enquires about the frequency of such activities which can be ranged from –never- to -more than once- per week.
- 2- Non- organizational religious activity (NORA) is assessed with question number 2. This question enquires about the frequency of the private religious activities in private e.g. reading the Quran/Bible studying, meditation, prayer etc.
- 3- Intrinsic religiosity (IR) is assessed by questions 3, 4 and 5. The subject is asked about his or her experience of God in his/her life and the influence of religious beliefs in their approach to life.

The level of organizational religious activity is rated from 1 to 6. The participants who never attend organizational activities like attending church for Christians (or attending mosque for Muslims) are given score 1 and a participant who attends religious activity more than once a week is given the highest score equal to 6. Scores 2 to 5 shows the rate of religious activities between those lower and upper level.

Similar scoring is used for showing non-organizational religious activities' frequency. Intrinsic religiosity (IR) is assessed with questions 3, 4 and 5. For each question 5 scores can be chosen. Score 1 shows the lowest intrinsic religiosity and 5 indicates the highest one. Scores 2 to 4 is given for level of IR between the minimum and maximum level of IR. Thus the lowest and highest

possible total score in this assessment are 5 and 27 respectively (AA & CG, 2010; Hafizi et al., 2013; H. G. Koenig & Büssing, 2010). DUREL has been translated to different languages and several studies have found high level of validity and reliability of the its versions (AA & CG, 2010; Hafizi et al., 2013).

4-8-5 Beck Depression Inventory II (BDI-II)

Depression was assessed by Beck Depression Inventory. This scale including 21 questions is developed by Dr. Aaron T Beck in 1961. Three version of inventory is available. The last version of Beck Depression Inventory (BDI- II) has been revised in1996 according to DSM IV diagnostic criteria (A. T. Beck, Steer, & Brown, 2005) and was used for this study. It is assessing three dimension of depression for the past 2 weeks. Some questions are assessing affective component of depression such as feeling sad, worthlessness. Cognitive aspect of depression is assessed by questions about guilty feeling, Pessimism, punishment feeling, self-criticalness and self-dislike. Somatic symptoms of depression is also investigated with asking about sleep changes, appetite, level of energy etc.

Each question of this instrument has 4 answers rated from 0 to 3. Zero indicates no symptoms of depression and 3 is showing the severity of symptoms. Overall score ranged from 0 to 13 shows no depression or minimal symptoms. 14 to 19 indicate mild depression, 20 to 28 demonstrates moderate depression and 29 to 63 is remarkable for severe depression. BDI is one of the most common wildly employed tools for assessment of depression in the world (Ambrosini, Metz,

Bianchi, Rabinovich, & Undie, 1991; Beck, 1972). Beck Depression Inventory has been translated to different languages and Persian version is available. However, English version of this scale was provided for subjects in this study because the whole study is conducted with English scales.

4-9 Data analysis:

The statistical package for social studies (SPSS) version 21 was used for analysis of the data.

Descriptive analysis was done for socio-demographic variables, MSPSS score, BDI score,

DUREL score and DRI score.

For nominal socio-demographic variables such as religion, gender, marital status, studying level, the percent and frequency were calculated.

For continuous socio-demographic variable including age, monthly income, duration of staying in Malaysia, duration of staying in other countries standard deviation and mean were determined.

For MSPSS standard deviation and mean of total score were calculated.

For BDI the standard deviation and mean of total score also were calculated.

For DUREL, the standard deviation and mean of the total and subtotal of the DUREL ORA, DUREL NORA and DUREL IR were calculated.

For DRI the mean and standard deviation of the total score was calculated.

In univarate analysis chi square test was used. In the first analysis, BDI scores selected as the dependent variables. The independent variable included were age, gender, total DURLE, DUREL ORA, DUREL NORA, DUREL IR, income, religion, marital status, length of staying in Malaysia, duration of staying in other countries, staying with someone, English level, MSPSS and DRI.

Items including age, gender, total DURLE, DUREL ORA, DUREL NORA, DUREL IR, income, length of staying in Malaysia, duration of staying in other countries, English level, MSPSS and DRI, were dichotomized to 2 categories according to mean score.

For second analysis DRI score was used as dependent variable and age, gender, total DURLE, DUREL ORA, DUREL NORA, DUREL IR, income, religion, marital status, length of staying in Malaysia, duration of staying in other countries, staying with someone, English level, MSPSS and total BDI as independent variable.

The significant factors in univarate analysis (p < 0.05) were identified and included into multivariate analysis. Logistic regression test was used for multivariate analysis. In the first multivariate analysis BDI score was selected as dependent variable and DUREL NORG, DUREL IR, MSPSS and DRI were included in the independent variables.

In the second multivariate analysis, DRI selected as the dependent variable and the gender, MSPSS and BDI as independent one.

All test were two tailed with significant level of 0.05.

Chapter 5 Results:

All attempts were made to locate as many Iranian students studying in the University of Malaya.

231 students were recruited for the study and face to face explanation was given to them with regards to the purpose of the study. The questionnaires were then presented to them, however, only

201 (87% response rate) of them completed the questionnaires and returned them. Table 5-1showes the different faculties of the participants with close to 55% (n=109) of the participants were from the engineering faculty.

Table 5-1: The frequency of participants from the different faculties

Faculty	Frequency	%
Engineering	109	54.2
Medicine	20	10.0
Science	24	11.9
Computer Science	19	9.5
Business and Accountancy	7	3.5
Art and Social Science	9	4.5
Built Environment	8	4.0
Language	2	1.0
Economic and Administration	2	1.0
Education	1	.5
Total	201	100.0

In Table 5-2, 55.7% (n=112) of the participants were males and 44.3% (n=89) were females. The youngest student in this study was 21 years old with the eldest being 47 years old (mean 29.75 with SD 44.33). As for marital status, close to 70% (n=139) of the participants were single (Table 5-2). In term of religion, 91.5% (n=184) of respondents were Muslim. For the level of study, close

to 61% (n=122) of the participants were PhD students, 28% (n=57) were doing their master's degree while close to 11% (n=22) were doing their bachelor degree.

In this study it was also revealed that apart from family's financial supports, most of Iranian student in the University of Malaya were able to earn money during their study. The mean was RM 1782 (SD= 1467).

In term of participants' housemate, just 28.9% (n=58) of them were staying alone while the others (71.1%. n= 143) were living with their family or their friends (Table 5-2).

As for length of staying in other countries, 86.6% (n = 174) of students had not experienced living abroad or have just stayed overseas for less than 4 month and only 13.4% (n= 27) of the participants have lived overseas before coming to Malaysia.

With regards to English certification 18 participants (9%) did not have any English certification. In the participants who obtained their English certification, close to 50% (n=100) of them managed to obtain an average score of above 6.5.

