



A Character Strengths Intervention for Happiness and Depression in Saudi Arabia: A Replication of Seligman et al.'s (2005) study.

Basurrah, A. A., O'Sullivan, D., & Chan, J. S.

Citation: Basurrah, A. A., O'Sullivan, D., & Chan, J. S. (2020). A character strengths intervention for happiness and depression in Saudi Arabia: A replication of Seligman et al.'s (2005) study. *Middle East Journal of Positive Psychology*, 6, 41-72.

Abstract: In prior studies, using one's Signature Strengths (SS) in a new way for one week, enhanced happiness and alleviated depression in Western cultures; but, whether this holds true in non-Western nations is unknown. Here, we replicated Seligman et al.'s (2005) original study to explore the distribution of character strengths in Saudi Arabia, examine their link to happiness and depression, and evaluate the effect of using one's signature strengths for one week. A sample of 377 Saudis aged 18 to 68 completed the Steen Happiness Index, Beck Depression Inventory, and Values In Action (VIA) survey and were randomly assigned to one of two intervention groups: using SS alone, using SS with reminder, or, the control group. The highest strengths were honesty, kindness, fairness, appreciation of beauty, and judgment, while the lowest were self-regulation, zest, and humility. Positive correlations were found between happiness and hope, gratitude, zest, and curiosity, while negative correlations were found between depression and zest and hope. All participants reported being happier and less depressed ($p < .005$) post-intervention; yet, our results showed more modest results than Seligman et al.'s (2005) study. Participants receiving a reminder also reported the highest level of happiness. Our findings provide insights for further research and evidence of potential cultural differences to consider when tailoring interventions to the region.

ملخص: وفقاً للدراسات السابقة في الثقافة الغربية، فإن تمرين استراتيجي "استخدام الفرد لنقاط قوته الشخصية بطريقة جديدة كل يوم، لمدة أسبوع" من شأنه أن يزيد من مستوى السعادة ويخفف من مستوى الاكتئاب، ولكن يظل هذا غير متحقق منه في الدول غير الغربية. ولمعالجة هذه الثغرة، قمنا بإعادة إجراء الدراسة التجريبية الأساسية لمارتن سليجمان وزملاؤه (2005) بهدف الكشف عن توزيع نقاط القوة الشخصية والفضائل الإنسانية في المملكة العربية السعودية، وعلاقتها بكل من السعادة والاكتئاب، وكذلك التحقق من تأثير تمرين "استخدام الفرد لنقاط قوته الشخصية لمدة أسبوع". شارك في هذه التجربة 377 فرداً من المجتمع السعودي تتراوح أعمارهم ما بين (18-68) عاماً. أكمل المشاركون كلاً من مقياس "ستين" للسعادة، ومقياس "بيك" للاكتئاب، والمقياس الخاص بالقيم ونقاط القوة الشخصية (VIA)، ثم تم توزيعهم عشوائياً إلى ثلاث مجموعات: مجموعتين تجريبية (المجموعة الأولى تقوم باستخدام نقاط القوة فقط والمجموعة الثانية تقوم باستخدام نقاط القوة مع تلقي رسائل التذكير) وفي حين أن المجموعة الثالثة كانت المجموعة الضابطة. أظهرت النتائج أن نقاط القوة الأعلى هي: الصدق، اللطف، العدل، تقدير الجمال، والحكم "التفكير الناقد"، بينما كانت نقاط القوة الأدنى هي: تنظيم الذات، الحيوية، والتواضع؛ وقد كشفت النتائج عن وجود علاقة إيجابية بين السعادة وكلاً من (الأمل، الامتنان، الحيوية، والفضول)، وعن وجود علاقة سلبية بين الاكتئاب وكلاً من (الحياة والأمل)؛ بعد تطبيق التجربة، أظهر جميع المشاركين على اختلاف مجموعاتهم مستويات أعلى في السعادة ومستويات أقل في الاكتئاب ($p < .005$). ولكن، الدراسة الحالية تُظهر نتائج متواضعة بالمقارنة مع نتائج الدراسة الأساسية لسليجمان (2005). وقد تبين أن المشاركين الذين تلقوا الرسائل التذكيرية خلال التجربة أنهم حققوا أعلى مستويات السعادة مقارنة بالآخرين. توفر نتائج الدراسة رؤية مستقبلية لمزيد من البحوث والأدلة حول الاختلافات الثقافية المحتملة التي يجب مراعاتها عند تطبيق هذا النوع من تدخلات علم النفس الإيجابي في منطقة الشرق الأوسط.



Keywords: positive psychology interventions; signature strengths; happiness; depression; Saudi Arabia; study replication

About the Authors: Asma Basurrah is a lecturer in the Department of Psychology at King Abdulaziz University, Saudi Arabia. She holds a Master's degree in Applied Positive and Coaching Psychology from University College Cork, Ireland and is completing her PhD in Applied Positive Psychology at University College Cork. Email: aabasurrah@kau.edu.sa. Dr. David O'Sullivan, PhD (York) is a member of the Register of Coaching Psychologists, British Psychological Society and Co-Director of the Masters in Positive and Coaching Psychology, University College Cork, Ireland. Email: david.osullivan@ucc.ie. Dr. Jason Chan is a lecturer in cognitive neuroscience in the School of Applied Psychology in University College Cork, Ireland. Email: jason.chan@ucc.ie.

Acknowledgment: Asma A. Basurrah is supported by the graduate scholarship program of King Abdulaziz University, Ministry of Higher Education, Saudi Arabia.

The creation of a vibrant society through the promotion of wellbeing in which every citizen enjoys a happy and fulfilling life is a central theme in Saudi Arabia's *Vision 2030* (Vision 2030, 2016), where economic growth, social reform, and the promotion of social, psychological and physical wellbeing are national priorities. Positive psychology interventions (PPIs), evidence-based approaches, will play a vital role in achieving this vision. The key characteristic of PPIs is that they are “treatment methods or intentional activities that aim to cultivate positive feelings, behaviors, or cognitions” (Sin & Lyubomirsky, 2009, p.467). Yet, despite their efficacy (Carr et al., 2020; Chakhssi et al., 2018; Hendriks et al., 2020), these interventions are culturally situated (Hendriks et al., 2019; Ng & Lim, 2019) and need to be validated in Saudi Arabia. Two meta-analyses (Bolier et al., 2013; Sin & Lyubomirsky, 2009) found evidence that PPIs enhance subjective and psychological wellbeing and alleviate depression, with specific conditions found to impact their effectiveness – interventions with longer duration (four weeks or longer) were more effective (Bolier et al., 2013). These effects were maintained at follow up, ranging from one to six months (e.g. Mongrain & Anselmo-Matthews, 2012; Proyer et al., 2014; Seligman et al., 2005).

More recently, Hendriks et al. (2018) reviewed the effects of PPIs in non-Western nations and also found an increase in subjective and psychological wellbeing and a decrease in depression and anxiety. While a third of studies are now done in non-Western contexts (Hendriks et al., 2019), there remains an uncertainty as to the effects and applicability of PPIs in Saudi Arabia, the largest Middle East nation. In fact, the overall effect of PPIs is understudied in the region overall (Rao et al., 2015), save with a few exceptions (e.g. Al-Ghalib & Salim, 2018). This highlights the importance of replication in general, as well as the replication necessary to examine the cross-cultural validity of research findings. It also raises the need to provide Saudi populations as well as health professionals and practitioners with evidence-based studies on PPIs to improve mental health and wellbeing in the nation.

Positive psychology, the scientific study of what makes lives worth living (Seligman & Csikszentmihalyi, 2000), is an invitation for psychologists to recognize strengths. This branch of psychology has made inroads globally, but across the Middle East region only in recent years. It



has become especially popular as a framework with researchers, practitioners and policy makers alike as many governments strive to improve the lives of their citizens. Accordingly, the present study addresses a character strengths intervention, which the field of positive psychology purports as central to the development of individual positive characteristics, an understanding of psychological wellbeing (Seligman & Csikszentmihalyi, 2000) and building a meaningful life (Peterson, 2006). Whether the deployment and use of character strengths in a group of Saudi nationals could produce gains in subjective wellbeing and decreases in depression was of interest, alongside the unique profile of strengths potentially generated in this sample.

Character Strengths

Character Strengths (CSs) are a subset of positive personality traits reflected in the thoughts, emotions, and behaviours of individuals (Peterson & Seligman, 2004). They can be identified through an online self-report questionnaire (<http://www.viacharacter.org/>) known as the Values In Action (VIA) survey (Peterson & Seligman, 2004). Used as a counterpart to the Diagnostic and Statistical Manual of Mental Disorders (DSM), used in traditional psychology to categorise mental illness, the VIA classification was developed to describe what is best about individual's personalities and measure positive human strengths in view of promoting psychological health. The VIA survey provides a framework for identifying 24 strengths classified under six virtues, all valued by philosophers and religious thinkers throughout history (Dahlsgaard et al., 2005). The complete list is found in Table 1. Peterson (2006) proposed that certain strengths are directed towards other people (e.g. kindness), while others are directed toward the self (e.g. curiosity). While some strengths are linked to emotional expression, often described as 'strengths of the heart' (e.g. love), others are linked to intellectual restraint (e.g. learning) and described as 'strengths of the head'.

Character Strengths and Culture. Although individual differences exist among the CSs (Park & Peterson, 2006a), they are ubiquitous across cultures and throughout history (Dahlsgaard et al., 2005). For example, in a web-based study that covered 54 nations that compared the distribution of CSs, a similar pattern was found among most (Park et al., 2006). Researchers suggested a cross-cultural similarity in terms of the endorsement of certain strengths. McGrath (2015) also published an updated study of the work of Park et al. (2006) with 75 nations in a sample of 1,063,921 adults who completed the VIA online. He also suggested cross-cultural consistency in the highest and least endorsed strengths. While Saudi Arabia was absent in the Park et al. study (2006), it was included in McGrath's (2015) study which included the rank order of CSs among adults ($n=164$) in Saudi Arabia. Comparing Saudi Arabia's profile of ranks with the US profile, Spearman's correlation was 0.79 with a mean Cohen's d value of 0.17, suggesting a cross-cultural convergence.

Character Strengths and Ill-Being. Relationships between CSs and ill-being suggest that other-directed strengths (e.g. kindness, teamwork) were correlated with fewer depressive symptoms (Gillham et al., 2011), while higher levels of hope were correlated with fewer symptoms of anxiety and depression (e.g. Mirbagher et al., 2016; Park & Peterson, 2008). Park and Peterson (2008) also found that the strength of zest and leadership were related to fewer symptoms of depression and anxiety. Another study examined CSs and ill-being reporting negative correlations between gratitude and hope and mental health issues (Macaskill & Denovan, 2014).



