

RESEARCH ARTICLE

DESCRIPTION OF WORSHIP ROUTINE AND BURNOUT INCIDENCE  
IN MEDICAL STUDENTS OF UNIVERSITAS ISLAM NEGERI  
SYARIF HIDAYATULLAH JAKARTA.

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ABSTRACT

**Background:** The latest study in 2021 regarding the incidence of burnout in medical students at 29 medical faculties shows that 1,729 students experience high category burnout. Indonesia as a country with the world's largest Muslim population, Islamic worship is their way of life. Islam teaches its followers that worship routine will help them to live in peace. Religious practices both individually and socially have been shown to help reduce symptoms of mental disorders and improve mental health include burnout. The aims of this study is to find out the incidence of burnout and worship routine among students in the preclinical year of the State Islamic University (UIN) Syarif Hidayatullah Jakarta.

**Methods:** It was a descriptive study design with total sampling on medical students batch 2018 to 2020. Data were collected by questionnaires and analysed descriptively using SPSS 28.0.

**Results:** From 282 respondents (90.1% response rate), results showed that most students had high worship routine (60.6%), and only 3.5% had low worship routine. The incidence of burnout were about 11%, with 44% of them had high risk for burnout. Among the burnout students, most of them had low worship routine 50%, 24.8% moderate routine, and 0.6% high routine.

**Conclusion:** Most of the preclinical year medical students who experience burnout have low worship routines.

**Keywords:** Burnout, Islam worship routine, preclinical year of medical students.

INTRODUCTION

Burnout is a psychological syndrome caused by a prolonged response to chronic interpersonal stressors at work. Burnout can cause physical and mental fatigue related to certain activities. This condition is characterized by three main dimensions, namely loss of energy, depersonalization, and inability to cope with high pressure.<sup>1</sup>

Studying medicine is a lifelong exhausting journey. Many studies showed that medical students are more exposed to stress and burnout than students studying other fields of study. Medical students are exposed to higher academic pressures, need to adapt to different learning environments, long education time, and exposed to a hectic educational curriculum that leads to insufficient time for personal life events.<sup>2</sup>

The systematic review by Frajerman, et al (2019) found 24 studies on burnout from year 2010 to 2018, including 17.431 medical students worldwide with 8060 of them suffered from burnout which was equal to 44.2% prevalence.<sup>3</sup> A study by Kloping, et al (2021) involving students from 29 Faculties of Medicine in 6 regions in Indonesia found that 1.729 medical students experienced high category burnout. The studies reported that burnout generally was caused by stress (71%), relationships (46%) rather than from financial worries (29%) or accommodation issues (7%).<sup>4</sup>

The mental health perspective suggests that religion shows ways to help individuals improve their lives. Religious practices both individually and socially have been shown to help reduce symptoms of mental disorders and improve mental health. Islam emphasizes that religious

orientation, religious beliefs and practices are useful sources to face life's challenges. Da'wah Islam teaches people to believe in Allah, by way of worshiping Allah with performing prayers regularly, reading and understanding Qur'an and turning to Allah in times of need.<sup>5</sup> A survey conducted by O'Connor et al (2005) on 4404 Muslim individuals, found that those who pray regularly achieved better health, exhibited better healthy lifestyle behaviors, made use of health prevention services, and reported being more satisfied with their careful treatment.<sup>6</sup>

Based on the high incidence of burnout and how worship routines had a comforting effect to improve the lives of the faithful, this study aims to describe the incidence of medical students' burnout and their worship routines of at Faculty of Medicine Syarif Hidayatullah State Islamic University Jakarta.

## METHODS

The study is a descriptive study. The research ethical approval was issued by the Faculty of Medicine, State Islamic University (UIN) Syarif Hidayatullah Jakarta Number B-035/F12/KEPK/TL.00/10/2021. Respondents were preclinical medical students of 2018, 2019 and 2020 batch, UIN Syarif Hidayatullah Jakarta collected using the total sampling method. A total of 291 students were included as respondents (response rate 89.8%). Drop out was done to 9 respondents based on the exclusion criteria (family or social problems, and 3 months leave).

