

Predictors of well-being among students : A Meta – Analysis

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Abstract

Well-being relates to the extent to which an individual is feeling good and functioning positively. In this research, well-being is generally taken to be measured across six key indicators – mindfulness, self-esteem, resilience, emotional intelligence, forgiveness, and career adaptability. Using meta-analytic techniques the current study summarized cross-sectional data to examine: (a) which stronger predictors are related to well-being among students. Online databases were searched. Cross-sectional studies were included if they (a) assessed well-being among university students, (c) reported correlations or between-groups data (predictors of well-being). Twenty-three studies ($n = 10506$) were included in random-effect meta-analyses. Effect size on relation of predictors to well-being was medium. Predictors were strongly associated with well-being [$r = 0.447$, $p = .0001$]. Using meta-analytic technique, the current study examined predictors of well-being among students, and it revealed that factors such as “mindfulness, self-esteem, resilience, emotional intelligence, forgiveness, and career adaptability are strong predictors of well-being.

Keywords: ***predictors; well-being ; university; students ; meta – analysis***

Introduction

1.1. Predictors of well-being

Recent years have witnessed a significant shift in the research literature from an emphasis on disorder and dysfunction to a focus on well-being and positive mental health. This paradigm shift was particularly notable in current psychological research (Seligman, 1991, 2002). This positive outlook is also enshrined in the World Health

Organisation' constitution, where the WHO has defined positive mental health as a state of well-being in which the person is aware of his or her own abilities, can cope with the normal stresses of life, can function productively and fruitfully, and can contribute to his or her community (WHO, 2001).

The concept of well-being is topical and has received extensive attention since the beginning of the 21st century (Coffey, Warren, & Dodfrey; 2015; Dodge et al., 2012). The World Health Organization (WHO, 1999) emphasised that health is not merely the absence of a disease or infirmity, but also the presence of complete physical, mental, and social well-being. Well-being has been also defined as the combination of feeling good and functioning well; the experience of positive emotions such as happiness and contentment as well as the development of one's potential, having some control over one's life, having a sense of purpose, and experiencing positive relationships (Huppert, 2009).

In the well-being literature, there are two main approaches of well-being, that is hedonic and eudaimonic (or subjective and psychological); both approaches are distinctive (Compton & Hoffman, 2013; Negovan, 2010). Subjective well-being emphasises that satisfaction or enjoyment is the basic component of well-being, which means the existence of the positive and absence of the negative. The eudaimonic approach, on the other hand, equates well-being with living a purpose-driven life and the optimum functioning of individuals or human potential.

Subjective well-being, which falls within the hedonic prospect of well-being (happiness, life-satisfaction, self-

esteem, positive effects etc.), was described from a range of viewpoints using different terms (Diener, 1984). However, the most generally accepted concept is: the cognitive and affective evaluations of one's life as a whole (Diener, Oishi, & Lucas, 2009). Therefore, subjective well-being involves both cognitive judgments concerning life (i.e., life satisfaction) and emotional responses to events in life (i.e., positive and negative effects). Hedonic well-being subjective or emotional well-being, which, in turn, consists of happiness stemming from the components, satisfaction with life and the balance of positive and negative effects." (Schotanus-Dijkstra, et al., 2016, p. 1352).

Traditionally, most research has concentrated on the subjective aspect of well-being, but in recent years, greater attention has been paid to the psychological form of well-being (Diener et al., 2010). Psychological well-being represents the center aspects of optimal human functioning. It is based on the eudaimonic perspective on well-being and emphasizes aspects of psychological functioning such as social contribution, positive relationship with others, personal growth, self-acceptance, and purpose in life (Keyes, 1998). Researchers have studied psychological well-being in terms of cognitive, emotional and personality variables. The most highly emphasized cognitive variables include self-efficacy (Siddiqui, 2015), optimism (Scheier, Carver & Bridges, 2001), self-esteem (Paradise & Kernis, 2002), mindfulness (Parto & Besharat, 2011), gratitude and forgiveness (Toussaint & Friedman, 2009).

