

# Spiritual well-being and mental health among students: Evidence from Indonesia

*by Muli Umiaty Noer*

---

**Submission date:** 30-Aug-2023 09:29AM (UTC+0800)

**Submission ID:** 2153843254

**File name:** 271-Article\_Text-1338-1-10-20230829.pdf (673.8K)

**Word count:** 7628

**Character count:** 43279

## Spiritual well-being and mental health among students: Evidence from Indonesia

**Muli Noer**

ORCID: 0000-0002-9751-896X

Department of Islamic Education  
Management, Universitas Muslim  
Indonesia, Makassar, Indonesia

muliumiatynoer.umi@gmail.com

### ABSTRACT

This research investigates whether and how religiosity (for example, spiritual well-being) influences the mediator variables (student attitude, subjective norm, and behavioural control) in the education field based on the Theory of Planned Behaviour (TPB). It also examines how these mediator variables affect students' mental health. 572 students were recruited for a survey study, and structural equation modeling (SEM) was used to test the research hypotheses. The empirical results indicate that spiritual well-being has significant and positive effects on students' attitudes, subjective norms, and behaviour, subsequently influencing their mental health. Furthermore, the mediator variables (for example, students' attitude, subjective norm, and behaviour) partially mediate religiosity and mental health. The results of this study suggest that regulators should collaborate with parents, schools, and teachers to develop a suitable curriculum, based on religiosity principles, which correlates with the current situation.

Submitted: May 12, 2022

Accepted: April 25, 2023

## Introduction

The impact of COVID-19 has been felt in the world of education; one of the most deeply felt impacts is excessive stressors for mental health among students and teachers. Such anxiety and stress has occurred due to a lack of activity at school, studying online, and a lack of interaction. It has had a negative effect on student attitudes and behaviour (for example, dishonest conduct and lack of motivation) (Farrell & Mahon, 2021; Hall, Everson, Billingsley & Miller, 2021; Agherdien, Pillay, Dube & Masinga, 2022). As many as 50% of students at one university in the North of England experienced a psychological disorder (Chen & Lucock, 2022), as did many in Poland (Krok, Zarzycka & Telka, 2021), and South Africa (Dison et al., 2022). This phenomenon also emerged among young people in Bangladesh (Sifat, Ruponty, Shuvo, Chowdhury & Suha, 2022) and China (Cao et al., 2020). According to the Indonesian Psychiatrists Association, 69% of students who participated in one study faced some form of psychological disorder (The Jakarta Post, 2020). If not treated, these problems can become more serious disorders. In some developed and developing countries, religiosity and spirituality play a crucial role in shaping students' attitudes and psychological well-being, including the habits of worshipping, helping parents, motivation, and confidence in learning at school before and after the COVID-19 pandemic (Anriani, Sari, Junaidi and Hamka, 2022; Hamka, Suen, Ramadhan, Yusuf & Wang, 2022).

Religious affiliations, such as Buddhist, Christian, Hindu, Islamic, and Lutheran, have a crucial role in influencing students' attitudes and behaviour (Kavonius & Ubani, 2020; Guilfoyle, Erduran & Park, 2021). Some scholars have validated that religiosity has a correlation to students' psychology of well-being (for example, attitudes, behaviours, and mental health) (Chin & Mansori, 2019; McDonald, Seaman-Thornton, Mok, Jakobsen & Riches, 2022; Mousa & Samara, 2022). Religiosity also has correlations with students' attitudes, both individual and social, personal and community-oriented (Soto, Tajalli, Pino & Smith, 2018; Ali et al., 2019; Peng, Benner, Nikolova, Ivanov & Peng, 2020). Indonesia constitutes a very specific case. Although religious education has been incorporated into the school curriculum, some regions have faced low levels of student attitude and behaviour before and after the COVID-19 pandemic (Adli et al., 2022; Ferdiansyah, Winarno & Ardhita, 2022). However, there is a lack of studies investigating the correlation between these variables. Moreover, prior studies are more focused on the qualitative approach and Western contexts.

This study aims to address this gap by examining spiritual well-being among students, as research on student ethics and spiritual well-being has become a major concern, especially how to enhance

students' psychological well-being based on being in a developing country and the TPB. It was also used to investigate the relationship between spiritual well-being and students' mental health.

Hence, this study provides answers to the following research questions:

RQ1. Does spiritual well-being positively affect students' attitudes, subjective norms, and behaviour?

RQ2. Do students' attitudes, subjective norms, and behaviour mediate the relationship between students' spiritual well-being and mental health?

In answering these questions, this study provides theoretical and practical contributions. Firstly, this study links spiritual well-being and mental health with the educational context. Secondly, there is a lack of research examining the relationship between religiosity and TPB in an educational context. This study can help academics and practitioners better understand the factors that influence students' attitudes and behaviour, which in turn influence their ethics and mental health during communication and interactions (Junaidi, Chih & Ortiz, 2020).

## Literature Review

Social identity is the psychological aspect of personal beliefs and knowledge within social groups, which have two common elements: the personal level (i.e., related to a personal sense of self), and social identity (i.e., related to groups to which a person belongs) (Tajfel & Turner, 1979). Social identity refers to the ways people engage in activities based on their membership in communities such as sports teams and religious and ethnic groups. It also provides insight into the ways social identity influences people's attitudes and behaviour. Personal and social sense of self strongly correlate with a social affiliation, such as religion, which directly affects people's communication and interaction patterns. In the educational context, social identity impacts students' attitudes and behaviour (Graafland, 2017; Chachar, Siddiqui, Saeed, Naseem & Mian, 2020; Simonsen & Rundmo, 2020). Students establish utilitarian attitudes towards ethics, morals, and mental health at the cognitive level. Also, students tend to build a positive desire toward habits based on religious concepts. Students who are more religious show positive psychological well-being and a high level of communication and interaction with others, compared to students who do not care about religion (Breskaya, Francis & Giordan, 2020; Erken, Francis & McKenna, 2020).

