Life Satisfaction, Stress level and Self-Efficacy: Comparison between female and male, Irish and migrants.

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Contents

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Abstract

This study investigated the differences between gender, Irish and migrants on life satisfaction, stress level and self-efficacy and the role of self-efficacy on life satisfaction and stress. Sixty students, who included Irish and non-Irish, participated in the study using convenient sampling methods. Results revealed no significant differences between gender, Irish and migrants on life satisfaction, stress level and self-efficacy. A strong positive relationship was observed between self-efficacy and life satisfaction, however there was no significant interaction effect of self-efficacy and stress level. Research suggests that differences in psychological variables are independent of the nationality in Ireland and stereotypical beliefs may be critical factor in the question about the genders differences. The importance of self-efficacy found in this study was discussed.

Introduction

Stressful situation are constant and inevitable. When people turn on the television or radio they are constantly bombarded by stories of natural disasters, terrorist attack, war, recession and so on. Life is not easy to explain; in many cases life is full of opportunity as well as loss. People have always been part of the system from the beginning of humankind, and that to be part of the evolutional process. People's life satisfaction may be affected by various aspects such as different sensory experiences, degree of the cognition and so on (Argyle,1987). Issues related to stress have a major impact on how people perceive life. As no one, person or group is the same, stress could mean different things to different people, however without any doubt stress affects all people and it is constant (Lazarus 1966). According to Bandura (1977) self-efficacy as person's attitude may positively influence stress coping mechanism, as this system plays an important role in how people perceived a situations that they are exposed to and how they behaved in response to this situations (Bandar 1977).

Some of the scientific study reaffirm differences between gender on psychological variables (Papas 2010; Matud 2004) but other studies have not founded significant differences between them (Herbs 2009; Goldstein et al.; 2010).

Since the 1990' migration to Ireland has prospered, fuelled by strong economy contribution (Global Visa, 2007). This group of people, however, must deal with "culture shock" (term introduced by Kalvero Oberg in 1954),to operate within a different culture or language. They also may experience acts of racist, discrimination and difficulty in assimilation what

Life Satisfaction

"State of mind or degree to which a person positively evaluates the overall quality of his/her life as-a-whole is a life satisfaction"(Veenhoven , 2009, Chp1, p.11).

Satisfaction is a Latin word that means to make or do enough. Satisfaction with live refer to

an acceptance of person life circumstances and fulfilment of his/her needs, desires for life (Diener et al. 1985). Satisfaction with life is a summary evaluation of the approval or disapproval of the person's life, i.e. beliefs, feelings, aspirations, values and the degree of life satisfaction that comes from its implementation (Diener et al. 1985). Concept of life satisfaction applied to the balance of feelings about their own lives and combination of emotions and judgments about themselves. Shin and Johnson (1978) define satisfaction with life as a general assessment of the quality of life and relation to criteria of these qualities (South Pacific Journal of Psychology, 11(1)).

Beautell (2006) refers to influential aspect of defining life satisfaction as relation to empirical and theoretical equality (Beutell 2006).

Report conducted between 1985 and 2005 on gender differences on life satisfaction was published by Chris Herbst of Arizona State University and showed that females and males responded with similar slippages in life satisfaction, self-confidence, growing regrets about the past, and declines in virtually every measure of self-reported physical and mental health (Herbs 2009). Furthermore this study suggested that discontent grows regardless of demographic factors. Herbst analysed the data by looking at various subgroups such as age, race, marital status and employment status, where he found that there is a consistent decline in life satisfaction for each group except one person. A black man showed a significant increase in life satisfaction and wellbeing between 1985 and 2005 (Herbs 2009).

Modern literature suggested that women show higher rates of depression than men, but also suggested higher levels of well-being, but at the same time, the majority of studies find no gender differences in life satisfaction. The diversity of life that females and males are exposed to may be the reason of the divergent results. Women are greater affected by positive or negative emotions and they tend to experience joy or sadness more deeper than men (Sousa and Lyubomirsky 2000).

However other study reported similar levels of life satisfaction across gender (Diener & Fujita 1995). Authors of this study related on different sources to derive life satisfaction and what may be used as predictor on it. Factors such as family, friends were significantly stronger reported

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as predictor for females than for males. In contrary factors that may be more relevant to men's personal goals, such as athleticism, income was reported as predictor to be significantly stronger for males than for females (Diener & Fujita 1995).

Equality between genders within a culture such as equal pay, equal opportunity temp to demonstrated greater life satisfaction (Sousa & Lyubomirsky 2000).

The study conducted in the United Kingdom on life satisfaction also reported similar satisfaction between gender, but the variations in life satisfaction were more marked for women (Giusta, Jewell, Kambhapati; 2011).

A recent study suggests that migrant groups faced difficult situations during recession. Migrants as minority groups may score fare poorly on life expects or political representation (Farrell & Watt, 2001). Study by McGinnity,et al (2009) on the "Discrimination in the Employment Recruitment Process" reported that regardless of the industry sector, if a person had an African, Asian or German name they were twice less likely to be invited to an interview than an Irish named person (McGinnity,et al 2009). Implication of the name origins factor may affect a migrants' work, as well as cultural differences, languages challenges and educational system. However numbers of institution and agencies working on integration of the migrants' population significantly support them. (International Organization for Migrants in Ireland).

Stress

One of the key concepts in modern psychology with great diversity of meaningful attributes is stress. There are three main definitions of stress, where each group emphasises on a different aspect of this concept: the stimulus, the response and the relationship between the individual and their environment (Basowitz at al; 1950; Selye, 1975; Lazarus 1966; Lazur &Folkman 1984).

Early psychological research defines stress as a relationship between an external situation (stimulus event that causes emotional states) and a person (Basowitz et al; 1950). A study by Basowitza et al. (1950) conducted on parachute jumpers defines stress as a "class of stimuli" which

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has a high probability to cause anxiety in most people. The reason of this may be related to achieving homeostasis or to facilitate adaptive behaviour for survival and equilibrium. Perception of event may be different for different people, but some events such as death of loved ones or war may have similar importance to a wide variety of people, regardless of their age, gender or education (Basowitza et. al 1950).

Hans Selye in 1936 defined stress as "the non-specific result of any demand upon the body, be the effect mental or somatic" (Selye; 1975). He also stated that the same pattern of physiological responding may occur regardless of the stressor type: positive or negative. Consequence of stressor is reaction know as General Adaptation Syndrome-component of three stages: alarm, resistance and exhaustion and refers to non-specific response. (Selye; 1975; 1996). Selye's work has been critisised for limitation of role given to psychological factors of stress such as: no all responses to stress are uniform, stress has been assessed as an outcome. Subsequent studies show that response to stress were highly specific and depends on the nature of the stimulus and the properties of the individual organism (Auerbach; 1996).

The classic approaches to stress as a relation between the individual and the environment has been presented by Richard S. Lazarus (1966). According to Lazarus stress could be defined by relationship between enviroment which involves the production of stressors and the response of an individual subjected to these stressors (Lazur &Folkman 1984). The concept of stress consists : primary appraisal where a person establishes degree of stressor and evaluates if an event is significant to him/her and if there is a positive or threatening/harmful outcome. Then secondary appraisal occurs as consequence of primary one. Secondary appraisals involve feelings related to dealing with the stressor or the stress it produces (Lazur &Folkman 1984).

