



## The relationship between gratitude and well-being: The moderating effect of religiosity on university freshmen during the COVID-19 pandemic

Nurussakinah Daulay,<sup>1\*</sup> Muhammad Shaleh Assingkily,<sup>2</sup> Abdul Kholik Munthe<sup>3</sup>

<sup>1</sup>Department of Islamic Educational Guidance and Counseling, Faculty of Tarbiyah and Teacher Training, Universitas Islam Negeri Sumatera Utara, Deli Serdang – Indonesia; <sup>2</sup>Department of Islamic Primary Education, Sekolah Tinggi Ilmu Tarbiyah Al-Ittihadiyah, Labuhanbatu Utara – Indonesia; <sup>3</sup>Department of Early Childhood Education, Sekolah Tinggi Ilmu Tarbiyah Al-Ittihadiyah, Labuhanbatu Utara – Indonesia

**Abstract:** The various challenges and difficulties faced by college and university freshmen (new students) during the COVID-19 pandemic can affect their well-being. This well-being condition is influenced by gratitude and religiosity, as well as the role of religiosity in moderating these relations, are the main objectives of this study. The research was conducted on new students in the 2020/2021 and 2021/2022 academic years (N = 2048). Data collection was made through surveys by distributing online questionnaires, including the Gratitude Questionnaire-6, the Short Muslim Belief and Practice Scale, and the WEMWBS Scale. Data analysis was performed using multiple regression and a moderation test. The results show an influence of gratitude ( $\beta = .928$ ,  $p < .01$ ) and religiosity ( $\beta = .371$   $p < .01$ ) on well-being. Religiosity is demonstrated to moderate the relationship between gratitude and well-being ( $F = 251.656$ ,  $p < .01$ ). The study has empirical implications in the form of the theory that career achievement and well-being orientation for new students will face various problems, but can be helped by introducing self-protective factors in the form of well-being, religiosity, and gratitude.

**Keywords:** COVID-19; gratitude; new student; religiosity; well-being

**Abstrak:** Berbagai tantangan dan kesulitan yang dihadapi oleh mahasiswa baru dan perguruan tinggi selama pandemi COVID-19 dapat mempengaruhi kesejahteraan mereka. Kondisi sejahtera ini dipengaruhi oleh rasa syukur dan religiusitas, serta peran religiusitas dalam memoderasi hubungan tersebut, menjadi tujuan utama dari penelitian ini. Penelitian dilakukan pada mahasiswa baru tahun ajaran 2020/2021 dan 2021/2022 (N = 2048). Pengumpulan data dilakukan melalui survei dengan menyebarkan kuesioner online, seperti: *the Gratitude Questionnaire-6*, *the Short Muslim Belief and Practice Scale*, dan *the WEMWBS Scale*. Analisis data dilakukan dengan menggunakan regresi berganda dan uji moderasi. Hasil penelitian menunjukkan pengaruh rasa syukur ( $\beta = 0,928$ ,  $p < 0,01$ ) dan religiusitas ( $\beta = 0,371$   $p < 0,01$ ) terhadap kesejahteraan. Religiusitas terbukti memoderasi hubungan antara rasa syukur dan kesejahteraan ( $F = 251,656$ ,  $p < 0,01$ ). Penelitian ini memiliki implikasi empiris berupa teori bahwa pencapaian karir dan orientasi kesejahteraan mahasiswa baru akan menghadapi berbagai permasalahan, namun dapat terbantu dengan mengenalkan faktor protektif diri berupa kesejahteraan, religiusitas, dan rasa syukur.

**Kata Kunci:** COVID-19; rasa syukur; mahasiswa baru; religiusitas; kesejahteraan

\*Corresponding Author: Nurussakinah Daulay (nurussakinah@uinsu.ac.id), Department of Islamic Educational Guidance and Counseling, Faculty of Tarbiyah and Teacher Training, Universitas Islam Negeri Sumatera Utara, Jl. Willem Iskandar, Pasar V, Medan Estate, Deli Serdang 20371 – Indonesia.

