

## THE RELATIONSHIP BETWEEN INTENSITY OF OBLIGATORY PRAYER AND MENTAL HEALTH: A SURVEY OF STUDENTS AT AS-SYAFIYAH ISLAMIC UNIVERSITY

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**Abstract (In English).** *With the massive development of information technology today, mental health in higher education has become a problem that has attracted the attention of several countries, especially in Indonesia. Digital-based distance learning provides a more exploratory and accelerated impact compared to traditional learning, but in psychological aspects, it can have a different impact. This study aims to analyze the relationship between the intensity of obligatory prayers and mental health in students of As-Syafi'iyah Islamic University, Jakarta. Using a quantitative method with a survey approach, the research design is correlational. The sampling method used is a purposive sampling technique, with the criteria being active UIA students performing obligatory prayers at the Al Barkah Mosque. The subjects in the study were 68 from the active UIA student population. Data for both research variables were collected using a five-strata Likert scale questionnaire. The data analysis technique used Pearson product-moment correlation analysis to determine the relationship between two variables and was carried out with the help of open source software, R Version 4.5.1 for Windows. The data for both research variables and the linear relationship specifications were all met. The results of the analysis show that there is a positive relationship between the intensity of obligatory prayers and mental health in students at As-Syafi'iyah Islamic University Jakarta.*

**Keywords:** *Intensity, Mental Health, Depression, Obligatory Prayers.*

**Abstract (In Bahasa).** *Dengan perkembangan teknologi informasi yang sangat massif dewasa ini, kesehatan mental di perguruan tinggi menjadi salah satu permasalahan yang menyita perhatian sejumlah negara khususnya di Indonesia. Pembelajaran jarak jauh berbasis digital memberikan dampak lebih eksploratif, akseleratif dibanding dengan pembelajaran tradisional, tapi dalam aspek psikologis bisa memberikan dampak yang berbeda. Penelitian ini bertujuan menganalisis hubungan antara Intensitas Shalat Fardhu dengan Kesehatan Mental pada mahasiswa Universitas Islam As-Syafi'iyah Jakarta. Menggunakan metode kuantitatif dengan pendekatan survei, desain penelitian Korelasional. Metode pengambilan sampel yang digunakan yaitu teknik purposive sampling dengan kriteria merupakan Mahasiswa UIA Aktif melaksanakan Shalat Fardhu di Masjid Al*



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Barkah,. Subjek dalam penelitian sebanyak 68 dari populasi mahasiswa UIA Aktif. Data kedua Variabel penelitian dikumpulkan dengan menggunakan Angket skala Likert lima strata pilihan. Teknik analisis data menggunakan analisis korelasi pearson product moment untuk mengetahui hubungan antara dua variabel dan dilakukan dengan bantuan perangkat lunak (Softwre) open source,R Versi 4.5.1 for windows. Data kedua variabel penelitian dan spesifikasi hubungan linear semuanya terpenuhi. Hasil analisis menunjukkan bahwa terdapat hubungan positif antara intensitas shalat fardhu dengan kesehatan mental pada mahasiswa Universitas Islam As-Syafi'iyah Jakarta.

**Kata Kunci:** *Intensity, Mental Health, Depression, Obligatory Prayers.*

## A. INTRODUCTIONS

Mental health has increasingly become one of the central challenges in global public health discourse, with significant implications for individuals, communities, and societies at large. The World Health Organization (WHO) defines mental health not merely as the absence of psychological illness but as “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and can contribute to his or her community”<sup>1</sup>. The burden of mental illness is profound. Disorders such as depression, anxiety, and stress-related illnesses are recognized as the leading causes of disability worldwide, with estimates suggesting that more than 300 million people suffer from depression globally<sup>2</sup>. In Indonesia, the *Riset Kesehatan Dasar* (Riskesdas) conducted in 2018 revealed that approximately 6.1 percent of the adult population experiences emotional mental disorders, with higher prevalence in urban areas where socioeconomic pressures, academic competition, and lifestyle transitions are more pronounced<sup>3</sup>. These figures illustrate the urgent need to investigate protective factors that can contribute to the prevention and mitigation of mental health problems, particularly among young people in higher education.

