

Structural Equation Modeling and Relationships Between Mental Wellbeing, Resilience and Self-stigma

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Abstract

This study investigated mental wellbeing of postgraduate and undergraduate students of International Islamic University Malaysia. Precisely, the objective of this study was to verify the validity of a proposed mental wellbeing model that include resilience and self-stigma exogenous variables, another aim of the survey was to determine if gender, education level, material status, international and non-international student and location where they live moderated the associations between mental wellbeing and its predictors. The survey adapted existing instruments: Warwick-Edinburgh Mental Well-being (WEMWB) Scale of 14-item questionnaire, Brief Resilience Scale of 6-item questionnaire and Self-Stigma of Seeking Help Scale (SSOSH) 10-item questionnaire and a demographic survey was developed for this study. The data were collected randomly from 315 student of International Islamic University Malaysia. To address the research objectives, the data were analyzed with confirmatory factor analysis and structural equation modeling. The results obtained by this study shows that, the model had an excellent fit, because $RMSEA .007 < .06$, $CFI .999 > .95$, Based on these results it can be concluded that the proposed model is valid, approving the very first hypothesis for this study. Additionally, gender, educational, location when they live and International and Malaysian student, did not moderate the predictor-mental wellbeing relationships.

Keywords: mental wellbeing, resilience, self-stigma of seeking help behavior

1. Introduction

Well-being has been regarded as a complex concept in regarding the experience and functioning of human beings. Contemporary research on wellbeing have being categorize in two major views: the hedonic method, which focuses on happiness and defines well-being as pleasure of realization and fulfillment and the avoidance of pain, in other words, maximizing the pleasure and minimizing the pain, and the eudemonic method, which emphasis on self-realization and defines well-being in terms of the degree to which a person is fully functioning (Ryan & Deci, 2006) Self-acceptance is vital to mental health. The incapacity to absolutely accept oneself can lead to a variability of emotional complexity, such as uncontrolled anger and unhappiness. Self-acceptance can cause an individual to see one's true self. One of the simplest and utmost characteristic approaches of letting down self-evaluation by realizing and replacing with acceptance mindfulness rather than mindlessness (Langer, et al., 1989). Mindlessness can lead to automatic dependency on preconceived nations that cannot be reached by the conscious mind, leads to rigid behavior that is rule and governed rather than rule guided (Langer, 2009). When individual view him/herself mindfully, they can accept themselves unconditionally. And to realize that they are in control of every decision around their personal world (Carson and Langer, 2006)

Ryff (1989) created a model of psychological wellbeing that includes six different components of positive psychological functioning. These dimensions include wellness of individuals to fully realize their positive attitude and unique talents they have. The first dimensions 1. *Self-acceptance*, "positive evaluations of oneself and one's past life" 2. *Environmental mastery*, "a sense of continued growth and development as a person" 3. *Purpose in life*, "the belief that one's life is purposeful and meaningful". 4. *Positive relations with others*, "the possession of quality relations with others", 5. *Personal growth*, "the capacity to manage one's life and surrounding world effectively". 6. *Autonomy* and "a sense of self-determination" (Ryff and Keyes 1995; Ryff and Singer 2008).

The World Health Organization ([WHO], 2005) defines mental health as, "a state of complete physical, mental and social well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life,

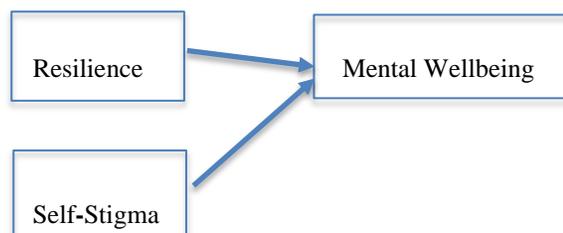
can work productively and fruitfully, and is able to make a contribution to his or her community” (p. 18). According to the CDC (2013, October 4), “mental health” is commonly used in reference to mental illness. While both are related with each other, and signifies different psychological states. Despite the uncertainty, mental health is a part of an individual’s psychological health and well-being (Markoulakis & Kirsh, 2013). Thus, as a saying goes that there is no health without mental health (WHO, 2015). Mental health contains three domains: emotional health, social wellbeing and psychological wellbeing (CDC, 2013, October 4; USDHHS, 2012). These domains are crucial for the individual wellbeing.

Bradburn’s (1969) define wellbeing based on his study on psychological reactions of people like coping and difficulties. His study was focused on differences between negative and positive affects in people’s everyday lives. In his view, an individual will experience a high degree of psychological wellbeing if positive affect dominates. Likewise, a low degree of well-being is characterized by negative affect. According to Diener (1984) psychological well-being refers to how people evaluate their lives in terms of cognitive appraisal (i.e. appraisal of one’s life satisfaction), or affective appraisal (i.e. hedonic evaluation based on feelings and emotions). The author assumes that most people are able to evaluate their life and to offer subjective judgments, such as, good or bad, and negative or positive effects. Thus, he concluded psychological well-being includes both positive and negative mental health (Diener, 1984).