The category of psychological being is based on the multidimensional model from Ryff and Keyes (1995), with six distinct dimensions:

1. Positive appreciation of oneself (Self-acceptance)

2. Efficient control of the environment and of life. (control)
3. Establishing mutual ties with others (Meaningful relationships)
4. The search for meaningful objectives and a sense of intent in life. (projects, faith) feeling positively for continued development and maturity.
5. Feeling self-determined. (Autonomy)

Therefore, given the controversy regarding hedonic and eudaimonic views of well-being, it seems that well-being is possibly better viewed as a multidimensional phenomenon that incorporates elements of both well-being conceptions (Silva, & Caetano, 2013). Mental health is characterized by three well-being constructs; emotional, psychological, and social (Keyes, 2014). Emotional or hedonic well-being is cathartic while eudaimonic well-being is social and psychological. In other terms, happiness, enjoyment, pleasure, and satisfaction are the subject of hedonic viewpoint. At the other hand, an eudaimonic viewpoint focuses on meaning and intention (Keyes, 2002). Emotional well-being is defined by positive feelings about life (i.e. individuals in good spirits, involved in life, relaxed and happy, and full of life). A sense of acceptance, development, commitment, coherence, and integration describe social and psychological well-being.

While hedonia and eudaimonia vary by nature, recent studies have shown that these two approaches are linked in the pathway to well-being and a well-lived life which combines these two approaches (Henderson & Knight, 2012). In this regard, both hedonic and eudaimonic elements of well-being are combined as “flourishing” in the Keyes Mental Health Continuum model (2005). This

detailed model well-being is a commonly used model in literature and describes mentally healthy individuals as those with positive impact and functioning (Keyes , 2007). Keyes (2002, 2005, 2007), In particular, describes well-being as composed of the following three dimensions:

- Emotional: According to the findings of Diener and colleagues (1999), this type of well-being is seen as associated with subjective well-being and integrates high instances of positive effect, low instances of negative effect, and assesses the level of satisfaction with one's life.
- Psychological: based on Ryff (1989), this well-being aspect involves aspects of well- functioning on an individual or personal level, shown as follows: (a) exhibiting positive attitudes towards oneself (self-acceptance); (b) behaving independently (autonomously); (c) seeing oneself as improving (personal development); (d) having comfortable relationships with others (positive relations); (e) can control their own environments (mastery); and (f) experience meaning in life (purpose).
- Social: This type of well-being includes the following facets: (a) thinking that the social process is important (social coherence); (b) believing in the potential of communities (social realization); (c) feelings of being secure (sense of belonging); (d) having positive attitudes towards discrepancies between individuals (social acceptance); and (e) playing a part in society (social contributions).

Flourishing means that factors such as the desire for a meaningful and purposeful life and the development of positive and lasting relationships with others leads to the

health and happiness of a person. Research shows that happiness both stimulates the immune system and improves strength. In addition, happiness also gives individuals the impression that they are valued most in their social ties and improves workplace productivity (Lyubomirsky, King, & Diener, 2005).

Another issue relating to well-being that is the challenge with conceptualizing well-being is that several terms are used interchangeably (Dodge et al., 2012). For example, researchers often use different terms when talking about subjective well-being and other aspects of life related to it, happiness may mean a general positive mood, a global measure of life satisfaction, living a good life, or the factors that make people happy, interpreting it according to meaning (Diener, 2006).

Life satisfaction represents a study on how the respondent assesses or views his or her life taken as a whole (Diener, 2006). Furthermore, the terms subjective well-being, life satisfaction, and happiness are often used interchangeably, well-being and happiness meanings can be grouped into three categories: normative, affective and cognitive (Diener, 1984). Only the two latter groups, the affective and cognitive, constitute the assessments of the individual, and are therefore important to subjective well-being. The affective type of happiness focuses on positive and negative consequences, and has more similarities to how in daily conversation we use the term happiness. At the other hand, the cognitive term contains meanings which have centered on what helps individuals objectively judge their lives. One kind of well-being, life satisfaction, comes under this cognitive category of happiness according to Shin & Johnson (1978) and is described as a process of

judgment in which individuals determine the quality of their lives using their own criteria. Life satisfaction is widely used as a measure of general well-being (Diener, Emmons, Larsen, & Griffin, 1985), and has been shown to be correlated with perceived stress, recorded levels of social support, and self-efficacy in university students (Coffman & Gilligan, 2002).

Another concept that has been used when studying well-being is quality of life. While countless meanings have been given to this concept, it often seems to be interpreted more broadly than life satisfaction and concerns the general well-being of people and societies (Felce & Perry, 1995). However, it is also often used with life satisfaction interchangeably (Frisch, Cornell, Villanueva, & Retzlaff, 1992). More important, quality of life is considered synonymous with other terms: these may include life satisfaction, self-esteem, well-being, happiness, health, importance of life, functional status and order (Kırgız, Şenel, Arslanoğlu, & Sever, 2014).