Moderate doses of stress motivate people to work, stimulate action and may be used as the driving force. These stress doses trigger in people the strength to fulfill difficult tasks and through it people can take on new challenges (Bernstein 2010). However, when stress appears too often and lasts too long, it can lead to serious disturbances in the person. It has been suggested that the

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immune system might mediate the physiological influence of stress on breast cancer (Hulka & Moorman, 2001).

Stressor could come from internal factor and may cause thoughts or behaviour that come from emotional and psychological feeling like being worried or depressed. Other stressors come from external factors, which are forces, that could not be easy to control, as death in family, pressure to pay off debts, and so on. However internal thought process may turn in to external effect and vice versa. Stress negatively affecting people's mental concentration, problem solving, decision making, person under stress may have trouble sleeping, lose appetite or lose interest in daily activities. Long lasting stress can cost insomnia, headache, aches pain, affect relationships with other people, work live and many more aspects of life (Bellavia & Frone 2005)

A recent study in the field on stress finds that when men under stress looked at angry faces seemed to disengage, as brain scans show lower activity in brain areas responsible for processing other people's emotions and facial expressions. Activation of these brain region (the insularr, temporal pole, and inferior frontal gyrusis) decrease in men and in women under stress increase (Papas,2010).

However study by Goldstein et al.(2010) in clinical environmental has been tested hormonal differences in contribution to explain sex differences in stress response circuitry in the human brain. This study also suggest that understanding psychological differences between female and male in the stress respond correspond with understanding other more basic physiological differences in the male and female brain. Result of Goldstei et al. study showed no significant sex differences in stress response regions in the brain. Findings suggest that differences in stress response in gender is linked to hormonal regulation via the impact of subcortical brain activity on the cortical control of arousal, Was suggested that females have a natural hormonal capacity responsible for stress regulation what differ them from males. (Goldstein et al.2010).

Another study conducted in Australia suggests that the difference between males and

females may be related to a single gene known as SRY. The author of this work suggested that the SRY gene is the implementation of the Y chromosome in men and causes their fight or flight response, while was argued that women use different genetic and physiological mechanisms to deal with stress. Previous study on this topic opined that SRY gene existed only in the developmental process of male genitalia in the womb and now it has been discovered that the proteins produced by this gene are placed in the brain and other organs. Proteins produced by SRY gene regulate secretion of neurotransmitters known as 'catecholamines', which include 'norepinephrine', dopamine and serotonin, and have important aspect of motor activity function, neural activity and 'cardiovascular Lee & Harley, 2012). This gene may contribute of release of norepinephrine in the blood stream and this same increase blood pressure and outcome in interrelation to stress in men turn, facilitate the expression of the fight-or-flight response. Since women don't have the SRY gene, their responses to stress are regulated by hormones such as estrogen, oxytocin and endorphins (Lee & Harley, 2012)

The result of study on gender differences in stress and coping reported that women scored significantly higher than the men in chronic stress and minor daily stressors. This study included a sample of 1566 women and 1250 men with age diversity and different sociodemographic characteristics. Study reported no difference in the number of life events experienced in the previous two years. Furthermore was found stronger effect of family health-related events in women than in men, while men showed stronger effect of finance and work-related events. Also women have been reported with lower emotional inhibition than the men and the women scored significantly higher on psychological distress and somatic symptoms. The result of this study indicating on higher level of stress in females that in males, however the effect sizes were low (Matud 2004).

The American Psychological Association published in 2011 a report on stress in America, indicating that women experience higher levels of stress than men. This study argues that not only do different gender react differently to stress, but they also place a different level of importance on

doing so (The American Institute of Stress, 2011).

Also impact of stress was investigated between the Irish population and the migrants population. In the present years the Irish society has become increasingly diverse. Irish society consist of 10.4% migrants and is speculated that this number will increase to 18% by 2030 (Kelly, Kelly &Ryan, 2008, P.15). These groups may be more vulnerable than the Irish population to psychosocial stressors, such as separation from family, discrimination, difficulties adapting to a new environment, language and so on. These negative aspects of their life may be the causes of depression, post-traumatic stress disorder, anxiety. Studies have shown that the number of psychiatric disorders were significantly higher among migrants than the native population (Kelly, Kelly &Ryan, 2008, P.15). Although numbers of studies related to migrants in Ireland is insignificant.

Self-efficacy

Self-efficacy is derived from social learning theory of Albert Bandura (1977). An important aspect of the self-efficacy theory is the person's expectations, especially expectations of self-efficacy and expectations regarding the results of the task. (Bandura 1977). Self-efficacy beliefs determine how people react in certain situations, feel, think and may strength motivation (Cetinkalp et al., 2011). High self-efficacy reduces anxiety and inhibition associated with the operation, a person with strong self-efficacy has greater persistence to achieve goals. People with strong sense of self-efficacy may recover quickly from disappointments, they can effectively overcome and master challenging task. However people with weak sense of self-efficacy may avoid challenging tasks, they also have tendency to focus on personal failings and negative outcomes and quickly lose confidence in personal abilities.(Bandura; 1992; 1994; 1995). Bandura (1978) indicated that low efficacy is generally accompanied by high performance arousal, whereas a strong sense of efficacy is associated with low performance arousal. This opinion has been supported by Bandura, Reese and Adams (1982) where they measured physiological arousal using both a self-report fear scale

and arousal measures. People with high assurance in their capabilities when they facing difficult task as challenges to be mastered, rather as danger to be avoid (Bandura;Reese & Adams 1982). A study by Bandura;Reese & Adams (1982)examine participants who has to accomplish particular task and measure their cardiac acceleration and blood pressure that is associated with rating during performance of the designated tasks. Then this same groups of participants were exposed to treatment that maximise the self-efficacy strength for all tasks. Furthermore the repeat measures was perform on this same group and was reported reduction of psychological reaction on the same task (Bandura;Reese & Adams 1982).

Studies between gender differences on self-efficacy indicate a stereotypical belief. People holding this stereotypical attitude can directly affect self-efficacy development by creating more or less an opportunity for female/male to experience them skills. Teachers, tend to stereotype mathematics as a male domain. What hence overestimates boys' ability relative to girls (Li; 1999). Stereotypes may influences policy decisions of schools to offer single-sex mathematics classes base on the belief that these gender differences exist. (Arms 2007). Study by Pajares and Vilante (2001) explored whether stereotypical beliefs is the reason for genders differences in self-efficacy on writing. Public opinion adopted consideration on males to be more capable in mathematics and sciences while females tempt to do better in arts and languages. Although finding confirm that females score higher in writing than males.(Pajares and Vilante 2001)

Migrants as minority of Irish population may experiences low self-efficacy in relation to be perceive as second class citizen (Kilson, 1975). However, Ireland as a country with such diversity may well establish a national integrated system that included the needs and concerns of minority groups.. Well settled not-for-profit agencies like the Immigrant Council of Ireland, are dedicated to support migrants population in health, legal and educational aspects, what could prove aspect of self- efficacy (Immigrants Council of Ireland). For example, in the educational system, Dona lO'Loingsigh(2001) highlight the problem of primary schools in Ireland were majority of them being Roman Catholic schools. While non-denominational schools were rare and not supported by

government funding. Contribution of the Irish government was a commitment towards ensuring that children from cultural diversity will be educated to social, traditional and beliefs values of its population (Lodge & Lynch, 2004).