Table 1

The six virtues and 24 character strengths included in the VIA classification

(1) Wisdom and knowledge: acquisition and use of knowledge
<ul style="list-style-type: none"> • Creativity [originality, ingenuity]: thinking of novel and productive ways to do things • Curiosity [interest, novelty-seeking, openness to experience]: taking an interest in ongoing experience; exploring and discovering • Judgment [open-mindedness, critical thinking]: thinking things through and examining them from all sides; weighing all evidence fairly • Love of learning: mastering new skills, topics, and bodies of knowledge • Perspective [wisdom]: being able to provide wise counsel to others
(2) Courage: exercise of will to accomplish goals in the face of opposition, external or internal
<ul style="list-style-type: none"> • Bravery [valor]: not shrinking from threat, challenge, difficulty, or pain • Honesty [authenticity, Integrity]: speaking the truth; presenting oneself in a genuine way • Perseverance [Persistence, industriousness]: finishing what one starts • Zest [Vitality, enthusiasm, vigor, energy]: approaching life with excitement, energy
(3) Humanity: tending and befriending others
<ul style="list-style-type: none"> • Kindness: doing favors and good deeds for others • Love: valuing close relations with others • Social intelligence [emotional intelligence, personal intelligence]: being aware of the motives and feelings of other people and oneself
(4) Justice: healthy community life
<ul style="list-style-type: none"> • Fairness: treating all people the same according to notions of fairness and justice • Leadership: encouraging a group of which one is a member; organizing group activities • Teamwork [social responsibility, loyalty, Citizenship]: working well as a member of a group or team; being loyal to the group
(5) Temperance: protecting against excess
<ul style="list-style-type: none"> • Forgiveness [mercy]: forgiving those who have done wrong • Humility [modesty]: letting one's accomplishments speak for themselves • Prudence: being careful about one's choices; not taking undue risks • Self-regulation [self-control]: regulating what one feels and does; being disciplined
(6) Transcendence: forging connections to the larger universe and providing meaning
<ul style="list-style-type: none"> • Appreciation of beauty and excellence [awe, wonder, elevation]: appreciating and noticing beauty, excellence, and/or skilled performance in various domains of life • Gratitude: being aware of and thankful for the good things that happen • Hope [optimism, future-mindedness, future orientation]: expecting the best in the future and working to achieve it • Humour [playfulness]: liking to laugh and tease; bringing smiles to other people • Spirituality [religiousness, faith, purpose]: having coherent beliefs about the higher purpose and meaning of life

Note. Adapted from Peterson, C., & Seligman, M. E. P. (2004). Character strengths and virtues: A handbook and classification (Vol. 1). APA Press.



Character Strengths and Wellbeing. CSs play a role in wellbeing (Peterson & Seligman, 2004). Individuals who reported higher level of character strengths also reported greater life satisfaction (Park et al., 2004). Studies demonstrate that CSs are positively associated with various indicators of wellbeing (e.g., Brdar & Kashdan, 2010; Buschor et al., 2013; Douglass & Duffy, 2015; Hausler et al., 2017; Martínez-Martí & Ruch, 2014; Ruch et al., 2007). Of the 24 character strengths, zest, hope, curiosity, gratitude and love, called “happiness strengths” (Littman-Ovadia et al., 2017) were more positively associated with psychological and subjective wellbeing, life satisfaction, and happiness than others (e.g. Buschor et al., 2013; Hausler et al., 2017; Littman-Ovadia & Lavy, 2012; Park et al., 2004; Proyer et al., 2011; Shimai et al., 2006; Zhang & Chen, 2018). This was also found in an empirical study conducted in the United Arab Emirates (Petkari & Ortiz-Tallo, 2018), where higher level of zest, hope, curiosity, gratitude, love, and spirituality were associated with greater levels of happiness and better mental health.

Signature Strengths

The VIA survey provides individuals with a rank order of all 24 strengths, which includes one’s ‘signature strengths’ (SS) – the top five strengths. These SS are ‘strengths of character that a person owns, celebrates, and frequently exercises’ (Peterson & Seligman, 2004, p.18). In accordance with the ‘authentic happiness theory’, Seligman (2002) suggests three paths to accomplishing a happy life: (1) the pleasant life (pleasure): pursuit of positive emotions about the past, present and future; (2) the good life (engagement): using one’s SS to obtain gratification; and (3) the meaningful life: using one’s SS to serve a bigger, meaningful purpose. Accordingly, authentic happiness is obtained from being aware of one’s SS and using them in everyday life. Examples of strengths use can be found in Appendix A.

In 2005, Seligman et al. conducted their first online empirical study, where they examined five different happiness interventions performed daily over one week using a randomised, placebo-controlled design with a sample of 411 adults. In fact, two interventions were related to SS in their study: Condition A: identifying SS and Condition B: using SS in a new way. Participants in both were asked to take the VIA survey. Then, participants under condition B were instructed to use one of their SS in a new way every day for a week. The findings showed that ‘using SS’ made people happier and less depressed over a six-month period. The study also found that the degree to which participants continued the intervention beyond one week mediated the long-term benefits. The authors reported that the identification of SSs could be considered an intervention in itself; however, the intervention alone was considered insufficient without further use of the SS.

There is a large body of published studies that involves examining the benefits of using SS interventions with students (e.g. Khanna & Singh, 2019; Proctor, Tsukayama et al., 2011), employees (e.g. Meyers & van Woerkom, 2017), parents (e.g. Waters & Sun, 2016) and members of the general community (e.g. Gander, Proyer, Ruch, & Wyss, 2013). Some studies tested this intervention over a short-term (i.e. one week to one month) (e.g. Meyers & van Woerkom, 2017; Seligman et al., 2005; Senf & Liao, 2013), while others investigated it for longer (i.e. up to 6 months) (e.g. Proctor, Maltby et al., 2011; Proyer et al., 2014; Seligman et al., 2005).

For example, Gander et al. (2013) conducted an Internet-based randomised placebo controlled study to test nine PPIs (including but not limited to SS) on wellbeing and depression at



five points in time (pre- and post-test, 1-, 3-, and 6 months follow-up) among 622 adults. Results showed that using one's SS in a new way increased happiness and decreased depression for 6 months. Within non-Western contexts, Koydemir and Sun-Selşik (2016) examined the effects of an eight week online strengths intervention on several wellbeing measures (e.g. life satisfaction, subjective happiness) among 92 first-year Turkish university students. The intervention included but was not limited to character strengths alone. Compared to the control group, participants in the group receiving the intervention reported increased life satisfaction, subjective happiness, psychological health and wellbeing. Finally, a recent meta-analysis (Schutte & Malouff, 2019) investigated the impact of using SS interventions relative to placebo or wait-list control groups. They reported that SS interventions had a significant positive effect on increasing happiness, life satisfaction, and flourishing and reduced depression as well. The researchers emphasized conducting such interventions with different cultures to strengthen generalisability.

Happiness, CSs and Culture

CS interventions, including SS use, are strongly linked to positive psychological outcomes such as subjective and psychological wellbeing (e.g. Koydemir & Sun-Selşik, 2016), happiness (e.g. Gander et al., 2013; Senf & Liao, 2013), life satisfaction (e.g. Khanna & Singh, 2019; MacDougall, 2017), and reduced depression (e.g. MacDougall, 2017; Seligman et al., 2005). However, the majority of studies pertain to Western nations and the effects of CSs on wellbeing in Saudi Arabia have not been studied so far. In fact, across the VIA website, a clearinghouse for all VIA conducted studies, none has been conducted in Saudi Arabia, with only a few found across the Middle East region. This gap is important as there is great variation in how happiness is sought, valued and expressed (Joshani & Weijers, 2014), with the means and values related to its achievement being largely socially and culturally constructed (Uchida et al., 2004; Wong, 2013).

To illustrate, Saudi Arabia is considered a collective society, where the importance of being in a group and prioritizing its needs over those of the individual is common (Hofstede, n.d.). It is also a strongly religious society, where the majority of its population is Muslim. Unlike Western norms of individualism where individuals are expected to be responsible for themselves or their immediate families, Saudi Arabia is a family-oriented society, where responsibility for fellow members of the group, including one's family, extended family as well as extended relationships are nurtured and sustained in exchange for loyalty. Still, like most nations in the region, social norms are changing as the country pursues more progressive policies.

The majority of studies examining CSs are largely US-centric (Proctor, Maltby et al., 2011), despite the fact that strengths may be construed differently in many parts of the world. Studies on the overall effects of PPIs have been mostly examined in Western countries, where Western, Educated, Industrialized, Rich, and Democratic (WEIRD) populations account for 78% of studies (Hendriks et al., 2019). With few studies related to the Middle East and the scarcity of prior research that directly explores the role of CSs among Saudi samples (Hendriks et al., 2018; Rao et al., 2015), little is known about their validity within Saudi culture. Thus, more studies that deal with different cultural backgrounds are required to develop a multicultural perspective (Pandey, 2011). In fact, Salama-Younes (2015) suggested that CSs should be examined as a future direction in



positive psychology across the Arab world. This strengthened our decision to include the intervention of ‘using SS in a new way’ (Seligman et al., 2005) for replication in the current work.

Finally, an additional advantage of PPIs is that they are easy to implement in daily life, with many studies showing positive effects of PPIs delivered online (e.g. Gander et al., 2016; Proyer et al., 2015; Schueller & Parks, 2012; Seligman et al., 2005). Taking into account the significance of technology and its role in increasing accessibility for individuals (Hergueux & Jacquemet, 2015; Vella-Brodrick & Klein, 2010), the current study used the Internet to reach a larger and more diverse sample. However, high dropout rates (Hoerger, 2010) and non-adherence (Mitchell et al., 2009), potentially due to a lack of coaching (Riper et al., 2010), are downsides to collecting data in this manner. Thus, a text reminder could be a positive support. In this study, we use a daily text reminder with one of our treatment groups.