On the basis of the quality of life literature, the current concepts are rendered as follows: The term of quality of life (Quality of life, QOL) defined as the person's understanding of his / her role in life relative to his / her goals, aspirations, standards and interests within the context of the culture and value systems. It is a specific term, shaped in a complex way by the physical health, psychological condition, values, social relationships and relationship with the environment of the individual (WHO, 1997). One factor that reduces the quality of life is the rising health conditions and variable health status. There are also other factors that influence the quality of life. We can group these reasons as follows;

- Person Variables: gender, age and some characteristics that have been inherited.
- Social Variables: These are the variables that indicate society's social support.
- Economic Variables: It is the income and the continuity of the income that will provide a livelihood for the person to live in humanitarian conditions during retirement.
- Psychological Variables: It is one of the variables of general happiness and satisfaction of the person.
- Health Status Variables:
- Environmental Variables: Regulating the physical environment in which the person lives, improving the mobility and health of the person positively affects the quality of life (Özerdoğan et al., 2018).

Positive education, according to its postulates, entails integrating the well-being of students as a key goal of education (Seligman & Adler, 2018). Students from universities form a special community because of their relatively high intellect, ambitions and self-esteem. They are, however, in a time of growth, transitioning from adolescence to adulthood and from secondary to tertiary education is seen as a source of considerable stress for them and they must adapt to new living conditions and new social and academic challenges (Parker, Summerfeldt, Hogan, & Majeski, 2004). Recent research has shown that the levels of stress faced by college students have risen considerably compared with previous years (Pritchard, Wilson & Yamnitz, 2007). Research has amply demonstrated that the transition to university is not only correlated with higher levels of stress but also with

decreased subjective well-being (Stewart-Brown et al., 2000).

Two of the most important problems currently faced by higher education institutions are the avoidance of the failure and dropout of students and the promotion of growth, achievement and well-being of students. Nevertheless, student well-being research is commonly advocated, not only to provide contextual knowledge, but also because high rates of well-being are defined as a product of quality education. (Van Petegem, Aelterman, Van Keer, & Rossel, 2008). The promotion of the well-being of university students is therefore not only important as a result but is also a prerequisite for the academic and professional success of students and higher education institutions (Ratelle, Simard, & Guay, 2013). In fact, well-being students are in a better position to process learning knowledge efficiently, uphold safe social habits, and take better care of themselves (Awatani et al., 2008).

One in five college students report an active mental disorder and a lot of young adults experience psychological distress during their college first year. (Davidson, Feldman, & Margalit, 2012). Importantly, the well-being of students is lower than that of young adults as a whole and tends to be less well-being than in previous years (HESA, 2017b). Therefore, psychological well-being has become a rising concern at all stages of educational life. (Burris, Brechting, Salsman & Carlson, 2009). In reality, components of well-being, including meaning and happiness, are negatively related to psychological distress (Mason, 2015), but positively related to academic success (Mason, 2017), whereas higher rates of perceived stress are correlated with

lower levels of life satisfaction among undergraduate students (Alleyne, Alleyne, & Greenidge , 2010).

Besides the factors that have driven mental illness and distress prevalence and visibility among young adults, there are a number of university-related factors that are also likely to be significant. According to the Royal College of Psychiatrists, ‘the population of students is somehow more fragile than other youth’ (RCPsych 2011). Studying at university puts academic demands on students that are likely to vary from those they have previously encountered. A study was found to be the primary cause of stress among students (reported by 71 per cent of students) (YouGov 2016). In general , higher education courses would need more self-directed learning, with students taking more responsibility for handling their own workload (RCPsych 2011). An inability to successfully make this change has the potential to impact mental health and well-being. In addition, it has been suggested that students today are at risk of stress from increased pressure to achieve a high-class degree. There is a large difference in the proportion of students who achieve a First, compared with the proportion who plan to achieve one at the start of their course (Brown 2016). It is especially important in the light of the tough job market for graduates today. The second highest cause of stress identified by students is to find a job after university (YouGov 2016). Yet it is also true that expecting entrance into a competitive work market may have a detrimental impact on the mental health and well-being of the students. These can be linked to the pressure to establish and fit in with an entirely new group of friends; the pressures associated with living in close proximity to others in halls or shared flats; the ability to cope while

outside of traditional support structures (friends and family); and increased levels of exposure to, or peer pressure associated with, drugs and alcohol (NUS 2013). Students struggling to deal with these stresses are at risk of being socially withdrawn and lonely, with students citing isolation as a major mental health problem (Student Minds 2014). Struggling to cope with social expectations will mean that the university experience will not live up to the promise that it will be 'the greatest time of your life' with increased potential for effects on mental health and well-being (Student Minds 2014).