Corrigan (2004) and Vogel (2006) have conceptualized two types of stigma towards help seeking behavior: Public-stigma and Self-stigma. Public stigma is the perception of individuals in society who sees an individual who seek out treatments for mental health is unacceptably and undesirably by the society at large (Vogel et al., 2006). Self-stigma of seeking psychological help is a person undesirable perception of themselves for seeking help behaviors (Corrigan, 2004; Edeme, 2018). Self-stigma happens when people adopt the public attitudes and opinions due to this will lead to several undesirable consequences. In this study the research is more concentrated in Self-stigma rather than Public stigma, to describe the negative consequences that effects people with psychological barriers.

This study investigated the relationship between resilience and self-stigma with mental wellbeing. The literature review emphasized that the relationship between mental wellbeing and resilience is one of the most fascinating topics in educational positive psychology, in the fields of human development (Ryff, Love, Essex, & Singer, 1998).

Every person goes through life challenges, from shocking condition to less shocking condition. Every individual responds different to their life challenges. Resilience is "the capacity to bounce back, to withstand hardship and repair yourself" (Wolin and Wolin, 1994). Resilience is a positive coping strategic that is attributed to an individual’s ability to overcome adversity and hardships (Werner & Smith, 1982; Gupton & Slick 1996; EmenikeKalu & Obasi 2016). Resilience can grow in an individual once they have bounced back from life difficulties (Richardson, 2002; Elshamy & Ahmed 2017) According To the theories of psychological wellbeing. The present study attempted to investigate the relationship between the mental wellbeing, resilience and self-stigma. The proposed conceptual model of this study is as follow.



2. Objective of the Study

The objective of this study was to verify the validity of a proposed mental wellbeing model that include resilience and self-stigma exogenous variables, another objective of the survey was to determine if gender, education level, material status, international and non-international student and location where they live moderated the associations between mental wellbeing and its predictors. Another aim of this study was the role of self-stigma as mediator between resilience and mental wellbeing. In relation to the previous findings and to conceptual framework, the researcher hypothesized that:

H1: The hypothesized structural model of metal wellbeing is fitted to the current data

H2: Resilience has a positive effect on mental wellbeing of International Islamic University Students.

H3: Self-stigma has a negative effect on mental wellbeing of International Islamic University Students.

H4: Self-stigma mediates between resilience and mental wellbeing.

H5: The positive effect of resilience on mental wellbeing is stronger for females than for males.

H6: The negative effect of self-stigma on mental wellbeing is stronger for international students Than Malaysia students.

3. Method

The aim of this research was to explore the validity of a proposed model including relations between resilience and self-stigma and mental wellbeing in a sample of International Islamic University students. The data were analyzed using structural equation modeling. First, the researcher tested, Three-Factor Structure Model of Mental Wellbeing, via confirmatory factor analysis (CFA). The hypothesized structural model was tested simultaneously to determine the best fitting model. To evaluate the research hypotheses, the study applied structural equation modeling (SEM) using the AMOS (version 22) model-fitting program. This study employed the following measurements.

3.1 Measurement of Mental Wellbeing

To examine the mental wellbeing in this study the researcher used the Warwick and Edinburgh Mental Wellbeing Scale (WEMWBS) is a scale designed to assess and evaluate the mental wellbeing, this scale measures the hedonic and eudemonic aspects of wellbeing. It contains 14 positively items, rated on a 5-point Likert scale, The WEMWBS was developed in the UK and has shown good validity, test–retest reliability (0.83), and internal consistency (0.91).

3.2 Measurement of Resilience

To assess resilience the researcher used the six-item Brief Resilience Scale (Smith et al., 2008). On a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), BRS is a scale designed to evaluate the personal resilience or ability to recover from stress (*e.g. 'I tend to bounce back quickly after hard times', 'It does not take me long to recover from a stressful event' and 'I usually come through difficult times with little trouble'.*) This scale has demonstrated a good excellent internal reliability as reported by previous studies with Cronbach's alphas ranging from 0.80 to 0.91 (Smith et al., 2008; EGBUNIKE & OKOYE 2017)

3.3 Measurement of Self-stigma of Seeking Help

To examine the self -stigma the researcher used the 10-items *Self-stigma of seeking help scale*). On a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), (Vogel et al., 2006) developed and validated a scale called Self-Stigma of Seeking Help (SSOSH). The Items on this scale were created using the definition of self-stigma to seek psychological helps. The feelings of anxiety for seeking help or going to therapist, will result in reducing a person self-centeredness, their contentment, their self-assurance, their abilities, and their overall self-value as an individual will be reduced (p. 326).