The Present Study

The current study had two goals; (1) explore the common CSs in Saudi Arabia and understand their relationship to happiness and depression; (2) evaluate the short-term efficacy of ‘using SS in a new way’ intervention and further determine if a text reminder would increase its effectiveness. We hypothesised that: (1) the ‘using SS’ group would generate an increase in happiness and a decrease in depression; and (2) the ‘reminder group’ would report an increase in happiness and reduced levels of depression after the intervention, and in relation to the control group. We defined happiness using Seligman’s (2002) authentic happiness theory, which includes three dimensions: experiencing pleasure (the Pleasant Life), losing the self in engaging activity (the Engaged Life), and participating in meaningful activity (the Meaningful Life).

Method

Participants

A total of 377 participants from the general population in Saudi Arabia were recruited via social media channels. Participants completed the initial survey and were then randomly assigned to one of three groups (using SS, using SS with reminder or, a control group). The socio-demographic characteristics of the sample are shown in Table 2. Most of the participants were female, Saudi citizens, aged between 18 and 68 years, and highly educated.

Measures

The *Values In Action Inventory of Strengths* (VIA-IS-120; Peterson & Seligman, 2004) is an online questionnaire for adults. It has a short version that is translated into Arabic and consists of 120 items to measure 24 CSs (<http://www.viacharacter.org/>). The scale takes about 15 to 20 minutes to complete, with a response format comprising of a 5-point Likert-style (1 = very much unlike me; 5= very much like me). A sample item includes ‘I have voluntarily helped a neighbour in the last month’ (kindness).

The Steen Happiness Index (SHI; Seligman et al., 2005) includes 20 items that assess happiness within the area of pleasure (i.e. ‘My life is filled with pleasure’), engagement (i.e. ‘Time passes so quickly during all of my activities that I do not even notice it’), and meaning (i.e. ‘I have a very clear idea about my purpose in life’). Participants choose from 1 to 5 statements that best



describe their feelings over the past week, rating from a negative (1) to an extreme positive (5) with total scores ranging from 20 to 100. The scores on the scale were found to have an internal consistency of (Cronbach $\alpha = 0.95$) and a test-retest reliability of 0.97 over one week (Seligman et al., 2005). For our study, the scale was translated into Arabic (Appendix B) using the back-translation method (Sperber, 2004). The responses on the Arabic scale were found to have high internal consistency (Cronbach $\alpha = 0.93$) in a Saudi sample ($n = 733$).

Table 2

Socio-demographic characteristics

Socio-demographic characteristics	<i>N</i> = 377	Percentage	Mean (<i>SD</i>)
Sex	Men	22.7 %	
	Women	77.5 %	
Nationality	Saudi	90.2 %	
	Non-Saudi	9.8 %	
Age			28.50 (9.94)
Educational level	Less than high school	0.5 %	
	High school	13.5 %	
	Diploma	5.3 %	
	Bachelor's	59.9 %	
	Master's	14.9 %	
	Doctoral	5.8 %	
Pre-intervention Happiness level			58.07 (14.41)
Pre-intervention Depression level			11.91 (8.61)

Note. *SD* = Standard Deviation

The Beck Depression Inventory (BDI; Beck et al., 1988) is widely used for measuring the cognitive, effective, somatic, and negative symptoms of depression. It consists of 21 items ranked from zero (symptom absent) to 3 (severe symptoms). Participants choose a statement that best describes their feelings from the preceding week. The total scores range from 0–63 (0–13 is considered minimal depression, 14–19 mild depression, 20–28 moderate depression, and 29–63 severe depression). The internal consistency for the scale ranges from 0.73 to 0.92, with a mean of 0.86, and shows high internal consistency, with alpha coefficients of ($\alpha = 0.81$) for non-psychiatric



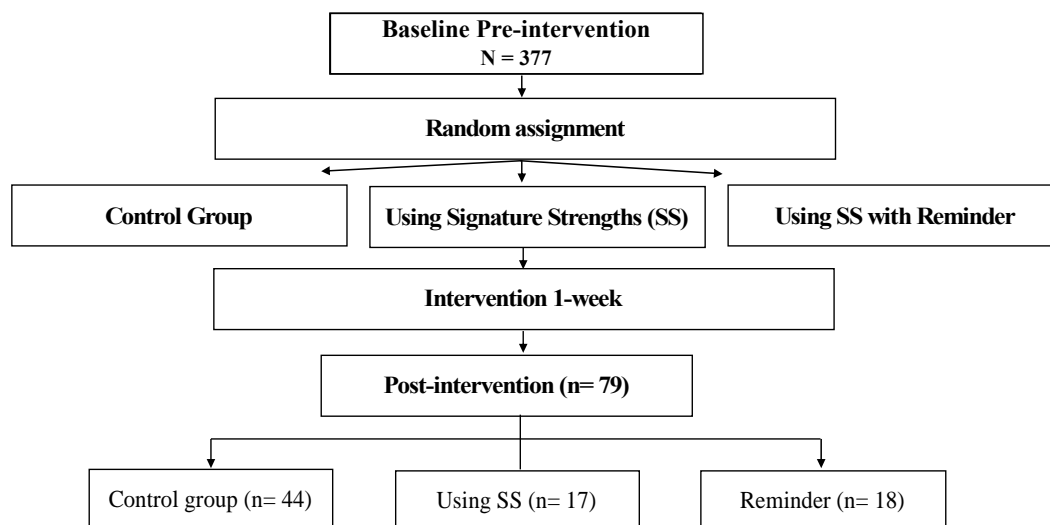
populations (Beck et al., 1988). A validated Arabic version (Appendix C; Abdel-Khalek, 1998) was used, showing in an international cross-country study, good internal consistency of ($\alpha = 0.82$) in a Saudi sample ($n= 80$).

Procedure

Conducted in early 2019, ethical approval was obtained from the School of Applied Psychology Ethics Committee, University College Cork (Ireland). Study participation was advertised on social media (e.g. Twitter). After participants received information on the study's purpose and gave informed consent, they answered demographic questions and completed the baseline measures. Then, participants completed the VIA Strengths Assessment, where they received feedback about their signature strengths (SS). Upon completion, they were asked to return to the study page to share their SS and randomly assigned to one of two intervention conditions (using SS, using SS with reminder) or the control group (see Figure 1).

Figure 1

Flow diagram of procedure



Participants in the intervention groups (reminder and no reminder) were asked to use one of their signature strengths each day, for one week. Participants in the ‘using SS with reminder’ group received a text reminder via WhatsApp and e-mails to remind them each morning to use one of their SSs. Here, a reminder message example included, ‘You can always find a way to bring your best qualities to your activities; take the time to use one of your top strengths in a new way’. Participants in the control group were asked only to complete the VIA Assessment to identify their SS (see Textbox 1). During the study, all participants received the initial e-mail, which included detailed instructions. After one week, they received an e-mail asking them to return to complete the post-test assessment. To verify that participants had completed the VIA survey, a key element of



the study, the participants' e-mails were matched. Only data from the participants who completed the VIA was included in the final analysis ($n = 377$).

Textbox 1

Group Instructions

Group #1 Using Signature Strengths (SS): Complete the VIA strengths assessment to identify your Top 5 Signature Strength (SS). Each day use one of your SS in a new and different way for 1 week.

Group #2 Using Signature Strengths (SS) with reminder: Complete the VIA strengths assessment to identify your Top 5 Signature Strength (SS). Each day use one of your SS in a new and different way for 1 week. During the week, you will receive a text reminder via WhatsApp and e-mail to remind you each morning to use one of your SSs.

Group #3 Control group: Complete the VIA assessment to identify your Top 5 Signature Strengths (SS)

Results

Baseline Happiness and Depression. The sample ($n = 377$) showed a relatively good mental health status at baseline (see Table 1), with medium to high levels of happiness (Mean = 58.07, $SD = 14.41$) and low levels of depression ($M = 11.91$, $SD = 8.61$), where a score ≤ 13 is considered minimal depression (Beck et al., 1988). In terms of gender-based differences, separate independent-sample t-tests were conducted to compare the happiness and depression scores between male and female participants. There was no significant difference between males (Mean = 60.38, $SD = 14.37$) and females ($M = 57.37$, $SD = 14.37$; $t(374) = 1.70$, $p = .09$, $d = 0.21$) in terms of happiness. There was also no significant difference between males ($M = 10.66$, $SD = 7.21$) and females ($M = 12.28$, $SD = 8.95$; $t(167) = 1.72$, $p = .09$, $d = 0.20$) for depression.

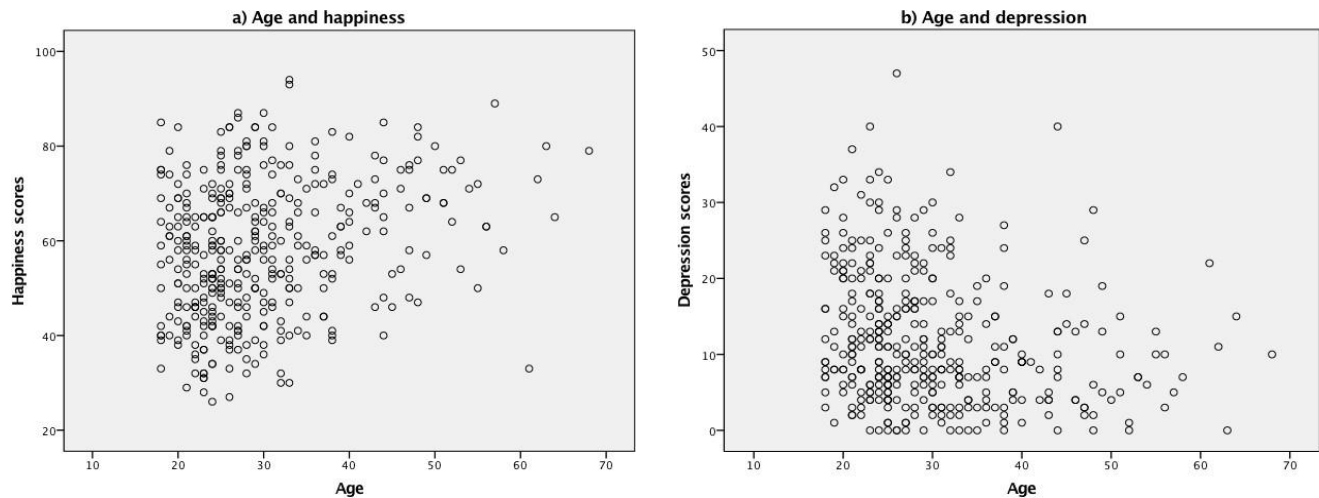
Regarding the relationship between age and happiness/depression scores, the assumption of normality of the dependent variables was violated (happiness: $p = .003$; depression: $p = .000$). Separate Spearman correlations were conducted. There was a significant positive correlation between age and happiness (Spearman's $\rho = 0.25$, $p < .0005$), with older participants reporting higher happiness scores (Figure 2a). Meanwhile, there was a significant negative correlation between age and depression (Spearman's $\rho = -0.25$, $p < .0005$), with older participants reporting lower depression scores (Figure 2b).