TPB describes students' attitudes and behaviour, which may also predict their performance. It also concerns aspects of the decision-making process, attitudes, and subjective norms, which directly correlate to people's awareness of regulation. Even though this concept is expected to provide a model for theoretical and empirical study, little literature is available in the educational context. According to Graafland (2017), people's spiritual level has a strong correlation to their attitude, subjective norm, and perceived behaviour. Indoor and outdoor activities have a close relationship with students' mental health in Bangladesh (Sifat et al., 2022), Germany (Godbersen, Hofmann & Ruiz-Fernández, 2020), China (Li & Li, 2021), Indonesia (Ferdiansyah et al., 2022), and the United Kingdom (UK) (Chen & Lucock, 2022).

### Hypotheses development

#### *The relationship between spiritual well-being and student attitude*

In the educational context, religiosity is referred to as an individual's belief in linking love for God and human beings (Anriani et al., 2022; Erken et al., 2020; Höllinger, 2020). It includes attending religious activities, being a good Samaritan, caring for frequent prayer, and educating others. Religiosity plays an essential role in affecting communication and interaction patterns among students (Stewart, Lawrence & Burg, 2019; Hu & Cheng, 2021). It has a positive effect on improving their ethics, morals, and mental health (Nguyen, 2020; Williams-Gualandi, 2020; Phillips, Connelly & Burgess, 2021). The demand for it has increased due to the perceived degradation of ethics and morality. Spiritual well-being comprises two main dimensions: religious well-being, which is concerned with personal relationships with God; and building a positive relationship with humans. In some regions, for example Indonesia, where people's lives have a strong correlation to religion, people participate in daily activities such as going to the mosque and personal prayer (Anriani et al., 2022). Hence, faith and spiritual well-being have a strong impact on people's lives.

Religiosity affects various aspects of students' psychological development (e.g., empathy, respect, and mental health). It is related to cognition and behaviour, which influence their spiritual well-being (Cook, 2020; Erken et al., 2020; Garssen, Visser & Pool, 2020), and has also become an education goal for peaceful communication and interaction among peers. There are three mechanisms explaining how spiritual well-being influences students' psychology (for example, attitude and behaviour), namely social support and cultural embeddedness, meaning-making, and self-regulation (Garssen et al., 2020; Hamka et al., 2022). It also leads to students being more friendly based on

religious objectives (for example, respect for others). Attitudes refer to a student's evaluation of a behaviour. Hence, students who have strong beliefs will apply positive attitudes, make religion a guide in life, and this will become the basis for enhancing ethical behaviour and increasing sympathy and respect for fellow human beings. It also possibly enhances students' awareness of and behaviour regarding humanist principles in their lives. Prior studies have attempted to validate religion's role in students' attitudes, such as Höllinger (2020), who concluded that religiosity and spirituality positively influence students' attitudes and behaviour in Austria. Similarly, in Italy, it was found that religion also influences student attitudes and ethics (Breskaya et al., 2020). Furthermore, some scholars conclude that religiosity plays an important role in individual attitudes (Waqas, 2021). However, there is a lack of research to validate the aspect of religiosity and spirituality (for example, spiritual well-being) in the TPB and education context. Hence, this study proposes the following hypothesis.

H1. Spiritual well-being has a positive effect on students' attitudes.

#### *The relationship between spiritual well-being and students' subjective norm*

Scholars use categorical scales to measure the morale of students according to their religious beliefs (Cook, 2020). Religious affiliation refers to an individual's adherence to a particular religion, while morality is a higher sense of caring for fellow human beings, positive thinking, and participating in religious activities. It has a positive effect on spiritual well-being. This perspective is an essential feature of the influence of religion on student ethics and morale. Instrumental and practical interests in individual-oriented religions are based on their extrinsic beliefs, which provide direction to always apply morals in the education process based on religious principles. Spiritual well-being is related to high concern for students' needs and desires and worshipping in religious activities that increase faith, morale, and mental health. Students' positive behaviour is influenced by their level of spirituality. Prior studies conclude that individual spirituality significantly affects personal ethics and mind (Charsetad, 2016; Stewart et al., 2019; Krok et al., 2021), as well as students' subjective norms (Graafland, 2017; Ali et al., 2019; Garg & Singh, 2020). Subjective norms measure the students' perceived social pressure to engage or not engage in a behaviour. Based on the subjective norm in the TPB, if a student is motivated by organizational affiliation (e.g., religion and spiritual well-being) and shares their personal experience, it will influence other students to be active in religious activities. Hence, this study proposes the following hypothesis:

H2. Spiritual well-being has a significant and positive effect on student subjective norms.

*The relationship between spiritual well-being and students' behavioural control*

Students' religious and spiritual well-being play an essential role in determining the conditions of education. Students who follow religious teachings may display better behaviour (Stewart et al., 2019; Nguyen, 2020; Phillips et al., 2021; Sifat et al., 2022). For example, students may have a high standard of behavioural control and solve problems well. Some students face low levels of sympathy for fellow human beings due to mental illness. It also influences students' learning, motivation, and performance. Preliminary studies found a strong relationship between spirituality and students' behaviour (Forghani, Kazemi & Ranjbarian, 2019; He, Wang & Gao, 2022). Furthermore, spiritual well-being is found to be negatively related to absenteeism (which is an intensified form of withdrawal behaviour) (Garssen et al., 2020; Godbersen et al., 2020; Liddle, Vella & Deane, 2021). It has been reported that employees with high levels of engagement would cease to indulge in withdrawal behaviour and instead would proactively invest their maximal efforts toward the accomplishment of organizational goals (Zeijen, Peeters & Hakanen, 2018). Building upon the above arguments, we propose the following hypothesis:

H3. Spiritual well-being has a significant and positive effect on students' behavioural control.