## Introduction

Freshmen are students who have started higher education learning, but are faced with various problems, such as ones in the academic field, ones related to social adjustment, and campus environment problems, so they need to be able to learn independently and face various conflicts (Nurhayati, 2011). The same is true during pandemic conditions, with the change in the learning system from face-to-face to online learning. Research has shown that the impact of the pandemic on new students is that they must be independent (Batubara & Siregar, 2021); they have too many task demands (Putri, 2020); find it difficult to adapt from face-to-face learning at school to online learning (Loreni & Jannah, 2021); need to be able to adapt to a new environment (Radesty, 2020); and experience culture shock (Chafsoh, 2020).

There is a consequent impact of such problems, as distance learning limits the physical activity of children and adolescents, leading to lower subjective well-being (Mitra et al., 2021). The necessity to earn money to fulfil life needs during the COVID-19 pandemic is higher than attending online lectures (Qudsyi & Putri, 2016); for example, many children have become clown buskers on the streets of the capital during the pandemic (Assingkily & Sit, 2020). It is difficult for students majoring in sports science to take part in online learning (Sukendro et al., 2020). The use of social media applications such as Whatsapp can create smooth online learning (Mulyono et al., 2021). However, many obstacles are encountered by students living in under-developed areas in Indonesia, such as the high cost of internet packages and limited technological infrastructure conditions (Bunga et al., 2021). Online learning also impacts the interaction between students and their lecturers (Purnama et al., 2021).

The challenges and difficulties new students face during the pandemic also have an impact on

their psychological condition, in cases leading to depression (J. Lee et al., 2021), frustration (Muñoz-Fernández & Rodríguez-Meirinhos, 2021), or stress (Fitzgerald & Konrad, 2021). There is also a concern that COVID-19 will affect their studies (Cornine, 2020), assignments (Wang & Di, 2020), and well-being (Capone et al., 2020). However, some studies have shown that such unhealthy psychological conditions do not have adverse effects. Finally, many studies on protective factors have been conducted during the pandemic. These include ones on well-being (Cox & Brewster, 2020), mental health (Frazier et al., 2021; Lugito et al., 2021), self-efficacy (Alemany-Arrebola et al., 2020), and coping (Pigaiani et al., 2020).

In particular, studies on well-being are a main domain of research. This is because students are motivated by increasing insight, completion of their future career acceleration studies or their well-being (Wright et al., 2021). Furthermore, the researchers took the theory of gratitude in relation to the internal potential of each student to respond to various study problems, especially in the era of the COVID-19 pandemic.

The importance of the experience of new students in the learning process in higher education is an interesting theme for study, both during the pandemic and in the post-pandemic period. The complexity of the problems they face sometimes makes them vulnerable to stress (Gritsenko et al., 2021). However, this condition must be treated positively to reduce it and improve their well-being. Therefore, efforts to improve well-being are needed to meet personal needs through strengthening self-protective factors, namely the roles of gratitude and religiosity.

Watkins et al. (2003) state that religiosity is related to grateful behavior because individuals see God as the ultimate source of all benefits. Furthermore, it provides many benefits associated with other positive variables, as confirmed by

several studies during the pandemic. These include being grateful for being able to increase one's well-being (Jiang, 2022); minimizing anxiety (Datu et al., 2021); giving hope (Tilkeridou et al., 2021); being optimistic; feeling life satisfaction even in difficult times (Biber et al., 2020); and reducing stress (J.-Y. Lee et al., 2021) and reducing burn out during the pandemic (Stacey et al., 2020).