VIA-IS-120 Character Strengths (CSs) Distribution. We were interested in the distribution and rank order of the 24 VIA CSs within the sample. Of the 24, the highest common strengths were, in descending order, honesty, kindness, fairness, appreciation of beauty, and judgement. The lowest common strengths included self-regulation, zest and humility (Table 3).



Figure 2a and 2b

Correlations between a) age and happiness scores, and b) age and depression scores. Relationships are presented as non-parametric Spearman correlations.



CSs and Happiness. Next, we were interested in assessing the relationship between CSs and happiness. For this purpose, the correlations between the 24 CSs scores and happiness were investigated using Spearman's correlation coefficient. Cohen's (1988) model was used to measure small ($\rho = 0.10 - 0.29$), medium ($\rho = 0.30 - 0.49$), and large ($\rho = 0.50 - 1.0$) associations. All CSs (with the exception of humility and appreciation of beauty) were significantly and positively related to happiness (Table 3). Yet, specific strengths seemed to be more relevant than others. Hope, gratitude, zest and curiosity showed the strongest positive correlations with happiness ($\rho = 0.50 - 1.0$; Cohen, 1988). The strengths of love, creativity, perspective, honesty, perseverance, social intelligence, leadership, forgiveness, self-regulation, humour and spirituality showed medium positive correlations ($\rho = 0.30 - 0.49$), while the strengths of judgment, love of learning, bravery, kindness, fairness and teamwork, showed small positive correlations ($\rho = 0.10 - 0.29$).

CSs and Depression. Analyses were conducted to assess the relationship between CSs and depression. Except for judgment, humility and appreciation of beauty, all were negatively related to depression. Hope and zest had the strongest negative correlations with depression ($\rho = 0.50 - 1.0$; Cohen, 1988), meaning that the higher score of hope and zest, the lower the level of depression. Curiosity, love, gratitude and spirituality showed medium negative correlations ($\rho = 0.30 - 0.49$), while the remainder showed small negative correlations ($\rho = 0.10 - 0.29$; Table 2).

Effectiveness of 'using (SS) in a new way' (replication of Seligman et al., 2005). To assess the effectiveness of using the SS intervention, analyses compared the changes in happiness and depression scores between baseline pre- and post-intervention by group condition (SS, SS with reminder, and control). Only participants completing the post-test ($n = 79$) were included and presented in subsequent analyses (Figure 1). Prior to each ANOVA, a Levene's test was conducted to ensure equal variance across groups. There was no significant difference in distribution of variance across groups for happiness and depression, pre- and post-intervention (all p s > 0.05).



Table 3

Rank order of CSs (1=top, 24=bottom) followed by mean scores, standard deviation, and correlations between strengths score and outcome measures (N = 377)

Strengths	Rank Order	<i>M</i>	<i>SD</i>	Happiness	Depression
Honesty	1	4.27	0.52	0.34***	-0.22***
Kindness	2	4.22	0.50	0.29***	-0.14***
Fairness	3	4.09	0.54	0.28***	-0.15***
Appreciation of beauty	4	4.08	0.60	0.09	0.04
Judgement	5	4.02	0.63	0.20***	0.003
Perspective	6	3.99	0.73	0.35***	-0.19***
Gratitude	7	3.98	0.69	0.60***	-0.43***
Teamwork	8	3.97	0.53	0.25***	-0.18***
Forgiveness	9	3.94	0.71	0.32***	-0.23***
Spirituality	10	3.87	0.73	0.46***	-0.36***
Social intelligence	11	3.85	0.63	0.37***	-0.25***
Leadership	12	3.80	0.60	0.31***	-0.19***
Love	13	3.73	0.77	0.47***	-0.42***
Perseverance	14	3.73	0.72	0.40***	-0.25***
Creativity	15	3.71	0.77	0.48***	-0.27***
Hope	16	3.67	0.80	0.75***	-0.55***
Humour	17	3.66	0.75	0.33***	-0.28***
Prudence	18	3.65	0.73	0.26***	-0.11**
Curiosity	19	3.61	0.76	0.60***	-0.39***
Love of learning	20	3.59	0.76	0.26***	-0.12**
Bravery	21	3.55	0.71	0.29***	-0.13**
Humility	22	3.43	0.63	0.08	-0.05
Zest	23	3.42	0.83	0.76***	-0.59***
Self-Regulation	24	3.41	0.77	0.30***	-0.24***

Note. *M* = mean score; *SD* = Standard Deviation; Correlation coefficients represent Spearman's rho. Statistical significance is presented as * $p < .05$, ** $p < .01$, *** $p < .001$



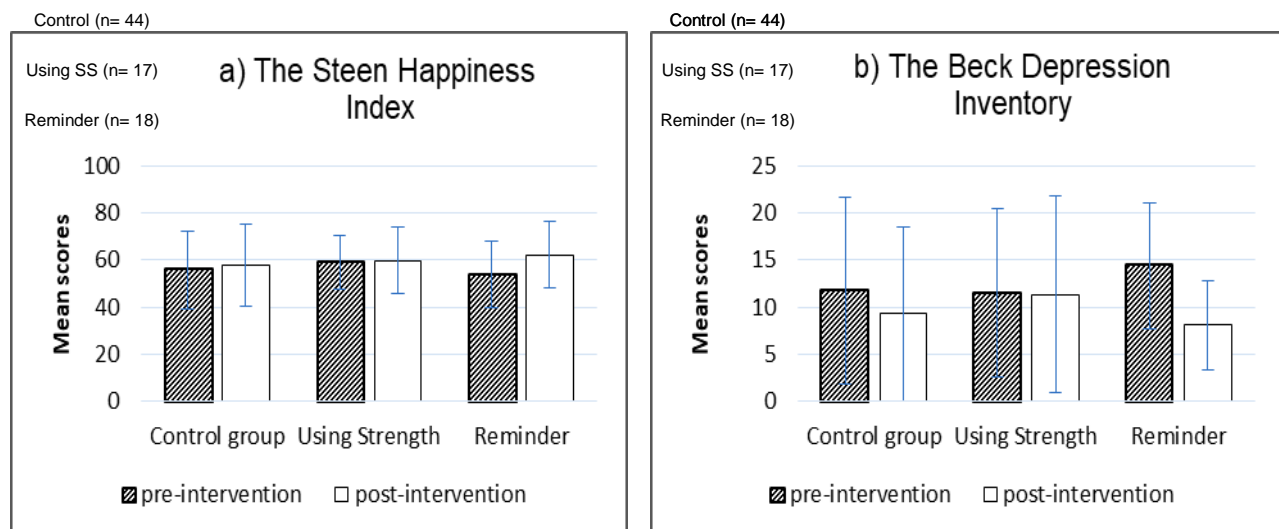
Happiness measure (SHI). To assess the a priori hypothesis that the ‘using SS’ group and the reminder group would report a significant increase in happiness after the intervention compared to the control group, a 3x2 mixed-design ANOVA with the factors of ‘Group’ (control vs. using SS vs. reminder) and ‘Time’ (pre- vs. post-intervention) was conducted on the happiness scores. There was a marginal significant interaction between ‘Time’ and ‘Group’ [$F(2,76) = 2.77, p = .069, \text{partial } \eta^2 = .07$]. Despite the interaction, there was an a priori hypothesis that happiness would significantly improve in the reminder group. Thus, a Tukey post-hoc comparison was conducted. Indeed, participants in the reminder group had the greatest increase in happiness score from pre- to post-intervention among the three groups ($p = 0.028$; Figure 3a).

It is important to note that there was no statistical difference in baseline scores between the groups (pre-intervention - control group: mean = 56.50, $SD = 14.28$; using SS: mean = 58.12, $SD = 12.18$; using SS with reminder: mean = 52.72, $SD = 10.88$). There was also no main effect of ‘Group’ [$F(1,76) = 0.32, p = .73, \text{partial } \eta^2 = .008$]. However, there was a significant main effect of ‘Time’ [$F(1,76) = 8.9, p = .004, \text{partial } \eta^2 = .11$] with participants in all groups showing an increase in happiness from pre-intervention (Total mean = 55.99, $SD = 13.12$) to post-intervention (Total mean = 58.16, $SD = 15.23$).

Depression measure (BDI). To assess the a priori hypothesis that the ‘using SS’ group and the reminder group would report a significant decrease in depression after the intervention compared to the control group, a similar analysis was conducted on the depression scores. There was no significant interaction between ‘Time’ and ‘Group’ [$F(2,76) = 1.90, p = .16, \text{partial } \eta^2 = .05$]. There was no main effect of ‘Group’ [$F(1,76) = .06, p = .94, \text{partial } \eta^2 = .002$]. However, there was a significant main effect of ‘Time’ [$F(1,76) = 11.92, p = .001, \text{partial } \eta^2 = .14$], with all groups showing lower depression scores from pre-intervention (Total mean = 12.18, $SD = 09.41$) to post-intervention (Total mean = 09.39, $SD = 09.80$; see Figure 3b).

Figure 3a and 3b

Changes in a) happiness and b) depression scores by assigned condition between two-time periods (pre- and post-intervention); error bars represent standard deviation.





Discussion

This study explored the distribution of the VIA strengths in Saudi Arabia and examined their link to happiness and depression. It also evaluated the short-term efficacy of using the SS intervention, with or without a daily reminder, in terms of happiness and depression. Honesty, kindness, fairness, appreciation of beauty, and judgment were the most commonly endorsed strengths, while self-regulation, zest, humility were the least common. Our results confirmed that almost all strengths were associated with higher levels of happiness and lower levels of depression. Specifically, the strengths of hope, gratitude, zest and curiosity in one's top strengths was strongly associated with higher levels of happiness, findings that parallel other studies (Hausler et al., 2017; Park et al., 2004; Petkari & Ortiz-Tallo, 2018; Shimai et al., 2006; Zhang & Chen, 2018). Higher endorsement on the strengths of hope and zest was also strongly associated with lower levels of depression, confirming prior studies (Mirbagher et al., 2016; Park & Peterson, 2008). Considering the SS intervention, all participants, independent of the condition, reported being happier and less depressed after one week. However, the difference among the groups was not significant. Participants receiving a reminder reported the highest levels of happiness post-intervention.