To sum up, this study aimed to explore predictors of well-being among university students and to map the subjective and psychological indicators of well-being from their perspective. The specific research question was: What are the predictors of university students' well-being? And the study revealed that, emotional intelligence is one of the predictors of well-being among students.

People with high emotional intelligence appear to get greater social support (Gallagher, & Vella-Brodrick, 2008). Research in different capacities has also shown that people who obtain adequate support from others in social settings feel a greater sense of well-being and satisfaction (Kong, & Zhao, 2013). The researchers found that perceived social support acts as a partial mediator, setting the stage for the relationship between well-being and emotional intelligence (Gallagher, & Vella-Brodrick, 2008) and life satisfaction (Kong, & Zhao, 2013). Conclusively, it is desirable to expect perceived social support to be a mediator that connects emotional intelligence with psychological well-being. In particular, emotional intelligent people prefer to

use adaptive techniques to cope with stress and control their emotions (Szczygieł and Mikołajczak 2017).

The results of this study indicated also that, mindfulness is another predictor of well-being, Similarly, empirical evidence shows that mindfulness is a strong predictor of well-being; and mindfulness played a major role in enhancing psychological and ecological well-being (Brown & Ryan, 2003). Keng, Smoski, and Robins (2011) believed that mindfulness enables adaptive psychological functioning with improved subjective well-being.

The third predictor of well-being according to the current study is resilience, Sharna et al. (2014) stated that effective resilience and stress management decreases depression and anxiety and contributes to improved individual well-being. Recent evidence suggest that resilience is an important determinant of subjective well-being and negatively related to neuroticism (Migliorini, Callaway, & New, 2013). Further evidence indicated that resilience buffers the connection between psychological distress (depression and anxiety) and subjective well-being (Burns, Anstey, & Windsor, 2011).

A strong empirical link between self-esteem and well-being exists conceptually (Diener & Diener ,1995). This considered that individuals with high self-esteem have higher expectations, are more resilient in the face of disappointment, and are less likely to succumb to feelings of frustration and self-doubt. In fact, high self-esteem protects individuals from the adverse effects of stress, trauma, and misfortune: all of which can contribute to better well-being (Baumeister et al., 2003).

Forgiveness is another predictor of well-being in the present study, it is a positive effort to deal with adverse consequences that are triggered by someone else's violence or one's own behaviours. At the same time, this effort is seen as a symbol of overcoming the emotions and thoughts that interfere with a person's well-being or satisfaction (Maltby et al., 2001). In the studies about forgiveness in the area of positive psychology, forgiveness has been found to be linked to life satisfaction which is the sub-dimension of subjective well-being (Thompson, Snyder, Hoffman, Michael, Asmussen & Billings, 2005).

In the current study, the last predictor of well-being among university students is career adaptability. Career adaptability is a possible ability for individuals to carry out specific work activities, and is also general capacity for individuals to adapt changes in the employment context (Duffy, 2010). It is critical for university students in period of transition from school to work life to believe in their career abilities, being ready for changes and accept these changes (Wang & Fu, 2015). Students and graduates in period of transition from school to work make decisions about the career of this new milieu that just starts after graduation (Saks, 2015). Important decisions about career are made during the university period and these decisions affect their vocational future, psychological and physiological well-being and social acceptance and general quality of life (Mann, Harmoni, & Power, 1989).

1.2. Objectives and hypotheses

Using meta-analytic techniques, the current study summarized the available evidence from cross-sectional studies to:

(a) examine predictors of well-being among university students. Specifically, across six key indicators – mindfulness, self-esteem, resilience, emotional intelligence, forgiveness, and career adaptability.

2. Methods

2.1. Database searches

Conducting the meta-analysis in accordance with the PRISMA guidelines (Moher, Liberati, Tetzlaff, & Altman, 2009). To quantify a possible relationship between variables and well-being, by searching the databases PsycINFO, PubMed and Embase for papers published until May 2020 with the terms relationship AND (well-being OR wellbeing OR happiness OR quality of life) in the title or abstract. No restrictions were made for study design. Reference lists of studies were considered for inclusion and relevant review papers were scanned for empirical papers missed by the database search.

