

## Original Research Article

# The relationship between listening to religious music and reading al-Qur'an to anxiety levels of medical students

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### ABSTRACT

**Background:** The rate of anxiety in students of the Faculty of Medicine, University of Muhammadiyah Surakarta is still high at 57.1% for moderate anxiety, while those including mild anxiety levels are 36.7% and severe anxiety levels are 6.1%. Tranquility in the soul can be obtained from listening to religious music and reading the Qur'an (recitations). This study aims to determine the relationship of listening to religious music and reading the Qur'an (recitations) to the level of anxiety.

**Methods:** This study was an analytic observational study with a cross sectional approach. Samples were taken by purposive sampling. This study uses the TMAS questionnaire to assess anxiety. The number of samples is 54. Analysis of the data used is Chi-square and Logistic Regression.

**Results:** The results of Chi-Square test about the relationship listening to religious music to anxiety levels showed  $p = 0.000$  and the relationship of reading Al-Qur'an (tilawah) to anxiety showed  $p = 0.000$  which  $p < 0.05$  present a significant correlation between two variables. Logistic Regression test results of listening to religious music to anxiety levels showed  $p = 0.008$  and  $OR = 7.164$  and the relationship of reading Al-Qur'an (tilawah) to anxiety levels showed  $p = 0.002$  and  $OR = 8.244$ .

**Conclusions:** There is a significant correlation between listening to religious music and reading the Qur'an (tilawah) with the level of anxiety of students in the Faculty of Medicine, Muhammadiyah University of Surakarta. Students who listen to religious music and often read the Qur'an (recitations) will reduce the risk of anxiety. Reading the Qur'an (recitations) is more influential on reducing the level of anxiety than listening to religious music.

**Keywords:** Al-Qur'an, Anxiety, Religious music

### INTRODUCTION

Anxiety disorder is a disorder that is often found in both children and adolescents. Anxiety disorder in the form of a state of disorder characterized by excessive anxiety, worry and irrational even sometimes unrealistic about various events in daily life. Studies in America say that 6.8 million 18-year-old adolescents in the United States (3.1%) experience a thorough anxiety disorder. In Indonesia, anxiety rates reach 6.7%. According to National Comorbidity Survey the prevalence of anxiety

in 2% men and women 4.3%. Women experience more anxiety disorders in the age range 16-40 years.<sup>1</sup> In previous studies conducted at the Faculty of Medicine, University of Muhammadiyah Surakarta, the first level students found that the most experienced psychiatric anxiety was moderate anxiety level of 57.1%, while those which included mild anxiety levels were 36.7% and severe anxiety levels were 6.1%.<sup>2</sup>

Students are those who often experience anxiety disorders. Anxiety that occurs in students is mainly

caused by three main problems related to academic problems, namely the amount of material that must be learned, the limited time to repeat lessons, and exams.

During examination, students tend to feel the time they have is very limited to achieving their target.

Reading and listening to the Qur'an is a remedy for various diseases suffered by humans.<sup>3</sup> Listening to the Qur'an can provide peace in the soul for its listeners, so that it can provide a relaxing effect and anxiety becomes reduced as explained in the Qur'an which means "Those who believe, their hearts become calm by remembering Allah. Know that by remembering Allah the heart is at ease "(QS Ar-Ra'd: 28).<sup>4</sup>

Various types of music can be used for anxiety therapy, not just classical music, provided that the music used has a beat of 70-80 times per minute which is in accordance with the rhythm of the human heart, so as to provide excellent therapeutic effects on health.<sup>5</sup> Music can be used to reduce anxiety levels.<sup>6</sup> Music can make brain waves slow down and balance, music can affect breathing, heart rate, pulse, blood pressure, muscle tension, improve body movement and coordination, music also affects body temperature, stress-related hormones can be regulated by music, and the immune system can also be enhanced by music.<sup>7</sup>

Based on the description above, the authors are interested in examining whether there is a relationship between listening to religious music and reading the Qur'an (recitations) on the level of anxiety in students at the Faculty of Medicine, Muhammadiyah University of Surakarta.

## METHODS

This study is an analytic observational study with a cross sectional approach, namely the cause and effect variables in the research object measured at the same time.<sup>23</sup> The subjects of this study were students of the Faculty of Medicine, Muhammadiyah University of Surakarta. The sample size obtained was 59 students. Listening to religious music is measured by using a questionnaire containing questions whether in the past week respondents have listened to religious music or not.

Reading Al-Qur'an (recitations) is measured using a questionnaire containing questions that relate to reading Al-Qur'an (recitations) whose calculations is the result of multiplication between frequency x duration. The values included in the category are low if  $\leq 20$  and high category  $> 20$ .

