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## DIFFERENCES IN EMPATHY LEVEL BETWEEN JUNIOR AND SENIOR RESIDENTS, FACULTY OF MEDICINE, DIPONEGORO UNIVERSITY, DR. KARIADI HOSPITAL, SEMARANG

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### ABSTRACT

**Background:** The doctor-patient relationship has an important role in determining the diagnosis and patient management. In communicating with patients, as a doctor must show high empathy for patients. Therefore, it is important to assess the level of empathy for patients with Junior and Senior residents for patients. **Objective:** Understand the differences in the level of empathy towards patients with junior and senior residents at the Faculty of Medicine, Diponegoro University in Dr. Kariadi Hospital, Semarang. **Methods:** : Observational study with cross sectional design. The total sample size was 99 consisting of 35 junior residents and 64 senior residents. Nominal scale data, namely 35 junior residents and 64 senior residents were analyzed using the Kolmogorov-Smirnov normality test, while the interval scale data, namely the level of empathy, was analyzed using the unpaired t test. **Results:** Based on the Kolmogorov-Smirnov normality test. data distribution is normal ( $p = 0.091$ ). In the unpaired t test, there was no significant difference ( $p = 0.501$ ) between the level of resident education and the value of empathy. **Conclusion:** There is no significant difference between the education level of residents at the Faculty of Medicine, Diponegoro University in Dr. Kariadi Hospital, Semarang with the value of empathy, but from the value there is a decrease.

**Keywords:** level of empathy, Junior residents, Senior residents, The Jefferson's Scale of Physician Empathy

### INTRODUCTION

The doctor-patient relationship is the relationship between the professional (doctor) and the client (patient).<sup>1</sup> This relationship underlies all aspects of medical practice, both in determining the diagnosis and in managing the patient.<sup>2</sup> In communicating with patients, we must be able to show respect to patients (respect), self-confidence, and empathy.<sup>3</sup>

Study conducted by the Faculty of Medicine, University of Indonesia (FKUI) noted that around 54% of medical students do not have enough empathy and humanity to carry out their service duties. These results indicate, 35% of new students fall into the category not recommended to be doctors.<sup>4</sup>

Empathy is the ability to feel what other people feel and give an appropriate response, without getting involved in the feelings concerned.<sup>5</sup> Involvement must be limited so that optimal help can be provided.<sup>6</sup> To be able to empathize with the patient, a doctor must be a good listener and be able to give good responses to what the patient is saying.<sup>7</sup>

The importance of empathy is the foundation for a positive relationship between

patient and doctor.<sup>8</sup> Physician empathy and effective communication enhance physicians' abilities, increase patient compliance, and enhance physicians' ability to diagnose and treat their patients.<sup>9</sup>

The aim of this study was to determine the differences in the level of empathy towards patients in junior and senior residents at the Faculty of Medicine, Diponegoro University in Dr. Kariadi Hospital, Semarang.

### METHODS

The method in this study is an observational study with cross sectional analytic approach. This research was conducted at Dr. Kariadi Hospital, Semarang and takes place from April to June 2020.

Sampling in this study using probability sampling technique, namely proportionate stratified random sampling where respondents who meet the inclusion criteria will be the research sample. The criteria for inclusion in this study were active junior and senior residents at the Faculty of Medicine, Diponegoro University, which is in Dr. Kariadi Hospital, Semarang in April - June 2020. Collecting



variable data uses primary data which is data obtained directly from respondents.

The questionnaire data that has been collected will then be analyzed using the Statistical Product and Service Solutions (SPSS) program, where the Kolmogorov Smirnov test is to see the distribution of data, while the unpaired t-test is to determine the average of the two variables, namely the level of study and the level of juniors and senior resident's empathy. Furthermore, it will be presented in descriptive form in table and narrative form.

## RESULT

This study was conducted for approximately 3 months between April - June 2020. From the sample, a total of 99 samples were obtained.