Besides being grateful, religiosity is one of the most studied topics before and during the pandemic. Religious experience impacts psychological well-being (Subandi et al., 2022), because all religions have an essential healing character in their teachings. Furthermore, those who are religious have better levels of life well-being and satisfaction, show lower levels of anxiety, are better able to cope with stress, and have a low level of suicide attempts (Koenig et al., 2012). The importance of religiosity as a protective factor in overcoming adversity has been demonstrated in several studies. For example, it helps the coping process to deal with anxiety (Chow et al., 2021); reduces stress (Schwaiger et al., 2021); treat post-traumatic disorder (Prieto-Ursúa & Jódar, 2020); minimizes suicide (Suresh et al., 2020); optimistic (Edara et al., 2021); gives meaning to life (Dobrakowski et al., 2021); and improves well-being (Counted et al., 2020).

Understanding the well-being of freshmen (new students) is the first step in preparing and responding to various learning problems in higher

education both during and post-pandemic. Several studies with student respondents have focused on mental health (Huckins et al., 2020; Son et al., 2020) and stressful conditions during the peak of the pandemic (Ellis et al., 2020). However, the well-being of new students has not been studied in the context of the influence of gratitude and religiosity; therefore, this is the goal of this study. The importance of efforts to improve well-being to meet personal needs through strengthening self-protective factors, namely the role of gratitude and religiosity. In accordance with the objectives of the study, the proposed hypotheses are 1) there is an influence of gratitude and religiosity on well-being; and 2) the moderation test proves that religiosity can moderate the relationship between gratitude and well-being. The relationship between the study variables is illustrated in Figure 1.

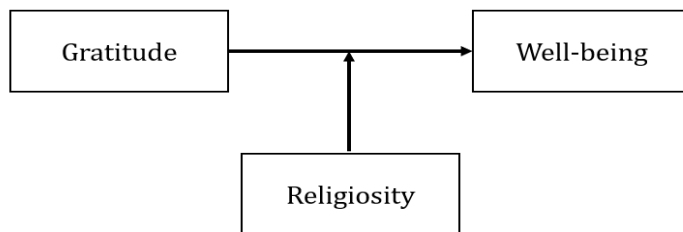
## Methods

### Participants

The study aims to observe the well-being of new students during the COVID pandemic. The respondents were new students in the 2020/2021 and 2021/2022 academic years. The total sample comprised 2048 Muslim students from various study programs at the Faculty of Tarbiyah Sciences, North Sumatra State Islamic University, Indonesia. The reason why the research focuses on Muslim students is that its purpose of this research is not only to study well-being, but also to

**Figure 1**

*Religiosity Moderates Relationship between Gratitude and Well-being*



**Table 1**  
*Demographics of the Research Respondents*

| Characteristic Category |                   | Participants |                |
|-------------------------|-------------------|--------------|----------------|
|                         |                   | Number       | Percentage (%) |
| Age                     | 17 – 19 years old | 1865         | 91.06          |
|                         | 19 – 21 years old | 183          | 8.94           |
| Gender                  | Male              | 1143         | 55.81          |
|                         | Female            | 905          | 44.19          |
| Ethnicity               | Batak             | 1544         | 75.39          |
|                         | Javanese          | 349          | 17.04          |
|                         | Others            | 155          | 7.57           |
| Parents' job            | Merchant          | 607          | 29.64          |
|                         | Self-employed     | 762          | 37.21          |
|                         | Civil servant     | 422          | 20.61          |
|                         | Others            | 257          | 12.55          |

explore the role of religiosity as a moderating variable. In this case, religiosity is based on an Islamic perspective and is also strengthened by the instruments used (the Short Muslim Belief and Practice Scale). Complete data regarding participant demographics can be seen in Table 1.

#### *Measure*

Data collection was made using four measuring instruments: the respondents' demographic data, the gratitude scale, religiosity, and well-being.

*Demographic Information.* The participants were asked to indicate their gender, age, study program information, ethnicity, and parents' job.

*Gratitude.* The Gratitude Questionnaire-6 (GQ-6; McCullough et al., 2002) is a self-reporting measure of gratitude. The original version consists of six items, each rated on a four-point Likert scale, ranging from 1 (disagree) to 4 (agree). This study used the GQ-6 adapted by Grimaldy and Haryanto (2020), in which five items were added to adjust it to the Indonesian context and culture. Each of the

eleven items was valid and fulfilled the criteria for a good item. The scale showed good levels of reliability and validity in an Indonesian sample, with a Cronbach's alpha score of .789 (Grimaldy & Haryanto, 2020) and .726 in this study.