4. Result of the Study

The statistically significant of the mental wellbeing model was examined by using the criterion introduced by Schumacker and Lomax (2004) regarding the non-statistically significant of the chi-square test. As shown in Table 1, the non-statistically significant chi-square signifying that the mental wellbeing model fits the current data $p = .442$. The normed chi-square is $CMIN/df = 1.015$.

Table 1

Model	CMIN	DF	P	CMIN/DF
Default model	32.495	32	.442	1.015

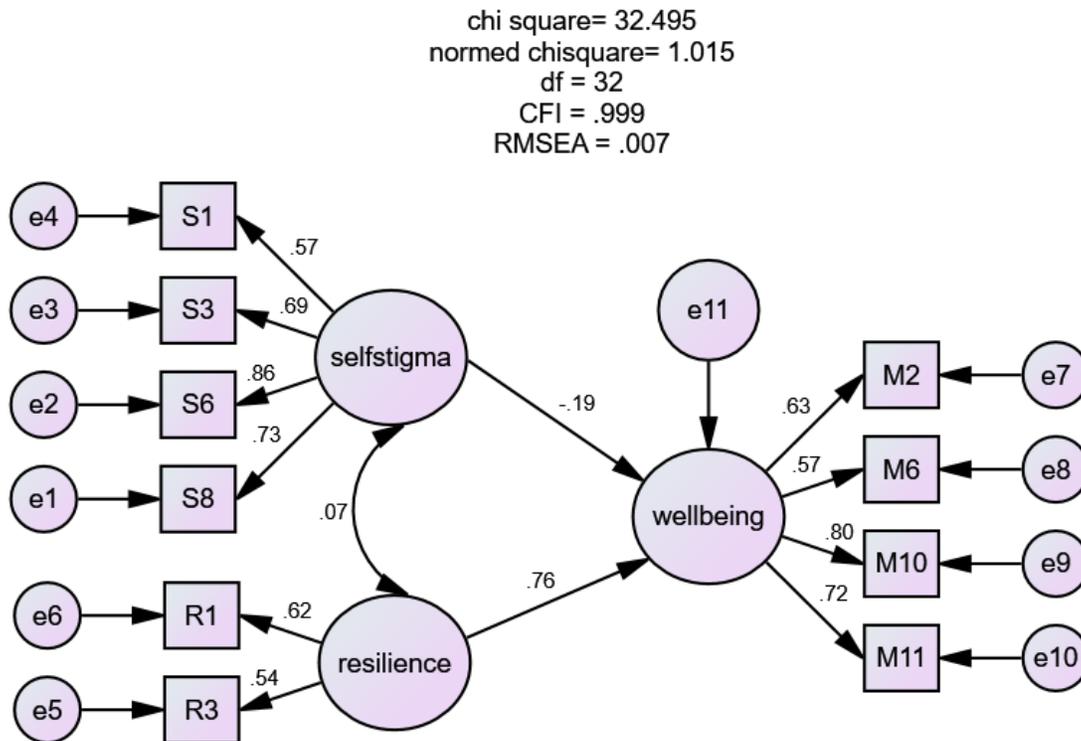


Figure 1. CFA Results of three-factor structure model of mental wellbeing

The results obtained by this study as shown below see table 2. The model had an excellent fit, because RMSEA .007 < .06, GFI .980 > .95, AGFI .965 > .90, IFC > .90, CFI .999 > .95, NFI .964 > .95, IFI .999 > .95, TLI .999 > .95, and PCLOSE non-significant .986 Based on these results it can be concluded that the proposed model is valid, approving the very first hypothesis for this study.

Table 2

Model	GFI	AGFI	CFI	NFI	IFI	TLI	RMSEA	LO90	HI90	PCLOSE
Default Model	.980	.965	.999	.964	.999	.999	.007	.000	.043	.986

As hypothesized, does resilience have a positive effect on mental wellbeing on IIUM students; the variable assessed in this analysis was positively related with mental wellbeing. Thus, does self-stigma has a negative effect on mental wellbeing of International Islamic University Students. The variable assessed in this research was negatively related with mental wellbeing. Approving the second and third hypothesis.