2.2. Study selection

All titles and abstracts were screened and Studies that potentially matched the inclusion criteria were examined in full-text. The selection of studies for inclusion in the meta-analysis was made using the following inclusion and exclusion criteria, which were formulated in advance: (a) Papers had to be written in English or Arabic. (b) The populations investigated in the studies had to be students. (c) Papers had to report primary data. (d) Variables that predicted well-being had to be reported.

2.3. Data extraction

For the studies judged eligible for inclusion in the meta-analysis, the following data, if present, were extracted: Study characteristics (year of publication, country, study

design, use of clinical population, instrument of well-being, instrument of predicted variables of well-being) and subject characteristics (number, mean age, gender, relationship status, education level, level of well-being,).

the I² statistic was computed in order to test for homogeneity of ES. This statistic is an indicator of heterogeneity of ES in percentages. A value of 25% or less indicates low heterogeneity, 50% moderate, and over 75% high (Higgins et al. 2003). Heterogeneity was also analyzed using the Q-statistic. A significant Q indicates that the variability across the ES is greater than if it would have resulted from subject-level sampling error alone (Lipsey and Wilson 2001). For all analyses, alpha was set to 0.01.

2.4. Meta-analysis

2.4.1. Summary measures

the variables that were coded for each study included correlations between responsibility measures and each syndrome as well as the sample size for each correlation. In addition, reliability coefficients (alpha) for responsibility and syndrome measures were recorded when reported in order to correct for measurement unreliability. Between-groups (i.e., mean difference type) effect sizes were included along with r-type effect sizes. Mean difference-type effect sizes were converted

to r-type effect sizes using either Cohen's d or the reported M (SD) through formulas provided in Ray and Shadish (1996). ES of 0.80 or more were assumed to be large, 0.50 moderate, and 0.20 small (Cohen 1988). According to Hedges (1981), Hedges' correction for small sample bias was applied to all ES.

2.4.2. Publication bias

Likelihood of publication bias was analyzed using the fail-safe N method (Rosenthal 1991). This method consists in calculating the number (N) of unpublished studies required to reduce the overall ES to a non-significant level assuming that the ES of such studies are equal to zero.

Subsequently, the Egger test (Sterne and Egger 2005) was applied to examine a publication bias effect. The Egger test is an unweighted regression based on the precision of each study as the independent variable and the effect size divided by its standard error as the dependent variable. A non-statistically significant result of the t-test for the null hypothesis of an intercept equal to zero, allows to discard publication bias (Sterne and Egger 2005).

the current meta-analysis was performed using the software Comprehensive Meta-Analysis version 2.0.

3. Results

3.1. Study selection

The electronic search and the search through additional sources produced 219 records after duplicates were removed. Of those studies, 115 were excluded as they were on irrelevant constructs. Thus, 104 studies were screened at full-text for inclusion. Of those studies, 81 were excluded as they did not use measures on mindfulness, self-esteem, resilience, emotional intelligence, forgiveness, and career adaptability. After this selection, twenty three studies were included (n= 10506) in the current meta-analysis .

3.2. Study characteristics

The researcher has used 23 studies related to the studies phenomenon to get an overall sight about the correlation between well-being index and its predictors.

Table 1; Characteristics and main results of included studies.

Author	Name of study	Year	Country	population	Age	Gender Female %	Cases	Main Result	correlation
Zubair Kamal, & Artemeva	Mindfulness and Resilience as Predictors of Subjective Well-Being among University Students: A Cross Cultural Perspective	2018	Islamabad & Russia	University Students	20-35	54.63	496	Results showed that mindfulness was positively associated with resilience and subjective well-being	0.49
Stupnisky, Perry, Renaud & Hladkyj	Looking beyond grades: Comparing self-esteem and perceived academic control as predictors of first-year college students' well-being	2012	USA	University Students	18-25	52.32	779	the results suggest that if students can maintain both a higher sense of control and self-esteem while in college, they will experience a more positive well-being and perform better academically.	0.4
Obi & Bewei	MINDFULNESS, SCHOOL CONNECTEDNESS, PERCEIVED SOCIAL SUPPORT AND PSYCHOLOGICAL WELL-BEING OF UNIVERSITY STUDENTS IN IBADAN, NIGERIA	2020	NIGERIA	University Students	18-39	44.4	160	perceived social support made significant relative contribution to the prediction of psychological well-being of university students.	0.326
Henry, Stiles, Biran & Hinkle	Perceived Parental Acculturation Behaviors and Control as Predictors of Subjective Well-Being in Arab American College Students	2008	USA	University students	18-26	52	44	a positive association between parental preservation of the Arabic culture and well-being is stronger among students with autonomy-granting parents.	0.43
Arshad & Rafique	Personality and Creativity as Predictors of Psychological Well-being in College Students	2016	Pakistan	College students	18-25	80.8	125	Neuroticism turned out to be a negative predictor whereas Extraversion and Conscientiousness were	0.54