*Religiosity.* The Short Muslim Belief and Practice Scale devised by AlMarri et al. (2009) shows the belief aspect (*rukun iman* [the pillars of faith]) and practice (*rukun Islam* [the pillars of Islam]). The practice aspect shows the fundamentals of Islam and consists of seven items, with five alternative answers ranging from 1 (never) to 5 (always). A sample item is "I pray five times a day." The belief aspect depicts religious faith and consists of six items with five alternative answers, ranging from 1 (strongly disagree) to 5 (strongly agree). A sample item from this aspect is "Men/women should not shake hands with a person of the opposite sex in public." The total number of items was 13 and good internal consistency ( $\alpha = .83$ ) was shown. Furthermore, the scale validity was tested through exploratory and confirmatory analysis of Asian samples, including Indonesia. The

exploratory results show that the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .867, while Bartlett's test of Sphericity result was significant ( $X^2(105) = 1031, p < .01$ ). In addition, the confirmatory analysis showed that the model was classified as fit, having the following indices:  $X^2(26) = 57.05, p < .01, RMSEA = .07, CFI = .97; TLI = .96$  (AlMarri et al., 2009). The Cronbach's alpha value of the internal consistency and reliability of the current sample was  $\alpha = .749$ .

*Well-being.* The Warwick-Edinburgh Mental Well-being Scale (WEMWBS; Tennant et al., 2007) was devised to support the development of an evidence base relating to public mental health. A total of 14 questions with a 5-point scale, ranging from 1 (never) to 5 (always), were included, and all the items were positive. An example from this scale is "Saya merasa nyaman" (I feel comfortable), validated with Indonesian participants using Rasch analysis, which showed that the data fitted the model. In addition, all items in the instrument have good fit statistics indices in terms of outfit mean square, and all item measure correlations were above .40 (Wicaksono et al., 2021). For the sample used, the reliability (Cronbach's alpha) of the WEMWBS was .850.

#### *Procedure*

The procedure comprised three stages. The first was the preparation stage, starting with that of the measuring instrument in the form of gratitude, religiosity and well-being scales adapted from the Gratitude Questionnaire-6 (GQ-6), the Short Muslim Belief and Practice Scale (Short-MPBS), and the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). All the scales were translated into Indonesian. Second, the implementation phase was conducted twice in the new academic years starting in September 2020 and 2021. The online scales were sent to new students through the online form. Each of the new students that participated received three scales and personal data. The questionnaire included the

purpose of the study, instructions, and an informed consent form as evidence of their willingness to participate voluntarily. The research period was one month, namely September. Department heads collaborated by distributing the online questionnaires to all new students. The third stage was the data processing. Data from the gratitude, religiosity, and well-being scales were obtained by scoring each answer given by the respondents. After the collection process, the data were processed using SPSS version 23.0 for Windows.

#### *Data Analysis*

The study used multiple linear regression analysis to examine the effect of gratitude and religiosity on well-being. Moderation analysis was also performed using Moderated Regression Analysis (MRA) based on Baron and Kenny (1986). The moderating effect is statistically characterized by the significant role of the product variable on the dependent variable (Baron & Kenny, 1986). The testing process was conducted through tiered regression by gradually including predictors.

## **Results**

The regression analysis examined the effect of each participant's gratitude and religiosity on well-being. The first analysis, as shown in Table 2, indicated that gratitude could significantly affect well-being ( $\beta = .928, p < .01$ ), and that there was also a significant effect of religiosity ( $\beta = .371, p < .01$ ).

