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Predicting Subjective Well-Being Using Social Support and Mindfulness for United Arab Emirates University Students

Sarah El Nabulsi

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جامعة الإمارات العربية المتحدة
United Arab Emirates University

United Arab Emirates University

College of Humanities and Social Sciences

Department of Psychology and Counseling

PREDICTING SUBJECTIVE WELL-BEING USING SOCIAL
SUPPORT AND MINDFULNESS FOR UNITED ARAB EMIRATES
UNIVERSITY STUDENTS

Sarah El Nabulsi

This thesis is submitted in partial fulfillment of the requirements for the degree of
Master of Science in Clinical Psychology

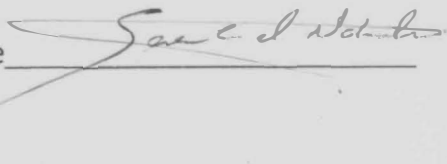
Under the Supervision of Professor Khalaf Nassar Al-Heeti

November 2015

Declaration of Original Work

I, Sarah El Nabulsi the undersigned, a graduate student at the United Arab Emirates University (UAEU), and the author of this thesis entitled "*Predicting Subjective well-being from Social Support and Mindfulness for United Arab Emirates University Students*", hereby, solemnly declare that this thesis is my own original research work that has been done and prepared by me under the supervision of Dr. Khalaf Nassar Al-Heeti, in the College of Humanities and Social Sciences at UAEU. This work has not previously been presented or published, or formed the basis for the award of any academic degree, diploma or a similar title at this or any other university. Any materials borrowed from other sources (whether published or unpublished) and relied upon or included in my thesis have been properly cited and acknowledged in accordance with appropriate academic conventions. I further declare that there is no potential conflict of interest with respect to the research, data collection, authorship, presentation and/or publication of this thesis.

Student's Signature



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6-Jan-2016

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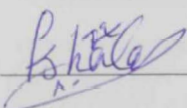
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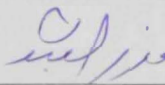
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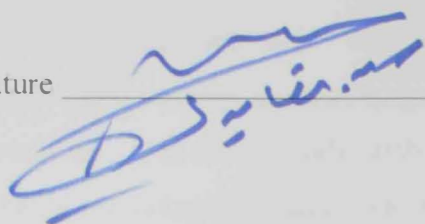
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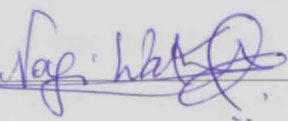


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Abstract

This thesis is concerned with assessing the psychological well-being of the United Arab Emirates University students community and predicting the integral factors that significantly contribute to it. Existing studies have explored pathologies such as depression and anxiety in an attempt to deduce knowledge indispensable to clinical interventions. This study deals with what the individuals with high psychological well-being are doing well and takes this knowledge to inform clinical interventions. In this context, it is noteworthy to argue that this thesis is one of the pioneering studies involving a predominantly local population, which allows for more successful and more culturally sensitive clinical interventions in the U.A.E. This study aims to determine if high levels of access to social support from family, friends and significant other along with high levels of mindfulness ability also known as calm, conscious awareness, can predict high levels of psychological well-being (emotional and cognitive satisfaction with one's life). Self-report questionnaires were administered online to a sample of 889 students at the United Arab Emirates University. The instruments included five questionnaires: Section 1, Demographics (6 items). Section 2, PANAS (20 items). Section 3, The Life satisfaction scale (5 items). Section 4, CAMS-R (12 item). Section 5, Multidimensional scale of perceived social support (12 item). The findings showed that both social support scores and mindfulness scores significantly predicted subjective well-being scores. Social support was a stronger predictor of life satisfaction (the cognitive component of subjective well-being) than mindfulness. Whereas mindfulness was the strongest predictor of the positive affect scores (one of the emotional component of subjective well-being along with negative affect). Social support from family members was the highest source of social support when compared to social support from friends and significant other. The findings from this study can help guide clinical interventions in a more targeted, culturally sensitive and, therefore, more effective manner to increase subjective well-being in the UAEU student population.

Keywords: Subjective well-being, social support, mindfulness, positive psychology, U.A.E.

Title and Abstract (in Arabic)

التنبؤ بالسلامة النفسية من خلال مستويات الدعم الاجتماعي و قدرة التركيز على الحاضر في عينة من طلاب جامعة الإمارات العربية المتحدة

الملخص

تسعى هذه الأطروحة البحثية إلى تقييم السلامة النفسية لدى طلبة جامعة الإمارات العربية المتحدة من خلال التنبؤ بالعوامل التي تسهم إلى حد كبير في إيجاد هذه الحالة الإيجابية. لقد استطلعت معظم الأطروحات السابقة الجوانب السلبية والحالات المرضية كالإكتئاب والقلق واقتراح التدخلات الإيجابية. الوقائية والعلاجية. وفي سياق متصل، رصدت هذه الدراسة بعض الخصائص الإيجابية وكيفية التنبؤ بها. يسهم في تعزيزها والاستفادة من العمليات الوقائية والعلاجية ذات الصلة. وتكتسب هذه الدراسة أهميتها وتقرها نظراً لأنها من بين الدراسات الرائدة التي أجريت على عينة طلابية معظمها من الاماراتين بما يسمح بتحديد التدخلات الوقائية والعلاجية التي تجعلها أكثر نجاحاً وأكثر مراعاة لثقافة دو الإمارات العربية المتحدة. تركز هذه الدراسة على هدف محوري يتعلق بتحديد العلاقة بين ارتفاع مستويات الحصول على الدعم الاجتماعي من الأسرة والأصدقاء إلى جانب تبصر الفرد بما يحيط به والتركيز على الحاضر زماناً ومكاناً وبين سلامة الفرد النفسية، وفيما إذا كان بالإمكان التنبؤ بذلك. ولتحقيق هذا الهدف طبقت استبانة خلال الانترنت على عينة تضم 889 طالباً وطالبة من جامعة الإمارات العربية المتحدة. وشملت الاستبانة خمسة أقسام على النحو التالي: القسم الاول: اشتمل على المتغيرات الديموغرافية (6 بنود). القسم الثاني: يتعلق بتقييم الحالة السلبية والإيجابية (20 بنود). القسم الثالث: يتناول مقياس السعادة والرضا عن الحياة (5 بنود). القسم الرابع: يرصد مسألة التبصر (12 بنود). أما القسم الخامس فيتناول الدعم الاجتماعي (12 بنود). وأظهرت النتائج أن كلاً من الدعم الاجتماعي والتبصر يتنبآن بالسلامة النفسية. وقد أسهم الدعم الاجتماعي أكثر من غيره في التنبؤ بالسلامة النفسية وخاصة مايتعلق بالمكون المعرفي، ثم تلاه التبصر الذي كان أقوى وأكثر فعالية في التنبؤ بالمكون الانفعالي للسلامة النفسية ببقية الإيجابي والسلبى. علاوة على ذلك، أظهرت النتائج أن الدعم الاجتماعي من أفراد الأسرة أكثر تأثيراً كمصدر للدعم الاجتماعي بالمقارنة مع الدعم الاجتماعي من الأصدقاء. ومن هذا المنطلق يمكن للنتائج المستخلصة من الأطروحة موضوع البحث أن تساعد في توجيه التدخلات الأكاديمية المناسبة لثقافة دولة الإمارات العربية المتحدة. ومن المتوقع في هذا السياق أن تكون أكثر فعالية في رفع حالة السعادة والرضا لطلبة جامعة الإمارات العربية المتحدة بصورة خاصة بدلالة الدعم الاجتماعي والتبصر.

مفاهيم البحث الرئيسية: السعادة والرضا، الدعم الاجتماعي، الوعي والتبصر بالذات، علم النفس الإيجابي، الإمارات العربية المتحدة.

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My thanks go to my committee for their guidance, support, and assistance throughout my preparation of this thesis, especially my advisor Dr. Khalaf Nassar Al-Heeti and I would like to thank the chair and all members of the Department of Psychology at the United Arab Emirates University for assisting me all throughout my studies and research. My special thanks are extended to the Library Research Desk for providing me with the relevant reference material.

Special thanks go to my parents, and brothers, who supported me along the way. I am sure they suspected it was endless.

Dedication

To Maharishi and my family

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Chapter 1: Introduction

1.1 Overview and Statement of the Problem

Subjective well-being is the study of pathology prevention, happiness and life satisfaction; it is the central concern of a branch of psychology known as Positive Psychology. Positive Psychology was founded by Seligman and Csikszentmihalyi in 2000; these renowned psychologists believed that to achieve the most valued goals in life, such as happiness and positive practical life outcomes (e.g. success and achievement), research needs to examine and measure what people are doing well and not exclusively what people are doing wrong. Research in Positive Psychology focuses most on measuring resiliency, positive affect, productivity, satisfaction, mindfulness, social support, talent, and wisdom; this contrasts with the traditional clinical focus, which is on pathology, weakness and damage. There is a growing consensus among leading psychologists and international health organizations (e.g. World Health Organization, 2004) that clinical psychology and research needs to focus more on prevention of mental illness instead of waiting for after the fact. From this point of view, learning about the protective factors of well-being such as social support, mindfulness, resilience, and understanding in depth how they support individuals and societies to flourish becomes essential (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002; Greenberg, Domitrovich, & Bumbarger, 2001; National Research Council and Institute of Medicine, 2009).

One of the most interesting findings in the field thus far is that subjective well-being not only correlates with optimal physical health, more monetary wealth,

achievement and an array of psychological strengths, but it actually precedes and predicts them (Chida & Steptoe, 2008; Gailliot, 2012; Tugade & Fredrickson, 2004).

Some have called this phenomenon “the happiness advantage” as it seems like people who are in a happy mindset have an advantage, even at the biological level, over ones who are in a sad or in a neutral state (Achor, 2011). The interest in these findings and their clinical implications is growing internationally at a governmental level, as it seems that enhancing these protective factors can protect society and individuals from developing mental health illnesses, and policies are being changed accordingly (World Health Organization, 2004).

Public awareness regarding subjective well-being has been growing in the U.A.E. More articles are now regularly published in popular print press; TV shows about the subject are increasingly common and aired across all the regional major broadcast channels. Importantly, as of 2010 government of the U.A.E. has increased its efforts to care for the mental well-being of its residents by building medical centers (e.g. Sheikh Khalifa Medical City’s Behavioral Science Pavilion, Al Amal Psychiatric Hospital) and by conducting numerous campaigns and workshops about mental disorders. These workshops discuss symptoms, risk factors, prevention methods and treatment options (e.g. Mental Health Awareness Program). The U.A.E. was placed 14th in the World Happiness Report, which measures wealth, economic activity, social relations and public welfare (Helliwell et. al., 2013). Most recently, the Dubai Government surveyed its residents’ happiness level. On October 19, 2015, all residents in Dubai received a text message from H.H. Sheikh Mohammed Bin Rashid Al Maktoum asking them to answer the question “Are you happy in Dubai?”

on a Likert Scale of happy, neutral and unhappy.

