

## Conference Paper

# Influence of Murottal Al-Qur'an Ar-Rahman Letter to Decrease of Blood Pressure of Pregnant Women with Preeclampsia

Mulastin<sup>1</sup> and Sugiharto<sup>2</sup><sup>1</sup>Midwifery Academy of Al-Hikmah, Jepara, Central Java, Indonesia<sup>2</sup>Departement of Sport Science, Faculty of Sport Science, Semarang State University, Central Java, Indonesia

## Abstract

Preeclampsia is one of the causes of the Maternal Mortality Rate (MMR). In Central Java Province in 2016 reached 109.65 from 100,000 live births. Data obtained from pregnant women with preeclampsia at the Kaliwungu holy health center were 64 pregnant women. One of the symptoms of preeclampsia is high blood, there are several ways to improve body condition with music therapy, and listen to murottal. The goal is to know the influence of murottal Al-Qur'an letter Ar-Rahman to blood pressure of pregnant women who have preeclampsia. This type of research is an experimental study using the Quasy design experiment pretest-posttest control group design. The population of this study were all pregnant women who had preeclampsia at Puskesmas Kaliwungu Kudus which were 64 pregnant women in September-October 2017, and the sample was pregnant women who had preeclampsia, 32 as intervention group and 32 as control group. Sampling techniques with *quota sampling (non probability)*. Data analysis of the research with using the *Independent T Test*. The results of the research showed that the blood pressure were significantly higher in intervension than the case of control groups. average systolic blood pressure in the intervention group was 122.78 mmHg and the control group was 126.75 mmHg with the results of the statistical test  $0.001 < P$  value so that there was an effect. There was a decrease in systolic blood pressure of 3.97 mmHg. While the average value of diastole blood pressure in the intervention group was 82.22 mmHg and the control group was 81.92 and the results of the statistical test were  $0.015 < P$  value. There is a decrease in diastolic blood pressure of 0.3 mmHg. Which means there is an Ar-Rahman letter's morattal influence on blood pressure decrease in pregnant women who have preeclampsia. Expected at the time of ANC or at the time of pregnant mother class to be given listening murottal technique of Ar-Rahman letter by improving services for pregnant mother for pregnant mother who spends preeclampsia.

**Keywords:** Murottal Al-Qur'an, Ar-Rahman, Blood Pressure, Preeclampsia.

Corresponding Author:

Mulastin

akbid.alhikmah@gmail.com

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## 1. Introduction

Based on the 2012 Indonesian Demographic and Health Survey (IDHS), MMR in Indonesia was 359 from 100,000 live births. In 2012 the IDHS recorded a significant increase in MMR, from 228 to 359 maternal deaths per 100,000 live births. The Maternal Mortality Rate in Central Java Province in 2016 was 109.65 per 100,000 live births. Of the 33 regencies in Central Java which were ranked 17 most cases of maternal deaths were Kudus district. The percentage of maternal deaths occurred during pregnancy at 22.92 and one of the causes of maternal death in Central Java was caused by 27.06 hypertension in pregnancy.(1) The highest area of maternal mortality is in Kaliwungu sub-district as many as 305 per 100,000 live births.(2)

Preeclampsia is a serious medical problem and has a high level of complexity. The magnitude of this problem is not only because preeclampsia affects the mother during pregnancy and childbirth, but also causes problems after childbirth due to endothelial dysfunction in various organs, such as the risk of cardiometabolic disease and other complications. Long-term impacts can also occur in infants born to mothers with preeclampsia, such as low birth weight due to premature labor or experiencing stunted fetal growth also at risk of metabolic disease as adults. Factors that cause changes in blood pressure include age, blood volume, heart frequency, weight, alcohol, smoking, eating, stress and exercise.(3,4) Blood pressure between people with each other is certainly different, things that affect a person's blood pressure are daily activities that do, diet, lifestyle, environment, and psychological factors of a person.(5)

One of the distraction techniques that can be used to reduce depression is by giving Al-Qur'an reading therapy, because the distraction technique is an action to distract patients. Reading or listening to Al-quran is one form of dhikr recommended by the Prophet. (6) Surat Ar-Rahman explained that the blessings that Allah has bestowed upon His servants, then Allah first mentions the greatest favor of his position and the most benefits are even the most perfect benefits, namely the pleasure of being taught the Al-Qur'anul Karim.(7)

This research aims To determine the effect of the Ar-Rahman murottal Al-Qur'an letter on the blood pressure reduction of pregnant women who had preeclampsia in Kaliwungu Kudus Health Center.

## 2. Materials and Methods

The method used in this research is *Quasy experimental design*. The design in this study was a *pretest-posttest control group design* which contained two groups that were chosen non-randomly. The population is all pregnant women who have preeclampsia in September-October 2017 at the Kaliwungu Kudus Health Center as many as 64 pregnant women. The technique is *Quota Sampling*. The sample in this study were pregnant women who experienced preeclampsia as many as 64 pregnant women and were divided into 2 groups: 32 pregnant women as an intervention group (given murottal surat Ar-rahman) and 32 as a control group (without treatment). Data collection by blood pressure check on pregnant women who have preeclampsia obtained from Kaliwungu Kudus Health Center. The present study was approved by the Research Ethics Committee of Midwifery Academy of Al-Hikmah, Jepara, Central Java, Indonesia. Data analysis of the research with using the *Independent T Test*.