University students represent a particularly vulnerable population when it comes to mental health challenges. They are confronted with a variety of stressors, ranging from heavy academic workloads and pressure to achieve, to uncertainty about future employment, to social changes associated with transitioning from adolescence to adulthood. Recent studies have shown that these challenges often result in heightened levels of stress, burnout, and in severe cases, clinical depression or anxiety disorders. The global COVID-19 pandemic exacerbated these difficulties by introducing unprecedented challenges: prolonged social isolation, economic instability, and the abrupt shift to digital-based learning<sup>4</sup>. While digital education has accelerated access to information and allowed for flexibility in pedagogy, its psychological

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<sup>1</sup> World Health Organisation, “Mental Health : Strengthening Our Response,” *Fact Sheet N.220*, no. August 2014 (2014): 1–4, <http://www.who.int/mediacentre/factsheets/fs220/en/>.

<sup>2</sup> World Health Organization, *Depression and Other Common Mental Disorders: Global Health Estimates, Obstetrics and Gynecology*, 2017.

<sup>3</sup> Tim Ridkesdas, “Laporan Riskesdas 2018 Nasional,” *Lembaga Penerbit Balitbangkes*, 2018, [https://repository.badankebijakan.kemkes.go.id/id/eprint/3514/1/Laporan Riskesdas 2018 Nasional.pdf](https://repository.badankebijakan.kemkes.go.id/id/eprint/3514/1/Laporan%20Riskesdas%202018%20Nasional.pdf).

<sup>4</sup> Abdul Hadi, “Happy Life Style (Hayatan Tayyibah) From The Qur’anic Perspective,” *Al-Risalah: Jurnal Studi Agama Dan Pemikiran Islam* 12, no. 2 (2021): 152–68.

consequences include increased screen fatigue, lack of direct peer support, and blurred boundaries between academic and personal life<sup>5</sup>. These realities underscore the urgency of addressing the mental health needs of students through both psychological and spiritual interventions.

From the perspective of Islamic psychology and theology, mental health cannot be separated from the dimension of spirituality. Islam emphasizes holistic well-being, which encompasses physical, mental, social, and spiritual health<sup>6</sup>. In this framework, the practice of *ṣalāh* (obligatory prayer) plays a central role in nurturing inner peace and psychological resilience. The Qur'an explicitly states: "Seek help through patience and prayer; indeed, Allah is with the patient" (Qur'an 2:153). Likewise, it affirms: "Indeed, in the remembrance of Allah do hearts find rest" (Qur'an 13:28). These verses provide both a spiritual and therapeutic foundation, framing prayer not only as a ritual obligation but also as a mechanism of coping with adversity<sup>7</sup>.

Scholars in Islamic psychology have long highlighted the therapeutic significance of prayer. Zakiah Daradjat (1983), a pioneer in the study of Islamic mental health, argued that prayer conducted with mindfulness and sincerity functions as a mechanism for emotional regulation and coping, enabling individuals to approach challenges with calmness<sup>8</sup>. Similarly, Dadang Hawari (1995) explained that prayer involves elements of physical movement, breath regulation, and meditative concentration, all of which have been empirically shown to reduce cortisol levels the body's primary stress hormone—and induce states of relaxation<sup>9</sup>. Prayer thus integrates bodily, psychological, and spiritual processes in a holistic manner.

The empirical literature also reinforces the relationship between prayer and mental well-being. Fauziah (2018), through her research on the psychology of prayer, found that consistent practice of the five daily prayers significantly reduced symptoms of anxiety and depression, fostering emotional balance among students<sup>10</sup>. Harahap (2017), in his study on female university students in Padangsidempuan, discovered that obligatory prayer had a measurable impact on their mental health, improving emotional stability and coping capacity<sup>11</sup>. Beyond Indonesian scholarship, Koenig (2012) has conducted extensive cross-cultural research demonstrating that religious participation, including prayer, enhances psychological resilience, decreases depressive symptoms, and strengthens overall life satisfaction<sup>12</sup>. Likewise, Zondag and Van Uden (2017)

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<sup>5</sup> Kartika and Marsheila Jiofani, "Peran Teknologi Dalam Meningkatkan Profesionalisme Guru Di Era Digital," *Jurnal Ilmu Pendidikan Dan Kearifan Lokal (JIPKL)* 5, no. 2 (2025): 598–608, <https://jipkl.com/index.php/JIPKL/article/view/261>.

