

# Scientific research: Empathy's influence to the human body

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*Is there a difference on influence of empathy in the human body between persons, who estimated that they are empathic than persons, who estimated that they aren't?*

The question above was the subject of our research. We wanted to explore what are the marks of empathy in different person's bodies.

**Our hypothesis**  
In our hypothesis we believe that unemphatic persons have weaker influence of empathy in their body than empathic persons.

**Our priority**  
Our priority was to prove that our hypothesis was true or false. To achieve this goal we had to explore our patient's informations very carefully and we had to find out what marks were really made by empathy.

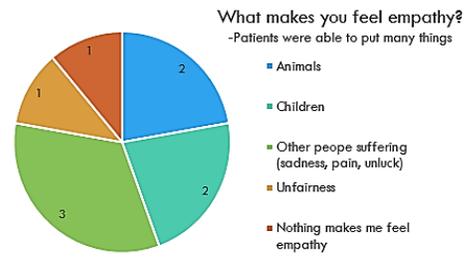
## How did we do our research?

**Research methods:**  
We had two methods and 6 patients. We collected information about patients opinion of their empathy with a paperform. Then we showed them an empathic video. The photo on the right is a part of that video.  
Information from patients' bodies was collected by using monitors.

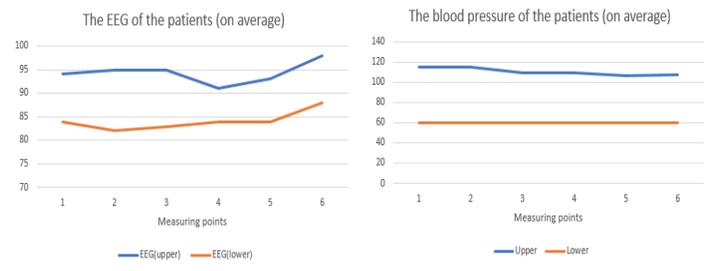
**Instruments in our research:** Finger pulse oximetry, Blood pressure cuff, Electroencephalography (EEG) sensors and module, GE Healthcare's monitor, camera, headphones, computer.



**The information from the paperform:**  
We collected information about patients opinions of their empathy by numbers (0-5), a freely-written list of things that make they feel empathic, and we also asked them to write their opinion of two situations.

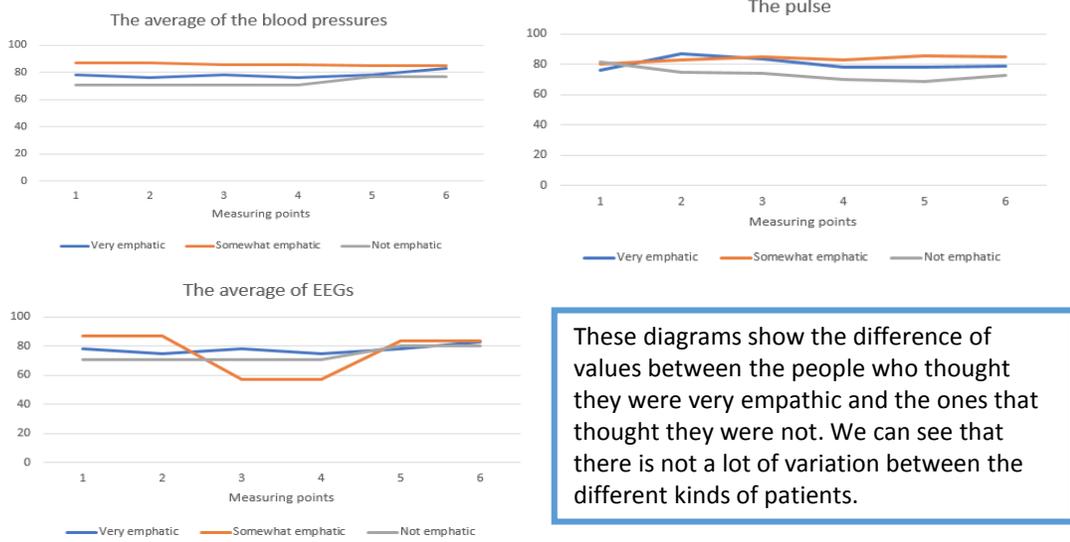


## The average values of every patient



These diagrams show that the EEG increases, and the higher blood pressure decreases as the experiment goes on. In the other hand the average changes in pulse, oxygen saturation and lower blood pressure are very small or nonexistent.

## Is there a difference between an emphatic person and a non-emphatic person?



These diagrams show the difference of values between the people who thought they were very empathic and the ones that thought they were not. We can see that there is not a lot of variation between the different kinds of patients.

## Conclusions:

On the strenght of our research, we have found out that empathy may cause increasing EEG and decreasing higher blood pressure. The overall variation in every category is very small and uncertain. We think that some of the changes may be due to normal variation and other things such as anxiety from the experiment.

## Mistakes

Due to the short time reserved for the experiments, we were not able to get the results we really wanted. If we would have been able to have more patients and longer experiments, the results would've been more clear. Also the subject of the video was poverty and children, which were not the main cause of empathy for some of our patients. This may also cause the low variation in our experiment.

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