**Table 1.** Descriptive Analysis of Gender, Age, Study Level of Residents, Religion, and Ethnicity in This Study

Variable	F	%	Mean ± SD	Median (min – max)
Gender				
Male	56	56,6		
Female	43	43,4		
Age > 25	99	100		
Level of residents				
Junior	35	35,4		
Senior	64	64,6		
Does religion matter?				
Yes	97	98,0		
No	2	2,0		
Religion				
Moslem	64	64,6		
Christian	23	23,2		
Catholic	8	8,1		
Buddhist	4	4,0		
Ethnicity				
Caucasian	2	2,0		
Asian	97	98,0		
Empathy level			88,75 ± 7,41	88 (71 – 107)

The table above shows that in this study there were 35 junior residents and 64 senior residents consisting of 56 male residents and 43 female residents, all of whom were more than 25 years old. While the sample obtained 64 samples were Moslem, 23 samples were Christian, 8 samples were Catholic, and 4 samples were Buddhist. In

terms of ethnicity, it was found that 97 samples came from Asian ethnicity, and 2 samples came from Caucasian ethnicity.

## Normality Test

To see the distribution of data, a normality test was performed using the Kolmogorov-Smirnov test.

**Table 2.** Kolmogorov-Smirnov Normality Test Results

Residents Level	Empathy Level		p	Result
	Mean ± SD	Median (min – max)		
Junior	89,43 ± 7,76	88,0 (76 – 107)	0,091	Normal
Senior	88,37 ± 7,25	87,5 (71 – 106)	0,985	Normal

From the Kolmogorov-Smirnov normality test, the p value was > 0.05. So it can be concluded that the data distribution is normal.

## Statistic-Analytic Test

Furthermore, an unpaired T test was conducted to determine the level of empathy based on the level of education.

**Table 3.** Unpaired T-test Result

Residents Level	Mean ± SD	P
Junior	89,43 ± 7,76	0,501
Senior	88,37 ± 7,25	

From the results of statistical tests using the unpaired T test, there was a difference in the level of empathy based on education with a p value > 0.005, which means that there was no significant difference in the relationship between the level of empathy and the level of resident education.

## DISCUSSION

### Differences in the level of empathy of junior and senior residents towards patients

Respondents in this study were categorized as a group with a high level of knowledge and a group with a low level of knowledge about empathy in the two generations studied. There are 99 respondents who have high empathy scores ( $\geq 45$  of the total answers) and there are no respondents with low empathy scores ( $< 45$  of the total answers).



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Respondent groups with high empathy values consisted of 35 Junior residents (35.36%) and 64 Senior residents (64.64%).

These results contradict previous studies conducted in Michigan which showed an increase in the value of empathy between Junior and Senior residents.<sup>10</sup> This difference is probably caused by the respondents used in the study, where in the previous study the respondents were Junior and Senior residents from the internal medicine department only<sup>11</sup>, whereas in this study the respondents were Junior and Senior residents from all departments in Dr. Kariadi Hospital.

In addition, the increase in the value of empathy in the residents from internal medicine department in Michigan was also due to the presence of humanities and philosophy in their education.<sup>12</sup> American medical education regularly organizes various courses and special training such as the role of doctors in society that can contribute to increasing the value of empathy.<sup>13</sup>

The results of this study are also different from the two previous studies conducted in Indonesia on medical faculty students at the University of Sam Ratulangi and Atmajaya Catholic University where there were differences in the level of empathy of students at the early and late levels.<sup>14</sup> This difference is probably due to the fact that Junior and Senior residents have previously received lectures on empathy for patients, while entry-level medical students have not received lectures on empathy for patients.

## CONCLUSION

The conclusion of this study is that the average score for junior and senior residents at the Faculty of Medicine, Diponegoro University is categorized as high. However, there was no statistically significant difference in the level of empathy in the level of empathy for patients between junior and senior residents at Faculty of Medicine, Diponegoro University.

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