Self-efficacy is an important factor that significantly influences human motivation and the ability to accomplish the task. Also efficacy seems to have a strong link with the way people explain their failure either in controlled or uncontrolled events. Bandura (1982) established a strong link between self-efficacy life satisfaction and stress. People who see themselves as highly efficacious act, think, and feel differently from those who consider themselves as inefficacious. Bandura (1997) opined that people's level of motivation, affective states, and actions are based more on what they believe in than what is objectively true. Self-efficacy also has been found to have a significant negative correlation to level of stress, indicating that self-efficacy may act as moderator of stress.(Hackett, Betz, Casas, & Rocha-Singh, 1992). Level of self-efficacy determines reaction to challenging situations (Cetinkalp et al., 2011).

Rationale for Current Study

Despite the domain related to different finding from literature review between gender, Irish and migrants on the presents variables are not full confirmed. Some study confirming on existing differences, others fail to find significant differences in the topi (Gold-stein et al. 2010; Perjures and Violent 2001). Furthermore stereotype beliefs were pointed as the sources of potential differences. The credibility of this research is questioned by insignificant research related to migrants groups living in Ireland.

It should also be noted that migrants in terms of diffrence races do not differ in genetic predisposition of the native Irish population. Consensus among scientific studies support that different race are not in any way genetically different subgroup of the same species as The Human Genome Project of 2000 showed that in genetic terms all human beings are 99.9% the same (Spencer 2006).

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Also the aim of this research was to determine if self-efficacy can be used as predictor on life satisfaction and stress level. The strength of this relationship will be an indication of how changes in the predictor variables should influence life satisfaction and stress level. This study will complement the current literature on the effect of self-efficacy as the important factor in the life. Assumption that self-efficacy represents a significant contribution to life satisfaction and stress perceive may contribute useful information for future interventions that obtaining skills of self-efficacy will be part of coping strategy.

The general design of the current research will be a questionnaire based on cross-sectional differences and cross-sectional correlation study. Differences between gender, Irish and migrant on life satisfaction, stress level and self-efficacy will be performed and this will be done using SPSS to calculate Independent t-test will measure if differences were significant. The relationship between self-efficacy, life satisfaction and stress level will be calculated by Pearson's r coefficient to determine if the correlation is significant. The problem statement of the research can be summarized as follows:

1. Life satisfaction, stress level and self-efficacy between females will be significantly different than males

2. There will be significant difference in life satisfaction, stress level and self-efficacy between the Irish population and the migrant population.

3. There will be positive significant correlation between Self efficacy and live satisfaction and negative significant correlation between self-efficacy and stress level.

4. Life satisfaction, stress level and self-efficacy between Irish females will be significantly different from migrant females.

5. There will be a significant difference in life satisfaction, stress level and self-efficacy between the Irish males and migrant males.

Method

Participants

      The target population for this project were students at Dublin Business School. Initial contact with the student participants was made by contacting lecturers, using college e-mail, for their permission to approach students at the beginning of their lectures. Also the consent of the present study and information regardless voluntary participation was given to all lecturers. Participants were gained through non-probability, convenient sampling. A total numbers of 60 individuals, age range from 21 to 65 took part in this study, including 55%(N=33)females and45%(N= 27) males. Where 41.6% (N=25) of participants were migrants of different nationality and 58.3% (N=35) were Irish. Among migrants were 13.3% (N=8) of Polish nationality, 6.6%(N=4) of Spanish, 5% (N=3) of Italian, 3.3% (N=2) of Filipino, 1.6% (N=1) of Finnish, 1.6% (N=1) of Croatian, 3.3% (N=2) of French, 1.6% (N=1) of Russian, 3.3% (N=2)of Nigerian, 1.6% (N=1) of Danish, 1.6% (N=1)of Scottish nationality. Participants of this study were individuals of different philosophy and education background with different religious beliefs.

Design

      A survey design was used for this research. Firstly a cross-sectional,between-subject, quantitative quasi-experiment, was used to compare differences amongst genders, Irish and migrants (independents variables) on life satisfaction, stress level and self-efficacy (dependent variables). Followed by correlational design with a cross-sectional, between-subject quantitative survey used to measure self-efficacy as predictor variable on life satisfaction and stress level as continuous criterion.

Materials/ Apparatus

      Participants were given a booklet which consisted of an informed consent sheet(see

appendix 1.1), demographic question, related to participants gender and open ended question of nationality(see appendix1.2) and three different questionaries (see appendix 1.3). The researcher introduced participants to the study before giving out the questionnaire. The survey was given to all students in the classroom by the researcher. An envelope was left in the classroom for the participants to leave their questionnaires to maintain anonymity.

Satisfaction with Life Scale

SWLS scale was designed by Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985) (see appendix1.3). This scale measures the cognitive judgments of satisfaction with one's life. The respondents are allowed to judge their personal, subjective experiences in the terms of their own values (cited in Hamarat et al., 2001). There are five items which are rated by the responder on a seven- point Likert scale rating 1 - Strongly disagree to 7- Strongly agree. The statements included are: 'In most ways my life is close to my ideal'; 'I am satisfied with my life'. The score are summed to show satisfaction with live score. The higher the score the more the participants is satisfied with life. The possible range of score is from 7, indicating minimal satisfaction with life to 49, maximum satisfaction.

The internal consistencies (Cronbach's alpha) given by Diener et al.(1985) range from 0.87

The research produce a Cronbach's alpha of .81 also showing good internal consistency

In the 'Items statistics' table and 'Item total statistics' all items were positive.

Perceived Stress Scale

PSS scale developed by Cohen, S., Karmarck, T., Mermelstein, R. (1983) measure stress level (see appendix 1.4). This scale is the most widely used psychological instrument for measuring the perception of stress. It is a measure of the degree to which situations in one's life are appraised as stressful group (cited in Hamarat et al., 2001). The PSS consist ten items refer to information about

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participants feeling and thought during last month. Participants need indicate in each case how often they felt or thought in a certain way. The Four-point Liker scale was (0 = 'never' to 4 = 'very often'). The statements included are: 'In the last month, how often have you been upset because of something that happened unexpectedly? ; 'In the last month, how often have you felt nervous and stressed?'. Four positively worded items are scored in the rivers direction. The scores are summed to show the PSS scale. The higher the overall total scores the greater the amount of perceived stress of the participants. The possible ranges of score are from 0 to 40. The internal consistencies (Cronbach's alpha) given by Cohen et al.(1983) range from 0.86. The research produce a Cronbach's alpha of .82 also showing good internal consistency. In the 'Items statistics' table and 'Item total statistics' all items were positive.

General Self-Efficacy

GSES developed by Schwarzer, R., & Jerusalem, M.(1995) is use to obtain self-efficacy. Aims of this scale are to measure optimistic self-beliefs to cope with a range of difficult life events. The Four-point Linker scale was used (1='not at all true' to 4=' exactly true'). The statements included are: 'I can always manage to solve difficult problems if I try hard enough'; 'it is easy for me to stick to my aims and accomplish my goals'. Base on scoring Diener et al, the score are summed to show the self-efficacy score, the higher the score the greater the self-efficacy of the participants. The possible ranges of the score are between 10 to 40. The internal consistencies (Cronbach's alpha) given by Schwarzer et al.(1995) range from 0.82 to 0.93. The research produce a Cronbach's alpha of .82 also showing good internal consistency. In the 'Items statistics' table and 'Item total statistics' all items were positive.