## 3. Results

Table 1 shows the comparison of systolic blood pressure and diastole blood pressure in intervention than control groups. The average systolic blood pressure in the intervention group was 122.78 mmHg and the control group was 126.75 mmHg with the results of the statistical test  $0.001 < P$  value so that there was an effect. There was a decrease in systolic blood pressure of 3.97 mmHg. While the average value of diastole blood pressure in the intervention group was 82.22 mmHg and the control group was 81.92 and the results of the statistical test were  $0.015 < P$  value. There is a decrease in diastolic blood pressure of 0.3 mmHg. Which means there is an Ar-Rahman letter's morattal influence on blood pressure drop in pregnant women who have preeclampsia.

TABLE 1: Comparison of Systolic blood pressure and Diastole blood pressure of both groups.

	Intervention (n=32)	Control (n=32)	p-value
Systolic blood pressure (mmHg)	122,7±17,22	126,75±13,76	0.001
Diastole blood pressure (mmHg)	82,2±10.40	81,92±8,19	0.015

Values are given as mean ± SD; n: number

## 4. Discussion

The results of blood pressure were significantly higher in intervention than the case of control groups. Which means there is an Ar-Rahman letter's morattal influence on blood pressure decrease in pregnant women who have preeclampsia. Explaining that Al-Qur'an reading therapy which is a religious therapy where someone is recited verses of the Qur'an especially Ar -Rahman for a few minutes or hours so that it has a positive impact on someone who listens.(8) Listening to the Qur'an has a very good effect on the body, such as giving a calming effect, increasing creativity, increasing immunity, increasing concentration ability, healing various diseases, creating a peaceful atmosphere and relieving nervous tension of the brain, relieving anxiety, overcoming fear, and strengthen personality.(5)

The average systolic blood pressure in the intervention group was 122.78 mmHg and the control group was 126.75 mmHg with the results of the statistical test  $0.001 < P$  value so that there was an effect. There was a decrease in systolic blood pressure of 3.97 mmHg. While the average value of diastole blood pressure in the intervention group was 82.22 mmHg and the control group was 81.92 and the results of the statistical test were  $0.015 < P$  value. There is a decrease in diastolic blood pressure of 0.3 mmHg. The results of this study are in accordance with previous studies that there was a change in the mean blood pressure both systole and diastole.(6) Therapy by using murottal Al Quran chant (here in after referred to as Murottal Al Qur'an Therapy), has turned out to be a community among certain Muslims. Their goal is not as sound therapy, but to get closer to God (Allah SWT). This brings the idea of knowing the brain's response when listening to the murottal chant of the Qur'an. Not only to see the response in general, but also in more detail, such as seeing which cortical region of the brain gives a relaxation response every 10 seconds since stimulation is given.(9,10)

## 5. Conclusion

The research results show Ar-Rahman letter's morattal influence on blood pressure of decrease in pregnant women with preeclampsia. However, average systolic blood pressure in the intervention group was 122.78 mmHg and the control group was 126.75 mmHg with the results of the statistical test  $0.001 < P$  value so that there was an effect. There was a decrease in systolic blood pressure of 3.97 mmHg. While the average value of diastole blood pressure in the intervention group was 82.22 mmHg and the control group was 81.92 and the results of the statistical test were  $0.015 < P$  value. There is a

decrease in diastolic blood pressure of 0.3 mmHg. This study serves information about the prevention of preeclampsia.

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## References

- [1] Kemenkes RI. Profil Kesehatan Indonesia 2016. Jakarta; 2017. 102-103,124 p.
- [2] Dinas Kesehatan Kabupaten Kudus. Profil Kesehatan Kabupaten Kudus Tahun 2014. 2014.
- [3] Vesna D. Garovic and Phyllis August M. Preeclampsia and the Future Risk of Hypertension: The Pregnant Evidence. *Curr Hypertens Rep.* 2014;15(2):1–14.
- [4] Gathiram P, Moodley J. Pre-eclampsia: its pathogenesis and pathophysiology. *Cardiovasc J Afr* [Internet]. 2016;27(2):71–8. Available from: [http://cvja.co.za/onlinejournal/vol27/vol27\\_issue2/#17/z](http://cvja.co.za/onlinejournal/vol27/vol27_issue2/#17/z)
- [5] Rahadian EY. Pengaruh Terapi Suara Terhadap Tekanan Darah Penderita Hipertensi Di Posyandu Lansia Sedap Malam Padukuhan Gandok Sleman Yogyakarta. 2017.
- [6] Imam. Pengaruh membaca Alquran terhadap tekanan darah pada lansia hipertensi di wilayah kerja puskesmas Ciputat. 2012.
- [7] Al-Maragi.A.M. Terjemah Tafsir Al-Maragi.Semarang: PT. Karya Toha Putra. 2012.
- [8] Novi. Pengaruh Pemberian Terapi Mendengarkan Bacaan Al-Qur'an (Ar-Rahman) terhadap Tingkat Depresi pada Pasien Gagal Ginjal Kronik yang Menjalani Terapi Heodialisa di RSUD dr. Soedirman Kebumen. 2016.
- [9] La-Llave-León O, Salas Pacheco JM, Estrada Martínez S, Esquivel Rodríguez E, Castellanos Juárez FX, Sandoval Carrillo A, et al. The relationship between blood lead levels and occupational exposure in a pregnant population. *BMC Public Health* [Internet]. 2016;16(1):1231. Available from: <http://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-016-3902-3>
- [10] Hoope-Bender P ten, Lopes S, Nove A, Michel-Schuldt M, Moyo NT, Bokosi M, et al. Midwifery2030, a woman's Pathway to health: What does it mean? *Midwifery* [Internet]. 2015;32(June 2014):1–6. Available from: <http://linkinghub.elsevier.com/retrieve/pii/S0266613815002855>