More such efforts and research needs to take place because the current problem is that 99% of recommendations and solutions being proposed so far have had to rely on international findings and data which may or may not apply to the U.A.E., and little is known about the local population. Few research studies are conducted locally, and mental well-being is heavily influenced by cultural factors associated with it. This is a very serious problem that makes effective interventions practically impossible. Without in-depth, culturally sensitive knowledge of the state and the needs of the local population, clinical interventions remain ineffective if not potentially harmful. Recent developments in cross-cultural psychology illustrate that western imported therapies could do more harm than good when applied internationally without cultural sensitivity (American Psychological Association, 1993, 2003; Atkinson & Mori, 2001; Bernal & Castro, 1994; Hall, 1997; Ridley, 1985; Sue, Arredondo, & McDavis, 1992; Sue & Torino, 2005; Sue, 1998). Recently a group of locally based researchers recognized these same challenges of indiscriminately applying Western interventions and the lack of culture-specific data; they published an article about developing an indigenous Positive Psychology approach (Lambert et. al., 2015).

As a step in the direction of solving this problem of lack of local information, and in an effort to make clinical interventions more culturally sensitive, this study is conducted locally with a large sample of U.A.E. nationals using reliable and valid measures. Specifically, mental well-being means and internationally known factors repeatedly shown to impact well-being levels are examined and assessed in a sample

of young university students in order to tease out the facts that do apply and uncover any unique and specific knowledge.

This study measures local student's subjective well-being levels and looks for its local predictors that can ultimately be increased through culturally sensitive clinical interventions, namely mindfulness and social support. Mindfulness can be considered the active ingredient of religiosity or spirituality; this constitutes a very large part of U.A.E. culture and the fundamental manner with which indigenous people have always sought out well-being. Mindfulness-based interventions have been developed and are at the forefront of evidence-based therapies. Similarly, the study also examines the role of social support, a known predictor of well-being worldwide, and searches for the specific local pattern of sources of social support that lead to high levels of subjective well-being. Increasing social support levels and improving relationships is another approach with a very large support of scientific evidence linking it to successful therapy.

1.2 Relevant Literature

The body of work and literature on well-being is very developed in North America and the West in general and has been put to use by governments and large organizations. Research started about 3 decades ago with the work of Diener and Larsen (1984) who asked the question: Are people satisfied with their lives? They defined satisfaction with life as a result of both emotional and cognitive satisfaction. Emotional satisfaction is a result of experiencing frequent positive affect, infrequent negative affect and cognitive satisfaction as a mental evaluation of how they perceive their lives, if it would be one they would live again if they had the choice. Today a

simple search on Google Scholar's search engine for the term "subjective well-being" yields about 1,300,000 results in (0.02 sec). Searching on APA's database for the same term yields 21429 peer-reviewed articles and papers. The governments of the UK, Australia, Japan, Chile and numerous others have already used a national index of SWB to monitor progress and inform public policy (Dolan & Metcalfe, 2012).

1.2.1 Literature Review of the Constructs and Definition of Terms

Subjective Well-Being (SWB) – SWB is commonly operationally defined in the literature as a single theoretical construct made of several components, namely a cognitive and an emotional component (David, Boniwell & Ayers 2012). Global satisfaction makes up the cognitive factor, which is a global judgment of one's own life, (i.e. satisfaction with important domains such as marriage or work). The emotional component is made up of frequent positive affect and infrequent negative affect, which is the assessment of the frequency of experiencing these emotions on a daily basis (Oishi, Diener, Suh, Lucas, & Smith, 1999; Diener, 2000).

SWB has been found not only to correlate with positive life outcome, but more interestingly, it precedes positive life outcomes and predicts it (Cohn, Fredrickson, Brown, Mikels & Conway, 2009). For instance, there is compelling evidence that happier individuals have better physical health (Ryff & Singer, 1998; Salovey, Rothman, Detweiler, & Steward, 2000; Chida & Steptoe, 2008), higher goal achievement and monetary wealth (Gailliot, 2012); they also experience optimal psychological functioning (Fredrickson, 2002) such as resiliency (Tugade & Fredrickson, 2004), higher levels of creativity, increased task persistence,

multitasking, and being systematics (Diener, 2000; Fredrickson, 1998). Furthermore, recent findings from a large study found that high SWB was linked to good citizenship behavior such as donating money to charity in 122 nations out of 136 (Aknin, Barrington-Leigh, Dunn, Helliwell et al., 2010). Being happy and satisfied seems to play a causal role in success.

Key findings about SWB include the fact that it is a reliable construct; means of SWB seems to be consistent across time and situations (Diner & Larsen, 1984; Diener, Sandvik, Pavot, & Fujita, 1992; Headey & Wearing, 1989). Adults, who rate their lives as satisfying at Time 1 indicate the same levels of satisfaction weeks, months and years after (Oishi et al., 1999). It is also a valid construct because it relates to stable characteristic such as personality type, namely extraversion and neuroticism (e.g. Costa & McCrae, 1980; Diener & Emmons, 1985; Costa, McCrae & Dye, 1991). The fact that individuals high in extraversion are more likely to score high on SWB, and individuals high in neuroticism score low on SWB, is a key and robust finding in research on personality (See Diener et al., 1999 for a review).

In terms of cross-cultural findings, two large international studies uncovered important information that can help guide therapeutic interventions. For instance, levels of SWB vary internationally in unexpected directions; it does not necessarily positively correlate with high income, and certain controllable factors reliably predict high SWB across cultures. Through a review of the World Values Survey and The Gallup World Poll, Diener (2012) found that there are large differences in SWB mean levels internationally. These differences were mostly explained by the ability to fulfill basic needs such as access to food, shelter, national security and the like, but interestingly some nations were found to be happier than others despite the lack of

resources and the presence of financial challenges (e.g. Latin America reports higher SWB than East Asia). Also, certain factors reliably predict SWB levels across all cultures, such as social support, personality, high culture-person congruence (the degree to which a person embodies highly valued physical or other characteristics in a given culture), feelings of trust, and feelings of mastery (for reviews, see Diener, Oishi, & Lucas, 2003; Toviss, 2017). These findings can be practically applied in the therapeutic approach to increase SWB.

In addition to assessing SWB in the U.A.E., it was also important to examine controllable factors that predict it; social support and mindfulness were selected. Based on the fact that the U.A.E. is a culture high on the collectivistic domain, and social relationships play a dominant role in people's lives, social support seemed to be a key factor worth examining locally. A key finding in the moderating and predictive factors of SWB is the effect of social support (Zimet, Dahlem, Zimet, & Farley, 1988; Dahlem, Zimet & Walker, 1991). Decades of research provides evidence for the positive effect of social support on SWB; about 300 studies examined the relationship between the two variables beginning from the year 1995 and increasingly till present. Most studies found that social support predicted a range of 40 to 46% of SWB means, and in addition to means of SS, specific sources of SS have been examined separately. SS from family, friends and significant others were researched, and differences in how each related to SWB were noted across cultures. In some cultures, most SS came from significant others whilst in others it came from friends.

Social Support (SS) – Social support is a complex multidimensional construct

and its conceptual definition and measurement have varied somewhat. Some authors focus on the size of the social network while others focus more on the satisfaction with the social support (Zimet et al., 1988). That said, measuring high SS in terms of having access to social resources, and people who care about one's well-being who one can depend on is part of all operational definition of this construct.

SS has been found to positively correlate with SWB (Cohen, Gottlieb, & Underwood, 2000; Okun, Stock, Haring, & Witter, 1984), even when covariates such as personality are controlled (Argyle & Lu, 1990; Cooper, Okamura, & Gurka, 1992; Bal, Van Oost, Debourdeaudhuij, & Crombez, 2003; Diener & Seligman, 2002; Lu & Lin, 1998; Skok, Harvey, & Reddihough, 2006). In fact, SS has been found to be necessary for SWB (Baumeister & Leary, 1995; Diener & Oishi, 2005; Diener & Seligman, 2002), SS lessens the impact of adverse life events, increases coping with stress (Cohen et al., 2000) and is associated with better health outcomes (Rothlisberger, 1996; Ystgaard, 1997; Geckova, Dijk & Groothoff, 2003). Self-reports of subjective perception of social support have been found to predict psychological health (Zimet, et al., 1988).

Being that relationships are very important in the collectivistic culture of the U.A.E., it was essential to examine this factor and its role in SWB with all its specifics. It is a variable that can be ultimately increased or addressed in the clinical environment as part of a treatment plan to increase one's happiness. Another important factor that impacts happiness in the local environment is the aspect of religiosity that applies to all religions, mindfulness.

Mindfulness – refers to a state of mind that is relaxed, present, focused, and

filled with awareness of one's own sensations, emotions and thoughts without judgment (Brown & Ryan, 2003). Empirical research in the construct of mindfulness and its benefits started back in the 70s when psychologists started incorporating aspects of ancient spiritual and religious practices in psychotherapy. In recent years, interest in mindfulness exploded; a quick search on Science Direct or any other journal database yield at least 6000 to 7000 papers published on the topic (e.g., Baer, et al., 2008; Brown & Ryan, 2003; Shapiro, Oman, Thoresen, Plante, & Flinders, 2008). A number of evidenced-based mindfulness psychotherapies have even been developed such as Mindfulness-based cognitive therapy (e.g. Segal, Williams, & Teasdale, 2002; Teasdale, Williams, Ridgeway & Soulsby, 2000), and Mindfulness-Based Stress Reduction (Kabat-Zinn, 2003). According to a meta-analysis by Baer (2003) and Grossman, Niemann, Schmidt, and Walach (2004) the benefits of high mindfulness range from lower perceived stress, less rumination, reduced anxiety and reduction of relapse of major depression. A large number of findings link mindfulness and subjective well-being (Brown & Ryan, 2003)—about 2000 papers, most published after 2005. Various elucidations have been proposed to explain the relationship between mindfulness and SWB, such as facilitating the activation of reward circuits in the brain, mediating neuroticism, increasing emotional intelligence and reducing rumination.

Wenzel, Versen, Hirschmuller, & Kubiak (2015) have linked mindfulness to one of the big 5 core personality dimensions, namely neuroticism. Based on the research findings, neuroticism negatively impacts SWB due to a hyperactivity of the punishment circuits in the brain and resulting neurotic cascades, which are: anxiety

propensity, hyperactivity, mood spillover, experiencing more problems and being more negatively impacted by them (Suls & Martin, 2005). The authors proposed that increased mindfulness facilitates and increases activation of the reward circuits of the brain (Hamill, Pickett, Amsbaugh, & Aho, 2015) which in turn is associated with more accurate stress appraisal, lower avoidance and decreased rumination (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008).

Being an emerging construct, mindfulness is still at the moment a challenging one to measure. Presently, there is a lack of complete agreement on the operational definition of mindfulness and on the ways to measure it (Grossman, 2008). A number of measures have been developed to measure mindfulness; they vary in the aspects that they stress, but present measures converge on the fact that it is a present-minded state of acceptance and awareness (Brown, Ryan, & Creswell, 2007). Some measures focus more and uniquely on the aspect of mindfulness that is one-dimensional, referring to paying attention to the present experience. Others also include qualities such as acceptance and compassion as characteristic to mindfulness (Sauer & Baer, 2009; Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007; Lau et al., 2006).

Mindfulness has been shown to be a skill that can be learned and fine-tuned in psychotherapy; it also correlates with positive therapeutic outcome. These are the reasons we assess mindfulness in this study in an effort to uncover culturally sensitive approaches to increase SWB in the clinical settings. Synthesizing the factors that already belong to the cultural approach to well-being, and introducing them in an effective dose, forms the healthiest most effective form of natural culturally sensitive therapies. Mindfulness, when trained, will form and prove to be

an essential and easily applicable skill for a life high in SWB.