Table 5-2: Socio-demographic, level of study, length of stay, monthly income, accommodation and IELTS certification of the participants

racteristic Participants		%	Mean (SD)
20-24	21	10.4	29.75(4.33)
			2,1,0(1.00)
30-34	70	34.9	
35-39	21	10.5	
40-44	4	2	
45-50	1	0.5	
Islam	184	91.5	
Christian	1	0.5	
Zoroastrian	0	0	
Others	16	8.0	
Female	89	44.3	
Male	112	55.7	
Single	139	69.2	
Married	58	28.9	
Divorced	4	2	
Widow/Widower	0	0	
Master's	57	28.4	
PhD	122	60.7	
Bachelor	22	10.9	
	20-24 25-29 30-34 35-39 40-44 45-50 Islam Christian Zoroastrian Others Female Male Single Married Divorced Widow/Widower Master's PhD	20-24 21 25-29 84 30-34 70 35-39 21 40-44 4 45-50 1 Islam 184 Christian 1 Zoroastrian 0 Others 16 Female 89 Male 112 Single 139 Married 58 Divorced 4 Widow/Widower 0 Master's 57 PhD 122	20-24 21 10.4 25-29 84 41.9 30-34 70 34.9 35-39 21 10.5 40-44 4 2 45-50 1 0.5 Islam 184 91.5 Christian 1 0.5 Zoroastrian 0 0 Others 16 8.0 Female 89 44.3 Male 112 55.7 Single 139 69.2 Married 58 28.9 Divorced 4 2 Widow/Widower 0 0 Master's 57 28.4 PhD 122 60.7

Monthly Income	0.00-1000	66	32.8	1782.33(1467)
of the participants RM	1100-2000	66	32.8	
	2100-3000	49	24.3	
	3100-4000	7	3.5	
	<4100	13	6.5	
Staying in Malaysia	48 and less	134	66.7	47.66(23)
(Months)	More than 48	67	33.3	
Staying with	1. Both parents	8	4	
	2. One of parents	4	2	
	3. Sibling/Siblings	17	8.5	
	4. Spouse	46	22.9	
	5. A child/Children	3	1.5	
	6. Friend/Friends	65	32.3	
	7. Alone	58	28.9	
	8. Others	0	0	
Staying in other	Non or less than 4 month	174	86.6	4.73(15.88)
Countries	More than 4 month	27	13.4	
IELTS Certification	No IELTS certification	18	9	6.34 (.54)
	Overall score 4.5-6	83	41.2	
	Overall score 6.5-7.5	100	49.8	

As for length of stay only 5 (2.48%) participants were new (length of stay less than 6 months), 12 (5.96%) participants had stayed one year or less while about 94% (n=189) of participants have stayed more than one year (Table 5-3).

Table 5-3: Length of stay of the participants in Malaysia

Length of stay	n	%	Not	depressed	Not	homesick
(month)			depressed		homesick	
0-6	5	2.48	1	4	3	2
7-12	7	3.48	2	5	3	4
13-24	33	16.4	25	8	16	17
25-36	41	20.3	26	15	25	16
37-48	48	23.8	34	14	25	23
49-60	27	13.4	19	8	16	11
61-72	17	8.45	11	6	9	8
73-84	14	6.96	9	5	8	6
85-96	4	1.99	2	2	3	1
97-108	2	0.995	1	1	1	1
109-120	2	0.995	2	0	2	0
121-132	1	0.497	1	0	1	0
Total	201	100%	133	68	112	89

Level of depression (Beck Depression Inventory):

The standardized ranges were used as cutoffs in the study as follow:

1. 0–13: minimal depression

2. 14–19: mild depression

3. 20–28: moderate depression

4. 29–63: severe depression

The mean BDI score in the study was 11.44 (SD= 35), the study found 33.8 % (n= 68) of participants were suffering from depression (Table 5-4).

Table 5-4: The frequency and percent of depression among the participants

Depression	n	%
No depression	133	66.2
Depression	68	33.8
Total	201	100

Among the participants 16.9 % (n=34) reported mild depression, 10.4 % (n=21) moderate and 6.5 % (n=13) from severe one (Table 5-5).

Table 5-5: The level of depression among the participants

Level of depression	Score	n	%
No depression	0-13	133	66.2
Mild Depression	14-19	34	16.9
Moderate depression	20-28	21	10.4
Severe depression	29-63	13	6.5
Total	63	201	100

Level of homesickness:

The lowest score of Dundee Relocation Inventory in this study was 10, the maximum was 42 with the mean found to be 24.79. Therefore, 25was considered as cutoff point in the study. The study found 44.3% (n=89) of the participants experience homesickness while 55.7% (n=112) did not experience this problem (Table 5-6).

Table 5-6: the number and the percent of homesickness among the participants

Variables	n	%
Homesickness	89	44.3
No Homesickness	112	55.7
Total	201	100

Social support:

Social support was assessed using the MSPSS (English version). The lowest score was 19 and the highest one was 42 (mean=67.04 and SD=14.42). A total MPSS equaled to 68 and more was considered as having good social support and 67 and less as poor social support. In 47.3% (n=95) felt they have poor social support while the rest 52.7% (n=106) of the participants felt they have good social support (Table 5-7).

Table 5-7: Level of social support among the participants

Variable	n	%
Poor social support	95	47.3
Good social support	106	52.7
Total	201	100

Religiosity:

Organizational religious activity, non-organization religious activity and intrinsic religiosity were assessed with DUREL scale. Their lowest and highest score as well as their means and standard deviations are shown in Table 5-8.

Table 5-8: Mean, standard deviation, lowest and highest range of different measures in the assessment.

Scales	Mean	SD	Lowest	Highest
BDI Total	11.14	8.35	0	41
Dundee Total	24.79	7.06	10	42
MSPSS Total	67.04	14.42	19	91
DUREL Total	14.29	5.45	5	27
DUREL ORA	1.92	1.3	1	6
DUREL NORA	2.54	1.86	1	6
DUREL IR	9.8	3.33	3	15

In term of organizational and non-organizational religious activity, the participants indicated low level of religiosity (28.4 and 30.8 percent respectively). However, regarding with intrinsic religiosity, a higher level of religiosity was found (Table 5-9).

Table 5-9: The level of Organizational Religious Activity (DUREL ORA), Non- Organizational Religious Activity (DUREL ORA) and Internal Religiosity (DUREL IR) of the participants.

Variable	level	n	%
DUREL ORA	High	57	28.4
	T	144	71.6
	Low	144	71.6
DUREL NORA	High	62	30.8
	Low	139	69.2
DUREL IR	High	96	47.8
	Low	105	52.2
DUREL Total	High	99	49.3
	Low	102	50.7

Univariate analysis of data:

Depression

The association of depression with the socio-demographic characteristics, social support, homesickness and religiosity were analyzed with univariate analysis and Chi square test. The results are shown in Table 5- 10.

The analysis showed that, poor social support and homesickness were very significantly associated with higher rate of depression among the participants (p value < 0.01) (Table 5-10). The association of low intrinsic religiosity and low non- organizational religious activity with depression was as well significant (Table 5-10).

Table 5-10: The association of depression with socio-demographic variables, social support, religiosity, and homesickness

Independent va	riables	Not	Depressed	Chi-	Odd ratio	95%	P value
		depressed		Square			
		(%)					
Age: less	than 30	67 (63.8)	38(36.2)	0.547	0.801	0.446	0.460
30 0	or More	66 (66.8)	30 (31.3)			1.442	
Gender: fe	male	58(65.2)	31(34.8)	0.071	0.923	0.513	0.789
1	male	75 (67)	37 (33)			1.661	
DURL Total :	low	62 (60.8)	40 (39.2)	2.682	0.611	0.338	0.101
	high	71 (71.7)	28 (28.3)			1.109	
DUREL ORG:	low	40 (62.5)	54 (37.5)	3.054	0.543	0.272	0.081
	High	43 (75.4)	14 (24.6)			1.083	
DUREL NORG:	low	85 (61.2)	54 (38.8)	5.069	0.459	0.291	0.025
	High	48 (74.4)	14 (22.6)			0.912	
DUDREL IR:	low	61 (58.1)	44 (41.9)	6.402	0.462	0.253	0.011
	High	72 (75)	24 (25)			0.635	
Income:	low	51 (62.2)	31 (37.8)	0.977	0.742	0.411	0.323
	High	82 (68.9)	37 (31.1)			1.341	