*The relationship between student attitude and mental health*

Attitude is an essential factor influencing students' mental health. It possibly guides and develops a more dynamic person (Cook, 2020; Farrell & Mahon, 2021; de Klerk, 2022; Dison et al., 2022). Furthermore, mental health is also influenced by culture and the workplace environment (Ali et al., 2019; Bikos, 2021). This has caused an increase in mental health challenges; hence, mental health has become a global issue. Other factors influencing this include social distance, symptom distress, and help-seeking attitudes (Li & Li, 2021; Liddle et al., 2021). Common mental health issues include anxiety, depression, and stress (Khazaeian, Khazaeian & Fathnezhad-kazemi, 2021; Kotera, Ting & Neary, 2021). Around 13% of the world's population (971 million people) has mental health illnesses (Rice-Oxley, 2019). High mental well-being has a correlation with productivity, whereas mental illness is associated with low performance and achievement. In some regions, personal attitude and spiritual well-being have a positive effect on mental health. Moreover, the mediating role of



students' attitudes is significant in examining the relationship between spiritual well-being and students' mental health.

According to the World Health Organization (WHO), mental health should be conceived of not in terms of the absence of signs or symptoms of mental illness but rather in terms of the capacity to cope with life and contribute fruitfully at work and in the wider community (WHO, 2020: 12). Although the WHO does not specifically mention students' mental health and wellbeing, the problem of mental illness and disorder emerges frequently in educational contexts. Mental health is a condition in which a person's mind is calm without feelings of restlessness. Someone who is mentally healthy can face life's challenges and establish positive relationships with others. On the other hand, people with poor mental health find it hard to control their emotions. Students with mental disorders also can damage their interactions with others and compromise school achievement. To overcome mental health problems experienced by students, some empirical studies promote religious education to help overcome depression and lower stress levels and anxiety (Erken et al., 2020; Kavonius & Ubani, 2020; Guilfoyle et al., 2021). Religious education can reduce mental illness among students, including difficulties with social interaction and communication. As taught in religion, prayer can alter mental well-being (Cook, 2020; Garg & Singh, 2020). This means that frequent prayer has a positive effect on people's mental health. Furthermore, prior studies have concluded that student attitude plays an important role in overcoming mental health problems (Lehman & Gorsuch, 2017; Hall et al., 2021; Krok et al., 2021). Hence, this study proposes the following hypotheses:

H4a. Students' attitudes have a significant and positive effect on students' mental health.

H4b. Students' attitudes have a significant and positive effect on the mediating relationship between spiritual well-being and mental health.

#### *The relationship between subjective norms and students' mental health*

The uncertainty induced before, during, and after the COVID-19 pandemic can lead to mental and anxiety disorders (Adli et al., 2022; Dison et al., 2022; Ferdiansyah et al., 2022). Moreover, loneliness can also cause mental and physical health issues such as cardiovascular problems and fragmented sleep (Hall et al., 2021; Khazaeian et al., 2021). The central idea of TPB reveals that human behaviour is determined by attitude, subjective norms, and perceived behavioural control. Subjective norms refers to the level of social pressure (for example, peer pressure) an individual feels regarding their



achievements. Prior studies have examined the correlation between subjective norms and people's mental health. Godbersen et al. (2020) conclude that subjective norms have less effect on enhancing mental health than attitudes. Garg and Singh (2020) argue that subjective well-being also has a significant role in enhancing people's mental and physical health in India. Similarly, in Egypt, it was found that a sense of belonging among people plays an important role in reducing mental illness (Nguyen, 2020; Phillips et al., 2021; Mousa & Samara, 2022). Furthermore, a positive subjective norm also correlates with personal spirituality (Charsetad, 2016; Lehman & Gorsuch, 2017; Chin & Mansori, 2019). Hence, this study proposes the following hypotheses:

H5a Subjective norms have a positive effect on students' mental health.

H5b Subjective norms have a significant and positive effect on the mediating relationship between spiritual well-being and students' mental health.

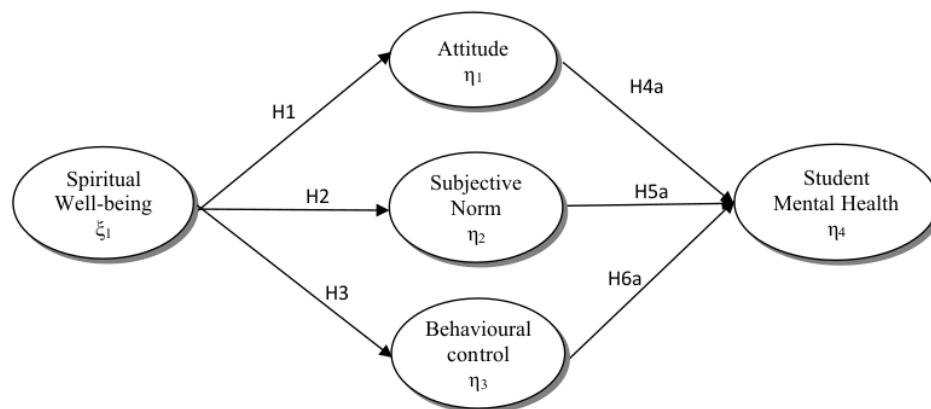
#### *The relationship between perceived behavioural control and mental health*

In the educational context, behavioural control has a strong correlation with mental illnesses such as anxiety, depression, and stress. Students' performance is influenced by how well they manage their behaviour (Peng et al., 2020; Khazaeian et al., 2021; Liddle et al., 2021; Muliadi et al., 2022).

Students' behavioural control may also play an essential role in addressing the relationship between their spirituality and mental health. It also refers to a sense of mutual indebtedness that ensures community members reciprocate their benefits from others (Godbersen et al., 2020; Bikos, 2021). Students build up their social relationships and enhance their attitude and behaviour to establish interpersonal relationships based on interaction and trust. Hence, this study proposes the following hypotheses:

H6a Perceived behavioural control has a positive effect on students' mental health.

H6b Perceived behaviour has a significant and positive positive effect on mediating the relationship between spiritual well-being and students' mental health.