Distribution of CSs. Our findings on the common CSs are consistent with those reported for the Saudi sample (n=164) who completed the VIA online between 2002 and 2012 (McGrath, 2015). Such findings are also in line with previous research, including Park et al. (2004), who reported that strengths associated with interaction and feelings are the most common, while those associated with cognition are the least common. This demonstrates a cross-sectional consistency across time for specific character strengths within Saudi Arabia, where participants displayed high scores for strengths associated with their collective culture, where they value the relationship with the group and place the interests of the group above those of the individual. Still, the rank order of the common strengths cannot be interpreted rigidly as the lowest strengths are considered to be 'lesser' strengths and not weaknesses (Park & Peterson, 2009).

CSs and Happiness. Our findings confirmed the role of CSs, with almost all positively correlated with happiness and negatively correlated with depression. This may be explained by the fact that almost all CSs target at least one of the three dimensions proposed by Seligman (2002): the pleasant life and positive emotions (e.g. strength of hope); the good life and engagement (e.g. strength of curiosity); and the meaningful life (e.g. strength of spirituality). Our results also showed that having the strengths of hope, gratitude, zest or curiosity within one's top five was associated with a higher level of happiness. This finding supports the work of other studies (e.g. Hausler et al., 2017; Park et al., 2004; Petkari & Ortiz-Tallo, 2018; Shimai et al., 2006), and is in line with studies showing that 'strengths of the heart' (e.g. hope and gratitude) are better predictors of happiness than 'strengths of the mind' (e.g. creativity and judgment) (Park & Peterson, 2006b; Peterson, 2006).

These results may also be explained by the fact that having hope, that is, expecting the best and working to achieve it, is associated with boosting positive emotion (Seligman, 2002), life satisfaction and happiness (Buschor et al., 2013; Park et al., 2004; Shimai et al., 2006). The relationships between happiness and gratitude, defined as a sense of appreciation, may also be explained by the fact that grateful people are aware of and thankful for the good and enjoyable things in the world, which may increase positive feelings (Allen, 2018; Seligman, 2002) and



wellbeing (Otto et al., 2016). Results related to the link between happiness and zest (vitality) are also likely related to the definition of zest as approaching life with excitement, energy, and positive feelings (Park et al., 2004; Peterson, 2006). Finally, our results on the strengths of curiosity – defined as seeking out new knowledge and being open to new experiences – reflect those of Kashdan and Steger (2007), who found that curiosity is linked to a higher level of wellbeing, personal growth and meaning.

CSs and Depression. Having hope within the top five strengths was strongly associated with a lower level of depression and consistent with previous studies (e.g. Mirabagher et al., 2016; Park & Peterson, 2008). It also corroborates the suggestion from Seligman (2002) that optimistic people appear to interpret their troubles as transient and controllable, while pessimistic people believe that these troubles cannot be controlled and will last forever. The strength of zest was linked to a lower level of depression, also confirming prior studies (e.g. Park & Peterson, 2008). This can be partly explained by the fact that a lack of zest can be linked to anhedonia, a prevalent symptom of depression (Tehranchi et al., 2018). This finding supports prior evidence (e.g. Disabato et al., 2014; Park & Peterson, 2008) suggesting that such CSs are related to fewer problems with depression and considered coping strategies that contribute to the framing of a good life (Gustems-Carnicer & Calderón, 2016).

Using the SS Intervention. Seligman et al. (2005) showed positive effects of using SS in enhancing happiness and decreasing depression over a one-week and six-month period. Here, we utilised an identical methodology, but found more modest results. There is some evidence that the ‘using SS’ group reported being happier after the intervention, but the effect size was relatively small, compared to the moderate effect size noted by Seligman et al. (2005). The current study also showed no significant differences in participant happiness in relation to the control group. It may be that participants in the ‘using SS’ group did not use their SS and did not incorporate them in their lives during the week. As we did not ask them at post- intervention whether they had indeed used their SS, little is known here conclusively.

The absence of significant findings can be attributed to our control group as identifying one’s signature strengths may be an intervention in itself (Seligman et al., 2005) as a first task of the other conditions. In Seligman’s study, at post-test, all participant groups were happier and less depressed, including the identifying signature strengths group. Yet, the effect was short-lived and scores returned to baseline by the follow up-test. Thus, it may have been that participants in our control group benefitted from identifying their SS and were interested in using them, especially as they received feedback from the VIA. As we lacked a control group that did not identify their signature strengths, little is known about whether identifying and using SS was indeed effective. It is important to note that participants also had relatively high happiness scores at baseline.

The hypothesized decrease in depression was partially supported by the results, with a significant decrease in depression for the ‘using SS’ group from baseline to one-week post-intervention. The effect size for the change was small and no significant differences in participant depression were recorded in relation to the control group. This does not support Seligman et al.’s (2005) findings. This lack of support may be linked to our participant’s mean depression levels at baseline, which were on average in the minimal range, while those in Seligman et al.’s (2005) study were ‘mildly depressed’, offering more room for improvement (Sin & Lyubomirsky, 2009). Our



participants were also younger; Sin and Lyubomirsky (2009) previously suggested that older people are likely to benefit the most from PPIs. Further, while the participants in Seligman's study reported benefitting for one week, he noted that this period of time may not have been sufficient for gains to be held. Indeed, interventions of longer duration tend to have greater effect sizes (Bolier et al., 2013; Sin & Lyubomirsky, 2009; Quinlan et al., 2012).

Finally, our results may have been influenced by cultural differences. As the means of enhancing happiness vary between Western and Eastern cultures (Joshanloo & Weijers, 2014; Ng & Lim, 2019; Suh & Koo, 2008), the promotion of happiness via SS, based on notions of individualism, may have contrasted with Saudi Arabia's collectivistic nature that is more focused on the development of social relationships (Wong, 2013). For example, members of collectivist cultures may benefit more from practicing pro-social PPIs such as writing a letter of gratitude or performing acts of kindness (Sin & Lyubomirsky, 2009). Individuals from collectivist cultures may be able to cultivate their strengths more effectively by expressing them towards others, such as family and the community. It may be that the fit between certain strengths and one's cultural context generates more or less happiness. The possibility of integrating and adapting this intervention within Saudi Arabia raises immense opportunities for future study (Hendricks & Graafsma, 2019), but also highlights the need for more replication studies as findings are not always generalizable or as powerful as originally claimed.

Limitations and Future Directions

Our results must be interpreted with caution. First, we had a high proportion of women (77.5%) and a high drop-out rate, which may have been due to the length of our survey as participants were asked to complete the baseline assessments and the VIA in one sitting. Further, many participants were excluded due to performing the intervention (using SS) without completing the VIA survey when they were directed to the VIA website as we could not include it on our Qualtrics landing page. Our study further lacked a control group that did not identify signature strengths and the low levels of depression at baseline may also have led to floor effects, i.e. individuals with higher levels of depression may have more room to improve relative to those with lower levels (Sin & Lyubomirsky, 2009). The length of the intervention may also have affected results; future research should replicate the same study with a longer intervention period.

Conclusion

This is the first empirical study to identify the prevalence of the VIA CSs in Saudi Arabia and examine their role in enhancing happiness and reducing depression. In addition to its contribution to the existing literature, our study has practical implications. The findings on the CSs provide knowledge for future researchers to tailor interventions based on the country-specific and culture-specific CSs profile obtained from this study sample. Further, practitioners, educators, parents and professionals should focus on assessing and developing CSs in individuals (children, adults, students, employees) to promote the wellbeing of the entire society, especially in terms of cultivating the strengths that were shown to have a strong association with happiness (i.e. zest, hope, curiosity, gratitude, love). Helping individuals identify and use their character strengths will play a critical role in helping to achieve Saudi Arabia's Vision 2030, where wellbeing is a priority for all.



References

- Abdel-Khalek, A. M. (1998). Internal consistency of an Arabic adaptation of the Beck Depression Inventory in four Arab countries. *Psychological Reports, 82*(1), 264-266.
- Al-Ghalib, S. J., & Salim, A. Y. (2018). A mindfulness based intervention to enhance university student wellbeing in Saudi Arabia. *Middle East Journal of Positive Psychology, 4*(1), 142-157.
- Allen, S. (2018). *The science of gratitude*. John Templeton Foundation.
- Beck, A. T., Steer, R. A., & Garbin, M. G. (1988) Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review, 8*(1), 77-100.
- Bolier, L., Haverman, M., Westerhof, G. J., Riper, H., Smit, F., & Bohlmeijer, E. (2013). Positive psychology interventions: A meta-analysis of randomized controlled studies. *BMC Public Health, 13*(1), 119.
- Brdar, I., & Kashdan, T. B. (2010). Character strengths and well-being in Croatia: An empirical investigation of structure and correlates. *Journal of Research in Personality, 44*(1), 151-154.
- Buschor, C., Proyer, R. T., & Ruch, W. (2013). Self-and peer-rated character strengths: How do they relate to satisfaction with life and orientations to happiness? *The Journal of Positive Psychology, 8*(2), 116-127.
- Carr, A., Cullen, K., Keeney, C., Canning, C., Mooney, O., Chinsellaigh, E., & O'Dowd, A. (2020). Effectiveness of positive psychology interventions: A systematic review and meta-analysis. *The Journal of Positive Psychology*, DOI: 10.1080/17439760.2020.1818807
- Chakhssi, F., Kraiss, J. T., Sommers-Spijkerman, M., & Bohlmeijer, E. T. (2018). The effect of positive psychology interventions on well-being and distress in clinical samples with psychiatric or somatic disorders: A systematic review and meta-analysis. *BMC Psychiatry, 18*, 211.
- Dahlsgaard, K., Peterson, C., & Seligman, M. E. (2005). Shared virtue: The convergence of valued human strengths across culture and history. *Review of General Psychology, 9*(3), 203-213.
- Disabato, D. J., Short, J. L., Kashdan, T. B., Curby, T. W., & Jarden, A. (2014). Do character strengths reduce future depression or does depression reduce character strengths? *Presentation for the American Psychological Association*. doi:10.1037/e542342014-001
- Douglass, R. P., & Duffy, R. D. (2015). Strengths use and life satisfaction: A moderated mediation approach. *Journal of Happiness Studies, 16*(3), 619-632.
- Gander, F., Proyer, R. T., & Ruch, W. (2016). Positive psychology interventions addressing pleasure, engagement, meaning, positive relationships, and accomplishment increase well-being and ameliorate depressive symptoms: A randomized, placebo-controlled online study. *Frontiers in Psychology, 7*, 686.
- Gander, F., Proyer, R. T., Ruch, W., & Wyss, T. (2013). Strength-based positive interventions: Further evidence for their potential in enhancing well-being and alleviating depression. *Journal of Happiness Studies, 14*(4), 1241-1259.
- Gillham, J., Adams-Deutsch, Z., Werner, J., Reivich, K., Coulter-Heindl, V., Linkins, M., . . . Abenavoli, R. (2011). Character strengths predict subjective well-being during adolescence. *The Journal of Positive Psychology, 6*(1), 31-44.
- Gustems-Carnicer, J., & Calderón, C. (2016). Virtues and character strengths related to approach