Procedure

All the questionnaires were given to the participants during college hours. Data collection

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tookplace at the beginning of the lecture preceded by a short introduction describing the purpose of the survey. The instruction was *'Please take a moment to read the first page of the questionnaires and to fill out these questionnaires for the purpose of undergraduate research'*. Participants were informed that they are not obliged to take part, that they can withdraw at any time during the survey, however they can't withdraw after handing it up. Also was mentioned that completed questionnaires will be safely locked until analysis began and could not be viewed by anyone els than the researcher and destroyed after final examination of the present study. A cover sheet of the booklet included an introduction, contact details of the researcher and the researcher's supervisor (see Apendix 1.1). On the bottom of the introduction were some additional links related to stress management and contact details of counseling help. Students completed the questionnaires booklet at the beginning of their class. The participants were given as much time as needed to fill in the questionnaires. The envelope was left on the table and the participants could leave the questionnaires whenever they were ready. Approximately, after 15 minutes all participants returned their completed questionnaires, researcher collect them then thanked all participants for taking part and thanked the lecturer for his time before leaving the classroom.

At all times the researcher adhered to The Code of Professional Ethics when conducting this research. The right and dignity of all participants was ensured.

Result

SPSS version 21 was used for all statistical procedures. A total of 60 completed questionnaires were analysed, included 33 females, 27 males, where 35were Irish individuals and 25 were migrants' individuals. All data were coded for descriptive and inferential analysis in SPSS version. The result was obtained by carrying out descriptive statistics, independent t-test and Pearson's correlation. The normality test on the data was performed to establish normal distribution (histogram of a bell-shaped and normal probability plotting indicated a normal distribution with obtained data).

Descriptive statistic

Table 1. Descriptive data and variables scores for SWL, PSS and GSE

VARIABLES	N	MEAN	MIN	MAX	SD
SWL	60	23.53	9	35	5.71
PSS	60	21	9	30	4.27
GSE	60	30.43	21	40	4.24

As seen above, the majority of the participants reported moderate level of live satisfaction (M=23.53, SD=5.71), moderate rate of stress (M=21, SD=4.27) and high rate of self-efficacy (M=30.43, SD=4.24).

Table 2 Mean and Standard Deviation score for SWL, PSS and GSE according to gender

VARIABLES	N	SWL (MEAN/SD)	PSS (MEAN/SD)	GSE (MEAN/SD)
FEMALES	33	23.63/5.98	21.66/4.48	30.48/4.86
MALES	27	23.40/5.48	20.18/3.94	30.37/3.42

The sample was made up of 55% female and 45 male. Independent t-tests showed that there were no significant differences between females and males according to presented variables. However smaller sample of males (10% less) indicated almost this same score for MEAN/SD of SWL and GSE as females' sample.

Table 3 Mean and Standard Deviation score for SWL, PSS and GSE according to Irish and migrants

VARIABLES	N	SWL (MEAN/SD)	PSS (MEAN/SD)	GSE (MEAN/SD)
IRISH	35	23.40/6.12	20.62/4.5	30/4.27
MIGRANTS	25	23.72/5.20	21.52/3.92	31.04/4.20

The sample was made up of 58.3% Irish and 41.6% migrants. Independent t-tests showed that there was no significant differences between Irish and migrants according to presented variables. However smaller sample of migrants (16.7% less) indicated slightly higher MEAN/SD of PSS, GSE and the same SWL than Irish's sample.

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Table 4 Mean and Standard Deviation score for SWL, PSS and GSE according to Irish females and migrant females

VARIABLES	N	SWL (MEAN/SD)	PSS (MEAN/SD)	GSE (MEAN/SD)
IRISH FEMALES	19	22.8/6.84	21.63/4.53	29.94/4.99
MIGRANTS FEMALES	14	24.71/4.58	21.71/4.58	31.21/4.77

The sample was made up of 31.6% Irish females and 23.3% migrant's females. Independent t-tests showed that there were no significant differences between Irish females and migrant females according to presented variables. However smaller sample of migrant females (8.3% less) indicated slightly higher MEAN/SD of SWL and GSE than Irish female's sample.

Table 5 Mean and Standard Deviation score for SWL, PSS and GSE according to Irish males and migrant males

VARIABLES	N	SWL (MEAN/SD)	PSS (MEAN/SD)	GSE (MEAN/SD)
IRISH MALE S	16	24.06/5.28	19.43/4.36	30.06/3.39
MIGRANTS MALE S	11	22.45/5.88	21.27/3.1	30.81/3.57

The sample was made up of 26.6% Irish male and 23.3% migrants male. Independent t-tests showed that there were no significant differences between Irish male and migrants male according

to presented variables.

Inferential analysis

Figure 1 Scatterplots displaying the relationship between self-efficacy and life satisfaction score
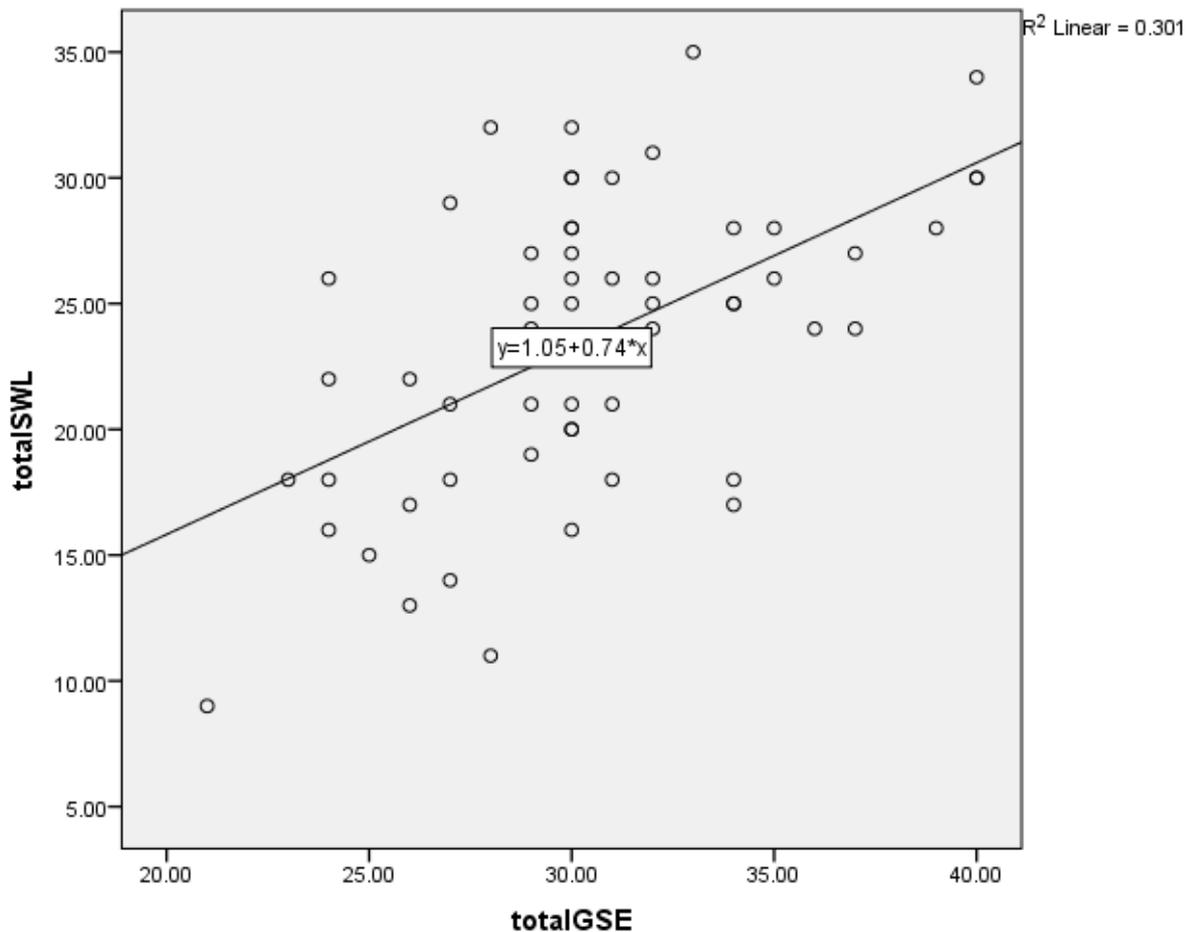

