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Factor Analysis of Spiritual Health during Covid-19 Pandemic: A Positioning of Adventist Higher Education Institution Students in Asia-Pacific International University

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Abstract: ***This study aims to determine the spiritual well-being of students at Asia-Pacific International University. The sample in this study amounted to 52 samples obtained during a period of 1 month. The data analysis technique used in this research is the factor analysis technique, which is processed using SPSS 16. The results showed that the following are factors regarding spiritual health of students at university, they are in terms of developing worship of the Creator, developing oneness with God, developing peace with God, developing joy in life, developing prayer life, developing infer peace, developing respect for others and developing kindness towards other people.***

Keyword: Spiritual Health, Spiritual Health, Factor Analysis, Higher Education Institution, University Students

INTRODUCTION

Recent events of COVID-19 and other notable personal events have caused people to be cautious about their health and spiritual well-being. It is noteworthy to look past and said people could stay home and avoid danger, and it will be all be fine. However, recent news shows how people in need of help are left being poorer and sicker from these unfortunate events. Some people and organizations offer retreats to boost spiritual health in the pandemic, other used gyms, and churches for mental, physical, and spiritual health.(Del Rio & Malani, 2020) All these show the importance of how people manage themselves in times of pandemic. Students, as part of higher education institutions, are in this category. People tend to forget that even though they are young, vibrant, and full of life, they can suffer from a lack of spiritual health.(World Health Organization, 2020).

Well-being is essentially a condition in which individuals achieve happiness and harmony in life in all dimensions, whether seen from the physical, intellectual, social, spiritual, mental, occupational dimensions, which are overall dimensions that characterize humanity and can be an

indicator of the quality and health of the individual. Both physically and psychologically (Baljani et al., 2011).

The welfare dimension inherent in the individual is not a dimension that stands alone. This is a dimension that is interrelated with one another, so that individuals are not only able to develop themselves, but can connect with the environment, and connect with the Creator as a creature so that the individual able to grasp the meaning of the events experienced, have a more meaningful purpose in life (Fisher, 2010).

Spiritual well-being is an individual's worldview in the process of finding life's purpose and meaning, connected to the power of the Creator, connected to the environment, so that individuals can accept and live life in a positive and balanced manner. This definition or limit is almost agreed upon by all experts who research spiritual well-being, either placing the spiritual as a component or as a center for individual welfare (Fitri, 2016).

Dimensions of individual spirituality are closely related to personal mental well-being. They positively impact individual development, such as reducing levels of depression, feelings of discomfort powerless, low use of NAFZA, avoiding anti-social behavior, and having a negative tendency towards premarital sex behavior (Osarrodi et al., 2012).

Based on some of the opinions above it can be understood that what is meant by the term spiritual is part of individual development, the spiritual aspect can encourage individuals to seek the essence of self-existence (Seybold & Hill, 2001). This in turn can guide individuals in achieving self-actualization as a creature of the Almighty God so that individuals can appreciate beauty, truth, unity, and sacrifice in life, and individuals can understand other individuals and other living things (Pirasteh Motlagh et al., 2019).

1. MATERIALS AND METHODS

The concept of spiritual well-being can be defined from a developmental viewpoint regarding the awareness that individuals are very complex and multi-system beings, as well as the development of understanding and recognition of spiritual aspects in individual development, driving the emergence of various scientific studies on spiritual concepts. Jafari et al. emphasized that the individual is not just a psychosexual and psychosocial being, but the individual is also a psycho-spiritual being (Jafari et al., 2010)

The concept of spirituality can be interpreted as the concept of transcendence which is the highest achievement in individual development (Allahbakhshian et al., 2010). It can mean a motivation that encourages and inspires individuals in seeking life's meaning and purpose (Ellison, 1983). It is understood as a human characteristic that distinguishes individuals from other creatures, and as a human dimension that can be an indicator of a person's mental health level (Jafari et al., 2010). Spirituality in individual life is humanity's nature and is the center of all welfare dimensions (Allahbakhshian et al., 2010).

At the Asia-Pacific International University, a questionnaire as a study tool was created and distributed to student respondents. There are about 1,000 students studying in that Institution of

higher education. There are 53 samples used for the studies based on the sample given and the findings were checked and cleared as a general respondent to the students using KMO and Bartlett's test. The method of factor analysis related to the analysis of factors of youth retention at church was used. The following important findings of the study are as follows: This study uses variable characteristics that are examined with descriptive statistics (Priyatno, 2014). (Verma, 2013) reported that the test of KMO and Bartlett is used for factor analysis to see if the data is satisfactory for the sample, as well as populations of all variables, scree map, total variance explained, component matrix: rotated component matrix and unrotated factor solution, as well as varimax-rotated solution. According to (Verma, 2013), the study can produce test battery in applying factor analysis, showing the overall variance explained by these factors and the number of factors to be maintained; the study will distinguish (analyze) the variables (values) in each (all) factor retained within the final solution on the basis of its measured loadings; a name for each retaining factor will be given by the study.

