

## Psychometric Properties of the 42-Item Version of Ryff's Psychological Well-Being Scale among Working Women in Malaysia

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### ABSTRACT

*The purpose of this study was to explore factor structure of Ryff's Psychological Well-being Scale. The scale was administered to 500 women employees from Malaysia's public universities. The 42-items of Psychological Well-being scale with six subscales namely: Self-acceptance, Environmental mastery, Positive relations with others, Autonomy, Personal growth, and Purpose in life. Results from principal factor analysis with Promax rotation with scree plot extracted 4 factors which contributed 53.70 per cent cumulative variance and produced loading between 0.346 to 0.924. However, the 4-factor produced in the analysis did not stand in any factors proposed by Ryff's, thus it yield new unidentified 4 factors. Further analysis was recommended to confirm the psychometric properties from the study.*

Keywords: Ryff's Psychological Well-being, Scale, Principal Factor Analysis.

### 1. INTRODUCTION

Psychological well-being is a combination of how an individual felt about his or her life that involves their assessment of their feelings towards their purpose of life, their potential, their relationship with others, and the responsible for their own lives. The dimensions of psychological well-being are autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance (Ryff, 1989). All of these aspects are the key components in building up an individual to be good in the psychological aspect.

The theory of Psychological well-being was firstly introduced by Ryff on 1989 by developing a scale addressing the positive human functioning that prevailed during those time. Then in year 1995, the scale is revised and yield a new structure in Psychological Well-being instruments with six factors, that are self-acceptance, positive relations, autonomy, environmental mastery, personal growth and purpose in life (Ryff and Keyes, 1995). It became an established and a widely used instrument in measuring Psychological Well-being, known as Ryff Psychological Well-being scales.

However, even though Psychological Well-being scales has been established and recognized in western country in Malaysia it is considered new. Literature regarding the structure and properties of the scales fit with Malaysian sample is limited and scarce moreover in working women sample.

In a currently challenging and competitive environment, maintaining well-being is not an easy task including to women. Despite it is a good situation on how women are now welcomed and encouraged to join the labor force (Shaari *et.al.*, 2019), the change is not parallel with the change in women roles in domestic field. Particularly for married women, they are struggling to balance life with career, family matters, society and personal needs. Such struggle become a concern on how the combination roles of wife and workers play a role in their well-being. While single

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women even though they seem to have more control on their life, their role nowadays is also changing with many responsibilities is also been put to them. Overall, women nowadays are more independence in controlling their life, thus a valid scale that can measure their well-being would be beneficial to ensure that their quality of life could also be maintained as women also play a big role in today's world. Thus, the purpose of this study was to explore factor structure of Ryff's Psychological Well-being Scale in Malaysian Sample, particularly on working women.

## **2. LITERATURE REVIEW**

Ryff (1989) firstly tested the Psychological Well-being with the new develop 6-dimensions with 20 items each to 321 respondents of men and women with multiple age groups. Findings found 3 factors were extracted with intercorrelation coefficient ranging from .32 to .76. Then study done by Ryff & Keyes (1995) to 1,108 respondents in United states confirmed the 6-dimensions factor model. Clark, Marshall, Ryff dan Wheaton (2001) tested the scale to 4,960 Canadian seniors and found low internal consistency reliability of each of the six-dimensions scale. Kafka & Kozma (2002) investigated Ryff's Scales to 277 participants with range age between 18-48 years old failed to support the 6-dimension scales instead extracting 3 unidentified factors. In contrast, Abbott et al. (2006) reported factor analysis to the scales exhibit a high loading value (>.80) to the item in all 6 dimensions.

Study by Dierendonck et.al. (2008) revealed that 4 out 6 dimensions were overlapping however suggested that second order with six-dimensions model is the best model that fit with the study. Supporting with the study is study conducted by Kallay dan Rus (2014) in their study to 664 Romanian sample even though found high reliability coefficient of the six subscales which were above .70 but concluded the 6-dimensions were highly correlated indicated a high overlap between the factors in single order factors, but not in second order factor. This is also supported by Lindfors (2006) which using the translated Swedish version of the scales administered to 1260 white collar workers also found single second order factor had better fit than the single factor model.

Next study was done by Sofa Amalia (2016) to 124 respondents found from the factor analysis the item's loading value in each item range between 0.306 to 0.731 which is considered high however the items did not stand on the designated factors. Mohammad Izzat & Wan Shahrazad (2018) performed factor analysis test of the scales based on 209 Malaysian employees found only 3 could be extracted.