Figure above presented a linear scatterplot with strong positive correlation and clustering around the line between self-efficacy and life satisfaction. Demonstrated on a scatterplot positive slop (by an upward trend), meant that higher self-efficacy correspond to higher life satisfaction.

Correlations obtained from the relationship analysis (Figure1) shown that continuous predictor variables had significant correlation with the criterion variable. A Pearson's correlation coefficient found that there was strong positive significant relationship between general self-

efficacy and life satisfaction (r(58)= 0.54, p<.01, 2-tailed). The hypotheses regarding correlation between self-efficacy and live satisfaction was confirm.

Figure 2 Scatterplots displaying the relationship between self-efficacy and stress level score
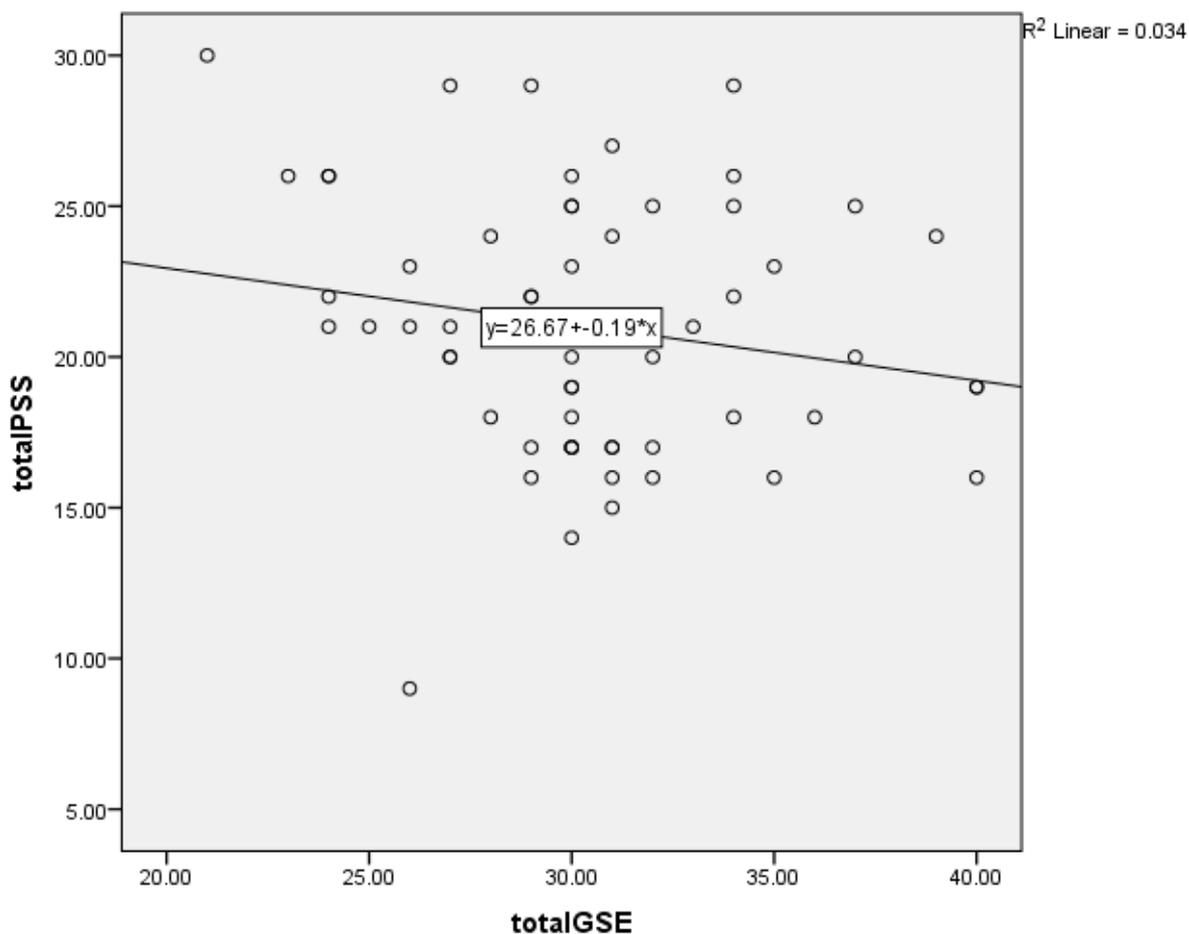

Figure above presents no significant correlation between self-efficacy and stress level. However is noticeable negative correlation indicated on a scatterplot by a upward trend (negative slope), where lower self-efficacy correspond to higher stress level.

Pearson's correlation coefficient found no significant relationship between general self-efficacy and stress level (see figure 2) (r(58)=-0.18 , p>1.5, 2-tailed). Thus to a small degree, when self-efficacy decreases stress level increases. Since these result was no significant the hypotheses regarding correlation between self-efficacy and stress level can be rejected. It should be noted that the direction of the relationship does support the hypothesis however the strength of the relationship

(i.e. weak) does not support the hypothesis. This result could be considered for further analysis and research.

Life Satisfaction

Differences between presented groups on life satisfaction were investigated using independent sample t-test. There was no significant score of differences between males and females on life satisfaction (see table 2) t(58)=-.153, p=.87. After differences among Irish and migrants on this same variable (see table3) were calculated and found to be insignificant t(58)=-212, p=.82. Also there was no significant score of differences between Irish females/migrant females (see table4) t(31)=-885, p=.38. and Irish males/migrant males (see table5) t(25)=-742, p=.46 on life satisfaction. The hypothesis formulated in relation to differences scores on life satisfaction between above groups was rejected.

Stress level

An independent sample t-test was used to determine whether or not stress level differed on presented groups. Score of differences between gender (see table 2) were found no to be significant t(58)=-1.34, p=.18. Also no significant score of differences amongst Irish and migrants (see table 3) on stress level t(58)=-.793, p=.43. were obtained. Furthermore the differences in score between Irish females/migrant females (see table 3) t(31)=-.052, p=.95. and Irish males/ migrant males (see table 4) t(25)=-1.198 p=.24 were also found to be no significant. Interestingly, differences amongst presented groups on stress level were no significant, the reason for which will be discussed later.