2. RESULTS AND DISCUSSION

Various problems related to the study obtained solutions from the results of the analysis. Statistical tools for processing relevant outputs were used in this study and were explicitly selected in advance for study discussion. The different approach will assess the test battery to evaluate factors of spiritual health during Covid-19 pandemic by using the factor analysis' statistical method.

Descriptive Statistic

The study uses mean of likert scale of 1 to 5 and Standard Deviation (SD) to classify the variables defined in the analysis. Table 1 look on the characteristic of variables in the study using the mean and SD for all variables in the study. From the questions given, the findings were obtained that the respondent shows that they are agree and strongly agree that they are agree on their spiritual health at Asia-Pacific International University.

Table 1. Descriptive Statistic

No	Variables	Mean	Std. Deviation	Analysis N
1	Developing a love of other people	3.8654	.74172	52
2	Developing a personal relationship with God	3.8269	.96449	52
3	Developing forgiveness toward others	3.9038	.74780	52
4	Developing connection with nature	3.8654	.86385	52
5	Developing a sense of identity	3.6731	.87942	52
6	Developing worship of the Creator	4.0962	.84621	52

7	Developing awe at a breathtaking view	4.0192	.89641	52
8	Developing trust between individuals	3.8462	.84910	52
9	Developing self-awareness	4.0385	.71295	52
10	Developing oneness with nature	3.6154	.86668	52
11	Developing oneness with God	3.9231	1.00676	52
12	Developing harmony with the environment	3.9423	.82637	52
13	Developing peace with God	4.1923	.84107	52
14	Developing joy in life	4.0385	.81557	52
15	Developing prayer life	3.8462	.99773	52
16	Developing inner peace	3.8269	.94394	52
17	Developing respect for others	4.2308	.67491	52
18	Developing meaning in life	4.0962	.82271	52
19	Developing kindness towards other people	4.3077	.61160	52
20	Developing a sense of magic in the environment	3.5000	.93934	52

KMO & Bartlett's Test

Table 2 displays KMO test result, which expresses whether the data measure was adequate or not for the study in terms of factor analysis. Based on table 3, the value is 0.894 and it is > 0.5; therefore, the data has adequate size or the analysis. Further, to test the null hypothesis that the correlation matrix is an identity matrix, Bartlett's sphericity test was used (Verma, 2013). Since significant value (p-value) of correlation matrix is 0.000 which is < 0.01 hence it is significant, and the correlation matrix is not an identity matrix. Therefore, the factor model is appropriate.

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.894
Bartlett's Test of Sphericity	Approx. Chi-Sq.	898.5
	Df	190
	Sig.	.000

Communalities Test

In this statistic analysis, the main part of the variability is explained by the factors identified in the analysis which are indicated by the higher commonality of a variable. Stipulation for communality of variable is < .4 (Verma, 2013). Communalities table, variable X1 is 0.520. This

means the factors that shape the development of love for others can explain the 52% variance in the spiritual health variable. Likewise for the other variables. Result from table 3 indicate that the communalities of all the variables are more than .4; therefore, all the variables are useful for the model.

Table 3
Communalities Test

No	Variables	Initial	Extraction	Analysis N
1	Developing a love of other people	1.000	.520	52
2	Developing a personal relationship with God	1.000	.782	52
3	Developing forgiveness toward others	1.000	.658	52
4	Developing connection with nature	1.000	.508	52
5	Developing a sense of identity	1.000	.594	52
6	Developing worship of the Creator	1.000	.859	52
7	Developing awe at a breathtaking view	1.000	.690	52
8	Developing trust between individuals	1.000	.810	52
9	Developing self-awareness	1.000	.656	52
10	Developing oneness with nature	1.000	.781	52
11	Developing oneness with God	1.000	.846	52
12	Developing harmony with the environment	1.000	.697	52
13	Developing peace with God	1.000	.859	52
14	Developing joy in life	1.000	.848	52
15	Developing prayer life	1.000	.739	52
16	Developing inner peace	1.000	.774	52
17	Developing respect for others	1.000	.706	52
18	Developing meaning in life	1.000	.755	52
19	Developing kindness towards other people (X19)	1.000	.757	52
20	Developing a sense of magic in the environment	1.000	.536	52

Eigen value

After rotation, it shows that the first, the second and the third factors explain 59.64, 7.16 and 5.08% of the total variance, respectively. Hence, 71.88% of the total variance in this study could be explained by these factors together.. The values of factors in the table displays that factor

retained in the study are only for those factors with Eigen values 1 or more than 1 (Verma, 2013). Here, it can be seen that the Eigen value for the first three factors are >1; consequently, in this study only three factors were retained.