others	11 (64.7)	6 (35.3)				
		0 (33.3)			3.039	
married	40 (64)	18 (31)	0.285	1.195	0.621	0.594
Others	93 (65)	51 (35)			2.298	
aysia :						
SS	88 (65.7)	46 (34.3)	0.044	0.935	0.502	0.833
nonth	45 (67.2)	22 (32.8)			1,742	
countries						
	118 (67.8)	56 (32.2)	1.570	1.686	0.740	0.210
onths	15 (55.6)	12 (44.4)			3.839	
Alone	35 (60.3)	23 (39.7)	1.235	0.699	0.371	0.266
ot alone	98 (68.5)	45 (31.5)			1.317	
nediate	64 (63.4)	37 (36.6)	0.712	0.777	0.432	0.349
nced	69 (69)	31 (31)			1.396	
: Poor	52 (54.7)	43 (45.3)	10.518	0.373	0.204	0.001
Good	81 (76.4)	25 (23.6)			0.683	
)	95 (84.8)	17 (15.2)	39.31	7.5	3.855	<0.001
es	38 (42.7)	51(57.3)			14.590	
	aysia: ss nonth countries Onths Alone of alone nediate nced Cood	Others 93 (65) aysia: 88 (65.7) 45 (67.2) countries 118 (67.8) 15 (55.6) Alone 35 (60.3) 98 (68.5) and alone 98 (68.5) and alone 64 (63.4) and 69 (69) E Poor 52 (54.7) Good 81 (76.4) 95 (84.8)	Others 93 (65) 51 (35) Asysia: 88 (65.7) 46 (34.3) 45 (67.2) 22 (32.8) Countries 118 (67.8) 56 (32.2) Onths 15 (55.6) 12 (44.4) Alone 35 (60.3) 23 (39.7) Alone 98 (68.5) 45 (31.5) Alone 64 (63.4) 37 (36.6) Alone 69 (69) 31 (31) C: Poor 52 (54.7) 43 (45.3) Good 81 (76.4) 25 (23.6) 95 (84.8) 17 (15.2)	Others 93 (65) 51 (35) aysia: 88 (65.7) 46 (34.3) 0.044 anonth 45 (67.2) 22 (32.8) Countries 118 (67.8) 56 (32.2) 1.570 Onths 15 (55.6) 12 (44.4) Alone 35 (60.3) 23 (39.7) 1.235 ot alone 98 (68.5) 45 (31.5) anediate 64 (63.4) 37 (36.6) 0.712 aned 69 (69) 31 (31) E Poor 52 (54.7) 43 (45.3) 10.518 Good 81 (76.4) 25 (23.6) 95 (84.8) 17 (15.2) 39.31	Others 93 (65) 51 (35) 93 (95) 51 (35) 93 (95) 93 (95) 95 (84.8) 17 (15.2) 39.31 7.5	Others 93 (65) 51 (35) 2.298 aysia: 38 88 (65.7) 46 (34.3) 0.044 0.935 0.502 nonth 45 (67.2) 22 (32.8) 1,742 countries 118 (67.8) 56 (32.2) 1.570 1.686 0.740 onths 15 (55.6) 12 (44.4) 3.839 Alone 35 (60.3) 23 (39.7) 1.235 0.699 0.371 ot alone 98 (68.5) 45 (31.5) 0.712 0.777 0.432 neediate 64 (63.4) 37 (36.6) 0.712 0.777 0.432 need 69 (69) 31 (31) 1.396 e: Poor 52 (54.7) 43 (45.3) 10.518 0.373 0.204 Good 81 (76.4) 25 (23.6) 0.683

Since some confiding factors might affect these associations, the items were adjusted and analyzed with multivariate analysis. The adjusted analysis also demonstrated significant association between depression and poor social support (p value< 0.05) and the association of depression with homesickness and intrinsic religiosity was very significant (p value< 0.01) while the association of depression and non- organizational activity was not significant (Table 5-11).

Table 5-11: Multivariate analysis of depression and associated factors

	В	SE	Adjusted OR	95% CI	P Value
			Exp (B)		
Homesickness	2.046	0.362	7.739	3.809	< 0.01
Yes versus No				15.723	
Social support	- 0.732	0.348	0.481	0.243	0.035
Good versus				0.951	
poor					
DUREL IR	- 0.761	0.391	0.467	0.217	0.05
High versus low				1.005	
DUREL NORA	-0.546	0.436	0.579	0.246	0.211
High versus low				1.363	

Nagelkerke R Square values =0.330

Homesickness:

Homesickness and its association with depression, socio-demographic factors, religiosity and social support were assessed with univariate analysis and Chi square test. The analysis indicated significant association between homesickness and female gender (p value=0.03), poor social support as well as homesickness and depression was very significant (p value <0.01) (Table 5-12).

Table 5-12: The association of homesickness and socio-demographic factors, social support, religiosity, and depression

Independent variables	Not Homesick	homesick	Chi-	Odd ratio	95%	P value
			Square			
Age: less than 30	55 (52.4)	50 (47.6)	0.994	0.753	0.430	0.319
30 and above	57 (59.4)	39(40.6)			1.316	
Gender: female	42(47.2)	47(52.8)	4.711	0.536	0.305	0.03
male	70(62.5)	42(37.5)			0.944	
DUREL Total : low	60 (58.8)	42 (41.2)	0.808	1.291	0.739	0.369
High	52 (52.5)	47 (47.5)			2.255	
DUREL ORA: Low	80 (55.6)	64 (44.4)	0.006	0.977	0.526	0.940
high	32 (56.1)	25 (43.9)			1.811	
DUREL NORA: low	76 (54.4)	63 (45.3)	0.200	0.871	0.476	0.655
high	36 (58.1)	26 (41.9)			1.595	
DUREL IR low	59 (56.2)	46 (43.8)	0.020	1.041	0.596	0.889
high	53 (55.2)	43 (44.8)			1.817	
Income: low	59 (56.2)	46 (43.8)	0.020	1.041	0.596	0.889
high	53 (55.2)	43 (44.8)			1.817	
Islam or not :Muslim	102 (55.4)	82 (44.6)	0.072	0.871	0.318	0.788
other	10 (58.8)	7 (41.2)			2.388	

Marital S. :married	34 (58.6)	24 (41.4)	0.278	1.181	0.634	0.598
Others	78 (54.4)	65 (45.5)			2.189	
Staying in Malaysia :						
48month or less	72 (53.7)	62 (46.3)	0.645	0.784	0.432	0.422
More than 48 month	40 (59.7)	27 (40.3)			1.421	
Staying in their countries:						
4month or less	97 (55.7)	77 (44.3)	0.000	1.008	0.446	0.985
More than 4 month	15 (55.6)	12 (44.4)			2.279	
Staying : alone	31 (53.4)	27 (46.6)	0.171	0.879	0.476	0.679
not alone	81 (56.6)	62 (43.4)			1.622	
English: Intermediate	54 (53.5)	47 (46.5)	0.419	0.832	0.477	0.518
advance	58 (58)	42 (42)			1.453	
Social support: poor	43 (45.3)	52 (54.7)	7.986	0.443	0.251	0.005
good	69 (65.1)	37 (34.9)			0.783	
Depression : No	95 (71.4)	38 (28.6)	39.311	7.5	3.855	<0.001
Yes	17 (25)	51 (75)			14.590	

As for excluding any confiding factors, items were adjusted for multivariate analysis. The findings were significant for social support (p value=0.036) and very significant for depression and female gender (p value <0.01) (Table 5-13).