								found to be positive predictors of psychological well-being in college students.	
<i>Al-Rabee & Ababneh</i>	Gratitude, and Quality of Life Among Yarmouk University Students in Light of Some Variables	2016	Jordan	University students	18-33	70	800	there was statistical significant positive relationship between gratitude level, and quality of life among Yarmouk University students.	0.39
<i>Abu Daoud & AL Khateeb</i>	Life Satisfaction and its Relationship to Self Determination Skills and Hope in Adolescents with Disabilities in Jordan	2017	Jordan	73 clinical OCD: outpatient unit & 50 patients with anxiety disorder, 225 non-clinical undergraduate students & 43 non-clinical community controls	18	40	90	there is a positive relationship between the quality of university life and self-esteem, and the existence of a positive relationship between the quality of university life and psychological alienation,	0.393
<i>Hamed</i>	Quality of University Life as a Mediator between Psychological Alienation and Self-Esteem among Students of King Saud University	2019	KSA	clinical OCD: outpatient unit	18-25	0	136	there is a positive relationship between the quality of university life and self-esteem,	0.47
<i>Abu Hammad</i>	The Quality of Psychological Life and Its Relationship with Psychological Happiness and Self-Worth among a Sample of Students at Prince Sattam bin Abdul-Aziz University	2018	KSA	University students	18-25	40.74	270	There was a statistically significant correlation between quality of psychological life and psychological happiness and self-worth.	0.198
<i>Al-Sawafi</i>	Psychological Happiness and its Relationship to the Self-concept of the	2019	Oman	Secondary school students	12-18	50	650	A statistically significant strong positive correlation between	0.44

	Grade Nine Students in the Welayat Al-Mudhabi in the Sultanate of Oman.							psychological happiness and self-concept was found.	
Fadi Samawi	Happiness and its Relationship to Emotional Intelligence Religiosity among the Word Islamic Sciences and Education University Students	2015	Saudi Arabia	University students	18-25	50.5	650	there is a relation between happiness and emotional intelligence and religiosity	0.301
Katalo	Happiness and its Relationship to Religiosity, Satisfaction with Life and Love among a Sample of HU Married Students	2015	Jordan	University students	19-24	58.5	239	There was a correlation between happiness and religiosity.	0.633
Saida, Souad & Hanaa	The Relationship Between the Quality of Psychological Life by the Five Major Factors of the Personality. Comparative Field Study on the Students of the University of Algeria	2018	Algeria	University students	18-26	57	249	study attempted to draw closer to the relationship between the qualities of psychological life by the five major factors of the personality of the university student and to identify gender differences	0.488
Bore, Pittolo, Kirby, Dluzewska & Marlin	Predictors of psychological distress and well-being in a sample of Australian undergraduate students	2016	Australia	University students	18-26	89.33	150	Students with high emotional and bounce-back resilience had lower psychological distress and higher well-being scores	0.49
Archana & Singh	Resilience and Spirituality as Predictors of Psychological Well-Being among University Students	2014	India	University students	18-25	52.17	186	students who were resilient and had strong spiritual approach in their lives reported higher levels of psychological well-being.	0.37
Malinausk and Malinauskienė	The Relationship between Emotional Intelligence	2020	IRAN	University students	18-30	27.6	392	perceived social support partially mediates the	0.53

	and Psychological Well-Being among Male University Students: The Mediating Role of Perceived Social Support and Perceived Stress							longitudinal association between emotional intelligence and well-being.	
Kırdök, & Bölükbaş	The role of senior university students' career adaptability in predicting their subjective well-being	2018	Turkey	University students	18-25	55.8	310	career adaptability predicts the subjective well-being of university senior students. Control as a subscale of career adaptability was found to be the strongest predictive variable for subjective well-being.	0.59
TAY et al.,	Evaluating predicting factors of psychological well-being among university and polytechnic students	2018	China and Singapore	University students	18-30	73.75	621	Social support, resilience, mindfulness, and self-efficacy had positive effects on psychological well-being,	0.64
Kumari & Madnawat	Gratitude and forgiveness as a predictor in well-being among female college students	2016	India	University students	18-21	100	60	Gratitude and forgiveness were significantly correlated with well being	0.387
Songül TÜMKAYA	Humor Styles and Socio-Demographic Variables as Predictors of Subjective Well-Being of Turkish University Students	2011	Turkey	University students	18-30	56.1%	376	Self-enhancing humor, aggressive humor, romantic relationship, gender and economic status predict of aggregate SWB.	0.59