Burnout was identified using Freudenberger Burnout Inventory questionnaire consists of 14 questions that have been translated to Bahasa Indonesia. The questionnaire classifies burnout stress into five categories: doing fine, a stress is starting to show, a candidate for burnout, burning out, in a dangerous place with physical and mental well-being problem. The burnout category consists of burning out and in a dangerous place with physical and mental well-being problem. They can be combined into one category as burnout since both states reflect a state of burnout.

Worship routine was identified using worship routine questionnaire. The questionnaire was developed consisting of 20 questions that have been tested for validity and reliability. The worship routine assessed were the routine of Shalat, Monday-Thursday Sunnah fasting and reading the Qur'an. Each of the three types of worship classified into three categories: low, moderate, and high routines. Then those in the low category were considered to have 1 point for fasting on Mondays and Thursdays, 1 point for reading the Qur'an and 2 points for shalat. The moderate category was considered to have 2 points for fasting on Mondays and Thursdays, 2 points for reading the Qur'an, and 4 points for shalat. The high category was considered to have 3 points for fasting Monday-Thursday, 3 points for reading the Qur'an and 6 points for shalat. From these categories, the overall results of worship routines using the interval formula, the scores with a scale of 4-6 is categorized as low routine, 7-9 as moderate routine, and 10-12 as high routine.

All data were collected, tabulated, and statistically analyzed by SPSS version 25.0 for windows to find out the frequency and describe the variables based on each respondents characteristics such as class year, gender, age, burnout level, worship routine, and worship routines to burnout.

## ETHICAL CLEARANCE

This research was conducted by Ethics Committee Faculty of Medicine, UIN Syarif Hidayatullah Jakarta with the registry number B-035/F12/KEPK/TL.00/10/2021

## RESULTS

The overall students respondents with total of 282 respondents was divided into 3 batch year with the majority batch of year 2020 or the first year. More than half of the respondents were female (74.5%) and the majority age of respondents in this research are 20-23 years old (69.9%) (Table 1).

**Table 1. Characteristic respondent**

Variable	Class Year						Total	
	2018		2019		2020		N	%
	N	%	N	%	N	%		
Number of Students	93	33.0	90	31.9	99	35.1	282	100
Gender								
Male	25	26.9	25	27.8	22	22.2	72	74.5
Female	68	73.1	65	72.2	77	77.8	210	25.5
Age (Years)								
17-19	1	1.1	15	16.7	69	69.7	85	30.1
20-23	92	98.9	75	83.3	30	30.3	197	69.9

Table 2. Worship routines

Variabel	Worship Routines						Total		
	Low		Moderate		High		N	%	
	N	%	N	%	N	%			
Class Year									
2018	2	2.1	29	31.2	62	66.7	93	100	
2019	2	2.2	39	43.3	49	54.4	90	100	
2020	6	6.0	33	33.3	60	60.7	99	100	
Gender									
Male	6	8,3	29	40.3	37	51.3	72	100	
Female	4	1.9	72	34.3	134	63.8	210	100	
Age (Years)									
17-19	4	4.7	30	35.3	51	60.0	85	100	
20-23	6	3.0	71	36.0	120	60.9	197	100	
Total	10	3.5	101	35.8	171	60.6	282	100	

The results showed that the majority of respondents were of high worship routines (60,6%). The majority of each batch were of high worship routines. Based on gender, it was found that female (63.8%) were of higher worship routine than male, and based on age it was found that 20-23 years old (60.9%) respondent were of higher worship routine than those of 17-19 years old (Table 2).

The differences in individual traits and their relationship to other people, or differences in a profession, may be the reason for differences in religiosity between male and female.<sup>9</sup> The formation of characters regarding religious awareness of adolescent will have an impact on religious life.<sup>10</sup>

Table 3. Burnout level based on freudenberger burnout inventory questionnaire

Variable	Burnout Level										Total	
	Doing fine		Stress is starting to show		Candidate for burnout		Burning out		In a dangerous place with physical and mental well-being problem		N	%
	N	%	N	%	N	%	N	%	N	%		
Class Year												
2018	14	15.1	30	32.3	41	44.1	7	7.5	1	1.1	93	100
2019	17	18.1	23	25.6	41	45.5	8	8.9	1	1.1	90	100
2020	10	10.1	33	33.3	42	42.2	12	12.1	2	2.0	99	100
Gender												
Male	12	16.7	15	20.8	30	41.7	13	18.0	2	2.8	72	100
Female	29	13.8	71	33.8	94	44.8	14	6.6	2	1.0	210	100
Age (Years)												
17-19	6	7.1	28	32.9	40	47.1	8	9.4	3	3.5	85	100
20-23	35	17.8	58	29.4	84	42.6	19	9.6	1	0.5	197	100
Total	41	14.5	86	30.5	124	44.0	27	9.6	4	1.4	282	100

The percentage of burnout level (Table 3) showed that majority of burnout found in the 2020 batch (14.1%), male (20.8%), and age 17-19 years (12.9%). Overall, the majority of preclinical students are candidate for burnout.