Table 5-13: Multivariate Analysis of homesickness and associated factors

	В	SE	Adjusted OR	95% CI	P Value
			Exp (B)		
Social support	0.708	0.339	2.031	1.046	0.036
Poor versus				3.944	
Good					
Depression	-1.940	0.352	0.144	0.72	< 0.01
No versus Yes				0.287	
Gender	0.892	0.340	2.440	1.254	0.009
Female versus				4.747	
male					

Nagelkerke R Square values=0.295

Chapter 6 Discussion:

The research was aimed at assessing the prevalence of depression and homesickness and their associations with socio-demographic and personal factors including religiosity and presence of social support. A cross- sectional method was chosen and data was collected from the students of the different faculties at the University of Malaysia, a total of 201 participants were included in the study with an 87% respond rate. The majority of the participants, close to 55% (n=109) were from the engineering faculty, with 55.7% (n=112) of the participants were males and 44.3% (n=89) were females. Close to 70% (n=139) of the participants were single, 91.5% (n=184) were Muslim and close to 61% (n=122) of the participants were PhD students, 28% (n=57) were doing their master's degree while close to 11% (n=22) were doing their bachelor degree. The study found 33.8 % (n=68) of the participants were depressed, and among the depressed participants 16.9 % (n=34) reported mild depression, 10.4 % (n= 21) moderate and 6.5 % (n= 13) from severe. In 44.3% (n=89) of the participants indicated they were experiencing homesickness, 47.3% (n=95) felt they have poor social support and the rest 52.7% (n=106) of the participants felt they have good social support. The religiosity level of the study population was low as indicated by the organizational and non-organizational religious activity. The respondents attended mosque, or church of a few times a month. In term of internal religiosity also, just 47.8% (n=96) of them had a higher commitment and motivation.

Analysis of the different variables found:

- Level of depression was significantly associated with lower intrinsic religiosity, poor social support and being homesick.
- 2) While homesickness was significantly associated with the female gender, poor social support and presence of depression.

Moving from one academic environment to another and relocating to a new country to study has become a common occurrence and to many a norm (Brisset et al., 2010; A.A. de Araujo, 2011). This has become a part of the transition from high school to university which is frequently expected and is an important element in the of majority young adults' or students life trajectories (Brisset et al., 2010).

International students constitute a diverse and unique group of students for every universities and colleges (B. Hendrickson et al., 2011). The globally mobile population of mainly young people seeking education represents an investment, crucial for the individual, their families and the countries sending them (European Association for International Education, 2005). Obtaining a university degree has become a normal expectation for many young people, representing the 'democratization' or 'massification' of higher education (J. Waters et al., 2011). They represent assets that are essential for future development, prosperity and welfare as when the students return home, they are expected to acquire increased knowledge and skills and prepared to work in the country's work-force and contribute significantly to their country of origin and families (European Association for International Education, 2005).

Additionally, some young people study abroad to escape as through mobility, their former lives and start a new (J. Waters et al., 2011). This academic and public discourse i.e. the transition to university is traditionally regarded as a positive experience as it linked to new opportunities and chances for personal and self-development. Nevertheless, this transition involves changes for all students and for most it is frequently greeted with mixed emotions, especially where geographical relocation is involved (H. Chen, Wong, Ran, & Gilson, 2009; Chow & Healey, 2008).

It is not surprising that of recent years the literature has been concerned with students' adaptation problems (C. P. Chen, 1999; A.A. de Araujo, 2011; S. Sümer et al., 2008; Y. Zhou et al., 2008). Researchers have begun to look at the students' adjustment experiences from a social perspective, hoping to contribute to the understanding of factors that can facilitate their acculturation to a foreign country. The challenges faced by the students, have an impact on the students' academic success and psychological well-being, including these educational institutions' effectiveness in retaining the students (C. P. Chen, 1999; S. Poyrazli & Grahame, 2007).

6-1 Depression:

Depression is one of the most common health problems for university students (Ibrahim et al., 2013; Lyubomirsky, Kasri, & Zehm, 2003), with university students reporting much higher rates of depression than the general population (Ibrahim et al., 2013). Depression is a mental health illness that is psychosocially debilitating, emotionally compromising, and financially costly to individuals suffering from depression, and for students to be depressed, it is devastating (Ibrahim et al., 2013; Lyubomirsky et al., 2003; Mui & Lee, 2013). Different studies in all over the world reported wide range of depression among university students. Lewinsohn et al (1993) reported

depression among 17% of students (Lewinsohn et al., 1993). Tjia et al. (2005) found 15.2 % of medical student in a private medical university in USA were depressed (Tjia et al., 2005). Sidana et al. (2012) reported depression amongst 21% of medical students in New Delhi (Sidana et al., 2012). In some studies the prevalence rate of depression among university students has been reported on the average about 30.6% that indicates its prevalence is almost twice as much as is it in general population (Ibrahim et al., 2013; X. Zhou, Zhu, Zhang, & Cai, 2013). Studies conducted in Iran also reported a wide range of depression among local students studying in domestic universities of Iran. A.A.Eslamei et al (2002) reported depression among only almost 10% of medical students in Gorgan University of Medical Science in Iran (A.A.Eslamei et al., 2002). However, recent researchers have found higher rate (about 50%) of depression amongst Iranian students in domestic universities of Iran (Aghakhani et al., 2011; Hadavi & Rostami, 2012; Ildarabady, FIROUZ, Mazloum, & Navidian, 2004; Sharifi, Sooki, Khadem, Hosseinian, & Tagharrobi, 2001). The prevalence of depression amongst Iranian students studying overseas are not assessed adequately. A study conducted in UK reported emotional disturbance amongst 28% of Iranian students that demonstrates its prevalence is twice as much as is it in British ones (Dinesh Bhugra & Oyedeji Ayonrinde, 2004).

Of late the literature has demonstrated that among international students in universities, they face more challenges as a result of a variety of adaptation moving to a foreign country (C. P. Chen, 1999; Jackson et al., 2013). These international students face a host of difficulties including acculturative stress, and issues with psychological and social adjustment (Jackson et al., 2013; S. Poyrazli & Grahame, 2007). The leading psychological problem in international students is depression (Alazzi & Chiodo, 2006; Nilsson et al., 2004; M. K. Wei, Russell, Mallinckrodt, Liao,

& Yu-Hsin, 2008). Much of the literature have indicated that international students are a vulnerable group who are at risk for depressive symptoms and being depress (Jung, Hecht, & Wadsworth, 2007; Spencer-Oatety & Xiong, 2006). Nilsson et al. (2004) found a rate of 34% of the participants in the study reporting feeling depressed, down, blue and unhappy, while another 20% reporting feeling nervous, tense, worrying too much (Meifen Wei et al., 2007). M. Wei et al. (2004) reported an almost similar rate of about 30% among Asian international, while Mitchell, Greenwood, and Guglielmi (2007) reported a prevalence of 28% for mood disorders. J. Hyun, B. Quinn, T. Madon, and S. Lustig (2007) found a prevalence of 44% of international graduate students who reported that they had emotional or stress-related problems that significantly affected their well-being or academic performance within the past year of the study (Jenny Hyun, Brian Quinn, Temina Madon, & Steve Lustig, 2007). Most of the stated studies studied Asian international students in the United Stated, as the United States has served as a temporary home to a vast majority of students choosing to pursue higher education abroad (S. Poyrazli & Grahame, 2007; E. Wang, Newton, Matsuo, & Pascoe-Chavez, 2013; K. T. Wang et al., 2012). There is few studies investigating International students' issues in Asian countries.