**Figure 1.** Proposed research model.

## Methodology

### *Questionnaire design, sample, and data collection*

This study applied high reliability and validity measurement items (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). It also conducted pilot tests before the formal study. The approach used sought to collect participant responses to a questionnaire (Hair, Black, Babin & Anderson, 2019). The respondents were university students in the Sulawesi Selatan district (Indonesia). The wording of the measurement items is in Indonesian language, which was reviewed by a professional English-Indonesian translator. The study was carried out in late 2021 in online form. The sample involved 620 students who suffered adverse mental health symptoms. However, only 572 responses were valid (92.26%). Table I provides an overview of the demographics of the students who provided valid responses. This study also used Harman's single-factor test to propose post-detection procedures for the common latent factor (CLF) by Eichhorn (2014). Thus, nonresponse bias should not be a concern. We also applied a critical selection technique, part of the purposive sampling of non-probability sampling strategy.

**Table I.** Respondent demographics

Demographic Items	Frequency	Percentage (%)
Gender		
Male	257	44.93
Female	315	55.07
Age		
Under 21 years old	190	33.21
21~25 years old	297	51.92
26~30 years old	85	14.86
Students' range		
Bachelor	222	38.81
Master's	325	56.81
Doctor	25	4.37

### Measures

A seven-point Likert scale anchored between 1 ("strongly disagree") and 7 ("strongly agree") was used. Spiritual well-being focuses on personal feelings, and questions about this were adapted from Yeh and Bull (2009). The students' attitudes, subjective norms, and behavioural control were adapted from Campbell (2013), and mental health items were taken from Przybylski and Weinstein (2017). Furthermore, the hypotheses were tested using SEM, utilising SPSS 22 and AMOS 22 statistical programs. Pearson correlations among the predictors and criterion variables (students' attitude, subjective norm, and perceived behavioural control) are based on the TPB. Lastly, this study also applied a mediation effect (Hayes, 2018).

### Data analysis

According to Byrne (2016), SEM provides two essential aspects. Firstly, it is used to determine the causal effects of the observed variables; secondly, the structural relations among variables enable a clear description of the theory examined in this study. The hypothesized model is used to validate all the variables and determine consistency with the investigation. Pearson correlation coefficients were also used to determine the relationship between predictors (spiritual well-being) and criterion variables (student mental health). Common Standard Variance (CMV) was adopted as a prevention and post-detection technique. Therefore, this study applies the Hayes bootstrapping method (2018) to examine the influence of spiritual well-being on students' mental health as mediated by their attitude, subjective norm, and behavioural control.

## Results

### *Pilot study and descriptive statistics*

The pilot study was adopted to ascertain the validity of the content and identity of the instrument; moreover, the reliability of the measurement item was assessed using Cronbach's alpha (Hair et al., 2019). The mean differences are stated in terms of standard deviations. Therefore, an effect size greater than .5 shows that the mean difference is one-half of the standard deviation. The mean score for all is above 5.00, while the standard deviation is below 1.00. This means that, on average, the students' religiosity (i.e., spiritual well-being), attitude, subjective norm, behavioural control, and mental health have a strong correlation (see Table II).

### *Pearson correlation*

This study further confirms that student ethics and morals have a significant and positive effect on mental health. This means that for the majority of participants, spiritual well-being plays an essential role in education. Students adopted religion as a guideline for their lives and psychological well-being. The students' attitudes, subjective norms, and behavioural control support and enhance their education. It also offers solutions regarding how to communicate and interact with their peers, teachers, and society.

**Table II.** Correlation matrix for measurement scales

Constructs	Mean	SD	SW	AT	SN	BC	MH
SW	5.63	0.67	<b>0.747</b>				
AT	5.87	0.61	0.412**	<b>0.741</b>			
SN	5.52	0.71	0.419**	0.577**	<b>0.748</b>		
BC	5.92	0.68	0.545**	0.408**	0.518**	<b>0.766</b>	
MH	5.34	0.80	0.339**	0.393**	0.581**	0.546**	<b>0.757</b>

**Note:** SW: Spiritual Well-being, AT: Attitude, SN: Subjective Norm, BC: Behavioural Control

MH: Student Mental Health

SD: Standard Deviation

Diagonal elements are the square roots of the AVE for each construct

Pearson correlations are shown below the diagonal

Significant at \*:  $p < 0.05$ , \*\*:  $p < 0.01$ , \*\*\*:  $p < 0.001$

### Measurement result

A two-stage approach designed by Byrne (2016) and Hair et al. (2019) was used in this study. Firstly, the measurement model was based on confirmatory factor analysis (CFA) to examine the reliability and validity of the research constructs. SEM was used to test the proposed model and the research hypothesis. The structural model was used to test the strength and direction of the proposed relationships among the constructs. The CFA results of the remaining 27 items (such as six items for spiritual well-being, five items for attitude, six items for subjective norm, five items for behavioural control, and five items for students' mental health) showed that the data had a good fit. The model fit and Cronbach's  $\alpha$  for all constructs indicate excellent convergent validity and reliability for all measurement items and constructs. The composite reliability (CR) result shows an adequate level of reliability. This indicates good reliability for all measurement items, constructs, and convergent validity. Table III indicates the adequate discriminant validity of this study.

### Structural model

The summary in Table IV shows that a positive and significant relationship exists between spiritual well-being and student TPB components (e.g., attitude, subjective norm, and behavioural control) (0.518;  $p < 0.001$ , 0.515;  $p < 0.001$  and 0.640  $p < 0.001$ ), thereby supporting H1, H2, and H3. This implies that religiosity and belief may influence students' attitudes and behaviour. Similarly, H5a and H6a are supported, which indicates a positive relationship between subjective norm and behavioural control (0.482;  $p < 0.001$ ; 0.360;  $p < 0.001$ ), respectively. However, students' attitudes have less effect on their mental health (0.019;  $p > 0.010$ ). Hence, H4a is unsupported in this study. Table 4 and Figure 2 show the structural model adopted in this study.