1.2.2 Literature Review of Measurement Tools

Measurement of Subjective Well-Being: Based on an in-depth literature review, it was found that SWB is consistently measured using the “Satisfaction with Life Scale” (SWLS: Diener, Emmons, Larsen, & Griffin, 1985) and “The Positive and Negative Affect Schedule” (PANAS: Watson, Clark, & Tellegen, 1988). These measures together were repeatedly used and validated in cross-cultural settings and with various populations.

SWLS. Studies using the SWLS have shown that responses on this scale are stable and do not fluctuate based on situational factors, they are more based on long term views of one’s life and provide valuable information. SWLS is unique because it reveals the specific weight people place on the various circumstances of their lives and what is most important to them. The scale is stable when life conditions are stable but also shows sensitivity to changes when they these occur. The measure reflects the social quality of life, income and health and correlate in expected directions with other scales assessing life evaluation (Diener, 2012).

PANAS is a popular and frequently used measure of general affective states, it’s been subjected to more conceptual and structural examinations than most other measures of affect and has good evidence for its use with a non-clinical population (Mcdowell, 2010).

Measurement of Social Support (SS): A very large number of the studies utilized the “Multi-Dimensional Perceived Social Support Scale” (MSPSS) (Zimet et

al., 1988). It yields a total score as well as three sub-scores, and a score of social support from family, friends and significant other. Using this measure makes it possible to specify exactly which source of SS has which effect. For example, a large study in Japan with Japanese, Chinese and Korean college students (N=1332) found that family support helped reduce negative affect while social support from a significant other improved positive affect, and both sources of support were associated with life satisfaction (Matsuda, Tsuda, Kim & Deng, 2014).

The MSPSS focuses on satisfaction with perceived social support and has been tested across cultures and with diverse populations. It has been repeatedly found to be psychometrically sound (Zimet et al., 1988; Dahlem, Zimet & Walker, 1991; Kazarian & McCabe, 1991; Chou, 2000; Stanley, Beck, & Zebb, 1998; Cecil, Stanley, Carrion, & Swann, 1995; Zimet, Powell, Farley, Werkman, & Berkoff, 1990; Canty-Mitchell, & Zimet, 2000; Eker, Arkar, & Yaldiz, 2000). The measure is also brief and easy to follow, unlike other measures of the same construct (Chou, 2000).

Measurement of Mindfulness: Existing measures of mindfulness focus on participants with meditation experience (i.e. mental yoga), and others on the general population. This could be a confounding factor in measuring the construct as there are systematic differences between individuals who meditate regularly and those who don't (e.g. personality, interests, and mindfulness). For this purpose, the "Cognitive and Affective Mindfulness Scale-Revised" (CAMS_R) (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2004) was selected because it was designed with the general population in mind. Furthermore, for the purpose of this study, particularly the investigation into predictors of SWB, it was important to use the measure that relates

strongly to clinical distress and assesses the aspects of mindfulness that can be manipulated in the clinic and not ones that are inherent or trait like and this is what the CAMS_R offers. Ultimately, the purpose of the study is to uncover predictors that can be taught or increased with training and psychotherapy.

CAMS_R: Among existing measures (e.g. MAAS, FMI, KIMS, and SMQ) this is the measure that seems to be the most suitable. It has been found in previous studies to be negatively correlated to psychological distress (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Thompson & Waltz, 2007), and individual scores on CAMS_R have been found to be responsive to training in mindfulness as part of integrative therapy for depression disorder (Hayes & Harris, 2000). This measure shows negative correlations with experiential avoidance, thought suppression, rumination, worry, depression, and anxiety; and positive correlations with clarity of feelings, mood repair, cognitive flexibility, and well-being (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2004; Hayes & Feldman, 2004).

1.2.3 Previous research on SWB in the Arabic World

About ten studies examined SWB in the Arabic world; they were done primarily by five researchers. Dr. Taisir Abdalla (1998) translated the SWLS into Arabic and validated the use and the psychometric properties of the measure with a sample of (N=864) Palestinian students in Israel. This study was very much needed in order to ensure the cross-cultural validity of the measure with Arabic-speaking populations.

Dr. Abdle Khalek has run about seven studies looking at SWB and religiosity, sometimes linking them with psychopathology (e.g. Abdel-Khalek, 2011;

Abdel-Khalek & Lester, 2010; Abdel-Khalek, 2010; Abdel-Khalek, 2009; Abdel-Khalek, & Lester, 2007; Abdel-Khalek, 2007). In his work, Dr. Khalek researched and documented the benefits of the state of being religious which included higher self-esteem, lower anxiety, lower depression, and better health. Some of the challenges regarding these findings include the fact that the studies were conducted using different methodologies, and not one measure of SWB was consistently used. This makes it difficult to draw conclusions from the findings or compare the results with international findings.

Furthermore, Dr. Khalek offered no insight on how to get these benefits except through following the religion. Incorporating religion into psychotherapy is a challenging task for therapists as the two fields are quite separate. One is based on faith and the other on scientific inquiry. These two approaches sometimes converge, but to date there remain too many ethical concerns. Although, in recent years, religion and psychology integration received significant grants as well as professional and public support (Hartz, 2005; Koenig, 2013), the topic is still emerging and controversial (Hathaway, Scott, & Garver, 2004). Training in clinical psychology programs in leading universities worldwide offer no required courses on the topic of religion in psychotherapy at the moment (e.g. Harvard, Cambridge, Stanford). Furthermore, presently there is some evidence for the effectiveness of religious based interventions, mostly on Christianity, not yet on Islam, and none to suggest its superiority to secular treatments (Ross, Gerad & Macnab, 2015). Ultimately, it is good to have the benefits of Islamic religion documented, but more needs to be done before these findings can be transformed into clinical

recommendations. For this reason, carrying out the present experiment was needed. This study distils the active ingredient of religiosity, namely mindfulness, an ingredient that is much less controversial or difficult to use in therapy and offers a clear path to using it in psychotherapy. The findings from the current study make it possible for the knowledge gained to be used in psychotherapy in a way that applies to all clients of all ideological beliefs and backgrounds. Finally, mindfulness-based therapies have already been developed and can easily be used.

More interesting regional work was conducted in Lebanon by Huda Ayyash-Abdo and Alamuddin (2007); they looked at the prevalence and predictors of SWB in a sample of college students. They used the international standardized measures of SWB including the SWLS and the PANAS. They had a large sample size of ($N = 689$), and they found SWLS ($M = 20.16$, $SD = 6.32$). They also found that personality constructs such as neuroticism and extraversion are more predictive of SWB than socio-economic status. SWB was positively correlated with self-esteem, optimism, and positive affect and men experienced positive affect more frequently than did women. These findings are aligned with international findings about SWB where SES or wealth is not as strong of a predictor of SWB as one might believe. The researchers here looked to assess personality characteristics that were preexisting and didn't look for characteristics that can be enhanced which left the knowledge gained from the study in the realm of awareness building, but not knowledge that can be put to use in the clinical environment for the benefit of the clients.

A recent study by Abu-Raiya and Agbaria (2015) is very much aligned with the thinking of this current study. The researchers looked for the mediating factor

between SWB and religiosity; specifically, they expected self-control and social support to be these factors. They had a sample size of (N=264) Israeli-Palestinian college students. They found support for their hypothesis; self-control partially mediated the links between religiousness and both subjective happiness and positive emotions. They also found that religiousness was positively correlated with both subjective happiness and positive emotions. When we look closely at these findings we see that self-control overlaps a good deal with mindfulness. In fact, self-control is a known component of mindfulness and it is regularly assessed in mindfulness questionnaires. It certainly is in the CAMS_R. These findings are very interesting because they, along with the work of this study, can expand and bring more validity to the hypothesis that mindfulness and social support contribute significantly to SWB.

1.3 Research Hypothesis

This study is exploratory in nature and has three broad aims. The first aim is to describe the distribution of subjective well-being in the U.A.E., looking at means, modes and range to understand the state of SWB in the country. The second aim of the study is to examine the predictive ability of the variables of SS and mindfulness in this distribution of SWB while controlling for the demographic variables of age, gender and nationality. It is expected that both of these variables significantly predict SWB. The third and final aim of this study is to examine more closely the variable of SS and understand how the different sources of SS influences SWB. We expected the different sources of SS (family, friends and significant other) to be significantly different from one another.

Chapter 2: Methods

2.1 Participants and Procedure

An email was sent to all registered students in the colleges of the United Arab Emirates University (U.A.E.U.) (approximately 3000 students at the time). Participants were invited to take part in an online study on the topic of happiness. The email included a link to a Survey Monkey questionnaire. Participants were asked to respond to 5 items that took an average of 6 minutes to complete. When participants clicked on the link included in the email, they first signed a consent form and read the disclosure that they were free to withdraw from the study at any time without any consequences. The total number of students participating in the study was 889. 748 students were female ($M=20.98$ years, $SD= 2.64$) and 130 students were male ($M=23$ years, $SD=5.61$). Regarding nationality, the majority of participants were U.A.E. nationals ($n=664$). Lebanese/Jordanian/Syrian ($n=62$), Iranian ($n=5$), Western ($n=2$), American ($n=2$) and other ($n=150$) were included.

2.2 Scales translation

The measures used in this study were developed and established in the English language and had shown good validity in cross-cultural settings. To increase internal validity, the measures were translated into the Arabic language by the researcher. The translation was reviewed by two professors at the United Arab Emirates University from the Department of Psychology. The measures were pilot tested on five graduate psychology students to ensure that the Arabic versions were

understandable. The pilot study found that the translation was easy to understand and follow.

2.3 Instruments

As discussed earlier, an in-depth search of the literature was conducted to find measures that had demonstrated reliability and important cross-cultural validity. A total of 5 measures were used including a measure of demographic data (i.e. age, gender, nationality, and educational level).

To measure the predictor variables (i.e. mindfulness and social support), two measures were used: The Multi-Dimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet, & Farley, 1988) and The Cognitive and Affective Mindfulness Scale (CAMS-R) (Feldman, Hayes, Kumar, Greeson & Laurenceau, 2007; Hayes & Feldman, 2004).

To measure the criterion variables (i.e. subjective well-being), two measures were used: The Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) and The Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988).

2.3.1 The Multi-Dimensional Scale of Perceived Social Support (MSPSS)

The MSPSS (Zimet et al., 1988) is composed of 12 items aimed at assessing perceived social support, for example: “My family really tries to help me”; “I have friends with whom I can share my joys and sorrows” and “There is a special person who is around when I am in need.” Participants responded to indicate their level of agreement or disagreement regarding each statement on a 7-point Likert scale. Three

for the positive affect and ($\alpha = 0.84$) for the negative affect (Schutte & Malouff, 2011).

2.4 Protection of Human Rights

A proposal describing the study goals, a procedure and measurement tool was submitted to the ethical approval office at the United Arab Emirates University and was accepted. On the first page of the online survey, all the participants were informed that their data would be kept confidential. They were also informed of their rights to withdraw at any time without any consequences.