This present study among Iranian students in a local university in Malaysia, found 33.8% (n=68) of the participants were depressed, as well as among the depressed participants 16.9 % (n= 34) reported being mildly depression, 10.4 % (n= 21) moderate and 6.5 % (n= 13) reported being severely depressed. M. K. Wei et al. (2008) investigating depressive symptoms among 354 Asian international students in a large, public, Midwestern university in the United States found students' gender, marital status, country of origin, and length of time in the United States were not

significantly related to the depressive symptoms (M. K. Wei et al., 2008). M. K. Wei et al. (2008) found depressive symptoms were related to coping strategies, levels of self-esteem and perceived discrimination, which was supported by Jung et al. (2007) who found identity inconsistencies i.e. how these students express their self and how they see themselves were possible sources of their depression.

In this present study, the presence of **depression** was significantly associated with lower intrinsic religiosity, poor social support and being homesick. Similarly Jung et al. (2007) found **social support** functions as a predictor of depression level similar to another study among Asian Indian, Japanese, Korean, and Vietnamese college women conducted by Constantine, Kindaichi, Okzazaki, Gainor, and Banden (2005). Constantine et al. (2005) found that having good or excellent peer and family networks help the students validate their sense of self and ways of being, helping them to cope with the cultural adjustments(Constantine et al., 2005). Past studies have highlighted similar findings and indicate the importance of social support networks and its relationship to socio-cultural adjustment among international students (Baba & Hosoda, 2014; S. Poyrazli, Kavanaugh, Baker, & Al-Timimi, 2004; C.J. Yeh & Inose, 2010).

Social support was regarded as an important resource in coping literatures and as a critical item for buffering international students' stress. Family, friends and faculty may be sources of social support for the students(Abrahao Andre de Araujo, 2011). Misra, Crist, and Burant (2003) found that more life stress and lower social support cause higher academic stress for United States' international students(Abrahao Andre de Araujo, 2011). Sümer et al.'s study in 2008 indicated social support as the significant item for predicting depression amongst international students

(Inam, Saqib, & Alam, 2003; Seda Sümer, Senel Poyrazli, & Kamini Grahame, 2008; Tabatabaee, 2013). This present study demonstrated significant association between poor social support and depression. Similarly poor social support was associated with higher levels of homesickness.

6-2 Homesickness

Homesickness is a psychological reaction to the absence of familiar surroundings and significant others (Archer et al., 1998; S. Poyrazli & Lopez, 2007; Willis et al., 2003), with some researchers reporting homesickness may well be taken and is a form of grief (Fisher, 1988; Fisher et al., 1985) and a form of depressive symptoms (Baba & Hosoda, 2014; S. Poyrazli & Lopez, 2007). Being homesick' covers reactions to a number of circumstances which involve separation from familiar and loved people and places (S. Fisher & B. Hood, 1987; Fisher et al., 1985; M.A.L. van Tilburg et al., 1996; Willis et al., 2003). With the move, many university students go off to study in a different location from their families of origin with many describing missing their parents, family and friends or familiar faces, missing familiar surroundings resulting in them feeling insecure and losing the comforts of home (S. Fisher & B. Hood, 1987; S. Fisher & B. Hood, 1987; Fisher et al., 1985; Willis et al., 2003). This is more significant when geographical relocation occurs (Chow & Healey, 2008). An average of 60–70 per cent of students report feeling homesickness in the first few weeks at university (Fisher et al., 1985). Being home and around familiar people and spaces, to which these students have become attached to certainly gives them the warmth, comfort and security to overcome their challenges (Chow & Healey, 2008).

The present study demonstrated that 44.3% of the participants were suffering from **homesickness**, and being homesick was significantly associated with the female **gender**, poor **social support** and presence of **depression**. Much of the literature have shown that the effects of homesickness are classically negative and often includes being lonely, sad with consequences of adjustment difficulties for students entering the university environment (Constantine et al., 2005). In new students, homesickness has been seen as a major problem hindering them from settling into the new university system (S. Poyrazli & Lopez, 2007; Thurber & Walton, 2010). It is thought that for most students the feeling of homesickness disappears as these students begin to settle and form new relationships, though in a few students, they may still continue to suffer and some may even experience more serious problems such as depression (Chow & Healey, 2008; Fisher et al., 1985).

Researches have shown sufficient data associating **homesickness** with the onset of depression (Baier & Welch, 1992; Leff et al., 1970; Thomson & Hugh, 1972). Thus it is not surprising that the present study found presence of depression is significantly related to being homesick, and being homesick is associated with being depressed. The reality is that these international students experienced multiple barriers to their participation in their academic and social communities which have impact on their adjustment to their new environment and success in their academics (Baba & Hosoda, 2014; S. Poyrazli & Grahame, 2007), **being homesick as well as depressed will further impair them adjusting to their new environment as they are unable to cope effectively.** Successfully dealing with feelings of homesickness often helps the students to regain their previous level of psychological functioning, and this includes effective ways of coping. Fisher reported higher rates of homesickness in students in the first few weeks of study(Fisher et al., 1985) and that for most of students the feeling of homesickness disappears as these students begin to settle

and form new relationships (Chow & Healey, 2008; Fisher et al., 1985). Surprisingly, the present study showed homesickness in 44.3% of the participants while just about 3% (n=5) of them were new students (length of stay less than 6 months). Apart from the stressors that can affect all international students, some items may have influenced Iranian students. This items may have associations with decreasing trend of Iranian students' enrolment in University Malaya.

- 1. Iranian students were involved with so many financial problems after holding sanctions against Iran by the United States and European countries. Iranian currency's value has fallen four times since 2010(XE, 2014). This issue might have caused a financial crisis for Iranian students because most of their monthly household expenses are provided either by their parents or by their saving money with Iranian currency (Rial).
- 2. The financial problem also could be a big issue for the parents who used to stay with their children in Malaysia or were able to travel to Malaysia several times per year to visit their children. Now, due to financial problems, they cannot see their children frequently which can result in more homesickness among the Iranian students.
- 3. The Medical Council of Malaysia refused to approve TPC for the majority of Iranian doctors (except postgraduate students from Tehran Medical Science University). This decision restricted Iranian post-graduate students' occupational functioning in Malaysia.
- 4. The Immigration Department of Malaysia limited Iranian travelers' visa from 3 months to 14 days (Chen, 2014). Before this decision, some of Iranian students' parents used to stay in Malaysia with their children for a very long time. They could get a tourist visa for 3 months and then extend it for another 3 months, easily. This problem might be the second

reason for the returning of Iranian parents to Iran resulting in less emotional support for their children

5. As mentioned above, the sanctions against Iran have decreased Iranians' trips to Malaysia (Banafsheh M., 2013). Therefore, Iranian students are able to visit their friends and countrymen less which may result in higher levels of lonely feelings and homesickness.

6-3 Religiosity:

In this present study 91.5% of students chose Islam as their religion. One student ticked Christian and 16 students selected others. These 16 respondents either refused to name their religion or wrote "free minded" in the blank. The study did not indicate any significant difference between Muslims and non-Muslims in term of depression as well as homesickness.

The study investigated religiosity as a coping strategy with presence of depression and being homesick and found presence of depression to be associated with lower level of intrinsic religiosity. The previous studies conducted in Iran on university students have found religious attitudes as a protective factor against depression (Ahmari 2012; Mohammad Beygi, 2011). Many students do turn to religion as a coping strategy other than seeking social support (M.A.l. van Tilburg et al., 1999). Interestingly in the study by Constantine et al. (2005) found the female college students minimizing and denying their cultural adjustment problems, keeping these problems to themselves so as not to burden others. Turning to religion is an effective way of coping and has been found to even keep the feelings of homesick in control (M.A.l. van Tilburg et al., 1999). In this study, intrinsic religiosity stands out to be a significant factor in affecting presence of depression. Religion is an important predictor of physical and mental health across many

societies and culture (Smith, 2004; Tarakeshwar, Stanton, & Pargament, 2003), with personal religious beliefs and affiliation are classically powerful predictors of being depressed and homesick.