The level of anxiety is measured using the TMAS/Taylor questionnaire. Manifest Anxiety Scale is used to measure anxiety levels consisting of 50 question items with the right or wrong choice. The answer indicates the level of anxiety and will be known by the sum of 0-50. Higher

scores indicate higher anxiety.<sup>8</sup> TMAS  $\geq 21$  and not anxious if TMAS score  $< 21$ . TMAS has a high degree of validity but is also influenced by honesty and accuracy of respondents in filling it.<sup>9</sup>

In this study to determine the characteristics of respondents will be carried out univariate descriptive analysis test. Then to find out the relationship between two variables will use the Chi square bivariate analysis test. From the Chi square results obtained a variable with a value of  $p < 0.25$ , then these variables are considered to be eligible for the test of logistic regression analysis. Multivariate analysis using logistic regression test was conducted to determine the extent to which the influence of each independent variable affects dependent.

## RESULTS

This research work on the relationship of listening to religious music and reading the Qur'an (recitations) on the level of anxiety in students of the Faculty of Medicine, Muhammadiyah University of Surakarta obtained subjects as many as 59 subjects from the subject have been adjusted to the criteria that have been determined in accordance with the criteria of restrictions. The results are as follows:

### Univariate analysis

Univariate analysis is used to describe the characteristics of the research subject which can be seen from the frequency distribution of each research variable.

**Table 1: The characteristics of respondent based on gender.**

Gender	Frequency	Percentage
Male	9	15.3%
Female	50	84.7%
Total	59	100%

Table 1 shows the number of male students as many as 9 students with a percentage of 15.3% and female students as many as 50 students with a percentage of 84.7%.

**Table 2: The characteristics of respondent based on listening religious music.**

Categories	Frequency	Percentage
Listening religious music	39	66.1%
Not listening religious music	20	34.9%
Total	59	100%

Based on Table 2 shows the number of students who do not listen to religious music as many as 20 students with a percentage of 34.9% and students who listen to religious music as many as 39 students with a percentage of 66.1%.

**Table 3: The characteristics of respondent based on reading Al-Qur'an (tilawah).**

Categories	Frequency	Percentage
High	32	54.2%
Low	27	45.8%
Total	59	100%

Based on Table 3 shows students who read the Qur'an (recitations) >20minutes in one week amounted to 32 students with a percentage of 54.2% and students who read the Qur'an (recitations) ≤20minutes in one week numbered 27 students with a percentage of 45.8%.

**Table 4: The characteristics of respondent based on TMAS/ Taylor manifest anxiety scale score.**

Categories	Frequency	Percentage
Anxiety	26	44.1%
Not anxiety	33	55.9%
Total	59	100%

Based on Table 4 shows the number of students who are not worried as many as 33 students with a percentage of 55.9% and those who experience anxiety as many as 26 students with a percentage of 44.1%.

**Table 5: The relationship between listening religious music with anxiety level.**

	Anxiety	Not Anxiety	Total	p value
Listening religious music	10 (25.6%)	29 (74.4%)	39 (100%)	0.000
Not listening religious music	16 (80.0%)	4 (20.0%)	20 (100%)	
Total	26 (44.1%)	33 (55.9%)	59 (100%)	

**Table 6: The relationship between reading Al-Qur'an (tilawah) and anxiety level.**

Categories	Anxiety	Not anxiety	Total	p value
High	6 (18.8%)	26 (81.3%)	32 (100%)	0.000
Low	20 (74.1%)	7 (25.9%)	27 (100%)	
Total	26 (44.1%)	33 (55.9%)	59 (100%)	

**Table 7: Regression logistic test on relationship between listening religious music and reading Al-Qur'an with anxiety level.**

Variable	p value	OR EXP (B)	95% C.I. for EXP(B)	
			Lower	Upper
Listening Religious Music	0.008	7.164	1.684	30.480
Reading Al-Qur'an (tilawah)	0.002	8.244	2.168	31.346

Based on the Chi-Square test data obtained p value 0.000. The value of p amount less than <0.05 which indicates that the variable listening to religious music has a significant correlation to the level of anxiety in students at the Faculty of Medicine, Muhammadiyah University of Surakarta.

**Bivariate analysis**

Bivariate analysis was used to determine the relationship between the independent variable and the dependent variable analyzed through Chi-Square test.

*The relationship between listening religious music and anxiety levels*

The relationship between religious music with anxiety level is said to be meaningful if the value of p <0.05 and not significant if the p value >0.05. The results of bivariate analysis between religious music and anxiety levels can be seen in Table 5.