*Religiosity moderates the relationship between Gratitude and Well-being.* According to the predictor stages included in the regression, there are three types of models, namely 1 to 3. Stage 1 regression analysis showed the value ( $R^2 = .245, p < .01$ ) with ( $F = 663.126, p < .01$ ) and in stage 2 the religiosity variable was included in the regression analysis. Therefore, gratitude and religiosity were able to predict well-being, as evidenced by the increase in the effective contribution from 24.5%

**Table 2**

*Results of the Regression Analysis on Gratitude and Religiosity toward Well-being*

| Model |             | Unstandardized |            | Standardized         | t      | Sig.    |
|-------|-------------|----------------|------------|----------------------|--------|---------|
|       |             | B              | Std. Error | Coefficients<br>Beta |        |         |
| 1     | (Constant)  | 22.022         | 2.330      |                      | 9.454  | p < .01 |
|       | Gratitude   | .928           | .048       | .414                 | 19.297 | p < .01 |
|       | Religiosity | .371           | .046       | .173                 | 8.050  | p < .01 |

**Table 3**

*Results of the Moderated Regression Analysis*

| Model | Predictor Variable              | R <sup>2</sup> | SE    | F         |
|-------|---------------------------------|----------------|-------|-----------|
| 1     | Gratitude                       | .245           | 9.142 | 663.126** |
| 2     | Gratitude, Religiosity          | .268           | 9.003 | 374.299** |
| 3     | Gratitude, Religiosity, Product | .270           | 8.994 | 251.656** |

\*\* p < .01; \* p < .05

to 26.8%. This contribution is significant at F = 374.299, p < .01). Stage 3 was conducted by entering the product variable into the regression. This is a variable derived from the multiplication of the gratitude and the well-being variables. The results showed a small increase in the effective contribution of all the predictors, from 24.5% to 27.00%, and were proven to be significant (F = 251.656, p < .01). Complete data regarding the results of the moderation analysis can be seen in Table 3.

In conclusion, religiosity was demonstrated to moderate the relationship between gratitude and well-being. Based on the four regression stages conducted, it can be concluded that the study hypothesis is accepted. Religiosity acts as a moderator of the relationship between gratitude and well-being.

**Discussion**

The complexity of students' problems during the COVID-19 pandemic makes them vulnerable to stress (Gritsenko et al., 2021). However, this

condition should be addressed positively to increase their level of prosperity. Therefore, efforts to increase well-being are needed to fulfill personal needs through the strengthening of religiosity. The study results help to answer the research hypotheses, the first being that there is an influence between gratitude and religiosity on the well-being of new students. It is shown that despite the severe challenges faced as new students during the pandemic, they still felt prosperous. Furthermore, well-being arises from protective factors, such as gratitude and religiosity. Watkins et al. (2003) state that religiosity is related to grateful behavior because individuals see God as the ultimate source of all benefits. For Muslims, gratitude explains thankfulness to Allah (vertically) and humans (horizontally).

Furthermore, it provides many benefits associated with other positive variables, as confirmed by several studies during the pandemic. These include being grateful for being able to increase one's well-being (Jiang, 2022); minimizing anxiety (Datu et al., 2021); hope

(Tilkeridou et al., 2021); being optimistic; feeling life satisfaction even in difficult times (Biber et al., 2020); and reducing stress (J.-Y. Lee et al., 2021) and reducing burn out during the pandemic (Stacey et al., 2020).

The second research hypothesis has also been proven, namely that religiosity can moderate the relationship between gratitude and well-being. It is demonstrated that religiosity can strengthen the relationship between gratitude and well-being, so is a moderating variable. It internalizes religious values in a person and increases expectations for the future and one's prosperity (Koenig et al., 2012; Koenig, 2020). Its role can be interpreted as one of strengthening gratitude and creating prosperity in overcoming stress. All the respondents were new Muslim students, who believed God to be a helper in all problems in life. For Muslims, prosperity amid adversity can be created by being patient and remaining grateful to God when going through trials sincerely. Furthermore, religiosity can be seen in how much a person knows about Islam, their belief in God, the implementation of acts of worship, and appreciation (such as *ihsan*, *tawakal*, *ikhtiar*) of Islam (Khan et al., 2012).