- coping strategies of college students. *Social Psychology of Education*, 19(1), 77-95.
- Hausler, M., Strecker, C., Huber, A., Brenner, M., Höge, T., & Höfer, S. (2017). Distinguishing relational aspects of character strengths with subjective and psychological well-being. *Frontiers in Psychology*, 8, 1159.
- Hendriks, T., & Graafsma, T. (2019). Guidelines for the cultural adaptation of positive psychology interventions. *Caribbean Journal of Psychology*, 11(1), 7-32.
- Hendriks, T., Schotanus-Dijkstra, M., Hassankhan, A., Graafsma, T. G. T., Bohlmeijer, E., & de Jong, J. (2018). The efficacy of positive psychological interventions from non-Western countries: A systematic review and meta-analysis. *International Journal of Wellbeing*, 8(1), 71-98.
- Hendriks, T., Schotanus-Dijkstra, M., Hassankhan, A., Jong, J., & Bohlmeijer, E. (2020). The efficacy of multi-component positive psychology interventions: A systematic review and meta-analysis of randomized controlled trials. *Journal of Happiness Studies*, 21(1), 357-390.
- Hendriks, T., Warren, M. A., Schotanus-Dijkstra, M., Hassankhan, A., Graafsma, T., Bohlmeijer, E., & de Jong, J. (2019). How WEIRD are positive psychology interventions? A bibliometric analysis of randomized controlled trials on the science of well-being. *The Journal of Positive Psychology*, 14(4), 489-501.
- Hergueux, J., & Jacquemet, N. (2015). Social preferences in the online laboratory: A randomized experiment. *Experimental Economics*, 18(2), 251-283.
- Hoerger, M. (2010). Participant dropout as a function of survey length in Internet-mediated university studies: Implications for study design and voluntary participation in psychological research. *Cyberpsychology, Behavior, and Social Networking*, 13(6), 697-700.
- Hofstede Insights. (no date). *Saudi Arabia*. <https://www.hofstede-insights.com/product/compare-countries/>
- Joshanloo, M., & Weijers, D. (2014). Aversion to happiness across cultures: A review of where and why people are averse to happiness. *Journal of Happiness Studies*, 15(3), 717-735.
- Kashdan, T. B., & Steger, M. F. (2007). Curiosity and pathways to well-being and meaning in life: Traits, states, and everyday behaviors. *Motivation and Emotion*, 31(3), 159-173.
- Khanna, P., & Singh, K. (2019). Do all positive psychology exercises work for everyone? Replication of Seligman et al.'s (2005) interventions among adolescents. *Psychological Studies*, 64(1), 1-10.
- Koydemir, S., & Sun-Selşik, Z. E. (2016). Well-being on campus: Testing the effectiveness of an online strengths-based intervention for first year college students. *British Journal of Guidance & Counselling*, 44(4), 434-446.
- Littman-Ovadia, H., & Lavy, S. (2012). Character strengths in Israel: Hebrew adaptation of the VIA Inventory of Strengths. *European Journal of Psychological Assessment*, 28(1), 41-50.
- Littman-Ovadia, H., Lavy, S., & Boiman-Meshita, M. (2017). When theory and research collide: Examining correlates of signature strengths use at work. *Journal of Happiness Studies*, 18(2), 527-548.
- Macaskill, A., & Denovan, A. (2014). Assessing psychological health: The contribution of psychological strengths. *British Journal of Guidance & Counselling*, 42(3), 320-337.



- MacDougall, M. C. (2017). *Signature strengths: A positive psychology intervention with informal caregivers* (Dissertation 685: University of Missouri). <https://irl.umsl.edu/dissertation/685>
- Martínez-Martí, M. L., & Ruch, W. (2014). Character strengths and well-being across the life span: Data from a representative sample of German-speaking adults living in Switzerland. *Frontiers in Psychology, 5*, 1253.
- McGrath, R. E. (2015). Character strengths in 75 nations: An update. *The Journal of Positive Psychology, 10*(1), 41-52.
- Meyers, M. C., & van Woerkom, M. (2017). Effects of a strengths intervention on general and work-related well-being: The mediating role of positive affect. *Journal of Happiness Studies, 18*(3), 671-689.
- Mirabagher, A. N., Aghajani, M., Morsae, F., & Zabolian, Z. (2016). The relationship between hope and depression-anxiety in patients undergoing hemodialysis. *Journal of Health and Care, 18*(1), 55-62.
- Mitchell, J., Stanimirovic, R., Klein, B., & Vella-Brodrick, D. (2009). A randomised controlled trial of a self-guided internet intervention promoting well-being. *Computers in Human Behavior, 25*(3), 749-760.
- Mongrain, M., & Anselmo-Matthews, T. (2012). Do positive psychology exercises work? A replication of Seligman et al.(2005). *Journal of Clinical Psychology, 68*(4), 382-389.
- Ng, W., & Lim, W. S. (2019). Developing positive psychological interventions: Maximizing efficacy for use in Eastern cultures. In L. E. Van Zyl & S. Rothmann Sr. (Eds.), *Positive psychological intervention design and protocols for multi-cultural contexts* (pp. 277-295). Springer.
- Otto, A. K., Szczeny, E. C., Soriano, E. C., Laurenceau, J.-P., & Siegel, S. D. (2016). Effects of a randomized gratitude intervention on death-related fear of recurrence in breast cancer survivors. *Health Psychology, 35*(12), 1320-1328.
- Pandey, S. (2011). *Positive psychology: Blending strengths of Western, Eastern and other indigenous psychologies*. Paper presented at the 1st International Conference, "Emerging Paradigms in Business & Social Sciences", Middlesex University, Dubai, UAE.
- Park, N., & Peterson, C. (2006a). Character strengths and happiness among young children: Content analysis of parental descriptions. *Journal of Happiness Studies, 7*(3), 323-341.
- Park, N., & Peterson, C. (2006b). Moral competence and character strengths among adolescents: The development and validation of the Values in Action Inventory of Strengths for Youth. *Journal of Adolescence, 29*(6), 891-909.
- Park, N., & Peterson, C. (2008). Positive psychology and character strengths: Application to strengths-based school counseling. *Professional School Counseling, 12*(2), 85-92.
- Park, N., & Peterson, C. (2009). Character strengths: Research and practice. *Journal of College and Character, 10*(4), <https://doi.org/10.2202/1940-1639.1042>
- Park, N., Peterson, C., & Seligman, M. E. (2004). Strengths of character and well-being. *Journal of Social and Clinical Psychology, 23*(5), 603-619.
- Park, N., Peterson, C., & Seligman, M. E. (2006). Character strengths in fifty-four nations and the fifty US states. *The Journal of Positive Psychology, 1*(3), 118-129.
- Peterson, C. (2006). *A primer in positive psychology*. Oxford University Press.



- Peterson, C., & Seligman, M. E. (2004). *Character strengths and virtues: A handbook and classification* (Vol. 1). APA Press.
- Petkari, E., & Ortiz-Tallo, M. (2018). Towards youth happiness and mental health in the United Arab Emirates: The path of character strengths in a multicultural population. *Journal of Happiness Studies, 19*(2), 333-350.
- Proctor, C., Maltby, J., & Linley, P. A. (2011). Strengths use as a predictor of well-being and health-related quality of life. *Journal of Happiness Studies, 12*(1), 153-169.
- Proctor, C., Tsukayama, E., Wood, A. M., Maltby, J., Eades, J. F., & Linley, P. A. (2011). Strengths gym: The impact of a character strengths-based intervention on the life satisfaction and well-being of adolescents. *The Journal of Positive Psychology, 6*(5), 377-388.
- Proyer, R. T., Gander, F., Wellenzohn, S., & Ruch, W. (2014). Positive psychology interventions in people aged 50–79 years: Long-term effects of placebo-controlled online interventions on well-being and depression. *Aging & Mental Health, 18*(8), 997-1005.
- Proyer, R. T., Gander, F., Wellenzohn, S., & Ruch, W. (2015). Strengths-based positive psychology interventions: A randomized placebo-controlled online trial on long-term effects for a signature strengths-vs. a lesser strengths-intervention. *Frontiers in Psychology, 6*, 456.
- Proyer, R. T., Gander, F., Wyss, T., & Ruch, W. (2011). The relation of character strengths to past, present, and future life satisfaction among German-speaking women. *Applied Psychology: Health and Well-Being, 3*(3), 370-384.
- Quinlan, D., Swain, N., & Vella-Brodrick, D. A. (2012). Character strengths interventions: Building on what we know for improved outcomes. *Journal of Happiness Studies, 13*(6), 1145-1163.
- Rao, M. A., Donaldson, S. I., & Doiron, K. M. (2015). Positive psychology research in the Middle East and North Africa. *Middle East Journal of Positive Psychology, 1*(1), 60-76.
- Rashid, T., & Anjum, A. (2005). 340 ways to use VIA character strengths. *Unpublished manuscript, University of Pennsylvania*. http://tayyabrashid.com/pdf/via_strengths.pdf
- Riper, H., Andersson, G., Christensen, H., Cuijpers, P., Lange, A., & Eysenbach, G. (2010). Theme issue on e-mental health: A growing field in internet research. *Journal of Medical Internet Research, 12*(5), e74.
- Ruch, W., Huber, A., Beermann, U., & Proyer, R. T. (2007). Character strengths as predictors of the “good life” in Austria, Germany and Switzerland (pp. 123-131). *Romanian Academy, ‘George Barit’ Institute of History, Department of Social Research; Studies and Researches in Social Sciences*. Argonaut Press.
- Salama-Younes, M. (2015). علم النفس الإيجابي: مفهومه، تطوره، مجالاته التطبيقية ورؤية مستقبلية بالوطن العربي. *Middle East Journal of Positive Psychology, 1*(1), 45-59.
- Schueller, S. M., & Parks, A. C. (2012). Disseminating self-help: Positive psychology exercises in an online trial. *Journal of Medical Internet Research, 14*(3), e63.
- Schutte, N. S., & Malouff, J. M. (2019). The impact of signature character strengths interventions: A meta-analysis. *Journal of Happiness Studies, 20*(4), 1179-1196.