<sup>6</sup> Abdul Hadi, "Konsep Dan Praktek Kesehatan Berbasis Ajaran Islam," *Al-Risalah: Jurnal Studi Agama Dan Pemikiran Islam* 11, no. 2 (2020): 53–70.

<sup>7</sup> Siti Fauziah, "Pengaruh Shalat Dalam Perspektif Islam Terhadap Psikologi Individu," in *Proceeding Conference on Genuine Psychology*, vol. 2, 2022, 215–20.

<sup>8</sup> Z Daradjat, *Kesehatan Mental* (Gunung Agung, 1969), <https://books.google.co.id/books?id=LDCQHQAACAAJ>.

<sup>9</sup> Dadang Hawari, "Al Qur'an Ilmu Kedokteran Jiwa Dan Kesehatan Jiwa," 1997.

<sup>10</sup> Fauziah, "Pengaruh Shalat Dalam Perspektif Islam Terhadap Psikologi Individu."

<sup>11</sup> Dicky Chandra Lubis et al., "Pembelajaran Berbasis Proyek: Mengembangkan Keterampilan Abad 21 Di Kelas," *Edu Society: Jurnal Pendidikan, Ilmu Sosial, Dan Pengabdian Kepada Masyarakat* 4, no. 1 (2024): 1292–1300.

<sup>12</sup> Harold G Koenig, *Religion and Mental Health: Research and Clinical Applications* (Academic Press, 2018).

have emphasized the role of religious and spiritual coping strategies in strengthening individuals' capacity to navigate modern stressors, particularly in contexts of individualization and secularization<sup>13</sup>.

The literature further illustrates that ritual practices like prayer offer structure and rhythm to daily life, which in turn foster psychological balance. Psychological theory suggests that ritualized behaviors can reduce anxiety by creating predictability and a sense of order<sup>14</sup>. In the Islamic context, the five daily prayers segment the day into intervals of worship, reflection, and rest, offering not only spiritual orientation but also a psychological anchor. Research in behavioral sciences has found that ritual repetition fosters a sense of control, particularly valuable during times of stress and uncertainty<sup>15</sup>. This theoretical foundation supports the view that prayer serves both religious and psychological functions, integrating spiritual fulfillment with mental resilience.

Several studies conducted in Indonesia and abroad have provided empirical evidence for this relationship. Omar (2018) reported that students who performed prayer consistently demonstrated lower levels of depressive symptoms compared to peers with irregular prayer habits<sup>16</sup>. Putri and Rahayu (2025) explored the role of *tahajjud* (night prayer) among adolescents and found that regular practice correlated with decreased levels of depression and improved mental health<sup>17</sup>. These findings align with the broader conclusions of Koenig's systematic review of over 3,000 studies on religion and health, which confirmed that religiosity and prayer consistently contribute to improved mental health outcomes<sup>18</sup>.

Despite this growing body of evidence, the relationship between obligatory prayer and mental health remains underexplored in the specific context of Indonesian Islamic higher education. While numerous studies highlight the general link between religiosity and mental well-being, relatively few have examined how this dynamic manifests among university students who are simultaneously immersed in academic life and religious environments. Students at As-Syafi'iyah Islamic University in Jakarta, for example, experience a campus culture shaped by Islamic values, yet their consistency in performing obligatory prayers varies significantly. Some students adhere strictly to prayer schedules, often congregating in the university mosque, while others struggle to maintain consistency due to academic pressures, social influences, or personal habits. This raises critical questions: Does the intensity of obligatory prayer correlate significantly with the mental health of students? To what extent can prayer serve as a protective factor against the challenges of modern student life?

Existing evidence suggests that while there is indeed a positive correlation between prayer and mental health, the strength of this relationship is often

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<sup>13</sup> Rien van Uden and Hessel Zondag, *Losing My Religion: Religious and Spiritual Coping in Times of Individualisation* (Shaker Verlag, 2017).

<sup>14</sup> John P Hoffmann, *Linear Regression Models: Applications in R* (Chapman and Hall/CRC, 2021).

<sup>15</sup> Maman Abdurrahman, Sambas Ali Muhidin, and Analisis Korelasi, "Regresi Dan Jalur Dalam Penelitian," *Bandung: CV Pustaka Setia*, 2017.