Self- efficacy

Furthermore variable of self-efficacy was calculated by independent sample t-test as to

determine whether or not presented groups differed significantly on that variable. There was no

significant differences in score between males and females (see table 2) on self-efficacy t(58)=-

.103, p=.91. Also the differences in score amongst Irish and migrants (see table 3) t(58)=-935,

p=.35 were no significant. Furthermore no significant difference in score between Irish

female/migrant female (see table 4) t(31)=-734 p=.46 and Irish male/migrant male (see table 5)

t(25)=-556p=.58 were reported. The assumptions of differences on self-efficacy between presented

groups were not met.

Discussion

The rationale behind this study was to explore differences in psychological variables such as life satisfaction, stress levels and self-efficacy among different genders, migrants and the native population, furthermore the relationship between these variables was investigated. While there has been a large amount of research focusing on gender differences in scores on life satisfaction, stress levels, self-efficacy and the impact of self-efficacy on life satisfaction and stress levels, there has not been much empirical psychology research done comparing migrants and the native population. Ireland within a short time has become more diverse in terms of ethnic groups, languages and cultural and religious practice. This study highlighted the importance of further research into migrant experience in Ireland. The present study begins such exploration albeit on only a small scale. The first aim of the present study was to explore if genders differed significantly from each other in life satisfaction, stress levels and self-efficacy. The second aim was to investigate if Irish and migrant individuals differed significantly from each other according to this same variable. The third aim sought to obtain data on whether self-efficacy significantly correlated with life satisfaction and stress levels. The fourth aim was to examined the significance of differences between Irish males and migrants males in l terms of if satisfaction, stress levels and self-efficacy. The final aim was to measure if there were significant differences between Irish males and migrant males according to these same variables

Life Satisfaction

The research question was to explore whether difference exists between genders in life satisfaction. The findings in this research support previous studies in the area on similarities of life satisfaction between genders (Herbs 2009). However a number of studies point to the relationship between gender equality within a culture (i.e., equal pay, equal access to education, work opportunities and achievement) and increased satisfaction with life (Sousa and Lyubomirsky 2000).

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Diener and Frank Fujita (1995) reported that social resources like friends or family may predict life satisfaction for females and males, but it was suggested that these factors could be more significant for females (Diener & Fujita 1995). Similar findings were published by Martin Pinquart and Silvia Sorensen (2000). They supported the assertion that men and women derive satisfaction from different sources. It was indicated that a man's life satisfaction was more related to income than woman's life satisfaction (Martin Pinquart and Silvia Sorensen 2000). Both personal and environmental factors are influential aspects of life satisfaction and empirical and theoretical equality should also be taken into consideration (Beutell 2006).

Further, this research showed no significant differences among Irish and migrants. A study by McGinnity et al (2009) on "Discrimination in the Employment Recruitment Process" reported favoritism toward the native population in the recruiting process, which may indicate difficulty in the workforce for migrants (McGinnity,et al 2009). This issue could be taken into account as a negative aspect of life satisfaction. However a number of different organisations and agencies in Ireland strongly support migrants in various areas of life, thereby improving the quality of life for migrants (International Organization for Migrants, Ireland). A deficit of research dedicated to migrant and native population comparative life satisfaction in Ireland is an obstacle to a final conclusion on this topic.

In the current research, no significant gender differences between Irish males/migrant males and no significant differences between Irish females/migrant females were reported. There has been a general consensus that life satisfaction is similar for both Irish and migrants either whether females or males.

Stress levels

The difference between female and male students on the stress level scores was analysed

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as the second question in the present study. The result showed that the physiology of the stress response was similar for everyone. But some researchers believe that there are distinct differences in the way females and males experience and respond to stress (Matud 200; Papas, 2010). A previous study was investigated gender differences and found that women suffer more stress than men and suggest that the coping style for women is more emotion-focused than for men (Matud 2004). Another study founded that the brain area responsible for processing other people's emotions was more active for women than for men under stress(Papas 2010). However Goldstein et al (2010) showed no significant differences in stress response regions in the brain between genders. Findings suggest that differences in stress response between genders are related to hormonal regulation, which has an impact on brain activity. The difference is between male and female's capacity for natural hormonal stress regulation (Goldstein et al.; 2010). A new study suggested that the differences between females and males may boil down to a single gene known as SRY. This study argued that this SRY gene, is responsible for males fight-or-flight response, while women use different genetic and physiological mechanisms to deal with stress.(Lee 2012)

This study also questions the differences in stress levels between Irish and migrants. The results of this study show no significant differences in stress levels between the Irish population and the migrant population. These findings contradict a previous study which indicated significantly higher psychological illness in migrants than in the native population in Ireland. Increased incidence of post-traumatic stress disorder, anxiety and psychosis among migrants (Kelly, Kelly &Ryan, 2008, P.15).

Also present research shows no significant differences among Irish males/migrant males and Irish females/migrant females in terms of stress levels.

Self-Efficacy

The results of this study found no significant differences between genders. This supports other

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studies on this topic and indicates stereotypical assumptions in the area of gender difference (Bandura; 2007). However some researchers reported findings regarding gender differences on academic self-efficacy indices. Male students do better in mathematics and science based subjects, while female students typically outperform male students in language arts (Pajares & Vilante; 2001). Bandura underlines an important effect of self-efficacy on the person's expectations, especially expectations regarding the results of the task. Individual's self- efficacy is based on a number of different elements such as; personal traits, childhood and life experience. However influences of gender role models' behaviour could be linked to performances (Li; 1999). Children acquire the gender-based beliefs within a culture which may later be reflected in values, motives and behaviours throughout their lives. Females and males experience different opportunities passing through the developmental stages which could clearly indicate why the differences exist in the first place (Arms 2007). Gender-role models directly affect self-efficacy development by creating more or less perceived opportunities for females/males to explore their skills (Li; 1999). However it is necessary to mention that these beliefs have changed little over the past twenty years.

This study also reported no significant differences in self-efficacy between the Irish population and the migrant population. According to Kilson, migrants and minority ethnic groups may experience life as second-class citizens which could have an impact on their sense of self-efficacy (Kilson, 1975). However a well-integrated societal system could positively affect psychological wellbeing among migrant groups. As part of the integration process the Irish government has shown a commitment towards ensuring that children of all backgrounds are educated to value social and cultural diversity, through provision of education that embraces the diverse traditions, beliefs and values of its population (Lodge & Lynch, 2004). Ireland as multicultural country has made some strides towards the integration of migrant groups into society. The work of anti-racism movements, Immigrant Council of Ireland and other not-for-profit agencies prove to have worked well in this process. However the limitations of the current research and sampling method need to be mentioned. A majority of the participants in the present study were

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academic students, who may already be in the work force. It could be speculated that these kinds of people have achieved a level of self-efficacy that is independent of their identification with any migrant group and may not apply to the entire population of immigrants in Ireland.

The present study reports no gender differences between the Irish males/ migrant males and Irish females/ migrant females in self-efficacy.

Self-efficacy as predictor of life satisfaction and stress levels

The current research reaches the conclusions of Bandura (1978), reporting a strong positive, significant relationship between self-efficacy and life satisfaction. The correlation indicates that higher self-efficacy corresponds to higher life satisfaction. Efficacy significantly influences human motivation and the ability to accomplish a task, thus it may impact on life satisfaction (Bandura 2004). Bandura (1989) defined self-efficacy as people's beliefs in their abilities to drive and motivate action to achieve the desired task (Bandura 1989).

