

Acupuncture critical thinking example

Experience, Belief



Acupuncture is considered one of the ancient traditional Chinese medical practices, whose age cannot be precisely defined, but is generally believed to be approximately 2000 years. As medical experts of the National Center for Complementary and Alternative Medicine of the U. S. Department of Health & Human Services define it, acupuncture is a technique that involves stimulation of the points in the body, often by inserting thin needles into it (Lao et al., 2014). It is believed that every human has the energy of life called qi, and this energy flows in the human body through the meridians that are the streams of this energy. When one of the meridians gets blocked, qi cannot continue its flow, leading to the deterioration of health, and the needles inserted in certain points help unblock the streams and renew qi's normal flow, thus, restoring the patient's well-being. Acupuncture is considered a pseudoscience, as no credible scientific evidence proving the effectiveness of the method currently exists, and the researches are either biased or inaccurate or prove that there is no difference in the effects of real and sham acupuncture. Also, the issue is controversial, as it is very hard to perform consistent clinical trials due to the difference in acupuncture techniques and opinions on the number and position of the points, and the number and duration of sessions needed for the successful outcome (Lao et al., 2014). The topic becomes more complex as the evaluation of changes in painful feelings is very subjective and depends on the patient's beliefs and expectations. Nonetheless, many people choose to believe in its potency for several reasons: it gives hope where conventional medicine is powerless or promises little chances of recovery; it is cheap compared to the conventional ways of treatment; many people do not understand the scientific side of

medicine, while the explanations about qi and meridians attract them as the ancient mysteries; there are many researches done by both skeptics and advocates of the practice leading to beliefs that acupuncture is a serious topic for scientific studies; many countries support certification of the practitioners on the official level, and the Department of Health of Great Britain, in particular, funds the service, adding credibility to it.

The researchers have not come to a mutual agreement about the history of the practice. According to David Derbyshire, a science journalist for The Guardian, the first known account about it has been found in the The Yellow Emperor's Classic of Internal Medicine book about the traditional Chinese medicine that is believed to have been written in the second century BC (Derbyshire, 2013). He claims that the practice was first mentioned in the Western sources in the 17th century, was popularized by Mao Zedong in the course of his Cultural Revolution political program aimed at strengthening national Chinese identity and came to America after President Nixon's 1972 visit to China (Derbyshire, 2013). At the same time, Harriet Hall, a retired family physician and U. S. Air Force flight surgeon, argues that the first known evidence about using needles in Chinese medicine dates back to year 90 BC when lancets and big needles were used for bloodletting, and the archeologists claim that the needles were far from the modern thin acupuncture needles that came to existence only 400 years ago (Hall, 2008). Hall states that no subsequent Western sources on the practice contained information about modern acupuncture, qi and meridians, and the latter were first described in 1939 by the Frenchman Georges Soulie de Morant (Hall, 2008). Mao Zedong himself did not believe in acupuncture and

suggested the practice as a cheap substitution for the conventional Western medicine (Hall, 2008). The disagreement between the researches on the history of the practice shows that there is no single proven evidence about its origin, making its antique Chinese origin debatable and, consequently, questionable.

Numerous books, articles and researches have been written on the topic of acupuncture, both by scientists, science journalists, skeptics, practitioners and witnesses of its effectiveness or the lack thereof. The researches against the practice are usually published in scientific journals, newspapers, as well as on the websites of the official authorities; the defensive articles are usually published in the resources dedicated to the Oriental and alternative medicine or solely to acupuncture, as well as private websites or blogs of the practitioners and their patients. Most of the authorities arguing against the method in a scientific way are practicing or retired doctors and holders of Ph. D. and M. D. degree, which adds credibility to their opinions. The opponents mostly rely on scientific studies and experiments and double blind, randomized and controlled trials involving a large group of patients. On the other hand, the advocates of acupuncture include University research fellows and practitioners, with or without medical degree, who have completed special courses or apprenticeship, both long-term and short-term ones. The results are usually published in journals, magazines and websites dedicated to the alternative medicine and popular journals. Nonetheless, there are also many advocates among scientists, who also conduct researches, but the results are often biased as they strive to prove that acupuncture works. Also, during the trials acupuncture usually involves practitioners and patients, who

both believe in the positive outcome, which is often produced by belief in effectiveness of the method. There are also those, who neither oppose, nor advocate the effectiveness of acupuncture, as they rely on critical assessment of the evidence and conclude that there is no credible evidence either for or against acupuncture. One of such credible sources is the website of the National Center for Complementary and Alternative Medicine of the U. S. Department of Health & Human Services that published the article “ Acupuncture: What You Need To Know” written by the credible medical researchers, who hold Ph. D. or M. D. degree. All kinds of articles attract consumers, who want to try acupuncture, but have doubts about its effectiveness, as well as consumers, who are undergoing or have already undergone the course of treatment and want to know more about how it works. They also attract people, who did not experience positive effects and need more information on how to attain them. Most of the practitioners’ websites successfully promote services by using articles describing the peculiarities of the treatment in a positive way reinforcing belief. The articles, however, are usually not interesting to the opponents of the practice, as the latter do not have doubts about the practice’s ineffectiveness.