<sup>16</sup> M Agus Jabir et al., "Hubungan Tingkat Religiusitas, Tingkat Kebersyukuran Dengan Kejadian Depresi Pada Remaja," *Journal of Telenursing (JOTING)* 6, no. 1 (2024): 1007–15.

<sup>17</sup> Friska Aprilia Putri and Bety Agustina Rahayu, "Hubungan Kebiasaan Sholat Tahajud Dengan Kesehatan Mental Remaja," *Journal of Mental Health* 1, no. 2 (2025): 57–67.

<sup>18</sup> Koenig, *Religion and Mental Health: Research and Clinical Applications*.

modest. The current research at As-Syafi'iyah Islamic University found a correlation coefficient of 0.3327, categorized as weak but statistically significant. This indicates that while prayer contributes positively to mental health, other factors such as family support, academic environment, socioeconomic status, and access to counseling account for the majority of variance in mental health outcomes<sup>19</sup>. In this sense, prayer should be understood as one important factor within a broader ecosystem of determinants. Nonetheless, its role is not negligible, particularly in contexts where spiritual practices remain central to identity and community life.

Given this background, the present study aims to address the research gap by analyzing the relationship between the intensity of obligatory prayer and mental health among students at As-Syafi'iyah Islamic University in Jakarta. Using a quantitative, correlational survey design, this research investigates whether the consistency and commitment to obligatory prayer significantly influence student mental health outcomes. The study contributes both theoretically and practically. Theoretically, it enriches the discourse on the intersection of psychology, religion, and education by situating Islamic ritual practice within the broader framework of mental health promotion. Practically, the findings are expected to provide evidence-based insights for universities, counselors, and policymakers seeking to develop integrated mental health programs that combine psychological counseling with spiritual development.

In sum, the intersection between obligatory prayer and mental health represents a fertile area of scholarly exploration. By situating the study within both global concerns about mental health and the specific spiritual practices of Islam, this research underscores the relevance of faith-based coping mechanisms for students navigating the complexities of modern academic life. Through empirical analysis, it seeks to demonstrate how prayer can function as both a spiritual obligation and a psychological resource, thereby contributing to holistic models of student well-being.

## **B. METHOD**

This study uses a quantitative approach with a correlational research design, which aims to identify the strength of the relationship between two or more variables. The method used was a survey study through the distribution of questionnaires to respondents to investigate the relationship between stress management and mental health among students at the Islamic University of Jakarta<sup>20</sup>.

The research was conducted on the campus of the Islamic University of Jakarta in mid-June 2025 to understand how the academic context influences students' psychological well-being. The research sample consisted of 68 students from various faculties and semesters, selected using purposive sampling. This

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<sup>19</sup> Jacob Cohen, *Statistical Power Analysis for the Behavioral Sciences* (routledge, 2013).

<sup>20</sup> John W. Creswell and J. David Creswell, *Research Design Qualitative, Quantitative, and Mixed Methods Approaches*, 5th ed. (California: SAGE Publications, 2018).

technique was chosen based on the consideration that respondents must possess certain characteristics relevant to the research objectives<sup>21</sup>.

The research instrument was a Likert scale, including a stress management scale and a mental health scale. Before the main study, the instrument was piloted on 30 active students at As-Syafiiyah Islamic University, outside the research sample. This pilot test aimed to ensure the validity and reliability of the instrument, particularly the questionnaire measuring the intensity of obligatory prayers and mental health. The pilot test results showed several valid statements and a Cronbach's Alpha value of 0.70, which is considered high reliability<sup>22</sup>. Because the population size is not known with certainty (it is an infinite population), the sample size was determined using the Lemeshow formula. This formula is used in social and public health research to estimate sample size based on the error rate ( $\alpha$ ) and the maximum estimated proportion. Thus, the sample size obtained meets accountable methodological standards<sup>23</sup>.

$$n = \frac{Z_{1-\frac{\alpha}{2}} \times p(1-p)}{e^2}$$

n = Number of samples

z = Z-score at 95% confidence = 1.96

P = Maximum estimated proportion selected 50%

e = Error estimation rate

The application of Pearson correlation data analysis techniques requires that the data used have a minimum interval scale<sup>24</sup>. This is because Pearson correlation is a parametric statistical method used to measure the strength and direction of the linear relationship between two variables<sup>25</sup>. In addition to the data scale requirements, there are also important assumptions, namely that both variables come from a normally distributed population and the relationship between the variables is linear (linearity specification of the regression model)<sup>26</sup>.