Therefore, the mixed finding found in the literature regarding the psychometrics properties of Ryff's Psychological Well-being scales urges the important of investigating further to determine whether the structure of 6-dimensions/factors in the scale is applicable in Malaysian sample.

## **3. RESEARCH OBJECTIVE**

- i. To determine the validity of Ryff's Psychological Well-being scales through factor analysis test.
- ii. To determine the reliability of Ryff's Psychological Well-being scales based on Cronbach Alpha coefficients.

## 4. METHODOLOGY

### 4.1 Respondent

The respondent for this study were women's civil servant who work at public universities in Malaysia. A total of 500 respondents were participated in this study.

### 4.2 Instrument

Ryff's Psychological well-being scale were used as an instrument in this study. There are several versions of this scale, including 84 item, 42 item and 18 item version. This study will use a 42-item version, it measures six identified components of well-being: (1) self-acceptance, (2) environmental mastery, (3) personal growth, (4) positive relations with others, (5) purpose in life and (6), autonomy each component consists of 7 items. Respondent are asked to rate their level of agreement based on a 6-point agreement ranges from 1 (strongly disagree) to 6 (strongly agree). Table 2 below show the division of item based on the components, positive and negative.

**Table 1** Item division based on components and type

Scale	Components	Positive Item	Negative Item
Ryff's scales of psychological well-being	Self- Acceptance	12,18,24,30,42	6,36
	Environmental Mastery	8,14,26,32,	2,20,38
	Personal Growth	9,15,33,39	3,21,27
	Positive Relations	10,16,28,34	4,22,40
	Purpose in Life	5,23,41	11,17,29,35
	Autonomy	19,25,31	1,7,13,37

## 5. RESULTS AND DISCUSSION

Exploratory factor analysis through Principal component analysis extraction method with Promax rotation and scree plot using SPSS version 4 was used to answer research question 1. While, Cronbach alpha value were applied to answer research question 3.

Principal component analysis factor extraction method with Promax rotation and scree plot was applied to determine the factors of Psychological Well-being scales. Based on table 2, result showed that Kaiser-Meyer Olkin Sampling Adequacy (KMO) value obtained is .874. KMO value indicates the sample adequate and factor analysis is significant ( $k < 0.01$ ). Good KMO values is above 0.8 (Brace et al. (2006). The table also revealed that through the analysis, 4 unidentified factors were extracted contributed to 53.70 % of variance. All of the items from the original factors were mixed and all over the other factors and were load between .346 to .924. Most of the items loaded on factor 1 with 9 items, followed by factor 2, 4 item, factor 3 3 items and the last one factor 4 with only 2 items. The calculation of Cronbach alpha yield that each of the unidentified factor yield an acceptable value of Cronbach alpha reliability indicating they reliable to use as measure.

**Table 2** Summary of Findings

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.874 Total variance cumulative: 53.70%						
Pattern Matrix					Reliability Statistics	
Item	Factor 1	Factor 2	Factor 3	Factor 4	Cronbach's Alpha	No of Items
E16_R	.771				.847	9

E32_E	.767			
E17_L	.751			
E30_S	.678			
E10_R	.678			
E15_G	.652			
E34_R	.631			
E14_E	.607			
E36_S	.551			
E1_A	.797	.665		4
E2_E	.755			
E11_L	.635			
E12_S	.617			
E37_A	.883	.605		3
E38_E	.791			
E21_G	.346			
E28_R	.924	.647		2
E4_R	.776			

Notes of abbreviation: R= Positive Relation, E = Environmental Mastery, G = Personal Growth, S = Self-Acceptance, L= Purpose in life

## 6. CONCLUSION

The aim of this study to determine the factor structure of Ryff's Psychological Well-being using the sample of this study, working women. In other word, to investigate whether the 6-factors of the original scale will be supported when test it to the study sample. Therefore, from this study it revealed that the factor analysis conducted to 42-item version of Psychological Well-being resulted to an unknown 4 factor compared to the original 6-factor scales and left with 18 items. Thus, it didn't support the 6-factor of original scales.

This result proved that the structure 6-factor scales could be influences by different sample and cultures, the findings of this were also supported by the study done Ryff (1989), Kafka and Kozma (2002), Dierendonck (2008), Lindfors et.al. (2006), Kallay & Rus (2014), Sofa Amalia (2016) anf well as Mohd Izzat and Wan Sharazad (2018). Statistically, the 3-factors scale extracted in this study have good validity and reliability, it is recommended to confirm it by test to again to the similar sample and confirm is using confirmatory analysis.

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