Intrinsic religiosity represents the personal religious commitment and motivation of an individual, as well as it refers to the extent someone truly believes the religious teachings and tries to live life according to those teachings (Allport & Ross, 1967). The intrinsic religiosity (IR) measures the subjects' personal religious commitment and motivation (Holdcroft, 2006; Tiliopoulos et al., 2007). The religiosity attitudes are often indicated by the frequency an individual attend prayers in the mosque or religious teaching, and the frequency they pray in private (G. M. Herek, 1987). Using their intrinsic religiosity believes, people view religion as the main driving force in life (G. M. Herek, 1987). This is not surprising as religiosity and spirituality helps people find a purpose in and for their lives (Hill & Pargament, 2003; E. Thomas & Savoy, 2014). Smith (2004) established when people have strong faith before they experience a traumatic event they have a better sense and purpose in the world and are less shaken by the trauma. This has been seen similarly in other studies (Kenneth I Pargament et al., 1990; K.I. Pargament et al., 1998). This present study indicated that the overall level of religiosity among Iranian students studying in University Malaya is low. A majority of participants (about 70%) did not attend organizational religious activity (ORA) and non-organizational religious activity (NORA) as well. In term of intrinsic religiosity (IR), also, just 47.8 % showed high attitude. The study did not find a significant association between ORA and NORA with levels of depression and homesickness. However, the association of IR and depression was very significant. In other words, the higher the intrinsic religiosity, the less likely the student is depressed.

6-4 Other associated factors of depression and homesickness:

Age: The present study did not indicate a significant association between age and the prevalence rate of depression. A similar result has been reported by Aghakhani et al. (2011) in a research on students studying in Iran and also by M.K.Wei et al.(2008) in a study on Asian International students (Aghakhani et al., 2011; M. K. Wei et al., 2008). The association of age with homesickness also was not significant in this present study. The correlation of age and the level of homesickness amongst international students also was not seen in previous studies (Karen Kegel, 2009; S. Poyrazli & Lopez, 2007; Christine J Yeh & Inose, 2003).

Gender: Most of the participants were male (112 versus 89). According to the textbooks, the universal observation independent of culture and country indicates that depression in females is twofold greater than in males (Synopses of Kaplan, 2007). However, the studies conducted to assess the association of gender and the level of depression particularly among students have not demonstrated consistent results (A.A.Eslamei et al., 2002; Ahmari 2012; Hadavi & Rostami, 2012; Sidana et al., 2012; M. K. Wei et al., 2008). Similar to Sidana et al. (2012), M.K. Wei et al. (2008), Ghaderi et al. and A.A. Eslami et al. (2002) the present study did not find any significant difference between the rate of depression in female Iranian students and male ones (A.A.Eslamei et al., 2002; Aghakhani et al., 2011; Ghaderi et al., 2009; Sidana et al., 2012; M. K. Wei et al., 2008).

The association of gender with homesickness among international students also was not consistent in different researches (Karen Kegel, 2009; S. Poyrazli & Lopez, 2007; Christine J Yeh & Inose,

2003). However, the present study indicated significantly higher rate of homesickness in female Iranian students that may be contributed to Iranians' socio-cultural background.

Language proficiency: Sawagler et al.'s (2003) research on Taiwanese students studying in the USA showed that apprehension about their English fluency influenced their adjustment ability (A.A. de Araujo, 2011; Swagler & Ellis, 2003). Yeh et al. (2003) found that English proficiency was an important predictive factor for acculturative distress(A.A. de Araujo, 2011; Christine J Yeh & Inose, 2003). Poyrazli et al (2004) reported less acculturative stress amongst international students with higher fluency in English (A.A. de Araujo, 2011; S. Poyrazli et al., 2004). Apart from the acculturative stress, poor English could be an important reason for poor academic performance and therefore higher distress. Dao et al. (2007) reported higher risk of depression amongst Taiwanese students with poor English fluency studying in American universities (Dao, Lee, & Chang, 2007). However, the present study did not show higher levels of depression and homesickness among students with no English certification or lower IELTS score. The following mentioned items might be the reasons: Some students with a good English knowledge (such as English language PhD students who submitted their master certification) had not participated in IELTS exam because it was not a condition for their enrollment. Some majors might need a higher level of English knowledge than the others. Thus, a student with higher English knowledge may feel more distress in a major than a person with less English proficiency in another major. English is not the maternal language of locals in Malaysia. Therefore, foreign students with intermediate English knowledge in Malaysia may feel less inferiority and less acculturative stress than the student staying in English speaking countries.

Income: In this study it was also revealed that apart from family's financial support, most of Iranian students in the University of Malaya were able to work mostly as research assistants and earn money during their study. The mean was RM 1782 (SD= 1467). Inham et al.'s (2003) research on medical students studying in a private university in Pakistan did not demonstrate any association between students' income and their level of depression (Inam et al., 2003). Similarly the present study did not show the association between the level of participants' income and the level of depression. The reason may be as follow:

- 1. A young student with no income and being fully financial supported by parents may have less feeling of burden and less distress than an elder student with insufficient income and partial dependency on his parents.
- 2. Some students with a monthly salary are married with children therefore more income is needed. Thus more distressed will be felt during financial crisis.
- 3. Some students may have enough investment to cover whole period of their study.

Therefore the monthly income might not show the participants' financial problems.

Marital status: Ildarabady et al.'s (2004) research on Iranian students studying in Iran demonstrated higher rate of depression amongst married students than singles(Ildarabady et al., 2004). However, the research conducted by M.K, Wei on international students did not show association of marital status and level of depression(M. K. Wei et al., 2008). The present study's result was similar to M.K. Wei et al.'s results.

Length of stay in Malaysia: A study conducted by Sodowsky et al. (1992) demonstrated that the length of stay in the United States could affect the acculturative distress amongst international students. They realized that students who stayed longer than 6 years were able to acculturate

significantly better than the students who stayed for a shorter time (Jun, Ball, & Gentry, 1993; Sodowsky & Plake, 1992). Similarly, Wilton and Constantine's (2003) study showed lower psychosocial stress in students who lived longer in United States(Leo Wilton & Madonna G Constantine, 2003). Trice (2004) found international students with longer stays in the United States had more socialization with local students (Trice, 2004). Fisher reported higher rates of homesickness in students in the first year of the study(Fisher et al., 1985). In this present study, it was found out that students who only stayed less than six months in Malaysia showed higher rates of depression (4 students out of 5). Otherwise, length of stay was not found as a significant factor for the level of depression and homesickness in other groups (table 5-3). M. K. Wei et al.'s (2008) study's result was similar to the present study's result (M. K. Wei et al., 2008).

Experiences of staying in other countries: Abe et al. (1998) found that students who have experienced living overseas had greater adjustment compared with students without such experience (Abe, Talbot, & Gellhoed, 1998). Therefore the duration of the stay in the other countries was assessed in the present study. However, just 27% of participants stayed more than 4 months in other countries. There was no significant difference between them and other students in term of depression and homesickness.

Staying with someone versus staying alone: Major depressive disorder is more common in people without close interpersonal relationships (Sadock, Kaplan, & Sadock, 2007). Social connectedness has been found to be an impotent protective factor against acculturative distress and feeling homesick (Christine J Yeh & Inose, 2003).Iranian students who were living alone

presented with higher rates of depression than those were living with their family or friends. However, the difference was not significant (39.7% versus 31.5%).