In this study, data were obtained from a survey using a questionnaire with an ordinal scale. Therefore, it is recommended to transform the data from ordinal to interval to meet the requirements for applying Pearson correlation analysis<sup>27</sup>. The data transformation process aims to increase the validity and reliability of the analysis results by adjusting the data to the required parametric assumptions. One of the methods that is widely used is the Method of Successive Interval (MSI), as proposed by Hays (1976) and popularized in social research in Indonesia. The MSI procedure includes several stages<sup>28</sup>. The MSI procedure includes several stages:

1. Calculate the frequency of observations in each category.
2. Calculate the proportion of each category.

<sup>21</sup> Ilker Etikan, Sulaiman Abubakar Musa, and Rukayya Sunusi Alkassim, "Comparison of Convenience Sampling and Purposive Sampling," *American Journal of Theoretical and Applied Statistics* 5, no. 1 (2016): 1–4.

<sup>22</sup> Mohsen Tavakol and Reg Dennick, "Making Sense of Cronbach's Alpha," *International Journal of Medical Education* 2 (2011): 53.

<sup>23</sup> Stanley Lemeshow, "Adequacy of Sample Size in Health Studies," 2025.

<sup>24</sup> D R Sudjana, "Metode Statistika," 2005.

<sup>25</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif Dan R&D*, 19th ed. (Bandung: Alfabeta, 2013).

<sup>26</sup> ANDY Field, "Spss," *Discovering Statistics Using SPSS. 2nd Ed. Porto Alegre, RS: Artmed*, 2009.

<sup>27</sup> William Emory, "Business Research Methods," (*No Title*), 1991.

<sup>28</sup> Ibid.

3. Calculate the cumulative proportion of each category.
4. Calculate the Z-score (normal distribution) from the cumulative proportion.
5. Determine the Z-score (probability density function) for each category.
6. Calculate the scale value (average interval scale value) using the formula for the difference in area under the normal curve.
7. Calculate the transformation score (T) for each category using the following equation:

$$[T = SV + \left( 1 + SV_{\{\text{minimum}\}} \right)]$$

where SV (Scale Value) is the scale value obtained from a normal distribution<sup>29</sup>. For efficiency, the MSI data transformation process is performed using statistical software, such as R or SPSS<sup>30</sup>.

Meanwhile, the data analysis technique used the parametric statistical technique Pearson Product Moment (PPM) correlation with the following formula<sup>31</sup>:

$$r_{xy} = \frac{n \sum x_i y_i - (\sum x_i)(\sum y_i)}{\sqrt{(n \sum x_i^2 - (\sum x_i)^2)(n \sum y_i^2 - (\sum y_i)^2)}}$$

The following is presented in Table 1. Interpretation of the strong category of the relationship in the Pearsdon product moment correlation,

**Table 1. Guidelines for Interpreting the PPM Correlation Coefficient**

<b>Pearson Correlation Interval</b>	<b>Relationship Strength Categories</b>
very weak	0.00 - 0.19
weak	0.20 - 0.39
currently	0.40 - 0.59
strong	0.60 - 0.79
Very strong	0.80 - 1.00

**Source: Cohen, 1988, *Statistical Power Analysis for the Behavioral Sciences***

Before conducting the Product Moment Correlation Hypothesis test in the data analysis technique in a correlational research design using the Pearson correlation t-test statistic, it is necessary to first determine whether the main assumptions are met. The normality of the data distribution for each variable X and Y is measured using the Shapiro-Wilk test formula<sup>32</sup>.

<sup>29</sup> H M Sukardi, *Metodologi Penelitian Pendidikan: Kompetensi Dan Praktiknya (Edisi Revisi)* (Bumi Aksara, 2021).

<sup>30</sup> Rudini Rudini, "Peranan Statistika Dalam Penelitian Sosial Kuantitatif," *Jurnal Saintekom: Sains, Teknologi, Komputer Dan Manajemen* 6, no. 2 (2016): 53–66.

<sup>31</sup> Sudjana, "Metode Statistika."