**Table III.** Measurement results

Variables	Factor Loading	Composite reliability (CR)	Average of variance extracted (AVE)	Cronbach $\alpha$
<b>Spiritual Well-Being (Yeh and Bull, 2009)</b>		0.883	0.558	0.882
SW1: Prayer is an important part of my life	0.745			
SW2: I believe that I have spiritual well-being	0.779			
SW3: I respect others' beliefs.	0.697			
SW4: I have a close relationship with my spiritual well-being	0.744			
SW5: I believe in the after death.	0.710			
SW6: I respect my friends.	0.801			
<b>Attitude (Campbell, 2013)</b>		0.858	0.549	0.857
AT1: I worry about unethical attitude	0.731			
AT2: It is important to have a good attitude	0.789			
AT3: I try to friendly and respect to my friends.	0.776			
AT4: Ethics can have a positive effect on my attitude.	0.745			
AT5: If I adopt a positive attitude, I will be respected by others	0.657			
<b>Subjective Norm (Campbell, 2013)</b>		0.885	0.560	0.895
SN1: I should do much better than my friends	0.731			
SN2: I should be friendly to others	0.820			
SN3: I should have positive behaviour	0.701			
SN4: I should care about the environment	0.728			
SN5: I should care about my friends and society	0.836			
SN6: I should perform to prevent unethical action	0.657			
<b>Behaviour Control (Campbell, 2013)</b>		0.959	0.825	0.874
BC1: I think preventive unethical action is easy to implement	0.695			
BC2: I am confident that I can have a positive attitude and behaviour	0.783			
BC3: I am confident that I have enough knowledge about ethics	0.713			
BC4: Preventing unethical action is a positive action among students	0.810			
BC5: I have a moral obligation to respect other students	0.822			
<b>Mental Health (Przybylski et al. 2013)</b>		0.870	0.573	0.875
MH1: I fear others have more rewarding experiences than me	0.763			
MH2: I am anxious when I don't know what my friends are up to	0.743			
MH3: I worry when I find out my friends are having fun without me	0.774			
MH4: It is important to understand my friends' work	0.766			
MH5: I wonder if I spend too much time keeping up with what is going	0.739			

Fit statistics (N = 572)

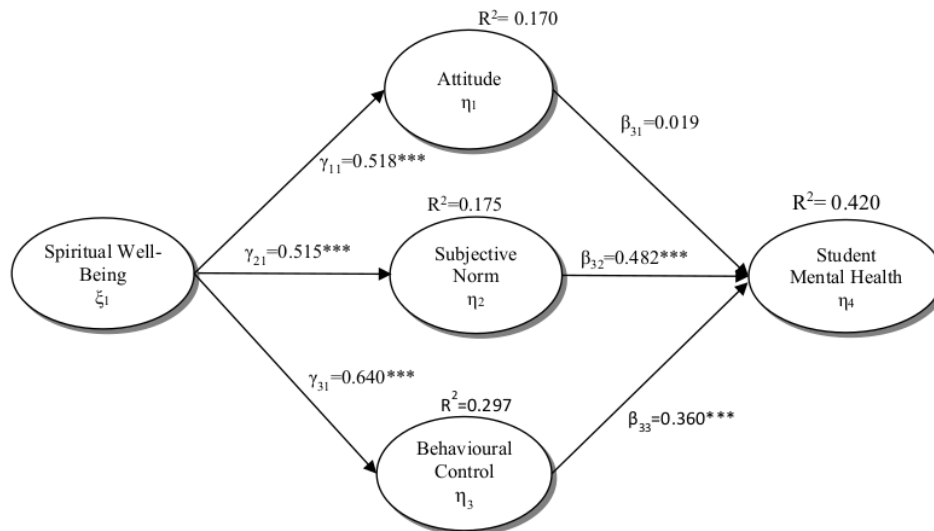
 $\chi^2/df = 3.871$ , Goodness-of-Fit Index (GFI) = 0.894, Nonnormed fit index (NFI) = 0.934, Comparative Fit Index (CFI) = 0.952, Incremental fit index (IFI) = 0.952, and Root Mean Square Error of Approximation (RMSEA) = 0.055



**Table IV.** Proposed model results

Hypotheses	Symbol	Path	Coefficients	Test results
H1	$\gamma_{11}$	Spiritual Well-Being $\rightarrow$ Attitude	0.518***	Supported
H2	$\gamma_{21}$	Spiritual Well-Being $\rightarrow$ Subjective Norm	0.515***	Supported
H3	$\gamma_{31}$	Spiritual Well-Being $\rightarrow$ Behavioural Control	0.640***	Supported
H4a	$\beta_{41}$	Attitude $\rightarrow$ Mental Health	0.019	Unsupported
H5a	$\beta_{42}$	Subjective Norm $\rightarrow$ Mental Health	0.482***	Supported
H6a	$\beta_{43}$	Behavioural Control $\rightarrow$ Mental Health	0.360***	Supported

Note: Significant at \*:  $p < 0.05$ , \*\*\*:  $p < 0.01$ , \*\*\*\*:  $p < 0.001$



Note: Model fit:  $\chi^2 = 1,724.083$ ,  $df = 320$ ,  $\chi^2/df = 5.388$ , GFI = 0.933, NFI = 0.930, CFI = 0.957, IFI = 0.957, and RMSEA = 0.059

**Figure 2.** Structural model.

### Mediation effect

To test the mediation effects of students' attitudes, subjective norms, and behavioural control between religiosity (i.e., spiritual well-being) and mental health, bootstrapping, which is a nonparametric statistical procedure in which the dataset is repeatedly sampled (Hayes, 2018), was used. The results from the regression show that all factors are partial mediators in Table V. Therefore, it was concluded that spiritual well-being has a significant indirect effect on students' mental health through their positive attitude, subjective norms, and behavioural control based on the TPB. Hence, H4b, H5b, and H6b are supported in this study.