In the first year batch of students, they will face differences in cultural backgrounds from high school to

university.<sup>13</sup> There is differences emotional control between male and female that affect to the occurrence of burnout.<sup>14</sup> Adolescence is a period filled with major physical, intellectual and emotional changes in a person that cause sadness and doubt in the person concerned.<sup>16</sup>

**Table 4. Closed question 1**

Question	Answer			
	Yes	%	No	%
Does worship help overcome your boredom?	249	88.3	33	11.7

Table 4 showed the percentage of respondents who did worship routines and the incidence of burnout. The results showed that among respondents who had high worship

routines, only 1 respondents (0.6%) who experienced burnout, while the majority of respondents who had low worship routines, experienced burnout (50.0%).

**Table 5. Closed question 2**

What worship do you usually do when you feel bored?	Frequency	Percentage (%)
Shalat	50	17.7
Reading Qur'an	18	6.4
Fasting	2	0.7
Shalat, Reading Qur'an	135	47.9
Shalat, Fasting	10	3.5
Puasa, Reading Qur'an	4	1.4
Shalat, Fasting, Reading Qur'an	51	18.1
Alms	2	0.7
Nothing	10	3.5

In the 1<sup>st</sup> and 2<sup>nd</sup> closed questions (table 4 and 5) related to worship routines, about 88.3% respondents claimed that worship routines helped them to overcome the boredom, and majority type of worship routines that they used to do when they were bored, were doing Shalat, and reading the Qur'an (47.9%).

In a study by Doufesh (2014) investigated the effect of Muslim Shalat that doing regular prayer practice cause the interaction between the central nervous system and autonomic nervous system during shalat that can help promote relaxation, reduce anxiety, and reduce cardiovascular risk.<sup>6</sup>

**Table 6. Worship routines to burnout**

Variable	Burnout Level										Total	
	Doing fine		Stress is starting to show		Candidate for burnout		Burning out		In a dangerous place with physical and mental well-being problem		N	%
	N	%	N	%	N	%	N	%	N	%		
Worship Routines												
Low	0	0.0	1	10.0	4	40.0	5	50.0	0	0.0	10	100
Moderate	6	5.9	15	14.9	55	54.5	21	20.8	4	4.0	101	100
High	35	20.5	70	40.9	65	38.0	1	0.6	0	0.0	171	100

Table 6 showed the percentage of respondents who did worship routines and the incidence of burnout. The results showed that among respondents who had high worship

routines, only 1 respondents (0.6%) who experienced burnout, while the majority of respondents who had low worship routines, experienced burnout (50.0%).

## DISCUSSION

The majority of gender in this study were female. According to Tom Moberly's research (2018) based on data obtained from the Higher Education Funding Council for England (HEFCE), the distribution of female in medical student were found to be higher than male during the last 25

years (1992 to 2017).<sup>7</sup>

Based on Pew Research Center data on frequency of attendance at worship services are available in 81 countries from year 2008-2015, it showed that average of 48% of men and 42% of women recorded attending worship services at least once a week. However, mostly in Moslem countries,

men attending services at least once a week was higher than women, such as in Afghanistan, the share of men attending services at least once a week exceeds the share of women by 84 percentage points, in Pakistan 72 points and in Bangladesh 66 points.<sup>8</sup> Beit-Hallahmi and Argyle (1997) suggest that differences in individual traits and their relationship to other people, or differences in a profession, may be the reason for differences in religiosity between male and female, but this may be specific to certain religious traditions, and may be specific to certain aspects of religion.<sup>9</sup>