<sup>32</sup> Lisana Sumarah Pratignyo and Soekardi Hadi Prabowo, "APLIKASI SOFTWARE R PADA PENDETEKSIAN ASUMSI NORMALITAS DAN MULTIKOLINEARITAS REGRESI LINIER BERGANDA," *Matematika Sains* 2, no. 2 (2024): 30–39.

$$T_3 = \frac{1}{D} \left[ \sum_{i=1}^k a_i (X_{n-i+1} - X_i) \right]^2 \quad D = \sum_{i=1}^n (X_i - \bar{X})^2$$

Based on the Hypothesis:

Ho: The data population comes from a normally distributed population

H1: The data population comes from a non-normally distributed population Test criteria, if the value

-  $T_{3,Hitung} \geq T_{Tabel}$  then  $H_0$  is accepted dan  $H_1$  is rejected. The Data Normality Assumption is met

-  $T_{3,Hitung} < T_{Tabel}$  then  $H_0$  is rejected, and  $H_1$  is accepted, the Data Normality Assumption is not met

Meanwhile, the linearity specification test for the regression model

Using the Ramsey Reset Formula (**RESET** stands for regression specification error test), developed by Ramsey in 1969<sup>33</sup>, suggests a test called the general test of specification or reset, with the following formula:

$$F = \frac{(R_{New}^2 - R_{Main}^2) / m}{(1 - R_{New}^2) / (n - k)}$$

new is a new model (a linear regression model with the added variable predicted square)

Note:

- PREDsquare = Predicted Result Value squared
- R-squared Main = R-squared derived from the main model
- R-squared New = R-squared derived from the new model with the addition of the dependent variable, Prediction Results (Estimates)
- k = Number of independent variables in the new model
- m = Number of new independent variables entered into the model: 1, namely PREDsquare
- n = Number of observations
- The hypothesis of the Ramsey RESET test using the Predicted Squares approach is:
- H0: The independent influence on the dependent variable forms a linear model
- H1: The independent influence on the dependent variable forms a nonlinear model

The criteria for statistical testing or decision-making in parametric statistics can be conducted using the **F-test**, first introduced by **Ronald A. Fisher** in 1928<sup>34</sup>. The F-test is applied to evaluate the overall significance of a regression model as well as specific hypothesis testing involving the comparison of variances across groups<sup>35</sup>.

In the context of the **Ramsey RESET Test (Regression Equation Specification Error Test)**, the procedure involves adding squared or higher-

<sup>33</sup> Damodar N Gujarati, *Essentials of Econometrics* (Sage Publications, 2021).

<sup>34</sup> Ronald Aylmer Fisher, "Statistical Methods for Research Workers," in *Breakthroughs in Statistics: Methodology and Distribution* (Springer, 1970), 66–70.

<sup>35</sup> Douglas C Montgomery, Elizabeth A Peck, and G Geoffrey Vining, *Introduction to Linear Regression Analysis* (John Wiley & Sons, 2021).

order terms of the predicted values into the regression model. The testing criteria with the **Predicted Square** approach are as follows:

- If **Fstatistic**  $\leq$  **Fcritical** at a given significance level ( $\alpha$ ) with specific degrees of freedom ((df1, df2)), then the **model does not suffer from specification error**.
- Conversely, if **Fstatistic**  $>$  **Fcritical**, this indicates that the model is likely misspecified<sup>36</sup>.

Therefore, the RESET test is useful to ensure that the regression model is correctly specified, making the estimation results more reliable.

Note:

- **df1 = m ; df2 = n - k**
- m = Number of new independent variables entered into the model (1)
- n = Number of observations
- k = Number of independent variables in the new model

The Pearson product-moment correlation hypothesis test uses the t-formula developed in 1896<sup>37</sup>. The correlation formula, later known as the product-moment correlation, is then compared with the t-table distribution value introduced by W. S. Gosset in 1908. Under the pen name Student, the distribution is called the Student's t-test, to determine whether the correlation is statistically significant. Steps for testing the Pearson product-moment correlation hypothesis<sup>38</sup>:

*First*, formulate the hypothesis:

- Null hypothesis (H0): There is no significant correlation between the two variables ( $\rho = 0$ ).
- Alternative hypothesis (Ha): There is a significant correlation between the two variables ( $\rho \neq 0$ )<sup>39</sup>.