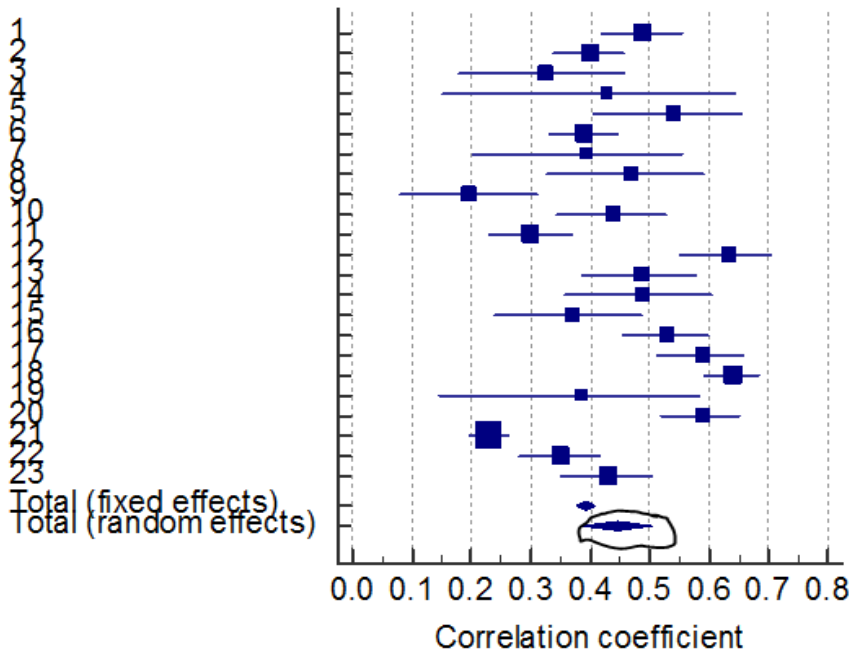
Pfund Miller-Perrin	Interaction and Harmony in Faith Communities: Predicting Life Purpose, Loneliness, and Well-Being Among College Students	2019	USA	University students	18-25	76%	3000	The results of the current study point to the importance of involvement in a faith community for college students. At an age where youth are searching for meaning and desiring to develop some sense of life purpose which is a factor that is imperative for positive well-being	0.23
Klainin-Yobas Et al.,	Examining the predicting effect of mindfulness on psychological well-being among undergraduate students: A structural equation modeling approach	2016	Philippines	University students	16-48	63.80	630	strengthening mindfulness and self-efficacy, could be delivered to students to help enhance psychological well-being among undergraduate students.	0.35
Sapmaz	Gratitude, Forgiveness and Humility as Predictors of Subjective Well-being among University Students	2016	Turkey	University students	18-25	72.4	443	gratitude was the predictor that mostly accounted for happiness.	0.431

3.3 Meta-Analysis technique

determining study effect type . In this section we will use forest plot

Figure 1 Forest plot of studies reporting the relationship between mindfulness, self-esteem, resilience, emotional intelligence, forgiveness, and career adaptability and well-being level: overall effect size and effect size grouped by population (students) are reported. Analyses with random effects model.

From figure (1) we can say that the diamond for the random effect is wider than the diamond for fixed effect, so the random effect is suitable for studying the effect size of each study.



1) testing the homogeneity of the studies

the homogeneity of the studies is an important feature to make sure that the random effect is the suitable for studying the effect of each study, we can test the homogeneity using Quochran test

- the null hypothesis : there is no homogeneity
- the alternative hypothesis: there is homogeneity

Table (2) homogeneity of the studies

Q	297.8887
DF	22
Significance level	P < 0.0001
I² (inconsistency)	92.61%
95% CI for I²	90.17 to 94.45

From table (2) we can say that there is homogeneity in results where the significance level=0.0001 is less than $\alpha=0.05$ so we will reject the null hypothesis, also the value of I² (inconsistency) =92.61% which is higher than 50%.