**Table V. Mediation effects**

IV	M	DV	IV->DV (c)	IV->M (a)	IV+M->DV		Bootstrapping 95% CI	
					IV (c')	M(b)	Percentile method	Bias-corrected
SW	AT	MH	0.257***	0.380***	0.409***	0.399***	[0.016, 0.031]	[0.035, 0.050]
		Standard Error	0.048	0.034	0.046	0.052		
SW	SN	MH	0.140***	0.449***	0.409***	0.600***	[0.005, 0.022]	[0.031, 0.050]
		Standard Error	0.043	0.040	0.046	0.041		
SW	BC	MH	0.071	0.551***	0.409***	0.613***	[0.025, 0.017]	[0.031, 0.050]
		Standard Error	0.049	0.034	0.046	0.048		

**Note:** SW: Spiritual well-being, AT: Attitude, SN: Subjective norm; BC: Behavioural control; MH: Student Mental Health  
Significant at \*:  $p < 0.05$ , \*\*:  $p < 0.01$ , \*\*\*:  $p < 0.001$

## Discussion

### Key findings

This study uncovers the specific factors determining students' attitudes, behaviour, and mental health. This is important and relevant for the education sector, where spiritual well-being plays an essential role in students' psychological well-being. Therefore, these results follow preliminary studies conducted by Breskaya et al. (2020), and Erken et al. (2020), which state that the frequency of religious activities, which also have a spiritual well-being dimension, has a strong correlation to students' attitudes. It means that frequent prayer and associated spiritual well-being may influence their minds. It confirms how rituals within religion enhance students' psychological well-being. This study also proves three essential concerns of spiritual well-being regarding the operationalization of spiritual well-being in terms of religious affect, in relationship to the respect for others has a positive and significant effect on three sets of mediator variables: attitude, subjective norms, and behavioural control. The key finding from this study is that students being educated in Indonesia, who through their religious activities develop positive spiritual well-being, also display higher levels of empathy based on the TPB (Charsetad, 2016; Chin & Mansori, 2019; Bikos, 2021).

Most importantly, our theoretical findings regarding TPB, through research questions, have shed light on the role of students' attitudes, subjective norms and behavioural control in mediating students' positive spiritual well-being and mental health. This study extends the existing literature on TPB by investigating how religiosity affects cognition and behaviour, an effect which can further develop positive emotions or behaviours. This may enhance the predictiveness of the theory (Chin &

Mansori, 2019). Moreover, it may also inspire more scholars to focus on the mechanisms of processing spiritual-wellbeing appraisal and the possible predictive behaviours. This study employed attachment (??) students' attitudes, subjective norms, and behavioural control as mediators of spiritual well-being and students' anxiety and depression, and our results allowed us to partially address the second question of our study. The findings suggest that students who exhibit attachment anxiety and depression have affective traits in the context of spiritual well-being which render them more prone to attitudes and behaviour that lead to reduced mental health.

## Conclusion

TPB has strong correlations to education and religion, specifically students' spiritual well-being, mental health, or psychological well-being, including their minds, during the learning process. It also can be assumed that the choice of university studies is determined by a specific attitude towards spirituality and personal development. For instance, spiritual well-being plays an important role in influencing students' attitudes through prayer activities. Furthermore, their attitudes have a strong correlation to their behaviour during interaction and communication. This study also confirmed that students' subjective norms depend on how healthy their spiritual well-being is. Interestingly, spiritual well-being also has a positive and significant effect on students' consciousness about their precious obligations to the environment and society (behavioural control). As TPB dimensions, attitude has less effect on influencing students' problems (for example, anxiety and depression). The consequences of the students' behaviour, including their awareness of ethical behaviour within and outside of the university (subjective norm), and character building as preventing unethical action, as mediator variables, attitude, subjective norms, and behavioural control fully mediate to bridge the relationship between spiritual well-being and mental health. This means that religion can build a cultural and psychological construct that needs to be explored more frequently and thoroughly by studies on education. It also requires a combination of specific spiritual well-being to promote students' mental health. Religion also may influence students' views on solving life's problems. These results indicate that a higher level of religiosity is consistent with ethics and morals, and, in particular, students' interactions with their friends and families. Therefore, the educational and religious principles must be applied through adjusting the curriculum with religious guidelines to support learning process and performance. The education stakeholders should also provide suitable information and credible sources to ensure that students gain knowledge and build their characters.

### Limitations and future research directions

There are some limitations to this study. Firstly, this research was conducted in the fields of education and religion to determine students' mental health in the current situation. Therefore, the results cannot be generalized. Future studies need to include different faiths, greater sample sizes, other regions, and different geographical areas to derive more generalizable conclusions. In addition, future research needs to add mediators from different religious viewpoints and issues. There is also a need to ensure that students understand the importance of this relationship, as it helps build ethics and morals based on religion so that students feel comfortable, confident, and have better mental health.

### References

- Adli, I., Widyahening, I.S., Lazarus, G., Phowira, J., Baihaqi, L.A., Ariffandi, B., et al. 2022. Knowledge, attitude, and practice related to the COVID-19 pandemic among undergraduate medical students in Indonesia: A nationwide cross-sectional study. *PLOS ONE*. 17(1): 1–16.
- Agherdien, N., Pillay, R., Dube, N. & Masinga, P. 2022. What does decolonising education mean to us? Educator reflections. *Scholarship of Teaching and Learning in the South*. 6(1): 55–78.
- Ali, N., Samnani, B., Khan, A. W., Khatoon, N., Ali, B., Asfundyar, S., Aslam, M. & Amirali, S. 2019. Decolonizing nature/knowledge: Indigenous environmental thought and feminist praxis. *Scholarship of Teaching and Learning in the South*. 3(1), 77–91.
- Anriani, H. B., Sari, H., Junaidi, J. & Hamka H. H. 2022. Investigating the relationship between moral and ethical: Does extrinsic and intrinsic religiosity improve people's mental health? *FWU Journal of Social Science*. 16(3): 52–67.
- Bikos, L.J. 2021. "It's all window dressing:" Canadian police officers' perceptions of mental health stigma in their workplace. *Policing: An International Journal*. 44(1): 63–76.
- Breskaya, O., Francis, L.J. & Giordan, G. 2020. Perceptions of the Functions of Religion and Attitude toward Religious Freedom: Introducing the New Indices of the Functions of Religion (NIFoR). *Religions*. 11(10): 1–16.
- Byrne, B.M. 2016. *Structural Equation Modeling with Amos: Basic Concepts, Applications, and Programming*. 3<sup>rd</sup> Edition. NY: Routledge.
- Campbell, J.M. 2013. Muy local: Differentiating Hispanic and Caucasian shoppers of locally produced foods in US grocery. *Journal of Retailing and Consumer Services*. 20 (3): 325–333.
- Chachar, A. S., Siddiqui, S. A., Saeed, H., Naseem, A. & Mian, A.I. 2020. Design and evaluation of a blended mental health curriculum for undergraduate medical education in Pakistan. *Scholarship of Teaching and Learning in the South*. 4(2): 100–117.