Numerous researches have been conducted on acupuncture, and the results usually point out that the method is not the direct source of successful outcome of the treatment. The National Center for Complementary and Alternative Medicine states that acupuncture may help relieve chronic low-back pain, neck pain, and osteoarthritis pain and reduce the number and intensity of headaches and migraines, but the researchers of the Center

conclude that clinical practice guidelines differ depending on the practitioner, while expectations and beliefs may play a very important role in the success of the treatment (Lao et al., 2014). In particular, the researchers state that the data from 2007-2012 trials shows that very often acupuncture gave either no long-lasting effect or the effect from sham acupuncture was the same as from the real one (Lao et al., 2014). They also found that sham and real acupuncture produced significantly better effect than no treatment at all, thus, proving that pain-relief can be a result of the placebo effect (Lao et al., 2014). They stated that there was no evidence of effectiveness in the treatment of other conditions. Generally, the article is written in the language of uncertainty and provides opinions and results of the trials, rather than the definite conclusion about the method. In his article for The Guardian Derbyshire lists a number of researches providing evidence that acupuncture has a placebo effect or no effect at all, as well as opinions of the leading medical rationalists. Derbyshire states that no study since 1970 has proven the existence of qi; however, the non-existence of the proof cannot be counted as a non-existence of the energy itself, as it only means that the current state of science can neither prove, nor disprove its existence. He suggest a number of theories behind the effects of acupuncture, including the " gate control theory of pain" by Patrick Wall and Ronald Melzack claiming that pain is relieved due to distraction, relaxation and physical activity, placebo effect and psychological relief due to the attention and care or the doctor (Derbyshire, 2013). He suggests researches involving retracting needles, and while opponents claim that sham acupuncture had placebo effect on patients, the advocates argue that it had effect due to the

pressure applied on the meridian that still worked despite lack of skin penetration, although with a much milder and almost unnoticeable effect (Derbyshire, 2013). The author also suggests a study that proved that sham acupuncture had 15% less effect than the real one, and while biased he claimed that this difference is very insignificant, Mark Bovey, spokesman for the British Acupuncture Council, argued that this was the actual proof that acupuncture works (Derbyshire, 2013). The proponents of acupuncture do not always state that it works on magical powers of qi, but instead rely on biochemistry, claiming that effect takes place because of the release of endorphins, the anesthetic hormones of happiness that relieve pain. According to them, any effect is still an effect regardless of the true cause. Thus, there is no factual proof or disproof that acupuncture works or does not work, as the trials show minor difference between the results, but still it is a difference that should be taken into account. Currently, the trials cannot be performed in a controlled manner, because the researchers cannot measure the pain relief in a patient due to the difference in subjective perceptions. For this reason, when critically assessing the evidence, opinions and facts, people need to consult only credible sources and take into account that modern science cannot prove the effect of acupuncture, while it cannot also prove the lack thereof.

In my experience, I have undergone acupuncture treatment once in my life. I had about 5 sessions aimed at relieving stress. The practitioner working at a clinic put needles in my thumbs and let me rest on the hospital bed. During each session, she turned on the calming music that featured the sounds of the sea, rain, leaves, etc. As each session took about 30-45 minutes, after it I

felt very calm and in harmony with myself. However, I cannot attribute it to acupuncture, as I realized that the whole procedure of inserting the needles was done very slowly making me gradually relax, and the rest of the time of lying in bed with closed eyes and listening to the sounds of nature definitely played a huge role in a therapy. However, the effect did not last long, as in a couple of hours of being back to society and my casual routine the daily dose of stress was slowly returning.

Acupuncture is a highly debatable topic that attracts much attention due to its widespread use all over the world mostly as a pain-relieving treatment. Unlike other pseudosciences, such as palmistry and psychic practices, acupuncture is practiced in conventional medical facilities, including by specialist in conventional medicine. Since its popularization in the second half of the 20th century, the practice caused a big number of researches and trials that did not succeed to prove or disprove the effectiveness of the method. The evidences provided by the patients are usually considered biased and affected by psychological causes, such as expectations and beliefs, as researches have shown that both sham and real acupuncture have almost the same effect, although no acupuncture at all has significantly lesser effect than any of the above. This lead to belief that the method may be successful due to placebo effect, the release of anesthetic hormones endorphins or relaxation and distraction from the pain. However, at the same time, researches show that there is still minor difference in effects of sham and real acupuncture, and this difference should not be dismissed by the opponents. The opinions of the credible researchers are usually biased because they do not take into account the evidence of their opponents. Still,

there are experts, who assess the results critically and display them for public's assessment, while indicating that no evidence can give a final conclusion on the issue. The latter is explained by the impossibility of the current state of medical science to give a final answer about the reasons why acupuncture can sometimes be effective or why it is or is not effective at all, which is why the topic remains open for future experiments.

References

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