Based on the Department of Health in Indonesia, the study participants were divided into two age groups: 17 to 19 and 20 to 23 years. This stratification was done to distinguish between the adolescent and adult groups. Based on age it was found that adult groups respondent had a higher worship routine than adolescent. In line with the state of adolescents who are in transition from childhood to adulthood, the formation of characters regarding religious awareness is also in a transitional period. Besides the state of his soul which is unstable, abstract, logical and critical thinking that just begins to develop will have an impact on religious life that is easily swayed, doubts arisen, worries and inner conflicts.<sup>10</sup>

Most of the worship routine that respondents did when they were bored, were Shalat and reading the Qur'an. In a study of 30 healthy Muslim men, Doufesh (2014) investigated the effect of Muslim Shalat on the relative power (RPa) of electroencephalography (EEG) and autonomic nervous activity. During Shalat, a significant increase in the mean RPa in the occipital and parietal lobe brain and a normalized unit of high-frequency (nuHF) power of parasympathetic index unit were observed. The increase in RPa EEG of the occipital and parietal lobes during this prayer shows that prayer has a positive influence on brain function, especially in human well-being. Therefore, doing regular prayer practice cause the interaction between the central nervous system and autonomic nervous system during shalat that can help promote relaxation, reduce anxiety, and reduce cardiovascular risk.<sup>6</sup> Other study on Al-Qur'an murottal therapy showed that Al-Qur'an murottal therapy was able to stimulate the hypothalamus to produce neuropeptides. Neuropeptides influence the body in the form of comfort derived from decreasing cortisol, epinephrine-norepinephrine, dopamine and growth hormone in serum.<sup>11</sup>

Overall, the data showed that the majority of pre-clinical medical students at Universitas Islam Negeri Syarif Hidayatullah Jakarta were candidates for burnout. According to Redityani (2021), among the factors that influence the risk of burnout was strong personality where a person with a strong personality tends to be able to control themselves on given pressure problems and be able to minimize the impact of pressing situations they experienced. He also has the ability to control himself in a situation that was difficult for individuals to act and remain stable even in problematic conditions. Medical students who were under

pressure may experience stress and allow burnout to occur, but with a strong personality, self-control, and resilience, students should be able to take advantage of the pressure. They would see it as an opportunity to develop and as new challenges in order to build positive motivation and ease them to overcome and reduce the risk of burning out.<sup>12</sup>

The incidence of burnout was found higher in the adolescent group. Adolescence is a period filled with "storms and mental stress", namely a period in which there are major physical, intellectual and emotional changes in a person that cause sadness and doubt in the person concerned, and cause conflict with the environment.<sup>13</sup>

The incidence of burnout in this study was found higher in the first year batch of students. In Indonesia, where the learning approach in high school is different than in the university, many first year students tend to be overwhelmed. Many factors of obstacles the students found that stimulate the burnout, such as differences in cultural backgrounds, new places of residence for students from other islands, adaptation shock to different learning environment and high demand in curricula, as well as busy activities at universities that make students less skilled in time management.<sup>14</sup> While in America, burnout started around the second year of medical school and crested during residency training.<sup>15</sup>

This study found that male had higher scores for burnout compared to female. It was supported by Nawansih and Purwanto (2012) study which stated that there were differences in emotional control between male and female. Female were more intense in reporting emotions such as sadness, guilt, shame, etc, while male tend to deny what they felt. Denial would affect the emotional atmosphere. Understanding the meaning of feelings would encourage the achievement of psychological well-being, and individual peace.<sup>16</sup> However in America, there was no significant gender difference in burnout.<sup>15</sup>

These two condition showed that between western and eastern culture, the influencing factors to burnout may be different. This study has shown that the worship routine could prevent the incidence of burnout. Nopa study (2021) has supported this results. It showed that religiosity would affect lower cortisol level. Cortisol level which is the biomarker of stress, would also reduce daily and night cortisol level. It explained why the religious person would comprehend and accept stressful situations.<sup>17</sup>

## CONCLUSION

This study showed that the majority of students were identified as candidate of burnout (44%). The students worship routines were mostly in high level (60.6%). The incidence of burnout was 11%, with the majority were the students who had low worship routines (50.0%). This study

also showed that worship routines, especially doing Shalat and reading the Quran, would prevent the incidence of burnout.

### CONFLICT OF INTEREST

The study has no conflicts of interest. It has no implication to the students study result.

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