Testing the mediating role of Self-stigma in the relationship between resilience and metal wellbeing was achieved through the bootstrapping method defined by Preacher and `Hayes (2004). Bootstrap resampling, which is accessible in AMOS, is one possible solution for estimating model test statistic p values and parameter standard errors under non-normal data conditions (Nevitt & Hancock, 2001). The AMOS program has the Bollen-Stine option – a modified bootstrap method for the chi-square This option performs a transformation on the original data that forces the resampling space “To satisfy the null hypothesis, making the model-implied covariance matrix the true fundamental covariance matrix in the population” (Bollen & Stine, 1990). In this study the re-sampling or bootstrapping method was used on 200 samples to achieve multivariate normality. Results showed that that the

model fit better 74 bootstraps samples. It fit worse or failed to fit 126 bootstraps samples. Testing the null hypothesis that the model is correct, Bollen-Stine bootstrap $p = .632$ was obtained

The direct effect of Self-Stigma on mental wellbeing was insignificant ($\beta = .734, p > .001$) The indirect (mediated) effect of self-stigma on mental wellbeing was statistically significant ($\beta = .000, p < .001$). To conclude that the model has no mediation effects because resilience and mental wellbeing is not significant in the process of the mediator of self-stigma. The indirect effect of self-stigma on resilience and psychological wellbeing were insignificant $\beta = .009$, standard error (SE) = .025 $p < 0.01$. 95% bias-corrected confidence interval (.456; .010) and Percentile method 95% confidence interval (-.059; .016) $p < 0.01$ see table 3 displays the results of the mediational analysis.

Table 3. Bootstrap results: Standardized indirect effects

Path/Effect	β	SE	Bias-corrected method		Percentile method	
			95% confidence interval	p-value	95% confidence interval	p-value
R-SS-MW	.009	.025	(.456; .010)	.456	(-.059; .016)	.702

4.1 Invariance of the Mental Wellbeing Model

Another objective of the study was to explore the structural invariance of exogenous variables to effect student's mental wellbeing, across four possible moderators, such as, gender, educational level, location when they live and International and Malaysian student, To test for gender-invariance, a simultaneously analysis for both the male ($n_1 = 128$) and female ($n_2 = 187$) samples was done, firstly the structural paths were freely estimated the Chi-square value was unrestricted, and then by constraining the structural paths (Resilience→Mental Wellbeing; Self-Stigma→Mental Wellbeing;) The values have to be identical for both groups. The constrained structural path of wellbeing model estimated another Chi-square value, which was tested against the unrestricted values to see if there are any statistically significant differences. This method was applied the same for, educational level, marital status, International and Malaysian student of the mental wellbeing model. The invariance test across gender groups resulted in a statistically insignificant change in the Chi square value; $\Delta\chi^2 (df = 64) = 66, p > .001$.

The constrained model did not get worst-off, given the equality constraints. The values of CFI and RMSEA Chi-Square remained similar. The path coefficients did not vary significantly across gender. Therefore, gender did not interact with the exogenous variables to effect mental wellbeing of students,

To conclude, gender was not a moderating variable in this study. Furthermore, the ethnics invariance test yielded no-difference statistics between International and Malaysian students. The same goes for other groups of demographic variables such as, education level and location where they live. The interactions between education level groups and location where they live groups with two exogenous variables did not produce inconsistent results in student mental wellbeing model. In summary, the two-predictor of mental wellbeing model was applicable regardless of gender, ethnicity, education level and location where they live (Fengyang, 2018).

5. Conclusion

The result of this study expands previous studies on mental wellbeing; its relationship between resilience and self-stigma was employed on the mediating role of the presence of self-stigma. The relationship between resilience and mental wellbeing, and the relationship between self-stigma and mental well-being. Taking into consideration that the resilience was positively related with mental wellbeing. A study done by Maria Elvira De Caroli and Elisabetta Sagone. They examine the relationships between resilience and psychological wellbeing in late adolescents the result shows that adolescents with self-fulfilling profile reported higher resilience and psychological well-being than the others. However, self-stigma was negatively related to mental wellbeing. A study done by Link 1987 suggested that stigma affects life satisfaction in terms of employment, income and housing. Rosenfield's (1997) stated that stigma affects social outcomes, in an away through self-concept effects.

This study investigated the mediation and moderation effects of the independent variables providing descriptions for the outcome variable the mediators and moderators can explain why or how a direct relationship occurs between and independent variable and outcome variable. To the best of researcher knowledge, no pervious study has yet examined mental wellbeing as mediator and moderator in the relationship between self-stigma and resilience.

This study aimed to examine how self-stigma serves as indirect mediators of mental wellbeing. It is not easy to find a full mediation in such cases, since self-stigma can be attributed to fear and anxiety. As the result there was no significant indirect effect of self-stigma influencing mental wellbeing through resilience. According to the results of this study's it is recommended, future studies must endeavour to access more diverse samples. Approaches such as experimental studies, and longitudinal studies might lead to a reliable result the relation between mental wellbeing, resilience and self-stigma. Therefore, more complex analysis of predictors and mediators of mental wellbeing should be examined in a future.

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