Chapter 3: Results

The current study aimed at describing the distribution of SWB in a sample of 889 students and to test the hypothesis that means of SWB can be significantly predicted by means of social support and mindfulness. The last aim was to find evidence that the mean of sources of SS (from family, friends and a significant other) were significantly different from one another. This chapter describes the diagnostic actions taken to ensure the accurateness of the data and the appropriateness of the tests used to analyze the responses and test the research questions. Missing data and outliers were treated, and violations of assumptions of multivariable analysis were considered. Descriptive statistics and coefficient alphas for each variable were utilized.

3.1 Preliminary Data Analysis

3.1.1 Missing Data

Following the import of all participant responses from Survey Monkey to SPSS format and labeling of all study variables, missing data was checked for any significant patterns.

The response was at best 90% for some of the variables and at worst 75%. It was noted that 100 participants did not complete any of the questionnaires. About 100 Skipped PANAS; 145 Skipped Life satisfaction; 160 Skipped CAMS_R and 190 skipped MPSS.

For analysis to be valid, the missing data was tested to prove that it was missing completely at random (MCAR), and there were no patterns that may bias the findings. According to Rubin (1976) the probability of ‘missingness’ should prove constant, which means any observation on a variable should be as likely to be missing as any other. This is the best way to ensure the data is not biased (Pickles, 2005). Little (1998) designed a commonly used chi-square test of (MCAR) where a significant value indicates that the data is not missing at random. Using SPSS’S SPSS Missing Values Analysis (MVA), Little’s MCAR test resulted in a chi-Square =239.94, (df = 282, Sig. = .967) was found non-significant which indicated that the missing values were, in fact, missing at random (e.g. they have no identifiable pattern) therefore, they did not bias the data.

3.1.2 Outliers

Z-scores were computed for each variable to determine the presence of outliers. Any scores that had an absolute z-score equal to or greater than 3 are typically considered as outliers (Field, 2013). Based on the computed z-scores, some participants had responses that would place them as outliers. The scores were kept because even though unlikely, they were, in fact, plausible. Ultimately, no participants were treated as outliers, and all scores were retained in the dataset.

3.1.3 Reliability of the Measures and Normality of the Data

It was important to check for the reliability of the participant responses on the study measures: CAMS_R, MSPSS, PANAS, and SWLS. The Cronbach’s Alpha

coefficients were computed, and the results are presented in Table 1 including descriptive statistics of all variables.

Table 1: Cronbach's Alpha of Measurement Tools along with Means, Standard Deviations

Measure	Mean	Std. D	Reliability	Items
CAMS_R	29.86	4.34	0.62	12
MSPSS	62.38	14.72	0.91	12
PA	33.33	5.71	0.76	10
NA	24.33	6.77	0.8	10
SWLS	23.24	6.74	0.86	5

Note: CAMS_R=Cognitive and Affective Mindfulness Scale-Revised, MSPSS=Multi-Dimensional Scale of Perceived Social Support, PA=Positive Affect, NA=Negative Affect, SWLS= Subjective Well-Being Scale, SS=Social support

The internal consistency of the measures using the Cronbach's Alpha, based on commonly used rules of thumb (George & Mallery, 2003), showed that MSPSS ($\alpha=0.91$) to be in the excellent range, NA ($\alpha=0.8$) and SWLS ($\alpha=0.86$) in the good range, PA ($\alpha=0.76$) in the acceptable range and CAMS_R ($\alpha=0.62$) in the questionable range. The alpha of CAMS_R may be a reflection of the measure assessing various aspects of the construct of mindfulness.

3.1.4 Assumptions

Examining the normality of the data was important to conduct parametric testing. It was found that all scores on the criterion variables (SWLS, NA, PA) while considering the predictor variables (CAMS_R and MSPSS) exceeded the 0.05 cutoff on Shapiro-Wilk test that indicated they were normally distributed (SWLS $p= 0.53$,

PA, $p=0.57$) except one, the scores on NA $p=0.13$. Even through the scores on PA are not perfectly normal, they seem to follow a diagonal line in the Q-Q Plots, (please see Appendix 1) Therefore, it is possible to carry on with the analysis as parametric based on these findings (Field, 2013).

The data was screened for violation of the eight standard assumptions for multivariable analysis as described in details by Dr. Field in his widely used textbook *Discovering Statistics Using IBM SPSS* (2013). Namely the criterion variable SWB is measured using scores on SWLS, NA, PA that are on a continuous scale. The predictor variables SS and mindfulness are measured using scores on respectively MSPSS and CAMS_R, they are continuous in nature.

The third assumption is that the independence of residuals is found, three linear regression models were conducted, one for SWLS, NA, and PA while the predictor variables were SS and Mindfulness as well as gender, age, nationality. The missing scores were replaced by the mean. The data met the assumption of independent errors (Durbin-Watson value= 2.24, 2.09, 2.05 respectively) they were all close to the value of 2 which indicate independence of residuals.

The fourth assumption is to prove linearity of the relationship between the IV and DV, for this eyeballing the histograms of standardised residuals indicated that the data contained approximately normally distributed errors, as did the normal P-P plot of standardised residuals (please see Appendix 1), which showed points that were not completely on the line, but close.

The fifth assumption of no homoscedasticity where the variances along the line of best fit remain similar as you move along the line was checked by plotting the studentized residuals against the unstandardized predicted values (please see Appendix 1). No coning of the data was noted which indicate that the assumption was met.

The sixth assumption is no multicollinearity of the IVs. For this, bivariate correlation with bootstrapping was conducted while missing data was treated Listwise. The results are indicated in Table 2.

Table 2:Pearson’s Correlation Coefficients (using bootstrap) between study variables

	CAMS-R	MSPSS	PA	NA	SWLS
CAMS_R	1	.235**	.405**	-0.298	.244**
95% CI	1,1	.18,.34			
N	738				
MSPSS	.235**	1	.299**	0.322	.535**
95% CI	.18,.34	1,1			
N	640				
PA	.405**	.299**	1	-0.242	.406**
95% CI	.34,.49	.25,.41			
N	738				
NA	-0.298	-0.322	-0.242	1	-0.492
95% CI					
N	714				
SWLS	.244**		.406**	-0.492	1
95% CI	.17,.33	.48,.62			
N	690				
Notes:** $p < 0.01$ * $p < 0.05$					

The bivariate correlations did not exceed 0.70. Also looking at the VIF, the data met the assumption of collinearity indicating that multi-collinearity was not a concern for life satisfaction model (CAMS_R, Tolerance = .98, VIF =1.01; MSPSS, Tolerance = .98, VIF = 1.01); positive affect (CAMS_R, Tolerance = .93, VIF =1.07;

MSPSS, Tolerance = .93, VIF = 1.06) and for negative affect model (CAMS_R, Tolerance = .93, VIF = 1.07; MSPSS, Tolerance = .93, VIF = 1.06).

The results also show a positive correlation between the measures of our predictor variables (social support & mindfulness) with our criterion variable SWB and a negative correlation between the measures of negative affect and the measures of SWB.

For the seventh assumption of the presence of high leverage points or highly influential points, outliers were checked using the Z-score method. The Z-scores of all the main variables were generated; no values exceeded + or – 3 which indicates that they did not significantly influence the analysis.

For the eighth and last assumption, normal distribution of the residuals, the Q-Q Plots were generated and eyeballed (Please see Appendix 1). All were normally distributed, and the assumption was met.

3.2 Main Data Analysis

The data met the requirements for conducting bivariate regression analysis. Three hierarchical multiple regression analyzes were conducted to examine the predictive capacity of the predictor variables (social support and mindfulness) for each of the criterion variables: SWB, PA, NA while holding constant the demographic variables of age, gender, nationality, educational level. The variables were entered using Enter method. The alpha was set at 0.05 as is commonly done in research in psychology. The results are given in Table 3, which represents the full

regression models separately for SWLS, NA, and PA while replacing missing scores with means.

Table 3: A Hierarchical Multiple Regression Analysis between Life Satisfaction Score with its Predictor variables Social Support and Mindfulness

Model	Change Statistics					R Square Change	P	b	SE b	β
	R	R2	Adj. R2	F	Sig. F					
1	.52	0.28	0.27	142.72	.000	0.28	C	2.65	1.62	
							M	0.20	0.15	0.12**
							SS	0.23	0.15	0.48**

Notes: ** $p < 0.01$, P=Predictor, C=Constant, M=Mindfulness, SS=Social Support

Without restriction, SWLS predicted 28% of the model specifically social support explained a significant larger portion of the variance with ($\beta=.48$) while mindfulness also explained a significant portion of the variance at ($\beta=.12$).

To analyze the prediction power of each of the predictor variables while holding demographic variables constant, the regression models were run again. Table 4 represents the results for SWLS.

Table 4: A Hierarchical Multiple Regression Analysis between Life Satisfaction Score with it's Predictor variables Social Support and Mindfulness while holding Constant Age, Gender, Nationality and Educational Level

Model	Change Statistics					R Square Change	P			
	R	R2	Adj. R2	F	Sig. F			b	SE b	β
1	.15a	0.02	0.18	5.05	.000b	0.02	C	18.08	1.98	
2	.53b	0.29	0.28	59.99	.000c	0.26	C	0.77	2.16	
							M	0.19	0.04	0.12**
							SS	0.22	0.14	0.47**

Notes: ***p* < 0.01, *P*=Predictor, *C*=Constant, *M*=Mindfulness, *SS*=Social Support

The results show that the full regression model is significant and predicts 29% of the variance in SWL and that specifically social support explained a significant larger portion of the variance with ($\beta=.47$) while mindfulness also explained a significant portion of the variance at ($\beta=.12$).

For the criterion variable Positive Affect, the full model was run as well as the prediction power of each of the predictor variables while holding demographic variables constant. Table 5 represents the results for PA.

Table 5: A Hierarchical Multiple Regression Analysis for the Relationship between Positive Affect Score with its Predictor variables SS and Mindfulness while holding Constant Age, Gender, Nationality and Educational Level

Model	Change Statistics									
	R	R2	Adj. R2	F	Sig. F	R2 Change	P	b	SE b	β
1	.13a	0.01	0.01	4.10	.003b	0.01**	C	30.16	1.69	
2	.43b	0.19	0.18	34.33	.000c	0.17**	C	13.54	1.97	
							M	0.43	0.04	.32**
							SS	0.08	0.01	.20**

Notes: ***p* < 0.01 *P*=Predictor, *C*=Constant, *M*=Mindfulness, *SS*=Social Support

The results show that the full regression model is significant and predicts 19% of the variance in PA and that specifically mindfulness explain a significant large portion of the variance with ($\beta=.32$) while social support also explained a significant portion of the variance at ($\beta=.20$).

For the criterion variable Negative Affect, the full model was run as well as the prediction power of each of the predictor variables while holding demographic variables constant. Table 6 represents the results for NA.

Table 6: A Hierarchical Multiple Regression Analysis for the Relationship between Negative Affect Score with its Predictor variables SS and Mindfulness while Holding Constant Age, Gender, Nationality and Educational Level

Model	Change Statistics									
	R	R2	Adj. R2	F	Sig. F	R2 Change	P	b	SE b	β
1	.14	0.02	0.01	4.58	.001	0.02	C	25.12	2.01	
2	.38	0.14	0.14	28.46	.000	0.12	C	44.10	2.41	
							M	-.35	0.05	-.21 **
							S	-.11	0.01	-.24**

Notes: ** $p < 0.01$ P=Predictor, C=Constant, M=Mindfulness, SS=Social Support

The results show that the full regression model is significant and predicts 14% of the variance in NA and that specifically social support explained a significant, large, portion of the variance with ($\beta=-.24$) while mindfulness also explained a significant portion of the variance at ($\beta=-.21$).