Based on Table 5, it can be seen that students who listen to religious music and experience anxiety as many as 10 students with a percentage of 25.6%, students who listen to religious music and do not experience anxiety as much as 29 students with a percentage of 74.4%, students who do not listen to religious music and experiencing anxiety as many as 16 students with a percentage of 80.0%, and students who did not listen to religious music and did not experience anxiety as much as 4 students with a percentage of 20.0%.

*The relationship between reading the Qur'an (tilawah) and anxiety levels*

Based on Table 6, it can be seen students with high categories in reading Al-Qur'an (recitations) who experience anxiety as much as 6 students with a

percentage of 18.8%, students with high categories in copying the Qur'an (recitations) who did not experience anxiety as many as 26 students with a percentage of 81.3%, students with low categories in reading Al-Qur'an (recitations) who experienced anxiety as many as 20 students with a percentage of 74.1%, and students with low categories in reading the Qur'an (recitations) that do not experience anxiety as many as 7 students with a percentage of 25.9%.

The relationship between religious music with anxiety level is said to be meaningful if the value of  $p < 0.05$  and not significant if the  $p$  value  $> 0.05$ . The results of bivariate analysis between religious music with anxiety levels can be seen in Table 7.

Based on the Chi-Square test data obtained  $p$  value 0.000. The value of  $p$  less than  $< 0.05$  which indicates that the variable reading Al-Qur'an has a significant correlation to the level of anxiety in students at the Faculty of Medicine, Muhammadiyah University, Surakarta.

### **Multivariate**

Variables that influence the level of anxiety include listening to religious music and reading the Qur'an (recitations), then conducting multivariate analysis using logistic regression and getting results as in Table 7. The results are considered meaningful if the  $p < 0.05$  follows.

Based on Table 7, it can clearly be seen that the variable listening to religious music with OR 7.164 means that students who listen to religious music are less at risk of experiencing anxiety as much as 7.164 times compared to students who do not listen to religious music. The table above also shows the more often in reading Al-Qur'an (tilawah) the more a person is not at risk of experiencing anxiety as much as 8.244 times compared to students who do not or rarely read Al-Qur'an (tilawah).

## **DISCUSSION**

Several references stated that religious music is music that can be used as an entertainment because it can bring the servant closer to the Creator.<sup>10,11</sup> The lyrics are the strength of religious music, because the meaning contained in them is more profound. The lyrics can inspire and provide peace of mind for listeners, so that they have the desire to further strengthen their faith.<sup>5</sup>

The test results in table 6 are data analysis that has been done to answer the hypothesis that has been set. Based on the test results in this study obtained a significance value of  $p = 0.000$  which mean that  $p$  value of  $< 0.05$  indicating that the variable listening to religious music has a significant correlation to the level of anxiety in students of the Faculty of Medicine, Muhammadiyah University of Surakarta so it can be concluded that the hypothesis in the study was proven. The results of this study are in accordance with previous studies with  $p = 0.000$  in

elderly research subjects which there was a decrease in anxiety in 21 elderly respondents in the UPT Pasuruan Babat Elderly Social Services Lamongan Regency after giving religious music.<sup>5</sup> In addition, this study is also in accordance with research conducted at the Kurnia Elderly Posyandu and obtained 80.94% of the elderly experienced a decrease in anxiety after listening to religious music.<sup>12</sup>

Another resources stated that religious music can reconcile the heart of someone who is anxious, happy, restless, sad and in love moving towards a goal that is intended, namely to achieve something more peaceful, peaceful and even able to add faith, at least remind him.<sup>10,11</sup> Religious music is sometimes a tangible form of one's practice after listening to the Islamic rhythmic music, which does not limit other parties who have different faiths and beliefs to enjoy the rhythm and poetry of Islamic religious music. So, anyone who listens to Islamic religious music will feel calm in his heart, which encourages good deeds according to the lyrics he listens to.<sup>5</sup>

The stimulation of music will activate special pathways in some areas of the brain such as the limbic system associated with emotional actions. Activity listening to music can activate the limbic system and make the individual relax. When in a relaxed state will make a decrease in the level of anxiety. In addition, using body music can also be stimulated to produce nitric oxide (NO). NO can reduce anxiety by working on vascular tone.<sup>13</sup> According to Imam al-Ghazali, recitations are reading the Qur'an with a combination of oral, reason and heart. In addition, the field can also be interpreted as full of soul in reading the Qur'an.<sup>14</sup>

The test results in table 7 are also data analysis that has been done to answer the hypothesis that has been set. Based on the test results in this study obtained a significance value of  $p = 0.000$  which the value of  $p < 0.05$  indicates that the Al-Qur'an reading variable (tilawah) has a significant correlation to the level of anxiety in students of the Faculty of Medicine, Muhammadiyah University of Surakarta so it can be concluded that the hypothesis in the study was proven. The results of the study are in accordance with the previous research  $p$  value = 0.000 with the subjects of pregnant women research obtained the results of the intensity of reading the Qur'an effective in reducing anxiety in pregnant women with a contribution of effectiveness of 68.2%.<sup>15</sup>