2) estimating the effect size for each study

Table (3) estimating the effect size for each study

Study	Sample size	Correlation coefficient	95% CI	z	P-value	Weight (%)	
						Fixed	Random
1	496	0.490	0.420 to 0.554			4.72	4.71
2	779	0.400	0.339 to 0.457			7.44	4.82
3	160	0.326	0.180 to 0.458			1.50	4.15
4	44	0.430	0.153 to 0.645			0.39	2.77
5	125	0.540	0.403 to 0.654			1.17	3.95
6	800	0.390	0.330 to 0.447			7.64	4.83
7	90	0.393	0.202 to 0.555			0.83	3.63
8	136	0.470	0.328 to 0.592			1.27	4.02
9	270	0.198	0.0805 to 0.310			2.56	4.47
10	300	0.440	0.344 to 0.527			2.85	4.52
11	650	0.301	0.229 to 0.369			6.20	4.78
12	239	0.633	0.550 to 0.703			2.26	4.41
13	249	0.488	0.387 to 0.577			2.36	4.43
14	150	0.490	0.358 to 0.603			1.41	4.10
15	186	0.370	0.239 to 0.488			1.75	4.25
16	392	0.530	0.455 to 0.598			3.73	4.63
17	310	0.590	0.512 to 0.658			2.94	4.54
18	621	0.640	0.591 to 0.684			5.92	4.77
19	60	0.387	0.148 to 0.584			0.55	3.17
20	376	0.590	0.520 to 0.652			3.57	4.62
21	3000	0.230	0.196 to 0.264			28.72	4.98
22	630	0.350	0.280 to 0.417			6.01	4.78
23	443	0.431	0.352 to 0.504			4.22	4.68
Total (fixed effects)	10506	0.393	0.377 to 0.409	42.472	<0.001	100.00	100.00
Total (random effects)	10506	0.447	0.384 to 0.506	12.405	<0.001	100.00	100.00

From table (3) we can say that:

- there is significant correlation between each one of the predictors of well-being index (mindfulness, self-esteem, resilience, emotional intelligence, forgiveness, career adaptability) and the index itself where the $p\text{-value} = 0.001$ is less than $\alpha = 0.05$
- there is positive moderate correlation where the value of correlation coefficient = 0.447 which is range between 0.4 and 0.7

3) checking publication bias

In this part we will check if the researcher makes any bias in selecting the studies using funnel plot. If the small circles were inside the funnel and have no pattern, we can conclude that there is no biasness in selecting the studies.

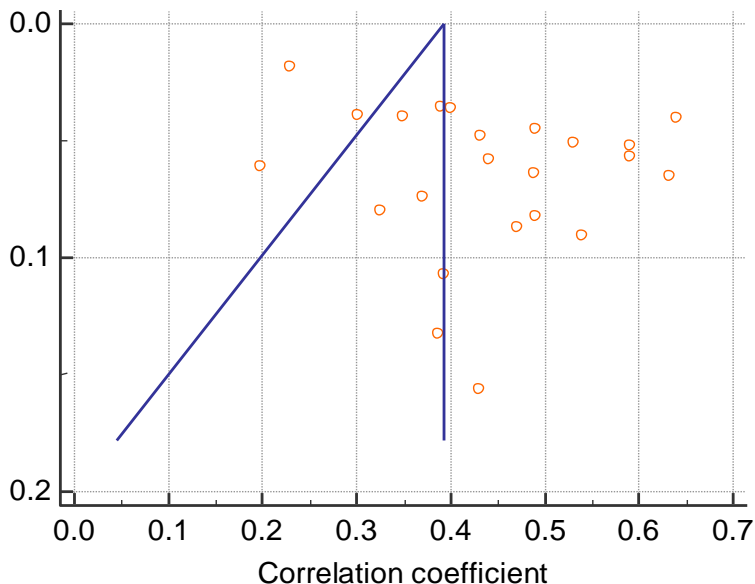


Figure (2) Funnel plot of publication bias

From figure (2) we can say that, There is no publication bias where the small circles were almost inside the funnel

and have no pattern, so we can conclude that there is no biasness in selecting the studies.

4. Discussion and conclusion

4.1 Summary of the results:

In this meta-analysis, a medium to large association between six key indicators – mindfulness, self-esteem, resilience, emotional intelligence, forgiveness, and career adaptability (and well-being level) was found. The six-item multidimensional measure provided clear patterns for well-being across sectional studies within. Meta-analyses approach produces more insight into well-being and its components than a single item measure such as happiness or life satisfaction. Fundamentally, single items are impossible to unpack in reverse to gain insights, whereas the composite score can be used as a macro-indicator for more efficient overviews as well as deconstructed to look for strengths and weaknesses within a population.

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