To summarize, the full model predicted most strongly the life satisfaction component of SWB (i.e. the score on SWLS) at 28%, followed by PA at 18% and NA at 13%. In SWLS, social support was a stronger predictor ($\beta=.48$) versus mindfulness ($\beta=.12$). In PA, mindfulness was a stronger predictor ($\beta=.32$) versus SS ($\beta=.20$) and in NA, both predictors were almost equally strong (SS: $\beta=-.24$; Mindfulness: $\beta=-.21$). They were both in the inverse direction.

Because SS had the highest prediction power ($\beta=.48$), it was important to look more closely into the sources of SS especially that our measure allowed a separate score from family, friends and significant others. A Repeated Measure

ANOVA was utilized to analyze the results, but first the assumptions of the operation were checked.

Assumption one and two were met because the DV (SWB) was measured continuously and the IV (Social Support) had three related groups namely SS from family, friends and significant others.

Assumption three was checked earlier and no outliers were significantly biasing the data set.

For the 4th distribution, the data was found to be close to normal and since Repeated ANOVA is a robust test, the assumption was also met.

For the assumption of sphericity, the variance of the differences between all combinations of the related groups was checked using the Mauchly's test of sphericity which was found significant ($\chi^2 (2) = 77.26, p < .000$). To correct for the violation, Greenhouse corrections were utilized and the test was conducted.

The Repeated ANOVA measures, with a Greenhouse-Geisser correction, determined that SS mean from family ($M=21.44, SD=5.74$), friends ($M = 20.71, SD = 5.89$) and significant others ($M = 20.22, SD = 5.67$). They differed statistically and significantly from one another ($F(2, 1208.21) = 18.48, P < 0.000$). Post hoc tests using the Bonferroni correction were conducted. Results are in Table 7.

Table 7: Pairwise Comparisons Table of the Repeated ANOVA Test using Bonferroni Adjustment

s (I Factor)	(J) Factor	Mean Difference (I-J)	Std. Error	Sig. b	CI 95%
1	2	.735*	0.23	.005	.18, 1.28
	3	1.22*	0.2	.000	.74, 1.70
2	1	-.73*	0.23	.005	-1.28, -1.18
	3	.49*	0.17	.014	.07, .90
3	1	-1.22*	0.2	.000	-1.70, -.74
	2	-.49*	0.17	.014	-.90, -.07

Notes: N=671, SS from Family (1), SS from friends (2), SS from significant other (3) With Bonferroni adjustment. * The mean difference is statistically significant * $p < 0.01$

The mean difference results indicate that the mean of the three sources of SS differed significantly from one another and that family support was the highest source of SS followed by friends and lastly by significant others.

Chapter 4: Discussion

The data supported the thesis; it was noted that indeed SS mean and mindfulness mean significantly predicted SWB (as measured by life satisfaction mean: SWLS and affective experiences: PA and NA mean). The data also supported the second hypothesis that SS mean significantly differed from family, friends and significant others.

SWLS- The mean of SWLS were high ($M = 23.24$, $SD = 6.74$). Based on numerous international studies, the authors of this measure gave interpretations for six ranges of scores that start from extremely dissatisfied to highly satisfied. A mean that ranged from 20 to 24, which is where our sample score lies, reflects the average scores of individuals living in economically developed countries. This score is also close to the high satisfaction range on SWLS, which is 25 to 29. Importantly, the variability is low as indicated by the SD. This represents a form of agreement that most individuals feel equally satisfied with their lives. This is a positive social trend stipulating that U.A.E.U. university students think well of their lives. They cohesively evaluate life as fulfilling. There is no form of obvious social injustice, which is a common situation in the Arabic region where classism and large socioeconomic status differences create social tension. Furthermore, the fact that the mode score is 27, a score that falls in the high range, provides further support for this. Regional data is not yet sufficient, but from the data of this study we can say that U.A.E.U. students are more satisfied than most students in other countries in the Middle East, certainly more than in Lebanon where the SWLS ($M = 20.16$).

According to Diener (2006), these scores indicate that the majority of the students are generally satisfied but would still like to see some improvements in some areas. He does not specify, but asserts this need for improvement can be in one or two specific areas, or across all areas. The improvements can be minor or major, but most people scoring in this range would like to reach a higher level of life satisfaction.

In this study's prediction model, SS predicted a large portion of SWLS ($\beta = .48$) and the overall model fit at 27%. This shows that SS plays a large role in the amount of cognitive satisfaction experienced in people's lives, especially when numerous other factors can impact SWB such as: personality style, SES, marital status and the country in which one lives are considered. The results indicate that factors are present that influence the satisfaction reported in their lives. These factors include: having access to good SS from family, friends, and significant others; experiencing a feeling of connectedness and having a sense that people in their lives care for their well-being (which are constructs the MSPSS assessed). Most people spend a large amount of time and effort on wealth building. These findings further indicate that if some of these efforts were spent on developing social relationships, it could also lead to significant satisfaction.

SS predicted a large portion of SWLS ($\beta = .48$) compared to mindfulness ($\beta = .12$), so mindfulness had an effect as well in the model, but a small one. Mental satisfaction, interestingly, is not necessarily affected by mental strength or ability. So the common recommendations of the evidence-based approach of Cognitive Behavioral Therapy, (to focus on perceiving one's life differently) is not the only and

best solution. It is important to change one's social climate because it apparently has an impact. In this case, it's important to increase SS.

PANAS. One of the most interesting findings from this study is that in the prediction model, mindfulness predicted most of PA ($\beta = .32$), the overall model had a good fit of 18%. This finding fits with the growing literature on mindfulness that suggest this mental ability moderates affective experiences by impacting the reward and punishment circuits in the brain. Based on findings in the field of neuroscience and neuroplasticity, the brain and its neurons are thought to be more like a river than a rock. This means that the brain changes and develops neurons in the areas of the brain and are related to these functions (Pascual-Leone, Amedi, Fregni, Merabet, 2005; Pascual-Leone, Freitas, Oberman, Horvath, Halko, et al. 2011). Even though the interest in this field is tremendous in North America, the body of literature is still young, and the number of studies doesn't yet allow for conclusive interpretations. However, so far, mindfulness is believed to be predominantly a function of the prefrontal cortex, developing more connectivity in that region of the brain by using it more often. It has been found in some studies to stunt NA. Researchers think that activation in the prefrontal cortex decreases over-activation in the amygdala (associated with the emotion of fear). This, in turn, allows more dominance of the reward circuits of the brain and consequently, the experience of more PA (Witkiewitz, Lustyk, & Bowen, 2013). This is seen in the findings of the present study. Mindfulness was more important in experiencing PA than SS. This is important for clinicians to take into consideration when focusing on helping clients increase their positive emotions.

As for NA, it was predicted almost equally by SS ($\beta = -.24$) and mindfulness ($\beta = -.21$) model fit at 14%. The more individuals are mindful, the more they experienced positive emotions and the less they experience NA.

As for the distribution of PA and NA, the data from our sample indicates that the students experience a normal mean level of PA ($M = 33.33$, $SD = 5.71$) and NA ($M=24.33$, $SD=6.77$). It is possible to say that the student population in the U.A.E.U. experiences just as much positive emotions as in the international community. The PA mean level found in our sample is very close to the range of normal international mean ($M=29.7$), as documented in the measure's manual (Watson et al., 1988). When comparing these findings with various other studies, and specifically one major study by Crawford and Henry (2004) with a non-clinical sample ($N = 1003$, $M = 31.31$, $SD = 7.65$), we find these similarities in the mean of PA. As per the PANAS manual, people who score in this range, and, therefore, university students, experience less sadness and lethargy and more enthusiasm. They are more active and alert; have high energy, high concentration and pleasurable engagement (Watson et al., 1988).

The NA mean level found in our sample ($M=24.34$) falls in the average range and the mode = 20. When comparing these results with the mean in the manual ($M=14.8$) they may appear considerably higher. However, upon close inspection, the mean in the manual was obtained by asking the sample about their affective experiences over the past day and week while the measure in the present study enquired about affective experiences in general. It is likely that these differences can be due to high variability when a small span of time is considered. In fact in the

manual the weekly score ($M=16$) was considerably higher than the daily score ($M=14.8$), (Crawford & Henry, 2004). These scores indicate that the population represented by the current study experiences frequent calmness, serenity, less subjective distress, pleasurable engagement, along with some aversive mood states, anger, contempt, disgust, guilt, fear, and nervousness.

In summary, taking both of these findings together, it was found that SWB is predicted and therefore, impacted by both SS and mindfulness. This happens in specific ways. High SS is important for the cognitive component of SWL (i.e.: life satisfaction), increasing it. While mindfulness is most important for the emotional component of SWB (i.e.: PA& NA), specifically mindfulness increases PA and decreases NA.

SS-The data from our sample displays a distribution of the total scores on MSPSS with a negative skew and high variability ($M=62.38$, $SD=14.72$), reflecting a ceiling effect where most people (64%) scored high on SS (Median= 66). This reflects a very positive social pattern of most people experiencing high levels of SS. According to the extensive literature on MSPSS, this score indicates that the U.A.E.U. Students are likely to experience numerous positive life outcomes such as decreased impact of adverse life events; increased coping with stress and improved health. They experience less depression and anxiety symptoms (Zimet et al.,1988; Karzian, McCabe,1991; Chou, 2000; Klineberg, Clark, Bhui, Haines, Viner et al., 2006; Grassi, Rasconi, Pedriali, Corridoni, & Bevilacqua, 2000; Clara, Cox, Enns, Murray, & Torgrudc, 2003).

Looking closely, SS were significantly different from one another, SS from the family ($M = 21.44$) was the highest source, followed by SS from friends ($M = 20.71$) and followed very closely by SS from significant others ($M = 20.22$). This finding is in line with an international pattern of sources of social support reflecting the country's cultural orientation. It places the U.A.E.U. Students in the high to moderately collectivistic range where typically most SS is from family.

According to cross-cultural research, countries very low on individualism and high on collectivism displayed a pattern of equal distribution of SS from the three sources. For example, a large study was conducted in Korea ($n = 1332$) on Japanese, Chinese, and Korean college students. It found SS from family ($M = 20.64$, $SD = 5.40$), similar to SS from friends ($M = 20.33$, $SD = 5.19$), and the same SS from significant others ($M = 20.21$, $SD = 5.17$) (Matsuda, Tsuda, Kim, Deng, 2014). In the middle are those countries that are moderate on the individualism versus collectivism dimension. For example, Turkey, Gülaçt (2010), working with university students ($n = 87$), found SS from friends to be highest ($M = 39.85$, $SD = 4.03$), followed by family ($M = 24.12$, $SD = 22.95$) and lastly significant others ($M = 19.59$, $SD = 9.16$). This contrasted with countries high on the individualism scale, which displayed a pattern in which the most SS came from friends, and the least came from family. Individuals living in these countries often leave home and family at an early age and move away, rarely keeping in touch with their nuclear family. For example, in Australia, Gallagher & Vella-Brodrick (2008), worked with a sample of 263 participants from the general population with an age range of 18–80 years and a mean age of 41.52 years. They found SS from significant others to be the highest ($M = 22.79$, $SD =$

6.38), followed by friends ($M = 22.34$, $SD = 5.18$), and least from family ($M = 21.19$, $SD = 6.33$). Our results show the moderate collectivistic nature of the U.A.E. national culture and the strong influence of family have an effect on the individual's SWB.