 The present study also focuses on the correlation between self-efficacy and stress levels. Where no significant correlation was found the strength of the relationship (i.e weak) does not support the hypothesis. However there is a noticeable negative correlation between self-efficacy and stress levels, where the direction of the relationship does support the hypothesis. Bandura indicated on the subject of self-efficacy that it was a good predictor of people's emotional arousal under stressful situations. He also states that low efficacy is generally accompanied by high performance arousal, whereas a strong sense of efficacy is associated with low performance arousal (Bandura; Reese &Adams 1982). Self-efficacy beliefs determine how people react in certain situations and had significant outcome on stress coping mechanisms (Cetinkalp et al., 2011).

Limitations and recommendations for further study

Some studies support gender difference while others fail to find significant differences.

When the gender differences are not confirmed it is hard to discuss and only speculation could be used as a probable explanation. However, most of the past research suggests that stereotypical beliefs and stigma are a critical factor in this type of question. One contributing factor to life satisfaction, stress levels and self-efficacy may be past failure caused by these stereotypical beliefs. People who hold them may create more or less opportunity for individuals which may have significant impact on developmental processes. Also physiological aspect of differences in stress response between genders should be additionally investigated Further studies may focus on confirming whether, if any and to what degree genders differ in life satisfaction, stress levels and self- efficacy.

Present research did not find any differences between the Irish population and the migrant population. However, this study has a numbers of limitations that should be considered. The migrant group (N=25) included individuals from 11 different countries of origin; the highest number (N=8) come from one single country (from Poland). The group who took part in this study were not randomly selected, instead convenient methods were used. As mentioned earlier, this might mean that the participants are not representative of the entire population of Ireland. As a recommendation for further improvement in the quality of the research, a random sampling method could be used where a selected sample come from different geographic locations and different socioeconomic classes. Also a longitudinal approach could be applied to measure differences between native and migrant individuals, over a period of time and taking into account the psychological variables of the same participants. What would give a more accurate interpretation of results? Further, more sophisticated data analysis and more variables could have been employed to give a better understanding of the dynamics between native and migrant populations. Future research should examine the individual minority nationality groups with reference to one another and in contrast to the majority population in terms of the psychological variables score.

In the present study, it was seen that self-efficacy has an outcome on people lives and has a

supporting effect in enabling people to cope with stress. As a consequence professionals and college

support services (counseling) should take into account the importance of self-efficacy in human

lives and consider integrate this understanding into any new programs.

Reference

Argyle, M. (1987) The psychology of Happiness. London: Methuen.

Arms, E. (2007) Gender equity in coeducational and single-sex environments. In: Klein S, editor. Handbook for achieving equity through education. Lawrence Erlbaum Associates; Mahwah, NJ: 2007. pp. 171–190

Auerbach, S. M. (1996). Stress: Behavioral and Psychological Responses. An International Encyclopedia of Psychology. Volume 01. London. Encyclopedia of Psychology. Volume 01. London.

Bailey, T., Eng, W., Frisch, M., & Snyder, C. R. (2007), "Hope and optimism as related to life satisfaction." Journal of Positive Psychology, 2(3), 168-69.

Barling, J.E., Kelloway,K., & Michael R. September (2004) Handbook on work stress

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.

Bandura A, Reese L &Adams N.E. (1982) Microanalysis of action and fear arousal as a function of differential levels of perceived self-efficacy. J Pers Soc Psychol. 1982 Jul;43(1):5–21.

Bandura, A. (1992) Exercise of personal agency through the self-efficacy mechanisms. In R.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), Encyclopedia of human behavior,4. New York: Academic Press, pp. 71-81.

Bandura, A. (1995). Self-Efficacy in Changing Societies. Cambridge University Press. Fennema E, Sherman J. Sex-related differences in mathematics achievement, spatial visualization, and affective factors. American Educational Research Journal. 1977;14:51–71

Bellavia, G.M., & Frone, M.R. (2005). Work-family con- flict. In J. Barling, E.K. Kelloway, & M.R. Frone (Eds.), Handbook of work stress. (pp. 113-147)

Bernstein. A. (2010) Does stress motivate us to work harder, or is that something else? The Myth of

stress. Published on July 27, 2010. Psychology Today. Retrieved on 17 of March 2014 from:

http://www.psychologytoday.com/blog/the-myth-stress

Beutell, N. (2006) Life Satisfaction, a Sloan Network Encyclopaedia Entry. Journal of Sloan Work

and Family, 2(3): 1125-1127.

Canadian Journal of Counselling / Revue canadienne de counseling I 2001, Vol. 35:3

Cetinkalp, Z. K. & Turksoy, A. (2011). Goal orientation and self-efficacy as predictors of male

adolescent soccer

Cramm, J.M, Stating, M.M, Roebroeck, M.E. & Nieboer, A.P. (2012) The Importance of General

Self-Efficacy for the Quality of Life of Adolescents with Chronic Conditions. Soc Indic Rec

2013 Aug;113(1):551-561. Epub 2012 Jun 29.

Cohen, S., Karmarck, T., Mermelstein, R.(1983). 'A global measure of perceived stress', Journal of

Health and Social Behavior, 24, 385-96.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale.

Journal of Personality Assessment, 49, 71-75.

Dwyer, A.L. & Cummings, A.L.,(2001) Stress, Self-Efficacy, Social Support, and Coping

Strategies in University Students. Canadian Journal of Counselling and Psychotherapy, Vol

35, No 3

Farrell, F. & Watt, P. (2001) An overview. In Farrell, F. & Watt, P. (Eds.) Responding to Racism in

Ireland. (pp. 11 - 28) Dublin: Veristas Publications

Fazel, M., Wheeler, J. & Danesh, J. (2005) Prevalence of serious mental disorder in 7000 refugees

resettled in western countries: A systematic review. Lancet 365:1309-14.

Giusta, M.D., Jewell, S. L. & Kambhampatic, U.S. (2011) Gender and Life Satisfaction in the UK

Feminist Economics. Vol17, Issue 3, p. 1-34.

Global Visa (2007) Retrived on 10 of March 2014 from: http:// www.globl visa.com/ireland/ireland

students visa

Goldstein1, J.M., Jerram, M., Abbs, B., Whitfield-Gabrieli, S. & Makris, N.(2010) Sex Differences in Stress Response Circuitry Activation Dependent on Female Hormonal Cycle. The Journal of Neuroscience, 13 January 2010,

Hackett, G., Betz, N. E., Casas, J. M. & Rocha-Singh, I. (1992). Gender, ethnicity, and social cognitive factors predicting the academic achievement of engineering majors. Journal of Counseling Psychology, 39, 527- 538.

Hans, S.S. (1975). Confusion and controversy in the stress field. Journal of Human Stress

Hamarat, E., Thompson, D., Zabrucky, K., Steele, D, Matheny,K., & Aysan, F. (2001).   Perceived stress and coping re-source availability as predictors of life satisfaction in young,middle aged, and older adults. Experimental Aging Research, 27 (2), 181–196

Heider, Fritz. (1958). The Psychology of Interpersonal Relations. New York: John Wiley & Sons

McGinnity, F., Nelson, J., Lunn, P. & Quinn, E. (2009) Discrimination in Recruitment Evidence from a Field Experiment. ESRI report on Discrimination in the Employment

Hulka, B. S., & Moorman, P. G. (2001). Breast cancer: Hormones and other risk factors. Maturitas, 38, 103–113.