Chapter 7: Conclusions

One third of Iranian students studying in University Malaya are suffering from mild to severe depression. This result is almost similar to previous studies' results conducted among Asian students studying in the western countries (Ibrahim et al., 2013; X. Zhou et al., 2013) and significantly higher than the rate of depression in general population (Bijl et al., 1998; Hasin et al., 2005; Jacobi et al., 2004; Kringlen et al., 2001). However, the study indicated that the prevalence rate of depression in Iranian international students studying in University of Malaya is significantly less than the rate of that amongst Iranian students studying in Iran (Aghakhani et al., 2011; Hadavi & Rostami, 2012; Ildarabady et al., 2004; Sharifi et al., 2001). The study also demonstrated that depression is significantly associated with being homesick, poor social support and lower intrinsic religiosity.

Almost half of Iranian students in University Malaya are suffering from homesickness. Since the feeling of homesickness is common in new students (Chow & Healey, 2008; Fisher et al., 1985) and only 3% (n=5) of the study's participants were new students (length of stay less than 6 months), the rate of homesickness can be considered as high rate. It is worthwhile mentioning that providing facilities for these international students will definitely help these students cope and settle down better in achieving their undertaking.

Chapter 8 Limitations, strength of the study and recommendations

8-1 Limitations of this study

Several limitations can be identified in this study:

- 1. Convenience sampling was used in this study that might result in sampling bias. Random sampling would be preferable if enough time and resources could be provided.
- Cross sectional study which was employed in this study could indicate the associations between different variables in the same time, however it was not able to show causative relation between items.
- English questionnaires were used in this study, while English was not maternal language
 of respondent, using valid Persian versions might provide deeper understanding of
 questions.
- 4. Financial problems was an important aspect of the study, however, participant were not very keen to be investigated about this aspect. It might increase the rate of imprecise information.
- 5. The study also aimed to assess religiosity and its relation with depression and homesickness, however, some of Iranian students were not happy to be assessed about this.
- 6. In the study 5 self-rated questionnaire including 61 questions was employed. It was time consuming and might increase the probability of careless answers.
- 7. The information obtained by self-rated questionnaire could not be perfectly verified.

- 8. The present study did not investigate the depression and homesickness amongst comparison groups of students such as locals, African international students etc. Conducting studies on Iranian students and a comparison group could be preferred .Such study can indicate whether the prevalence of depression and homesickness amongst other groups of students is similar or not and also whether the other groups of students are involved with similar associated factors or some particular socio-cultural factors are influencing Iranian international students.
- 9. The pre- existing depression is not excluded in the study. The depression started after immigration might show grater relationship with homesickness.

8-2 Strength of this study

- 1- This is the first study on Iranian students' issues in University of Malaya. Iranians are providing the highest rate of clients for University Malaya.
- 2- The researcher and participants were from same country with similar language and culture. It could provide better understanding about the nature and procedure of the research when the explanation was given.
- 3- For analysis of result multivariate analysis was employed that can indicate stronger results with excluding confounding items.

8-3 Recommendations:

International students remain the most invisible and under-served groups on many campuses (Mori, 2000; Nilsson et al., 2004). Although many report positive experiences, research on international students have raised many concerns about the adjustment process which needs to be addressed (S. Poyrazli et al., 2004; S. Poyrazli & Lopez, 2007; S. Sümer et al., 2008). Additionally, ignoring these concerns will have as well impact on to the educational institutions' effectiveness in retaining these students (S. Poyrazli et al., 2004; S. Poyrazli & Lopez, 2007; S. Sümer et al., 2008). This present study could show the presence of depression amongst 33.8% and homesickness in 44.3 % of Iranian students. As the statistical information indicated a critical decrease in Iranian students' enrolment since 2012, conducting more studies to explore the most important precipitating factors for depression and homesickness is suggested. Furthermore, providing some services for international students can be recommended as follow:

- 1. Regular screening test for early detection of depression and early intervention.
- 2. Providing counselling services for students.
- 3. Availability of on line counselling particularly for the patients with risk of suicide.
- 4. Development of healthy leisure activates for students.
- 5. Providing longer visa for students' parents and relatives.
- 6. Providing some facilities like transportation, accommodation and loan for international students.
- 7. Providing some courses for universities' staff to explain the importance of international students in development of socio- economic aspects of a country and how their behavior can either reject or motivate students for studying in Malaysia.

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CONSENT BY SUBJECT FOR CLINIC.	AL RESEARCH
I,	
(Name)	
Identity card No	
Of	
(Address)	
Hereby agree to take part in the questionn	naire study specified below:
Psychological well —being of Iranian st with socio-cultural adaptation, coping s	udents in University Malaya, and its association strategies.
The nature and purpose of which has been Medical officer.	n explained to me by Dr Majid Shahmohammadi,
form of questionnaire. After knowing an	linical research in term of methodology, which is in the nd understanding the nature of the clinical research, I participate in the clinical research specified above.
Date	Signature (Research subject)
I confirm that I have explained to the subj clinical research.	ject the nature and purpose of the above-mentioned
Date	Signature

Appendix 1

MEDICAL ETHICS COMMITTEE

UNIVERSITY MALAYA MEDICAL CENTRE

PATIENT INFORMATION SHEET

Attention to the investigator: Please fill in simple layman language as you would speak to research subjects.

Please read the following information carefully, do not hesitate to discuss any questions you may have with your Doctor/Investigator

1. Study Title:

Depression and homesickness among Iranian students in University Malaya

2. Introduction (Scientific basis of the study)

There are quite a number of Iranian students study in UM. They are away from their home and living in a new environment. Common challenges they encountered include language barrier, culture, diet and study environment. All of these cause mountain of stress to the students which may lead to depression or psychological distress. It is important to understand the level of depression and possible associated reasons.

3. What is the purpose of this study?

	A. To study the level of depression among Iranian students studying in UM B. To determine the possible associated factors of depression among the Iranian students
4.	What are the procedures to be carried out?
	A. You are required to answer a set of questionnaire.B. All the information will be kept confidential.C. After you have completed the questionnaire please return them to the researcher.
5.	Who should not enter the study (exclusion criteria)?
	A. Subjects who refuse to participate in the studyB. Students that are not studying in UM.
6.	What will be the benefits of the study to the subject?
То	determine any unrecognized depression or psychological distress among the student.
7.	What are the possible drawbacks (side effects, etc.)? Nil

8.	Is the investigatory product derived from a source that may be cultural porcine? (If applicable) Nil	sensitive, eg: bovine or
9.	What payments or reimbursement will research subjects receive? Nil	
10.	Can I refuse to take part in the study?	
Tì	nis is a voluntarily study and you can refuse to take part.	
11.	Who should I contact if I have additional questions during the course	of the study?
	Doctor's name: Dr. Majid Shahmohammadi H/P no.: 0136705010	
		BK-MIS-1116-E02

Appendix 3:

Demographic information

All questions contained in this questionnaire are strictly confidential

1. Age:.					
2. Religion		Christio	n 🗌	Zoroastrian	
3. Gende	er: Female		Male		
4. N	Marital status:				
Sin	ngle marrie	d	divorced	widow or	widower
5. Course	e of study				
6. S	tudying level				
N	Master's	PhD		others	
7. N	Monthly household income? I	RM			
8. Y	You have been living in Mala	ysia for	years		
9. Stayin	g with				
	taying with both parents		staying with o	one of parents	
	taying with sibling/siblings		staying with	spouse	
	taying with a child or childre	en			

10- English certifi	cation (IELTS overal	l score)		
5.5	<u> </u>	6.5	7	>7.5
others				

Appendix 4:

MSPSS-E

We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement by **circling** the appropriate number using the following scale:

1	2	3	4	5	6	7
Very strongly disagree	Strongly disagree	Mildly disagree	Neutral	Mildly agree	Strongly agree	Very strongly agree

1.	There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2.	There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3.	My family really tries to help me.	1	2	3	4	5	6	7
4.	I get the emotional help and support I need from my family.	1	2	3	4	5	6	7
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6.	My friends really try to help me.	1	2	3	4	5	6	7
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8.	I can talk about my problems with my family .	1	2	3	4	5	6	7
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7

- 11. My family is willing to help me make decisions.