- Charsetad, P. 2016. Role of religious beliefs in blood donation behavior among the youngster in Iran: A theory of planned behavior perspective. *Journal of Islamic Marketing*. 7(3): 250–263.
- Chen, T. & Lucock, M. 2022. The mental health of university students during the COVID-19 pandemic: An online survey in the UK. *PLOS ONE*, 17(1): 1–17.
- Chin, J.H. & Mansori, S. 2019. Theory of planned behaviour and health belief model: Females' intention on breast cancer screening. *Cogent Psychology*. 6(1): 1–15.
- Cook, C. H. 2020. Spirituality, religion & mental health: Exploring the boundaries. *Mental Health, Religion & Culture*. 23(5): 363–374.
- de Klerk, D. 2022. Academic advising during emergency remote teaching and learning: A South African higher education perspective. *Scholarship of Teaching and Learning in the South*. 6(1): 95–111.
- Dison, L., Padayachee, K., de Klerk, D., Conradie, W., MacAlister, F., Moch, S. & Krull, G. 2022. Reframing purpose and conceptions of success for a post-Covid-19 South African higher education. *Scholarship of Teaching and Learning in the South*. 6(1): 33–54.
- Eichhorn, B.R. 2014. *Common method variance techniques*. SAS Institute Inc., Department of Operations and Supply Chain Management, Cleveland State University, Cleveland, OH. <https://www.lexjansen.com/mwsug/2014/AA/MWSUG-2014-AA11.pdf>.
- Erken, H.G., Francis, L.J. & McKenna, U. 2020. Love for Allah and love for others: Exploring the connection between religious affect and empathy among Muslim adolescents in England. *Journal of Beliefs & Values*. 42(2): 223–234.
- Farrell, E. & Mahon, A. 2021. Understanding student mental health: Difficulty, deflection and darkness. *Ethics and Education*. 16(1): 36–50.
- Ferdiansyah, S., Winarno, A. & Ardhita, Z. 2022. Service learning in Indonesia: Developing undergraduate students' leadership during COVID-19 pandemic. *Higher Education, Skills and Work-Based Learning*. 12(5): 884–899.
- Forghani, M.H., Kazemi, A. & Ranjbarian, B. 2019. Religion, peculiar beliefs and luxury cars' consumer behavior in Iran. *Journal of Islamic Marketing*. 10(2): 673–688.
- Garg, N. & Singh, P. 2020. Work engagement as a mediator between subjective well-being and work-and-health outcomes. *Management Research Review*. 43(6): 735–752.
- Garssen, B., Visser, A. & Pool, G. 2020. Does spirituality or religion positively affect mental health? Meta-analysis of longitudinal studies. *The International Journal for the Psychology of Religion*. 31(1): 4–20.
- Godbersen, H., Hofmann, L.A. & Ruiz-Fernandez, S. 2020. How people evaluate anti-Corona measures for their social spheres: Attitude, subjective norm, and perceived behavioral control. *Frontiers in Psychology*. 11: 1–20.
- Graafland, J. 2017. Religiosity, attitude, and the demand for socially responsible products. *Journal of Business Ethics*. 144(1): 121–138.



- Guilfoyle, L., Erduran, S. & Park, W. 2021. An investigation into secondary teachers' views of argumentation in science and religious education. *Journal of Beliefs & Values*. 42(2): 190–204.
- Hair J.F., Black, W.C., Babin, B.J. & Anderson, R.E. 2019. *Multivariate Data Analysis*. 8<sup>th</sup> edition. Hampshire, UK: Cengage Learning EMEA.
- Hall, N.A., Everson, A.T., Billingsley, M.R. & Miller, M.B. 2021. Moral injury, mental health, and behavioral health outcomes: A systematic review of the literature. *Clinical Psychology & Psychotherapy*. 29(1): 92–110.
- Hamka, H., Suen, M.W., Ramadhan, Y.A., Yusuf, M. & Wang, J.H. 2022. Spiritual well-being, depression, anxiety, and stress in Indonesian Muslim communities during COVID-19. *Psychology Research and Behavior Management*. 15: 3013–3025.
- Hayes, A.F. 2018. *Introduction to Mediation, Moderation and Conditional Process Analysis: A Regression-based Approach*. (2nd edition). New York, NY: Guilford Press.
- He, Y., Wang, Y. & Gao, X. 2022. What role does religion have in shaping human consumption? *Religions*. 13(8): 1–17.
- Höllinger, F. 2020. The impact of religiousness on attitudes towards religious others. *Österreich Z Soziol*. 45: 165–181.
- Hu, X. & Cheng, S. 2021. The impact of religious involvement on the relationship between religious orientation and religious coping. *Journal of Beliefs & Values*. 42(1): 64–76.
- Junaidi, J., Chih, W.W. & Ortiz, J. 2020. Antecedents of information seeking and sharing in social networking sites: An empirical study of Facebook users. *International Journal of Communication*. 14: 5705–5728.
- Kavonius, M. & Ubani, M. 2020. The contribution of religious education and ethics to the development of worldviews: Reflections of Finnish 9th grade students. *Journal of Religious Education*. 68(1/2): 59–72.
- Khazaeian, S., Khazaeian, S. & Fathnezhad-kazemi, A. 2021. Association between awareness, perceived severity, and behavioral control of COVID -19 with self-care and anxiety in pregnancy: A cross-sectional study. *Women & Health*. 62(1): 55–67.
- Kotera, Y., Ting, S.H. & Neary, S. 2021. Mental health of Malaysian university students: UK comparison, and relationship between negative mental health attitudes, self-compassion, and resilience. *Higher Education*. 81: 403–419.
- Krok, D., Zarzycka, B. & Telka, E. 2021. Religiosity, meaning-making and the fear of COVID-19 affecting well-being among late adolescents in Poland: A moderated mediation model. *Journal of Religion and Health*. 60(5): 3265–3281.
- Lehmann, C.S. & Gorsuch, R.L. 2017. The relevance of religiousness and reasoned action for adolescent moral and immoral behavioral intentions. *Psychology of Religion and Spirituality*. 9(1): S49–S59.
- Li, L. & Li, J. 2021. An investigation of factors influencing Chinese young women's intention for mammography screening. *SAGE Open*. September: 1–9.