This is a major finding that needs to be known by therapists working in the U.A.E. Locally, family plays a central role in a person's SWB and needs to be viewed as such. These relationships need to be observed and encouraged. This may not be a focus for a therapist trained in the west. In fact, such therapists may focus with the opposite view marginalizing these relationships to build friendships because that is the source of SS and SWB they expect to be most helpful. This is why cross-cultural research and these findings are so valuable in clinical settings.

4.1 Conclusion

The findings from this study add a wealth of information to cross-cultural research in the field of SWB and positive psychology. The sample was large, and the measures used were reliable and specifically chosen because they were most featured in major studies in the west. This allowed for common ground to make comparisons with results of research done internationally and to build clearer culture-specific knowledge of SWB.

Importantly, these findings help guide clinical intervention in a specific manner. They provide valuable knowledge of what matters most for SWB and give the clinician a clear path for intervention that could produce the best results. For instance, when a client from this culture complains of a lack of satisfaction and a low mood, the therapist can then assess more closely using these measures to understand

more clearly the presenting issue. The SWB measures would be able to differentiate and measure the emotional component and the cognitive component. If noted that the client is experiencing frequent negative affect and not enough positive affect, therapists can then target their interventions by recommending and focusing on mindfulness training. There are numerous mindfulness approaches available today and despite the newness of the field. There is agreement that mindfulness training brings about a significant increase in psychological well-being through improved emotional reactivity and increased regulation of behavior capacity (Keng, Smoski, & Robins, 2011). Some mindfulness interventions have been labeled as Evidenced-based (laboratory-based) and therefore, are highly recommended. When clients complain of low life satisfaction and individuals are feeling unhappy with their lives, based on the present findings, it is most advisable to work specifically on increasing SS in that individual's life. There are well-established therapeutic methods to help clients create more fulfilling relationships in general and with family. For instance, the first stage is to screen family and existing connections for quality and depth of the relationships. The therapist provides psycho-educational material and training on how to create more supportive meaningful connections. In the positive psychology approach to increasing SS, the focus is primarily on training in soft skills such as active listening, conflict management and increased shared positive experiences. Then the therapist ensures that the client has a large enough social circle and provides him with practical recommendations on how to increase it.

4.2 Limitations

As with all studies that rely on self-report measures, there are known limitations and shortcoming that come from using this approach, and so it will be important to add other methods of assessments in future research. An example would be to encourage the use of technology such as phone applications to prompt participant response to timed questionnaires to assess emotional states on a daily or even hourly basis. Such approaches can make the findings more robust.

Furthermore, mindfulness, in particular, being a new construct, was difficult to assess. The measure used was reliable, but more work needs to be done to arrive at a measure that assesses all the different components of mindfulness and has more agreement from various researchers in the field. Perhaps a measure developed specifically for the U.A.E. could be utilized. It would be a measure that assesses while taking into account cultural factors such as religion and evaluates based on culturally valued skills.

4.3 Further Research

This is one of the few studies on SWB conducted in the region. More work will be needed to understand the sensitive needs of the U.A.E. population and developing more culturally specific sensitive treatment approaches. More studies are needed to replicate these findings with different strata of the population based on SES, gender, and age groups. The presented data came from a highly cohesive sample of U.A.E.U. students. It would also be important to replicate this study with the various nationalities living in the U.A.E., being a country very high in cultural

diversity, with about 80% of its residents as expatriates, this could add important knowledge to SWB in the U.A.E. When the statistics were conducted, nationality also came out to be a significant predictor of SWB. This approach would make the findings regarding the role of mindfulness and social support more robust.

Validity and reliability studies are also needed to ensure the measures used are the best ones to assess SWB in the U.A.E. and the Arab world. Perhaps even developing new Arabic measures for SWB that take into account the important and unique collectivistic cultural orientation of the region.

Finally, clinical research will be needed to assess the success of existing mindfulness training interventions in the U.A.E. population and to ensure they are effective. Experimental designs must be used as much as possible. To provide solid scientific data, it is important to use designs such as dual-blind design in which the participants are unaware of which intervention they are undergoing (Davidson & Kaszniak, 2015). To have practical clinical implications, the research would be needed with different, but comparable groups such as people who have normal scores on depression and anxiety measures and those with increasing levels and severity of depression and anxiety.

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Appendix

Positive Affect Total Score

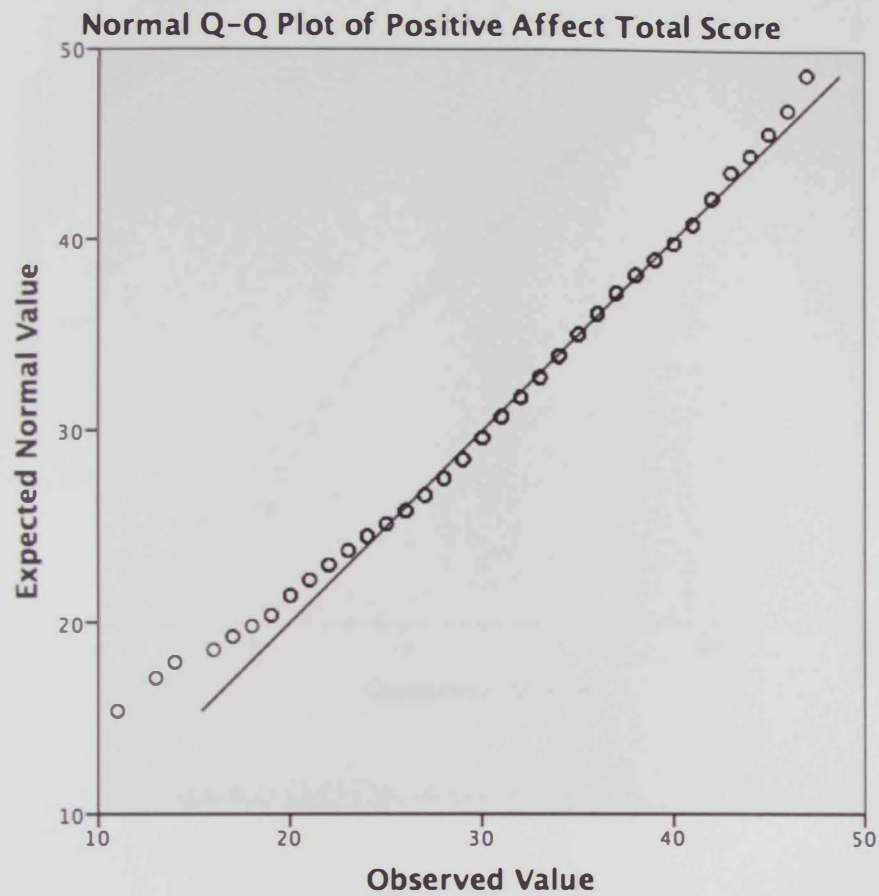


Figure 1: Q-Q Plot of scores on PA

Negative Affect Total Score

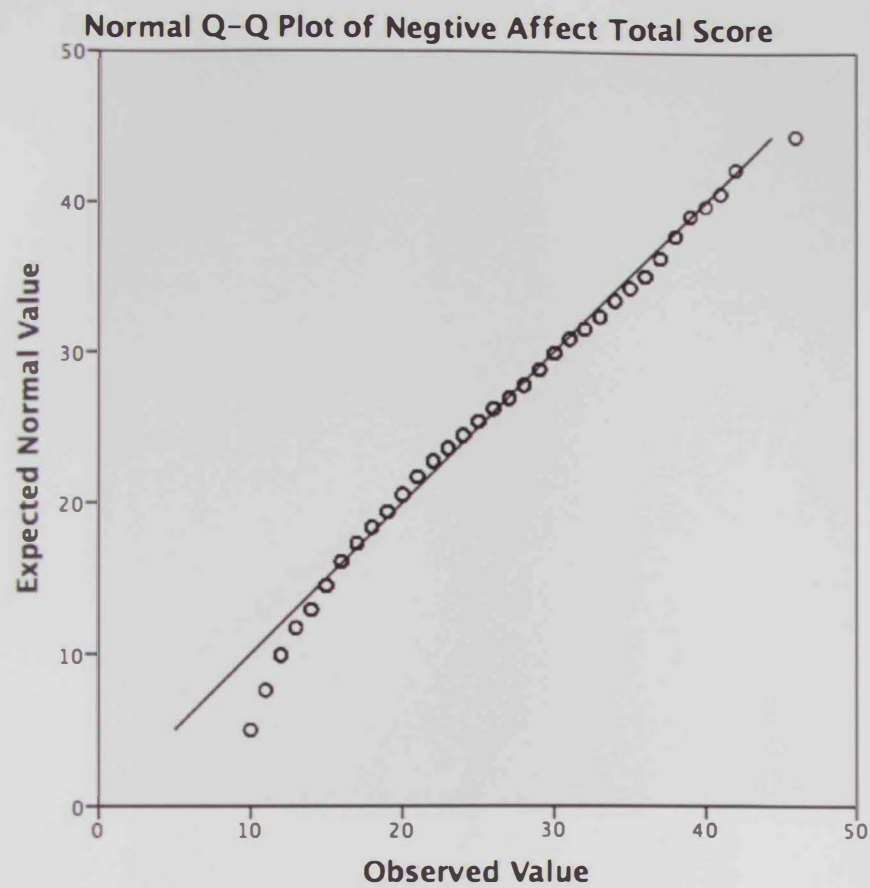


Figure 2: Q-Q Plot of scores on NA

Life Satisfaction Total Score

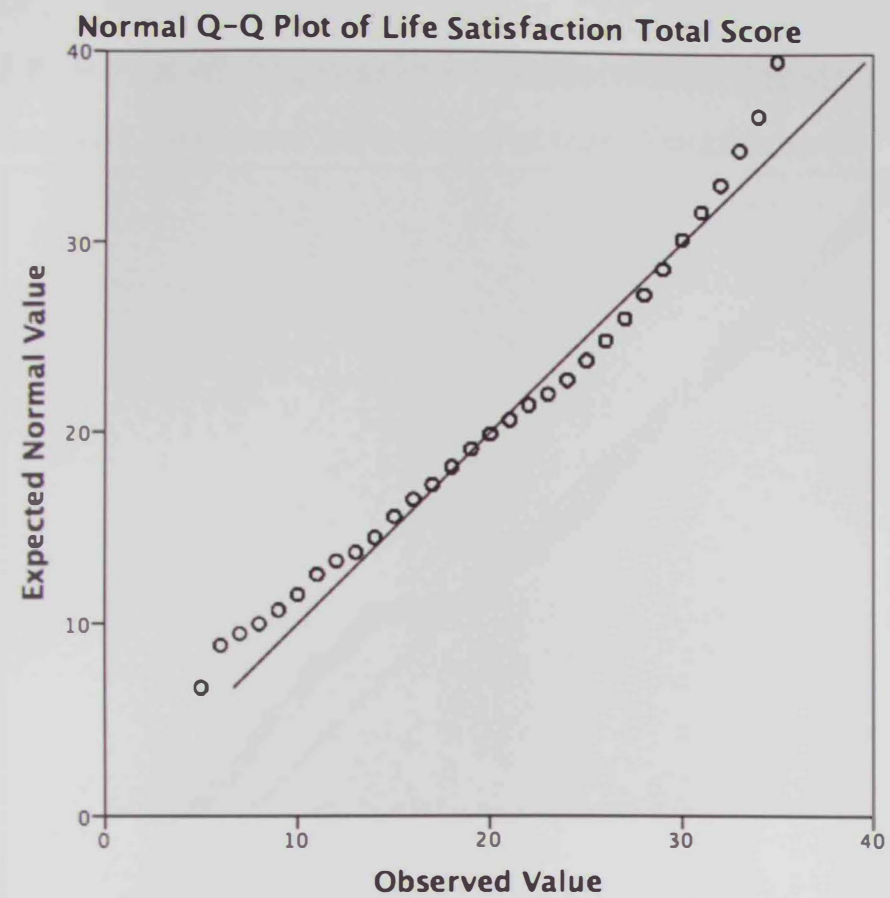


Figure 3: Q-Q Plot of scores on SWLS

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Life Satisfaction Total Score