*Second*, calculate the Pearson product-moment correlation coefficient (r):

*Third*, calculate the t-value using the formula:

$$t_{\text{Hitung}} = r \sqrt{\frac{n - 2}{1 - r^2}}$$

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<sup>36</sup> James H Stock et al., "Introductory Econometrics: A Modern Approach (4 Th International," n.d.

<sup>37</sup> Egon Sharpe Pearson, Robert Lewis Plackett, and George Alfred Barnard, *'Student': A Statistical Biography of William Sealy Gosset* (Oxford University Press, 1990).

<sup>38</sup> Sandy L Zabell, "On Student's 1908 Article 'the Probable Error of a Mean,'" *Journal of the American Statistical Association* 103, no. 481 (2008): 1–7.

<sup>39</sup> Andy Field, *Discovering Statistics Using IBM SPSS Statistics* (Sage publications limited, 2024).

Where  $r$  is the Pearson correlation coefficient and  $n$  is the sample size<sup>40</sup>.

*Fourth*, determine the significance level ( $\alpha$ ) and degrees of freedom ( $df$ ):

- $\alpha$  (alpha) is the chosen significance level, usually 0.05 (5%).
- $df$  (degrees of freedom) =  $n - 2$

*Fifth*, find the t-table value using the t-distribution table with the specified  $\alpha$  and  $df$ <sup>41</sup>.

*Sixth*, make a decision:

- If  $|t \text{ count}| > t \text{ table}$ , reject  $H_0$ . This means there is sufficient statistical evidence to state that the correlation between the two variables is significant.
- If  $|t \text{ count}| \leq t \text{ table}$ , fail to reject  $H_0$ . This means there is insufficient statistical evidence to state that the correlation is significant<sup>42</sup>.

The entire data analysis process was performed using R software version 4.5.1, released on June 13, 2025. This software is open source and does not require a license. This is because R is developed based on open source principles, meaning its source code is publicly available and can be freely accessed, modified, and distributed by anyone, without licensing fees. The open source concept emphasizes transparency and collaboration<sup>43</sup>. R is open source software, where users do not need to purchase a license or pay any fees to use, modify, or distribute R. This is unlike proprietary software that requires a license for official use<sup>44</sup>.

### C. RESEARCH AND RESULTS

After collecting data through a scale questionnaire that produces an Ordinal Type, the data was then transformed to an interval scale with MSI, to meet the requirements for applying Pearson correlation. The data was analyzed using the Pearson Product Moment Correlation Test. Then the Pearson correlation coefficient was calculated using the R software syntax version 4.5.1, resulting in a Pearson Correlation value on the intensity of Fardhu Prayer and Mental Health of 0.3327 with the degree of relationship between these two variables in the low or weak category and the form of the relationship between these two variables is positive, which means that the better the intensity of Fardhu Prayer, the better the mental health. This explanation is in line with Omar's research (2018), which states that prayer routines are correlated with a decrease in symptoms of depression in students<sup>45</sup>.

The results of the normality test using the Shapiro Wilk Test statistics for the data of each variable, the intensity of obligatory prayer and mental health, as well

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<sup>40</sup> Timo Gnambs, "A Brief Note on the Standard Error of the Pearson Correlation," *Collabra: Psychology* 9, no. 1 (2023): 87615.

<sup>41</sup> Abdisa G Dufera, Tiantian Liu, and Jin Xu, "Regression Models of Pearson Correlation Coefficient," *Statistical Theory and Related Fields* 7, no. 2 (2023): 97–106.

<sup>42</sup> Student, "The Probable Error of a Mean," *Biometrika*, 1908, 1–25.

<sup>43</sup> R Core Team, "R: A Language and Environment for Statistical Computing, 2020," *R Foundation for Statistical Computing: Vienna, Austria*, 2020.

<sup>44</sup> Robert Gentleman and Duncan Temple Lang, "Statistical Analyses and Reproducible Research," *Journal of Computational and Graphical Statistics* 16, no. 1 (2007): 1–23.

<sup>45</sup> Setia Ningsih and Hendra Dukalang, "Penerapan Metode Suksesif Interval Pada Analsis Regresi Linier Berganda," *Jambura Journal of Mathematics* 1, no. 1 (2019): 43–53.

as the specifications of the linear relationship with the Ramsey RESET test are presented in Table 1.