- Liddle, S.K., Vella, S.A. & Deane, F.P. 2021. Attitudes about mental illness and help-seeking among adolescent males. *Psychiatry Research*. 301: 1–16.
- McDonald, C., Seaman-Thornton, F., Mok, C.L.M., Jakobsen, H. & Riches, S. 2022. Impact on staff attitudes of brief personality disorder training for acute psychiatric wards. *Mental Health Review Journal*. 27(1): 89–99.
- Mousa, M. & Samara, G. 2022. Mental health of business academics within the COVID-19 era: Can meaningful work help? A qualitative study. *Employee Relations*. 44(4): 1–19.
- Muliadi, M., Muhammadiyah, M., Amin, K.F., Kaharuddin, K., Junaidi, J., Pratiwi, B.I. & Fitriani, F. 2022. The information sharing among students on social media: The role of social capital and trust. *VINE Journal of Information and Knowledge Management Systems*. DOI:/10.1108/VJIKMS-12-2021-0285.
- Nguyen, A.W. 2020. Religion and mental health in racial and ethnic minority populations: A review of the literature. *Innovation in Aging*. 4(5): 1–13.
- Peng, Z., Benner, D., Nikolova, R., Ivanov, S. & Peng, T. 2020. Ethical and moral competences of upper secondary students: A comparative study. *ECNU Review of Education*. 4(4): 686–706.
- Phillips, R., Connelly, V. & Burgess, M. 2021. Explaining the relationship between religiosity and increased well-being avoidance of identity threat as a key factor. *Journal of Beliefs & Values*. 42(2): 163–176.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. & Podsakoff, N.P. 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*. 88(5): 879–903.
- Przybylski, A.K. & Weinstein, N. 2017. A large-scale test of the Goldilocks hypothesis: Quantifying the relations between digital-screen use and the mental well-being of adolescents. *Psychological Science*. 28(2): 204–215.
- Rice-Oxley, M. 2019. Mental illness: Is there really a global epidemic? Available at: Mental illness: is there really a global epidemic? | Mental health | The Guardian. <https://www.theguardian.com/society/2019/jun/03/mental-illness-is-there-really-a-global-epidemic>.
- Sifat, R.I., Ruponty, M.M., Shuvo, M.K.R., Chowdhury, M. & Suha, S.M. 2022. Impact of COVID-19 pandemic on the mental health of school-going adolescents: Insights from Dhaka city, Bangladesh. *Heliyon*. 8(4): 1–9.
- Simonsen, I. & Rundmo, T. 2020. The role of school identification and self-efficacy in school satisfaction among Norwegian high-school students. *Social Psychology of Education*. 23: 1565–1586.
- Soto, D. S., Tajalli, H., Pino, N. & Smith, C.L. 2018. The effect of college students' religious involvement on their academic ethic. *Religion & Education*. 45(2): 190–207.

- Stewart, C., Lawrence, S. & Burg, M.A. 2019. Exploring the relationship of personality characteristics and spirituality to empathy: Does spirituality add to our understanding? *Journal of Religion & Spirituality in Social Work: Social Thought*. 38(1): 3–20.
- Tajfel, H. & Turner, J. 1979. An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.). *The Social Psychology of Intergroup Relations*. Monterey: Brooks/Cole. 33-47.
- The Jakarta Post. 2020. Allow students to share what they feel to avoid pandemic depression: Psychiatrist. Available at: Allow students to share what they feel to avoid pandemic depression: Psychiatrist - National - The Jakarta Post. <https://www.thejakartapost.com/news/2020/12/25/allow-students-to-share-what-they-feel-to-avoid-pandemic-depression-psychiatrist.html>.
- Waqas, M. 2021. What drives Muslim Malaysian consumers' general attitude towards religious advertising? *Journal of Islamic Accounting and Business Research*. 12(1): 97–111.
- World Health Organization. 2020. Promoting mental health. World Health Organization. <https://www.who.int/westernpacific/activities/promoting-mental-health>.
- Williams-Gualandi, D. 2020. The cultural group in intercultural understanding: implications for teaching from a social identity theory perspective. *Journal of Research in International Education*. 19(3): 233–250.
- Yeh, P.M. & Bull., M. 2009. Influences of spiritual well-being and coping on mental health of family caregivers for elders. *Research in Gerontological Nursing*. 2(3): 173–181.



This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>

# Spiritual well-being and mental health among students: Evidence from Indonesia

ORIGINALITY REPORT

15%  
SIMILARITY INDEX

12%  
INTERNET SOURCES

10%  
PUBLICATIONS

5%  
STUDENT PAPERS

MATCH ALL SOURCES (ONLY SELECTED SOURCE PRINTED)

1%  
★ www.ca18211.eu  
Internet Source

Exclude quotes      On  
Exclude bibliography      On

Exclude matches      Off