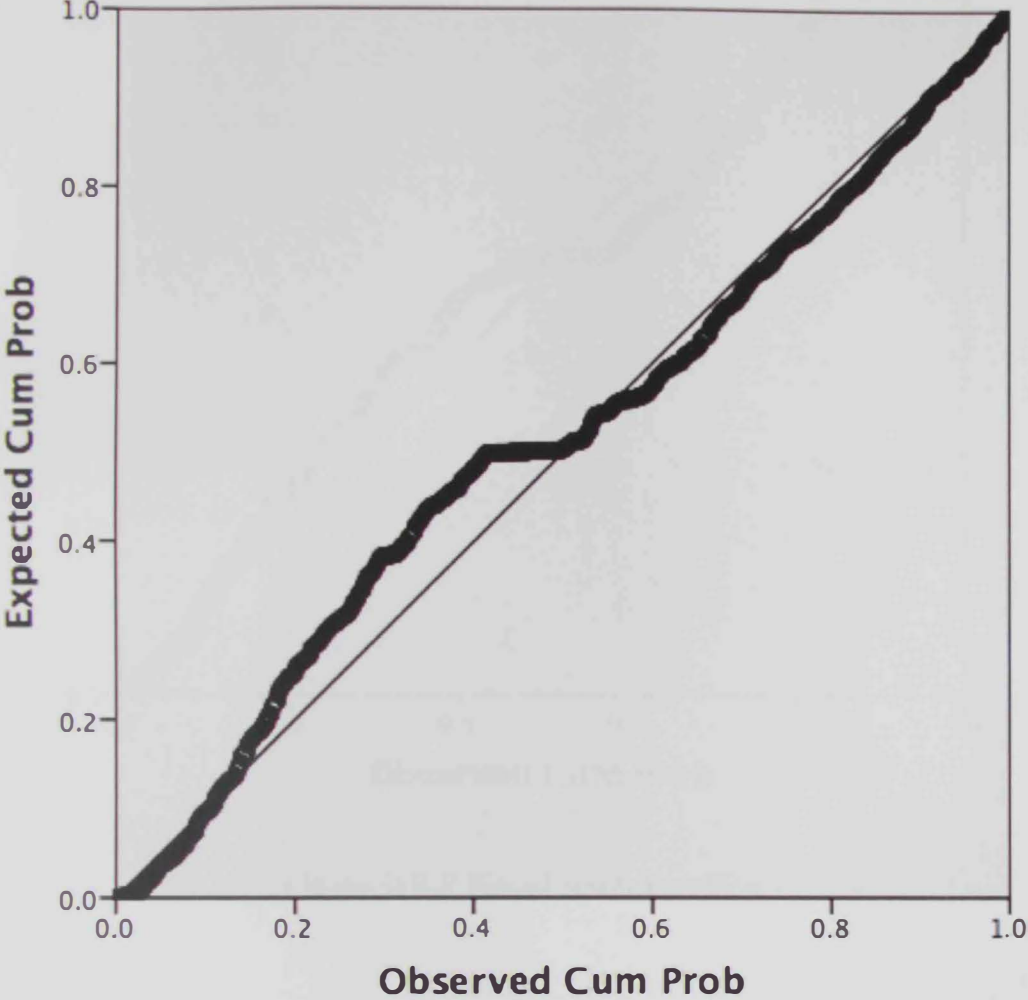


Figure 4: P-P Plot of residuals of SWLS

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Positive Affect Total Score

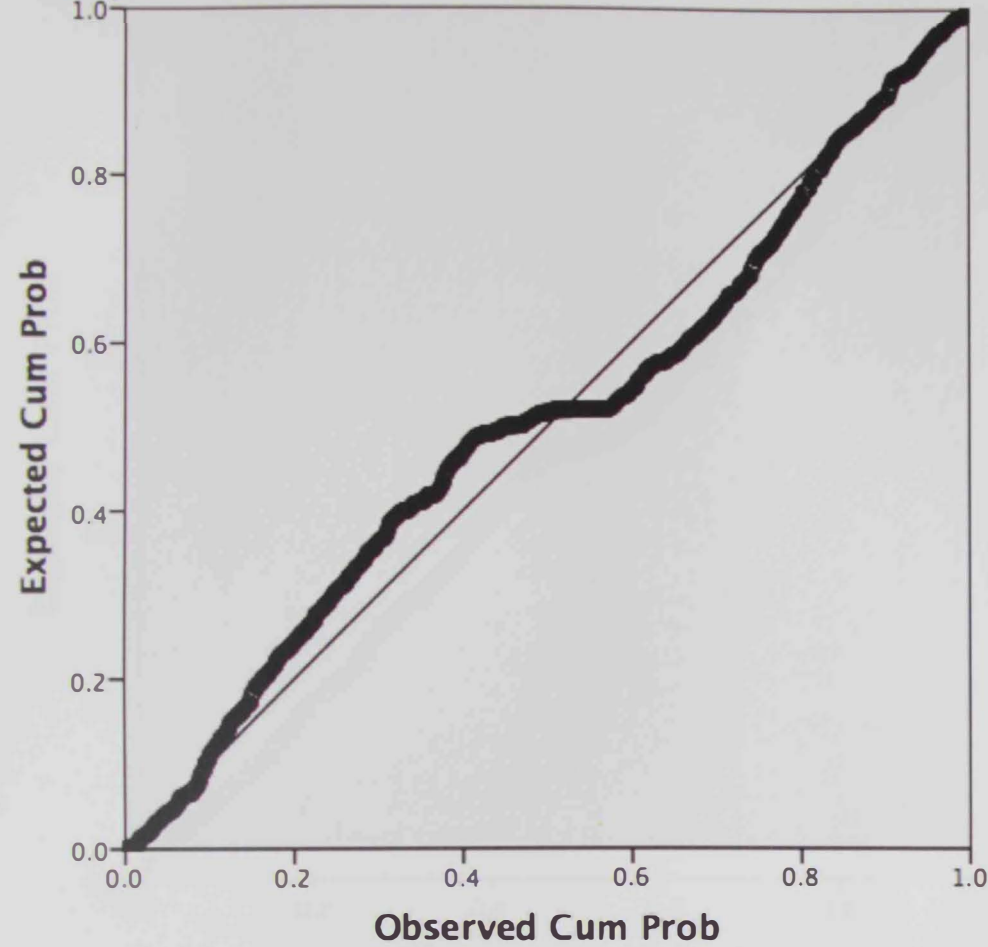


Figure 5: P-P Plot of residuals of PA

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Negative Affect Total Score

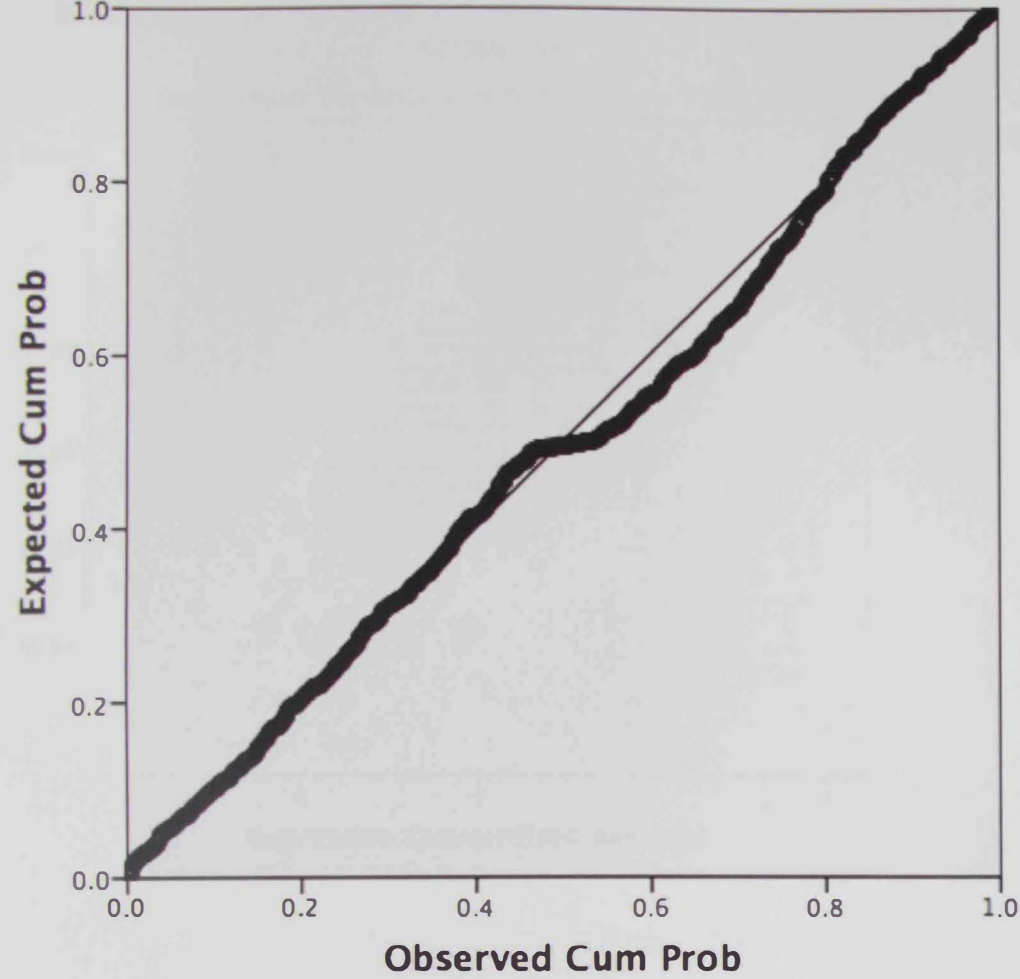