In addition, this study also in accordance with previous research results obtained  $p = 0.000$  by observing 25 respondents who did the pretest and posttest all experienced a decrease in anxiety levels after being given therapy with the Qur'an.<sup>16</sup>

Previous research stated that there is a correlation between the intensity of reading the Qur'an with anxiety

because reading the Qur'an can provide peace, by worship can strengthen one's hopes of entering heaven, causing calm and peace.<sup>15</sup>

The reading of the Qur'an provides healing effects for the body, mind and feelings. The healing effect comes from the side of meaning and sound that can be a medium of communication and provide peace. The meaning implied in the Qur'an can give enlightenment to the readers and listeners. Besides, reading Al-Qur'an can repeatedly give a relaxing effect on the body.<sup>17</sup> Tempo that is slow and harmonious in reading Al-Qur'an therapy will make the stress hormones decrease and natural endorphins (serotonin) active. This can make the feeling of relaxation increase, decreased fear, anxiety, anxiety and tension, the body's chemical system improves so as to make blood pressure decrease, slowing of breathing, heart rate, pulse and brain wave activity.<sup>18</sup>

Anxiety is an unpleasant mood, accompanied by sensations in the body and occurs with uncertain feelings and threats to the future subjectively. Anxiety is a central nervous system alarm system to protect itself from threats and is activated by environmental cues.<sup>19</sup>

Data on anxiety levels in students of the Faculty of Medicine, University of Muhammadiyah Surakarta can be seen in Table 7. The results showed that the percentage of students experiencing anxiety was 44.1% and the percentage of students who did not experience anxiety was 55.9%.

Anxiety that is not handled properly can lead to changes in physical and psychological, so that there can be an increase in work from the sympathetic nerves, increase respiratory frequency, heart rate, blood pressure, cold sweat, feeling like a bowel movement, urinary disorders, and can reduce energy.<sup>20</sup>

Allah has said in QS Ar-Ra'd verse 28 which means: "Those believers, their hearts become calm by remembering Allah. Know that by remembering Allah the heart is at ease. Based on the word of God we as servants of God are expected to always remember Him, because by always remembering Allah the soul will be peaceful."<sup>4</sup>

In addition, in QS. At-Thalaaq verse 2-3 which means: "Whoever fear Allah will surely give him a way out (in all the problems he faces), and give him sustenance from an unexpected direction ". Based on the verse it is explained that with remembering of Allah, all problems must have a solution."<sup>4</sup>

The results of this study indicate a significant relationship between listening to religious music with anxiety levels (p value = 0.008, OR = 7.164). Students who listen to religious music are less at risk of experiencing anxiety as much as 7,164 times compared to students who do not listen to religious music. In addition, this study also

shows a significant relationship between reading the Qur'an with the level of anxiety (p value = 0.002, OR = 8.244). Students who often read Al-Qur'an (tilawah) (>20minutes in a week) are less at risk of experiencing anxiety 8.244 times than students who rarely read Al-Qur'an (tilawah) (≤20minutes in one week. So, from the data shows that the frequency of reading the Qur'an (recitations) has more influence on the level of anxiety than listening to religious music with a difference of 1.08 times.

The results of the above analysis also show  $R^2 = 0.490$  or 49.0% which means that the variables listening to religious music and reading the Qur'an (tilawah) simultaneously in the logistic regression model can explain the anxiety level of 49.0%.

This study is in accordance with previous research with subjects studying patients undergoing coronary angiography in Iran, in that study p = 0.006, which means that religious music has a significant correlation to anxiety in patients undergoing coronary angiography.<sup>21</sup>

This study is in accordance with previous studies with hemodialysis patients in New York, in this study the Qur'anic reading was effective in reducing anxiety in group intervention for one month, decreasing the STAI score (Spielberger's State-Trait Anxiety Inventory) on the baseline of 128.5 (SD = 13.0) to 82.1 (SD = 11.3).<sup>22</sup>

## CONCLUSION

Based on the research that has been done, it can be concluded that there is a significant correlation between listening to religious music and reading the Qur'an (tilawah) with the level of anxiety in students of the Faculty of Medicine, Muhammadiyah University of Surakarta. Students who listen to religious music and often read the Qur'an (recitations) will reduce the risk of anxiety. Reading the Qur'an (recitations) is more influential on the level of anxiety than listening to religious music. It is better to conduct further research about listening to religious music and reading the Qur'an (tilawah) with anxiety levels a different and wider population and includes other more complex variables to obtain various conclusions.

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