 1 2 3 4 5 6 7
- 12. I can talk about my problems with my friends 1 2 3 4 5 6 7

Appendix 5:

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Please choose	ilist one	in each (nnestion h	v circline	T 1fc	appropriate num	her
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1-How often you attend church or other religious meeting?

1- Never	2-Once a year	3-a few times	4- a few times	5- once a week	6- More than
	or less	a year	a month		once per week

2-How often you spend time in private religious activities such as prayer, meditation or Bible study?

1-rarely or	2-A few times	3-once a week	4-two or more	5-daily	6- More than
never	a month		time per week		once day

The following section contains 3 statements about religious belief or experience. Please make the extent to which each statement is true or not true for you.

3- In my life, I experience the presence of the Divine (i.e. .God).

1-Definitely not	2- tends not to be	3- unsure	4- Tends to be	5-Definitely true
true	true		true	of me

4- My religious beliefs are what really lie behind my whole approach to life.

1-Definitely not	2- tends not to be	3- unsure	4- Tends to be	5-Definitely true
true	true		true	of me

5- I try hard to carry my religion over into all other dealings in life.

1-Definitely not	2- tends not to be	3- unsure	4- Tends to be	5-Definitely true
true	true		true	of me

Appendix 6

Beck Depression Inventory II

Please choose just one answer in each

- 1-Sadness
- 0. I do not feel sad
- 1. I feel sad much of the time.
- 2. I am sad all the time.
- 3. I am sad or unhappy that I can't stand it
- 2- Pessimism
 - 0. I am not discouraged about my future.
 - 1. I am more discouraged about my future than I used to be
 - 2. I do not expect things to work out for me
 - 3. I feel my future is hopeless and will only get worse

3-Past failure

- 0. I don't feel like a failure.
- 1. I have failed more than I should have.
- 2. As I look back, I see a lot of failure
- 3. I feel I am a total failure as person.

4-Loss of pleasure

- 0. I get as much pleasure as I ever did from the thing I enjoy.
- 1. I don't enjoy things as much as I used to
- 2. I got very little pleasure from the things I used to enjoy
- 3. I can't get any pleasure from the things I used to enjoy

5- Guilty feeling

- 0. I don't feel particularly guilty
- 1. I feel guilty over many things I have done or should have done

- 2. I feel quite guilty most of the time.
- 3. I feel guilty all of the time

6-Punishment feeling

- 0. I don't feel I am being punished.
- 1. I feel I may be punished
- 2. I expect to be punished
- 3. I feel I am being punished.

7-Self- dislike

- 0. I feel the same about myself as ever.
- 1. I have lost my confidence in myself.
- 2. I am disappointed in myself.
- 3. I dislike myself.

8-Self-criticalness

- 0. I don't criticize or blame myself more than usual.
- 1. I am more critical of myself than I used to be.
- 2. I criticize myself for all of my faults.
- 3. I blame myself for everything bad that happens.

9-suicidal thoughts or wishes

- 0. I don't have any thoughts of killing myself.
- 1. I have thoughts of killing myself, but I would not carry them out
- 2. I would like to kill myself
- 3. I would kill myself if had the chance.

10- Crying

0. I don't cry any more than I used to.

- 1. I cry more than I used to.
- 2. I cry over every little thing.
- 3. I feel like crying but I can't.

11- Agitation

- 0. I am no more restless or wound up than usual.
- 1. I feel more restless or wound up than usual.
- 2. I am so restless or agitated that is hard to say still
- 3. I am so restless or agitated that I have to keep moving or doing something.

12- Loss of interest

- 0. I have not lost interest in other people or activities
- 1. I am less interested in other people or things than before.
- 2. I have lost most of my interest in other people or things.
- 3. It's hard to get interested in anything.

13- Indecisiveness

- 0. I make decision about as well as ever.
- 1. I find it more difficult to make decision than usual.
- 2. I have much greater difficulty in making decision than I used to.
- 3. I have trouble making any decisions.

14- Worthlessness

- 0. I don't feel I am worthless
- 1. I don't consider myself as worthwhile and useful as I used to.
- 2. I feel more worthless as compared to other people.
- 3. I feel utterly worthless.

15-Loss of energy

- 0. I have as much energy as ever
- 1. I have less energy than I used to have
- 2. I don't have enough energy to do very much

3. I don't have enough energy to do any thing

16- Changes in sleeping pattern.

- 0. I have not experienced any changes in my sleeping pattern.
- 1. a- I sleep somewhat more than usual
 - b-I sleep somewhat less than usual
- 2. a- I sleep a lot more than usual
 - b-I sleep a lot less than usual
- 3. a-I sleep most of the day

b-I wake up 1-2 hours early and can't get back to sleep 17-Irritibility

- 0- I am no more irritable than usual
- 1- I am more irritable than usual.
- 2- I am much more irritable than usual
- 3- I am irritable all the time

18 Changes in appetite

- 0. I have not experienced any changes in my appetite
- 1. a- my appetite is somewhat less than usual.
 - b-My appetite is somewhat greater than usual.
- 2. a- My appetite is much less than before
 - b-My appetite is much greater than usual
- 3. a-I have no appetite at all
 - b- I crave food all the time
- 19- Concentration difficulty
 - 0. I can concentrate as well as ever
 - 1. I cannot concentrate as well as usual
 - 2. It's hard to keep my mind on anything for very long

3. I find I can't concentrate on anything.

20-Tiredness or fatigue

- 0. I am no more tired or fatigue than usual
- 1. I get more tired or fatigue more easily than usual
- 2. I am too tired or fatigued to do a lot of the things I used to do
- 3. I am too tired or fatigue to do most of the things I used to do.

21- Loss of interest in sex

- 0. I have not noticed any recent changes in my interest in sex
- 1. I am less interested in sex than I used to be.
- 2. I am much less interested in sex now
- 3. I have lost interest in sex completely.

Appendix 7

Dundee relocation inventory (Questionnaire C)

Read each of the following statements and judge how intensely you have felt this since moving here.

Do not think for too long about the meaning of any item .Be sure that you answer every question.

1. I miss home							
never felt	very mildly	quite mildly	quite strongly	very strongly			
2. I dislike being here							
never felt	very mildly	quite mildly	quite strongly	very strongly			
3. I feel disorientated here							
never felt	very mildly	quite mildly	quite strongly	very strongly			
4.I feel unsettled here							
never felt	very mildly	quite mildly	quite strongly	very strongly			
5. I miss my family							
never felt	very mildly	quite mildly	quite strongly	very strongly			
6. I feel lonely here							
never felt	very mildly	quite mildly	quite strongly	very strongly			
7. I feel unhappy here							
never felt	very mildly	quite mildly	quite strongly	very strongly			

8. I feel insecure here

never felt very mildly quite mildly quite strongly very strongly

9. I miss friends I have at home

never felt very mildly quite mildly quite strongly very strongly