Table 4. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.929	59.644	59.644	11.929	59.644	59.644	5.153	25.766	25.766
2	1.432	7.162	66.806	1.432	7.162	66.806	4.962	24.810	50.575
3	1.017	5.083	71.889	1.017	5.083	71.889	4.263	21.314	71.889
4	.799	3.993	75.881						
5	.734	3.669	79.550						
6	.664	3.319	82.870						
7	.497	2.486	85.355						
8	.464	2.318	87.673						
9	.419	2.095	89.768						
10	.336	1.682	91.450						
11	.305	1.523	92.973						
12	.285	1.427	94.400						
13	.253	1.266	95.666						
14	.207	1.037	96.703						
15	.172	.862	97.565						
16	.137	.684	98.249						
17	.128	.641	98.890						
18	.099	.496	99.386						
19	.076	.379	99.765						
20	.047	.235	100.000						

Extraction Method: Principal Component Analysis

Scree Plot

Figure 1 presents the scree plot which is taken by plotting the factors along X-axis toward their eigenvalues along Y-axis. The aforementioned plot reveals that solely three factors with eigenvalues above elbow bent. Therefore, in this study the three factors that occur are maintained.

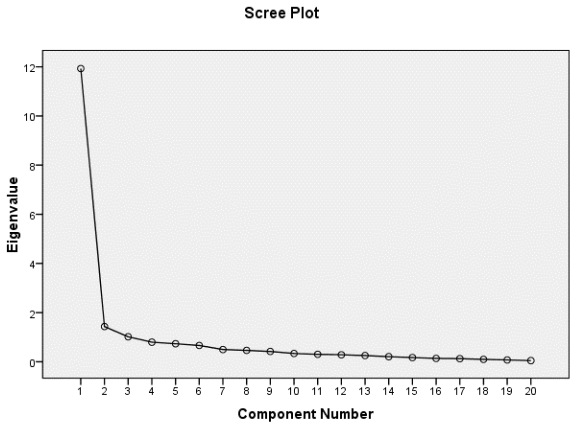

Figure 1. Scree Plot

Extracted Factors

Based on the statistical analysis, three factors are selected, and has been shown in table 6 the factor load of all the variables in each factor. Considering this is an unrotated factor solution, and some of the variables may show their contribution in more than one factor. To avoid this state, the factors are rotated and according to (Verma, 2013) the varimax rotation has been used in this case to rotate the factors, as this is the most favoured approach used by the researchers due to its efficiency.

Variables are normally classified in a factor if their loading on factor 0.7 or more. (Verma, 2013). This ensures that the variable gives the factor an adequate variant. However, if the adequate variables cannot be distinguished within these factors this threshold value can be lessened. In this problem in the factor whose load is greater than or equal to 0.6, the variable is retained. Due to this criterion, the variables have been grouped under these three factors, and test battery for factors on spiritual health is given in table 6 with a twist with the positioning of extracted factor that is classified in loading on factor of 0.8 for this study.

Table 5. Component Matrix

Variables	Component		
	1	2	3
Developing a love of other people	.665	.111	.257
Developing a personal relationship with God	.795	.281	-.265
Developing forgiveness toward others	.753	-.274	.127
Developing connection with nature	.627	.203	.272
Developing a sense of identity	.749	-.101	-.152
Developing worship of the Creator	.841	.250	-.297
Developing awe at a breathtaking view	.764	.311	.102
Developing trust between individuals	.798	-.415	.030
Developing self-awareness	.694	-.342	.241
Developing oneness with nature	.729	.261	.426
Developing oneness with God	.860	.304	-.119
Developing harmony with the environment	.728	.383	.144
Developing peace with God	.844	.025	-.381
Developing joy in life	.816	-.411	.118
Developing prayer life	.812	.030	-.282
Developing inner peace	.805	-.294	-.199
Developing respect for others	.827	.142	-.050
Developing meaning in life	.760	-.418	-.045
Developing kindness towards other people (X19)	.867	-.065	.032
Developing a sense of magic in the environment	.651	.048	.331

Extraction Method: Principal Component Analysis.

Tabe 6.Test Battery

Variables	Loadings	Factors
X6	.841	Developing worship of the Creator
X11	.860	Developing oneness with God
X13	.844	Developing peace with God
X14	.816	Developing joy in life
X15	.812	Developing prayer life
X16	.805	Developing inner peace

X17	.827	Developing respect for others
X19	.867	Developing kindness towards other people

Test Battery

The results in table 7 shows the factors in the analysis of spiritual health.

3. CONCLUSION

Students as a young and active person give their initial perception based on the factors of spiritual health at the higher education institution they studied. The result show their perception on things that make them have spiritual health at their higher education institution. Their reflection on the research question shows that spiritual health can be gained when they are of developing worship of the Creator, developing oneness with God, developing peace with God, developing joy in life, developing prayer life, developing inner peace, developing respect for others and developing kindness towards other people.

Therefore, continuous development of these criterion in life is deemed important, as it supports the growth and development of the person, the environment and institution itself. This is one reason that higher education institution should be given the essential facts and real measures in their assessment of their students spiritual health. at the higher education institution. In order to generate a test battery to incorporate factors of spiritual health people can prefer variables among the distinguishing factors. Considering percentage contribution of every factor the in the extent of the total variability is the same, therefore one variable among every factor holding distinguished loadings on the factor may be picked up to generate the test battery for estimating the factors of youth retention at church. Scholars recommend working the confirmatory factor analysis with further data set to these questions before using this tool to estimate the factors of spiritual health because this meant a simulated study.

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