Kelly, F., Kelly, B. & Ryan, D.(2008) Assessment of Psychiatric and Psychological Needs Among Help-Seeking Migrants in Dublin: Final Report

Kilson, M. (1975). Blacks and Neo-Ethnicity in American political life. In Glazer, N. & Moynihan, P. D. (Eds.) Ethnicity: Theory and experience (pp. 236-266). Cambridge: Harvard University Press.

Lazarus, R.S. (1966). Psychological Stress and the Coping Process. New York: McGraw-Hill.

Lee, J., Harley, V. (2012). The male fight-flight response: A result of SRY regulation of catecholamines? *BioEssays*, published online on March 8th.

Herbst, C.(2011) American Paradoxical' Decline? Another Look at the Relative Reduction in Female Happiness. Journal of Economic Psychology, Arizona State University 32(5), 773- 788.

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Li, Q. (1999) Teachers' beliefs and gender differences in mathematics: A review. Educational Research. 1999;41:63–76.

Lodge, A. & Lynch, K., (Eds.) (2004). Diversity at School. Dublin: Institute of Public Administration.

Mason, J. W. (1971). A re-evaluation of the concept of "non-specificity" in stress theory. Journal of Psychiatric Research, 8, 323–333.

Matud, M.P. (2004) Gender differences in stress and coping styles. *Personality and Individual Differences*, Volume 37, Issue 7, Pages 1401-1415

McDonald, T., & Siegall, M. (1992). The effects of technological self-efficacy and job focus on job performance, attitudes, and withdrawal behaviors. The Journal of Psychology, 126, 465-475.

Mc Grath, J.E. (1976). Stress and Behavior in Organizations. In M.D. Dunnette.(Ed) 1976 Handbook of Industrial and Organizational Psychology

Pajares, F., & Valiante, G. (2001). Gender differences in writing motivation and achievement of middle school students: A function of gender orientation? Contemporary Educational Psychology, 26, 366–381.

Pappas S. (29 September 2010). Stress Brings Out the Difference in Male, Female Brains. Retrieved on 17 March 2014 from:

    http//livescience.com/10140-stress-brings-difference-male-female-brains.html

Schwarzer, R., & Jerusalem, M. (1995) Generalized Self-Efficacy scale. In J. Weinman, S., Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, UK: NFER-NELSON.

Selye H. (1974) Stress without distress. Philadelphia, PA: J.B. Lippincott Co.

Selye H. (1975)From dream to discovery. On being a scientist. New York: ARNO Press.

Selye H. (1976) Stress in health and disease Butterworth's, Inc. Boston, MA:. 08 /29 /12

Shin & Johnson (1978)Depression, life satisfaction, & social interest. South Pacific Journal of Psychology, 11(1)

Sousa, L., & Lyubomirsky, S. (2001). Life satisfaction. In J. Worell

   (Ed.), Encylopedia of women and gender: Sex similarities and differences and the impact of

   society on gender (Vol. 2, pp. 667-676). . San Diego, CA: Academic Press.

Spencer, S.(2006) The Politics of Naming in Race and Ethnicity. Oxon: Routledg

Lazarus, R.S., & Folkman, S. (1984) Stress, appraisal, and coping.New York: Springer.

The American Institute of Stress. (2011). Effects of Stress. Retrieved on 15 March 2014 from:

   http://www.stress.org/topic-effects.htm

Veenhoven, R.(2009)Chapter 1 in; Saris, W.E., Veenhoven, R., Scherpenzeel, A.C. & Bunting B.

   (1996) Comparative study of satisfaction with life in Europe. Eötvös University Press, 1996,

   ISBN963 463 081 2, pp. 11-48

Appendix

Appendix 1.1

My name is Aleksandra Kubiak. I am a student of a final year of BA (hons) Psychology at Dublin Business School of Art. The following questionnaire is part of my final year project and will be submitted for examination.

You are invited to take part in this study and participation involves completing and returning the attached survey that will take 10 minutes. Participation is completely voluntary, you are not obliged to take part and you can withdraw at any time during the survey. Responses are anonymous and cannot be attributed to any one participant. For this reason, it will not be possible to withdraw from participation after the questionnaire has been collected. While the survey asks some questions that might cause some minor negative feelings, it has been used widely in research. If any of the questions do raise difficult feelings for you, contact information for support services are included on the page bottom of the page.

The questionnaires will be securely stored and data from the questionnaires will be transferred from the paper record to electronic format and stored on a password protected computer This surveys will be destroyed after final examination.

Should you require any further information about the research, please contact Aleksandra Kubiak . My supervisor can be contacted at

Thank you for taking the time to complete this survey.

http://www.dublinhealing.com/stress-management-healing-therapies.html

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Appendix1.2

Gender:

o Male

o Female

Nationality:

....

Appendix1.3

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.
1 = Strongly disagree, 2 = Disagree, 3 = Slightly disagree, 4 = Neither agree nor disagree, 5 = Slightly agree, 6 = Agree, 7 = Strongly agree.

1	In most ways my life is close to my ideal.	
2	The conditions of my life are excellent.	
3	I am satisfied with my life.	
4	So far I have gotten the important things I want in life.	
5	If I could live my life over, I would change almost nothing.	

Scoring

Add the scores together from the 5 items for an overall total. Higher scores indicate greater degree of satisfaction with life. The authors have used the following cutoffs to rank the categories of satisfaction with life -

Appendix1.4

The questions in this scale ask you about your feelings and thoughts during the last month. Select one of the following options: 0 = never, 1 = almost never, 2 = sometimes, 3 = fairly often, 4 = very often

1	In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2	In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3	In the last month, how often have you felt nervous and stressed?	0	1	2	3	4
4	In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
5	In the last month, how often have you felt that things were going your way?	0	1	2	3	4
6	In the last month, how often have you found that you could not cope with all the things you had to do?	0	1	2	3	4
7	In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
8	In the last month, how often have you felt that you were on top of things?	0	1	2	3	4
9	In the last month, how often have you been angered because of things that happened that were outside of your control?	0	1	2	3	4
10	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

Scoring.

Reverse the scores for the positively worded items (4, 5, 7 & 8) eg 0=4, 1=3, 2=2,3=1,4=0.

Add the reversed scores together with the original scores for the remaining items (1, 2, 3, 6, 9 & 10).

The higher the overall total score the greater the amount of perceived stress the person is experiencing.

Appendix1.5

Please read the sentences below and select an answer for each statement which indicates how much the statement applies to yourself.

1 = Not at all true2 = Hardly true 3 = Moderately true4 = Exactly true

1	I can always manage to solve difficult problems if I try hard enough.	
2	If someone opposes me, I can find the means and ways to get what I want.	
3	It is easy for me to stick to my aims and accomplish my goals.	
4	I am confident that I could deal efficiently with unexpected events.	
5	Thanks to my resourcefulness, I know how to handle unforeseen situations.	
6	I can solve most problems if I invest the necessary effort.	
7	I can remain calm when facing difficulties because I can rely on my coping abilities.	
8	When I am confronted with a problem, I can usually find several solutions.	
9	If I am in trouble, I can usually think of a solution.	
10	I can usually handle whatever comes my way.	

Scoring

Add the scores together from all 10 items. The higher the total the greater the person's generalized sense of self-efficacy.