Previous studies have reported that various aspects of well-being are influenced by cultural contexts across nations (Maulana et al., 2019). Indonesia is the fourth most populous and the largest Muslim country in the world. Indonesian Muslims have a cultural heritage strongly influenced by Islamic teachings and values. The characteristics of the society are collectivist, with strong group norms and high conformity (Jetten et al., 2002). Cultural values that stand out in collectivistic societies emphasize family connections, cooperation, solidarity, conformity, harmony, and commitment to parents and extended family, and prioritize the well-being of others (Frías et al., 2014). Adherence to religious practices and other expressions of spirituality are

also essential for the well-being of Indonesian society (Jaafar et al., 2012).

Considering religiosity as a self-defense to stay prosperous, specifically during a pandemic, provides strength to each individual through their belief in God and worship. Several studies have demonstrated its positive role during difficult times, such as improving well-being (Achour et al., 2016); life satisfaction (Zullig et al., 2006); expectations, positive moods, and spiritual well-being (Fehring et al., 1997); happiness (Amalia et al., 2016); and mental health (Seybold, 2007). It also contributes to the use emotion regulation strategies (Vishkin et al., 2019); managing negative and positive emotions (Abdel-Khalek & Naceur, 2007); managing positive coping (Khan et al., 2012); reducing depression (Brown et al., 2008); and is also negatively correlated with psychopathology (Tiliouine et al., 2009). Similarly, the studies that have proven the importance of religiosity during a pandemic in bringing about well-being (Chindarkar et al., 2021). Individuals feel safe in the face of the threat of the pandemic (Kowalczyk et al., 2020) and use it as a form of self-defense (Counted et al., 2020).

Muslims believe that everything occurs with God's will; therefore, they remain at peace during tense and worrying times, expecting God to take charge (Yilmaz et al., 2021). Indonesian Muslim students also feel this way, and with their understanding of religion and increased worship, they have remained grateful in the face of difficulties for almost two years during the COVID-19 pandemic.

## Conclusion

Religiosity can maintain Muslim students' well-being during the pandemic, specifically after two years of experiencing home quarantine. Therefore, various factors that could have caused anxiety and stress do not have an adverse impact, so do not lead to distress. This is because

religiosity can strengthen students' well-being amid challenging conditions. Similarly, previous studies have demonstrated religiosity to be a factor that brings peace and prosperity and thus improves well-being. Therefore, the religious values of students are internalized, allowing them to accept conditions and situations with all the consequences that may be faced. These findings suggest the importance of religiosity in overcoming difficult conditions caused by the pandemic. As a result, it should be strengthened by conducting webinars with themes that integrate religious values and presented by professional speakers in their fields. Furthermore, lecturers should motivate students more during online lectures and minimize assignments.

The research shows that the role of religiosity in the form of gratitude has a positive impact on the well-being of students in difficult times, especially during the COVID-19 pandemic. The findings have implications in the form of theory, that career achievement and well-being orientation for new students will encounter various problems. For this reason, gratitude is the main capital for "religiosity provision" for Muslim students in responding wisely to such problems.

Furthermore, the research provides important information that the various challenges and difficulties that new students face, both during the pandemic and after, have not dampened their well-being. The important role of empowering self-protective factors for new students is intended to allow them to make good adjustments and be strong in overcoming problems while studying at college.

Therefore, this implication can also be utilized in the development theories in the field of psychology, particularly with regard to well-being, religiosity, and gratitude for students at Indonesian Islamic religious colleges (PTKI). The study has certain limitations, despite providing new information on the role of religiosity in moderating the relationship between gratitude and well-being for new students. First, it was only conducted on Muslim respondents from an Islamic university in Indonesia. Respondents from other religious perspectives should be included to enrich the results and further understanding of religiosity as a form of self-strengthening in a crisis. Second, detailed data using in-depth interviews and a qualitative design should be obtained to explore this issue further.[]

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