Figure 6: P-P Plot of residuals of NA

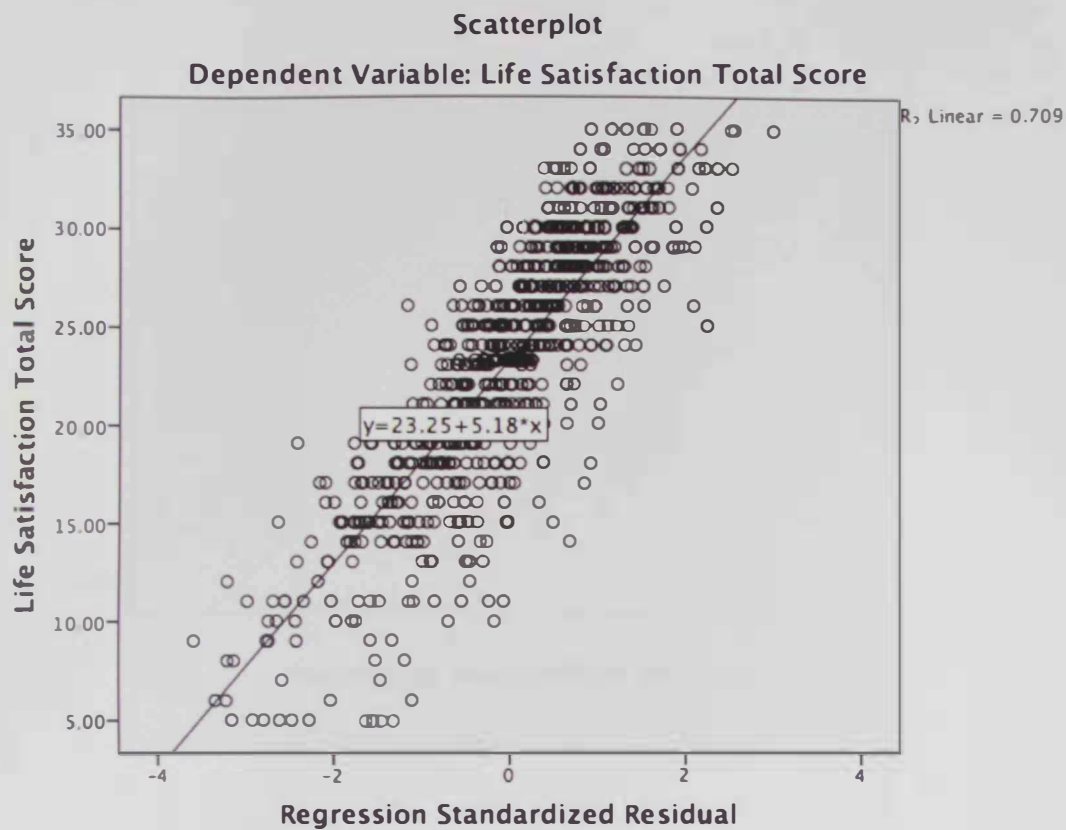


Figure 7: Scatterplot of residuals of SWLS

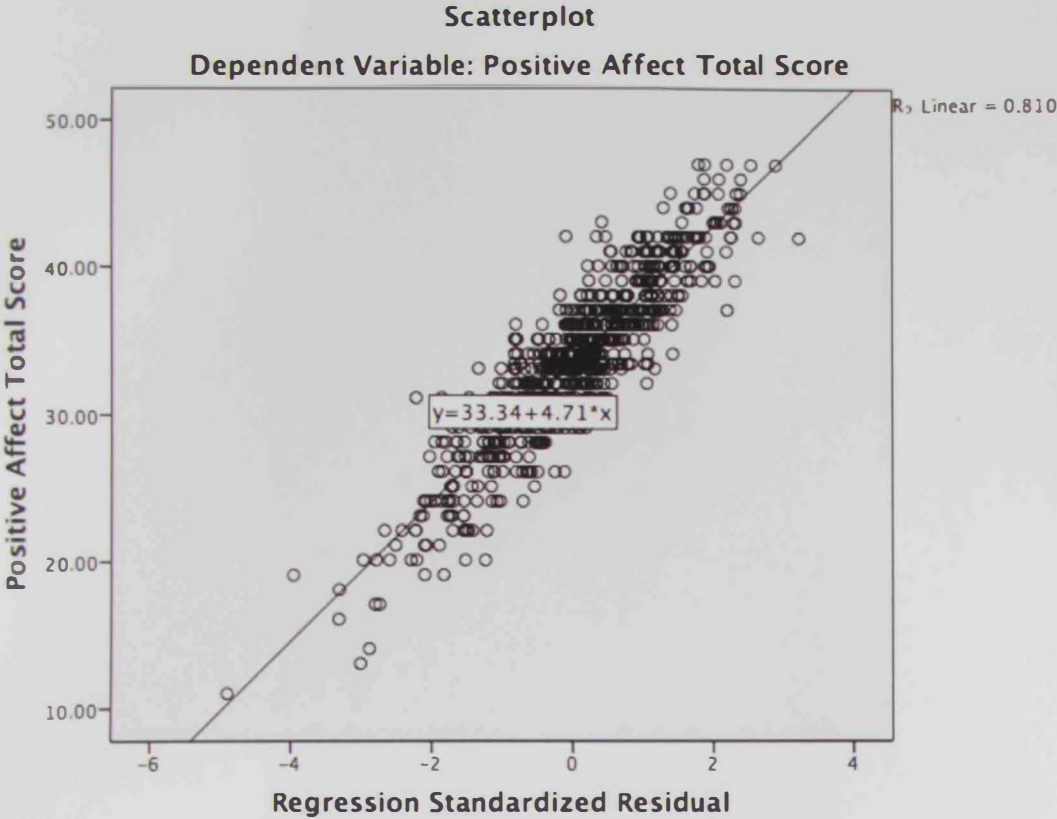


Figure 8: Scatterplot of residuals of PA

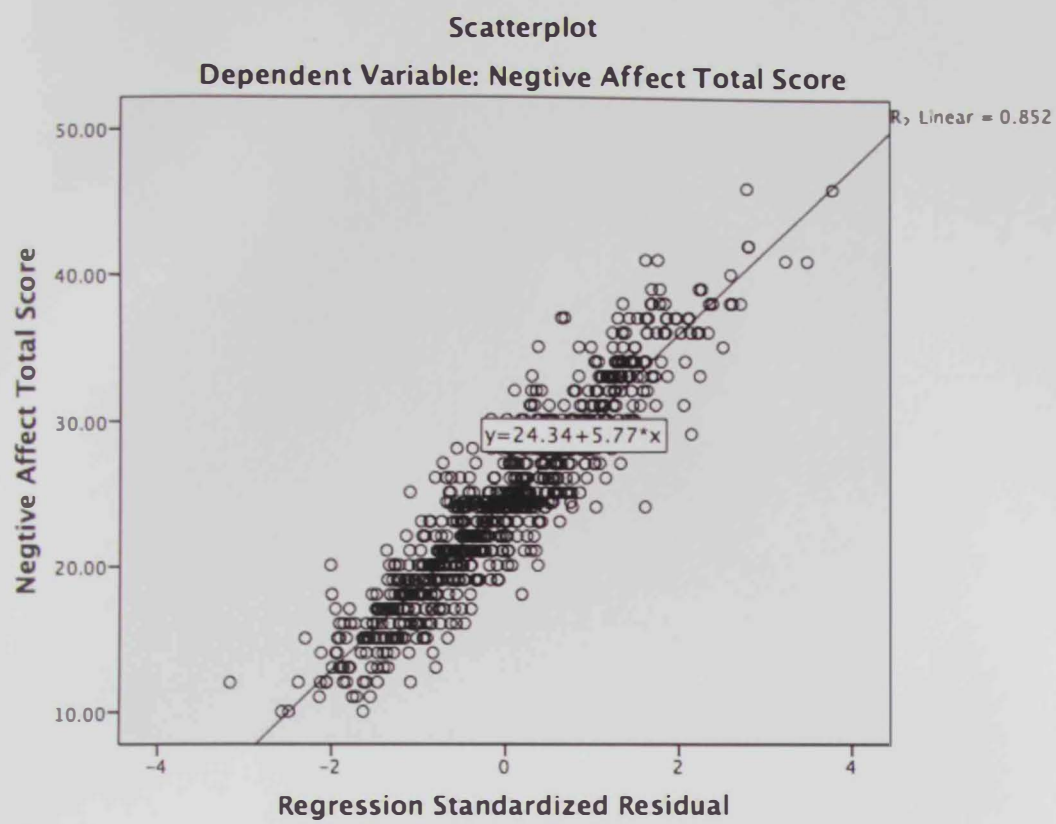


Figure 9: Scatterplot of residuals of NA

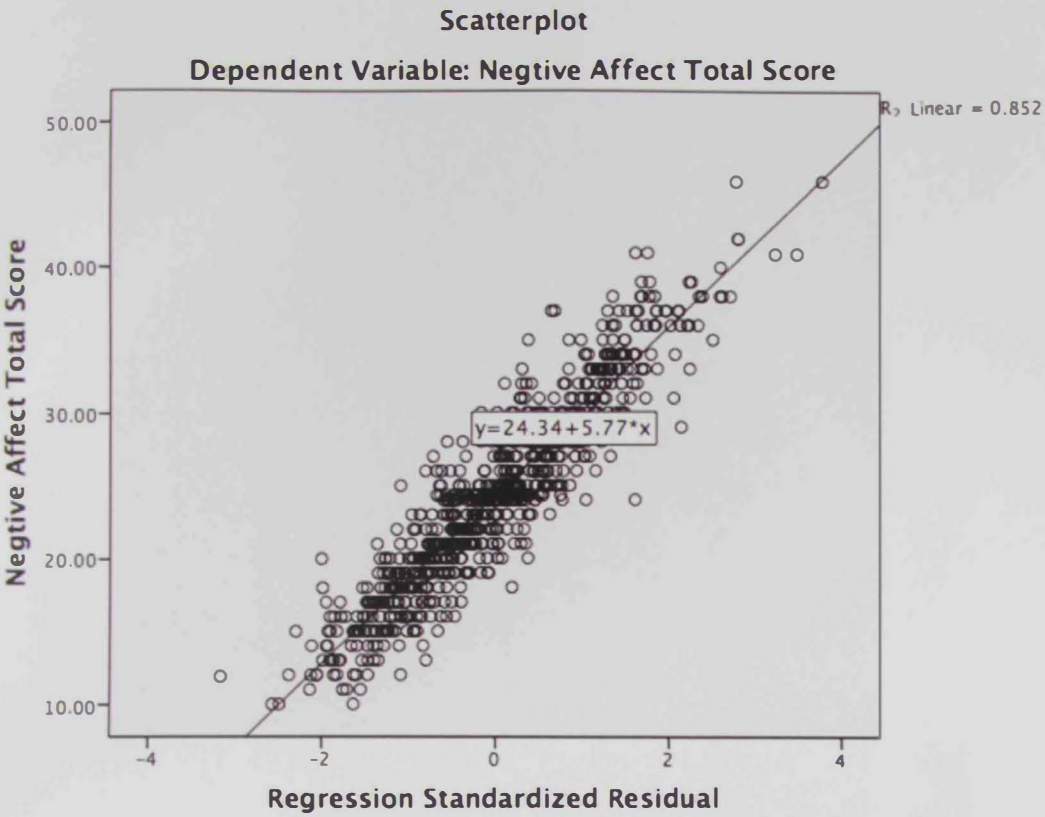


Figure 9: Scatterplot of residuals of NA