**Table 2 Results of Data Normality Test and Linear Relationship Specifications**

<b>Shapiro Wilk Normality Test</b>			
Variable	T Value		Testing Result Criteria
	Count	Table	
Obligatory Prayers	0.98	0.90	Fulfilled
Mental Health	<b>0.90</b>	<b>0.90</b>	Fulfilled
<b>Linear Relationship Specification Test</b>			
Regression Model	F Statistic Value		Testing Result Criteria
	Count	Table	
Main-New	01862	9.552	Fulfilled

**Source: Results of Processing R Software Version 4.5.1**

Based on Table 2 above, it can be seen that both the normality test for the distribution of the population data for the variables of Intensity of Obligatory Prayer and Mental Health, as well as the specification test for linear relationships, all show results that are met (significant). This indicates that the parametric statistical technique of Pearson Product Moment Correlation is appropriate to apply. Hypothesis testing to prove the research hypothesis formulation was conducted using a t-test statistic based on the Pearson Product-Moment correlation value, presented in Table 2 below.

**Table 3. Results of Pearson Correlation Hypothesis Testing**

Correlation Value PPM, r	t-Test Statistics		Hypothesis Test Result Criteria
	Count	Table	
0.3327	2.866	1.668	signifikan

**Source: Results of Processing R Software Version 4.5.1**

Based on table 3, the Pearson Product Moment Correlation value for the relationship between the intensity of Fardhu prayer and mental health is 0.3327, which is in the interval range between 0.20 - 0.39, according to Cohen (1988)<sup>46</sup> in table 1 regarding the interpretation of the strong category, the relationship is included in the weak category and it is also seen that the  $t_{\text{Calculate}}$  value = 2.866 is greater than the  $t_{\text{Table}}$  value = 1.668, the degree with a confidence of 0.05, meaning that the hypothesis  $H_0$  is rejected and  $H_1$  there is a significant relationship between the intensity of

<sup>46</sup> Cohen, *Statistical Power Analysis for the Behavioral Sciences*.

Fardhu prayer and mental health is accepted, this indicates that the results of the hypothesis test are significant.

Based on the findings above, a correlation of 0.3327 was established between the intensity of obligatory prayer and mental health using the Pearson Correlation formula in R software version 4.5.1. This correlation indicates a low-level positive relationship. This finding aligns with research by Siti Fauziah (2022)<sup>47</sup>, who, through a literature review, found that consistent prayer practice can reduce depression, anxiety, and provide peace of mind. This practice helps individuals shift their perspective on life's challenges, enabling them to manage psychological stress more effectively.

Although the relationship is weak and positive, it is important to consider other external factors such as academic load and family support. This research is also consistent with Omar (2018), who found that regular prayer is correlated with lower symptoms of depression. However, while this study demonstrates a positive relationship, it cannot be ignored that many other variables beyond prayer also influence students' mental health. Therefore, efforts to improve mental health are not sufficient through a religious approach alone; they also require systemic support from the campus environment, counseling services, and comprehensive mental health education.

Overall, this research indicates that practicing obligatory prayers can be a key strategy in maintaining students' mental health. This is crucial, given the increasing cases of psychological disorders among students, especially post-pandemic and in the digital era full of distractions and social pressures<sup>48</sup>.

#### **D. CONCLUSION**

Based on the findings above, a correlation of 0.3327 was established between the intensity of obligatory prayer and mental health using the Pearson Correlation formula in R software version 4.5.1. This correlation indicates a low-level positive relationship. This finding aligns with research by Siti Fauziah (2018), who, through a literature review, found that consistent prayer practice can reduce depression, anxiety, and provide peace of mind. This practice helps individuals shift their perspective on life's challenges, enabling them to manage psychological stress more effectively.

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<sup>47</sup> Fauziah, "Pengaruh Shalat Dalam Perspektif Islam Terhadap Psikologi Individu."

<sup>48</sup> Koenig, *Religion and Mental Health: Research and Clinical Applications*.

support from the campus environment, counseling services, and comprehensive mental health education.

Overall, this research indicates that practicing obligatory prayers can be a key strategy in maintaining students' mental health. This is crucial, given the increasing cases of psychological disorders among students, especially post-pandemic and in the digital era full of distractions and social pressures.

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