- Seligman, M. E. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. Free Press.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5-14.
- Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, *60*(5), 410-421.
- Senf, K., & Liau, A. K. (2013). The effects of positive interventions on happiness and depressive symptoms, with an examination of personality as a moderator. *Journal of Happiness Studies*, *14*(2), 591-612.
- Shimai, S., Otake, K., Park, N., Peterson, C., & Seligman, M. E. (2006). Convergence of character strengths in American and Japanese young adults. *Journal of Happiness Studies*, *7*(3), 311-322.
- Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: A practice-friendly meta-analysis. *Journal of Clinical Psychology*, *65*(5), 467-487.
- Sperber, A. D. (2004). Translation and validation of study instruments for cross-cultural research. *Gastroenterology*, *126*, S124-S128.
- Suh, E. M., & Koo, J. (2008). *Comparing subjective well-being across cultures and nations: The "what" and "why" questions*. In M. Eid & R. J. Larsen (Eds.), *The science of subjective well-being* (pp. 414-427). Guilford Press.
- Tehranchi, A., Neshat Doost, H. T., Amiri, S., & Power, M. J. (2018). The role of character strengths in depression: A structural equation model. *Frontiers in Psychology*, *9*, 1609.
- Uchida, Y., Norasakkunkit, V., & Kitayama, S. (2004). Cultural constructions of happiness: Theory and empirical evidence. *Journal of Happiness Studies*, *5*(3), 223-239.
- Vella-Brodrick, D., & Klein, B. (2010). Positive psychology and the Internet: A mental health opportunity. *Electronic Journal of Applied Psychology*, *6*(2), 30-41.
- Vision 2030. (2016, May 8). *Vision 2030*. <https://vision2030.gov.sa/en/themes/3>
- Waters, L., & Sun, J. (2016). Can a brief strength-based parenting intervention boost self-efficacy and positive emotions in parents? *International Journal of Applied Positive Psychology*, *1*(1-3), 41-56.
- Wong, P. T. (2013). Positive psychology. *The Encyclopedia of Cross-Cultural Psychology*, *3*, 1021-1027.
- Zhang, Y., & Chen, M. (2018). Character strengths, strengths use, future self-continuity and subjective well-being among Chinese university students. *Frontiers in Psychology*, *9*, 1040.



Appendix A

Examples of strengths use

Strength	Example of everyday use
Creativity	Offer at least one creative solution to challenges of a sibling or a friend.
Curiosity	Connect with a person of a different culture and spend at least an hour, to learn about his/her culture.
Judgment	Start an activity and ask yourself -- Why? When? And how?
Love of learning	Follow an ongoing global event through newspapers, TV or internet.
Perspective	Offer advice, but only when asked and after listening empathically to the seeker.
Bravery	Speak up for or write about an unpopular idea in a group.
Honesty	Monitor every time you tell a lie, even if it is a small one.
Perseverance	Plan a big project and finish it ahead of time.
Zest	Take time to celebrate your next two accomplishments and victories.
Kindness	Donate blood periodically.
Love	Express your love through gifts. When possible, create gifts yourself.
Social intelligence	Write five personal feelings daily for four weeks and monitor patterns.
Fairness	The next time you make a mistake, self-monitor to see whether you admit it.
Leadership	Start a fitness or health group with your co-workers.
Teamwork	Facilitate a group discussion and achieve consensus on a conflicting issue.
Forgiveness	Meet a person who offended you in the past. Tell them that you have forgiven them, or just be kind in your interaction with them.
Humility	Notice if you speak more than others in a group situation.
Prudence	Do a risk-benefit analysis before making a final decision.
Self-regulation	Avoid talking about others in their absence.
Appreciation of beauty	Hang a bird feeder and observe the birds.



Gratitude	Notice how many times you say thanks and whether you mean it every time.
Hope	When facing adversity, focus how you overcame a similar one in the past.
Humour	Learn a new joke three times a week and tell them to friends.
Spirituality	Read a spiritual or religious book every day for half an hour.

Adapted from Rashid and Anjum (2005)



Appendix B Steen Happiness Index (SHI)

مؤشر ستين للسعادة

تعليمات:

يرجى قراءة كل مجموعة من العبارات التالية بعناية، ثم اختر عبارة واحدة من كل مجموعة تصف أفضل شعور لديك خلال الأسبوع الماضي، بما في ذلك اليوم. تأكد من قراءة جميع العبارات من كل مجموعة قراءة جيدة قبل أن تختار واحدة منها.

سؤال رقم 1

- 1- أكره روتيني اليومي. (1)
- 2- لا أستمتع ولا أكره روتيني اليومي. (2)
- 3- أستمتع بروتيني اليومي، لكنني أحب الابتعاد عنه. (3)
- 4- أستمتع بروتيني اليومي كثيراً لدرجة أنني نادراً ما أتوقف عنه. (4)
- 5- أستمتع بروتيني اليومي كثيراً لدرجة أنني في الغالب لا أتوقف عنه. (5)

سؤال رقم 2

- 1- أشعر بأنني منفصل عن الآخرين. (1)
- 2- لا أشعر أنني مرتبط ولا منفصل عن الأشخاص الآخرين. (2)
- 3- أشعر بأنني مرتبط بأصدقائي وأفراد عائلتي. (3)
- 4- أشعر بأنني مرتبط مع معظم الناس، حتى لو لم أكن أعرفهم جيداً. (4)
- 5- أشعر بأنني مرتبط بجميع من في العالم. (5)

سؤال رقم 3

- 1- أشعر بأنني فاشل. (1)
- 2- لا أشعر بأنني ناجح. (2)
- 3- أشعر بأنني قد نجحت أكثر من الشخص العادي. (3)
- 4- عندما أنظر إلى ما مضى من حياتي، كل ما أراه هو الكثير من النجاحات. (4)
- 5- أشعر بأنني شخص ناجح بشكل غير عادي. (5)

السؤال رقم 4

- 1- معظم الوقت أشعر بالملل. (1)
- 2- معظم الوقت لا أشعر بالملل ولا أهتم بما أفعله. (2)
- 3- معظم الوقت أهتم بما أفعله. (1)
- 4- معظم الوقت أنا مهتم جداً بما أفعله. (2)
- 5- معظم الوقت أنا أحب ما أفعله. (3)



السؤال رقم 5

- 1- أنا لست مسرورا عن نفسي. (1)
- 2- أنا لست مسرور ولا غير مسرور عن نفسي - أنا محايد. (2)
- 3- أنا مسرور عن نفسي. (3)
- 4- أنا مسرور جدا عن نفسي. (4)
- 5- لا يمكنني أن أكون أكثر سرورا عن نفسي. (5)

السؤال رقم 6

- 1- عندما أعمل في مهمة، غالباً ما أشعر بالإحباط. (1)
- 2- عندما أعمل في مهمة، أشعر أحياناً بالإحباط وأحياناً لا أشعر بذلك. (2)
- 3- عندما أعمل في مهمة، لا أشعر عادة بالإحباط. (3)
- 4- عندما أعمل في مهمة، نادراً ما أشعر بالإحباط. (4)
- 5- عندما أعمل في مهمة، لا أشعر بأي إحباط تقريباً. (5)

السؤال رقم 7

- 1- أنا حزين. (1)
- 2- أنا لست حزينا ولا فرحا. (2)
- 3- أميل للبهجة أكثر من الحزن. (3)
- 4- أميل للبهجة أكثر من الحزن بكثير. (4)
- 5- كل شيء تقريبا عن حياتي يملئني بالفرح (5)

السؤال رقم 8

- 1- لا أحب عملي (مدفوع أو غير مدفوع الأجر). (1)
- 2- أنا لا أحب ولا أكره عملي. (2)
- 3- في الغالب، أحب عملي. (3)
- 4- يكسبني عملي رضا كبير. (4)
- 5- يقدم لي عملي رضا حقيقي وعميق. (5)

السؤال رقم 9

- 1- لقد اخترت أمور سيئة أكثر من أمور جيدة في الحياة. (1)
- 2- بعض الخيارات التي أقدمت عليها في الحياة كانت جيدة والبعض كانت سيئة. (2)
- 3- لقد اخترت أمور جيدة أكثر من أمور سيئة في الحياة. (3)
- 4- في الغالب اخترت أمور جيدة في الحياة. (4)
- 5- حتى لو أمكنتني، لن أغير أي من الخيارات التي أقدمت عليها. (5)



السؤال رقم 10

- 1- الحياة سيئة. (1)
- 2- الحياة لا بأس بها. (2)
- 3- الحياة جيدة. (3)
- 4- الحياة جيدة جدا. (4)
- 5- الحياة رائعة. (5)

السؤال رقم 11

- 1- حياتي ليس بها هدف. (1)
- 2- لا أعرف هدفي في الحياة. (2)
- 3- لدي نبذة عن هدفي في الحياة. (3)
- 4- لدي فكرة جيدة عن هدفي في الحياة. (4)
- 5- لدي فكرة واضحة عن هدفي في الحياة. (3)

السؤال رقم 12

- 1- لدي طاقة ضئيلة أو معدومة. (1)
- 2- مستوى الطاقة لدي لا هو مرتفع ولا منخفض. (2)
- 3- لدي كمية لا بأس بها من الطاقة. (3)
- 4- أشعر بالحيوية في فعل كل شيء تقريبا. (4)
- 5- لدي الكثير من الطاقة التي تشعرني أنني بإمكانني فعل أي شيء. (5)

السؤال رقم 13

- 1- أتعايش مع الاستياء أكثر من المتعة. (1)
- 2- أتعايش مع المتعة والاستياء بنفس القدر. (2)
- 3- أتعايش مع المتعة أكثر من الاستياء. (3)
- 4- أتعايش مع المتعة أكثر بكثير من الاستياء. (4)
- 5- حياتي مليئة بالمتعة. (5)

السؤال رقم 14

- 1- يمر الوقت ببطء أثناء القيام بمعظم أنشطتي أو كلها. (1)
- 2- يمر الوقت بسرعة أثناء القيام ببعض أنشطتي و ببطء في البعض الآخر. (2)
- 3- يمر الوقت بسرعة أثناء القيام بمعظم أنشطتي. (3)
- 4- يمر الوقت بسرعة أثناء القيام بجميع أنشطتي. (4)
- 5- يمر الوقت بسرعة أثناء القيام بجميع أنشطتي حتى أنني لا ألاحظ ذلك. (5)



السؤال رقم 15

- 1- أنا أخجل من نفسي. (1)
- 2- أنا لا أخجل من نفسي. (2)
- 3- أنا فخور بنفسي (3)
- 4- أنا فخور جداً بنفسي. (4)
- 5- أنا فخور للغاية بنفسي. (5)

السؤال رقم 16

- 1- أنا محبط بشأن المستقبل. (1)
- 2- أنا لست متشجعاً ولا محبطاً بشأن المستقبل. (2)
- 3- أشعر بتشجيع إلى حد ما بشأن المستقبل. (3)
- 4- أشعر بتشجيع كبير بشأن المستقبل. (4)
- 5- أشعر بتشجيع غير عادي بشأن المستقبل. (5)

السؤال رقم 17

- 1- عندما أعمل في مهمة، أعير انتباهي لما يدور حولي أكثر من الانتباه للمهمة نفسها. (1)
- 2- عندما أعمل في مهمة، أعير الكثير من الانتباه لما يدور حولي تماماً كما أفعل للمهمة نفسها. (2)
- 3- عندما أعمل في مهمة، أعير انتباهي إلى المهمة أكثر من الانتباه لما يدور حولي. (3)
- 4- عندما أعمل في مهمة، نادراً ما ألاحظ ما يدور حولي. (4)
- 5- عندما أعمل في مهمة، فإنني أعير انتباهي كثيراً للمهمة نفسها، وكان ليس هناك وجود للعالم الخارجي حولي. (5)

السؤال رقم 18

- 1- كل يوم أقضي تقريباً كل وقتي في فعل أشياء غير مهمة. (1)
- 2- كل يوم أقضي الكثير من الوقت في عمل أشياء ليست بمهمة ولا غير مهمة. (2)
- 3- كل يوم أقضي بعض الوقت في فعل أشياء مهمة. (3)
- 4- أقضي الجزء الأكبر من كل يوم لفعل أشياء مهمة. (4)
- 5- عملياً كل لحظة من يومي يتم قضاؤها في فعل أشياء مهمة. (5)

السؤال رقم 19

- 1- أنا متشائم. (1)
- 2- أنا لست متفائلاً ولا متشائماً. (2)
- 3- أنا متفائل. (3)
- 4- أنا متفائل جداً. (4)
- 5- أنا أكثر شخص متفائل. (5)



السؤال رقم 20

- 1- أي شيء أفعله له تأثير سلبي على العالم. (1)
- 2- بالنظر إلى كل شيء، وجودي لا يساعد ولا يضر العالم. (2)
- 3- أنا أصنع فرق ضئيل ولكن إيجابي في العالم. (3)
- 4- أنا أجعل من العالم مكانًا أفضل. (4)
- 5- حياتي لها تأثير دائم وإيجابي على العالم. (5)



Appendix C

The Beck Depression Inventory

قائمة "بيك" للاكتئاب

إعداد "بيك" وزملائه

تعريب: أحمد محمد عبد الخالق

الجنس:

العمر:

الاسم:

المهنة:

(يشتمل هذا الاستفتاء على ٢١ مجموعة من العبارات بعد أن تقرأ كل مجموعة منها بإمعان ضع دائرة حول أحد الأرقام (صفر , 1 , 2 , 3) التي تسبق العبارة التي تصف تماما الحالة التي كنت تشعر بها خلال الأسبوع الماضي بما في ذلك اليوم الحالي وإذا رأيت أن عدة عبارات في مجموعة واحدة تنطبق عليك بنفس الدرجة فضع دائرة حول كل رقم يقابلها. تأكد من قراءة كل العبارات في كل مجموعة قبل أن يقع اختيارك على إحداها)

1	صفر	لا أشعر بالحزن
	1	أشعر بالحزن
	2	أنا حزين طوال الوقت، ولا أستطيع الخروج من هذه الحالة
	3	أنا حزين جدا وغير سعيد لدرجة أنني لا أستطيع تحمل هذه الحالة
2	صفر	لا أشعر بأن عزيمتي ضعيفة تجاه المستقبل
	1	أشعر بأن عزيمتي ضعيفة تجاه المستقبل
	2	أشعر أنه لا يوجد شيء أتطلع إليه في المستقبل
	3	أشعر أن المستقبل ميئوس منه، وأنه لا سبيل إلى أن تتحسن الأمور
3	صفر	لا أشعر بالفشل
	1	أشعر أنني واجهت من الفشل أكثر مما يواجه الشخص العادي
	2	عندما استرجع حياتي الماضية، فكل ما أراه هو الكثير من الفشل
	3	أشعر أنني شخص فاشل تماما
4	صفر	لا زال أستمتع بالأشياء كما كنت من قبل
	1	لا أستمتع بالأشياء كما اعتدت أن أستمتع بها من قبل
	2	لم أجد متعة حقه في أي شيء بعد
	3	أشعر بعدم الرضا والملل من كل شيء



5	صفر	لا أشعر بالذنب بوحه خاص
	1	أشعر بالذنب لفترات طويلة من الوقت
	2	ينتابني الشعور بالذنب تماما معظم الوقت
	3	أشعر بالذنب طوال الوقت
6	صفر	لا أشعر أن عقابا يحل بي الآن
	1	أشعر وكأن عقابا قد يحل بي
	2	أتوقع أن يحل بي عقاب
	3	أشعر أن عقابا يحل بي الآن
7	صفر	لا أشعر بأن أملتي قد خاب في نفسي
	1	أشعر بأن أملتي قد خاب في نفسي
	2	أشعر بالاشمئزاز من نفسي
	3	أكره نفسي

تابع / قائمة "بيك"

8	صفر	لا أشعر بأنني أسوأ من أي شخص آخر
	1	أنتقد نفسي على نقاط ضعفي أو أخطائي
	2	ألوم نفسي طوال الوقت على أخطائي
	3	ألوم نفسي على كل شيء سيء يحدث
9	صفر	لا تراودني أي أفكار للتخلص من حياتي
	1	تنتابني أفكار للتخلص من حياتي ولكنني لن أنفذها
	2	أرغب في قتل نفسي
	3	لو أتيتحت لي الفرصة للانتحار فسوف أفعل ذلك
10	صفر	لا أبكي أكثر من المعتاد
	1	أبكي الآن أكثر مما تعودت
	2	أبكي الآن طوال الوقت
	3	تعودت أن أكون قادرا على البكاء أما الآن فلا أستطيع البكاء حتى لو أردت ذلك



11	صفر	لست مستشارا الآن أكثر مما كنت دائما
	1	أصبح مزعجا أو مستشارا بسهولة أكثر مما كنت معتادا
	2	أشعر بأنني مستشارا الآن طوال الوقت
	3	لا تثيرني بالمرّة الأشياء التي تعودت أن تثيرني
12	صفر	لم أفقد الاهتمام بالآخرين
	1	أنني أقل اهتماما بالآخرين بالمقارنة بما كنت عليه فيما مضى
	2	فقدت معظم اهتمامي بالآخرين
	3	فقدت كل اهتمامي بالآخرين
13	صفر	اتخذ القرارات بنفس الكفاءة التي كنت أصدرها بها
	1	أقوم بتأجيل القرارات أكثر مما تعودت
	2	أجد في اتخاذ القرارات صعوبة أكبر مما كنت أجد من قبل
	3	لم أعد أستطيع اتخاذ القرارات
14	صفر	لا أشعر أنني أبدو أسوأ مما كنت
	1	أنا قلق لأنني أبدو أكبر سنا وأقل جاذبية
	2	أشعر أن هناك تغييرات دائمة في مظهري تجعلني أبدو غير جذاب
	3	أعتقد أنني أبدو قبيحا
15	صفر	أستطيع أن أعمل بنفس الكفاءة التي كنت أعمل بها من قبل
	1	أشعر أن البدء في عمل أي شيء أصبح يتطلب مني الآن جهدا إضافيا
	2	أضطر إلى أن اضغط على نفسي بشدة كي أعمل أي شيء
	3	لا أستطيع القيام بأي عمل على وجه الإطلاق
16	صفر	أستطيع النوم بشكل جيد كما تعودت
	1	لا أنام جيدا كما كنت معتادا
	2	أستيقظ مبكرا ساعة أو ساعتين عن المعتاد ثم أجد صعوبة في العودة للنوم
	3	أستيقظ مبكرا عدة ساعات عما تعودت ثم لا أستطيع العودة إلى النوم ثانية



تابع / قائمة "بيك"

17	صفر	لا أشعر بالتعب أكثر من المعتاد
	1	أشعر بالتعب بسرعة أكثر مما تعودت
	2	أصبح التعب يدركني بسبب القيام بأي عمل تقريبا
	3	أشعر بالإرهاق حتى أنني لا أستطيع القيام بأي عمل
18	صفر	شهيتي للطعام ليست أسوأ من المعتاد
	1	لم تعد شهيتي طيبة كما كانت من قبل
	2	شهيتي الآن أسوأ مما كانت بكثير
	3	لم يعد لدي شهية على الإطلاق
19	صفر	لم أفقد كثيرا من وزني مؤخرا
	1	نقص وزني أكثر من ٢ كيلوجرام
	2	نقص وزني أكثر من ٥ كيلوجرام
	3	نقص وزني أكثر من ٧ كيلوجرام
		أحاول عن عمد أن أنقص وزني وذلك بالتقليل من كمية الأكل نعم لا
20	صفر	لست منشغل البال على صحتي أكثر من المعتاد
	1	تشغل بالي مشاكل صحية مثل بعض الأوجاع أو الآلام أو اضطراب المعدة أو الإمساك
	2	أشعر بانشغال البال كثيرا بسبب مشاكل صعبة ومن الصعب على التفكير في أي شيء آخر
	3	أشعر بأن بالي مشغول جدا بخصوص مشكلاتي الصحية لدرجة أنني لا أستطيع التفكير في أي شيء آخر
21	صفر	لم ألاحظ أي تغير في اهتمامي بالجنس في الفترة الأخيرة
	1	أصبح اهتمامي بالجنس أقل مما تعودت
	2	أنني أقل اهتماما الآن بشكل كبير
	3	فقدت الاهتمام بالجنس تماما