



SERVIÇO PÚBLICO FEDERAL

UNIVERSIDADE FEDERAL DE PERNAMBUCO

Centro de Filosofia e Ciências Humanas - Departamento de Psicologia

Programa de Pós-Graduação em Psicologia - Mestrado e Doutorado

Prova de Inglês

Segunda-feira, dia 29 de agosto de 2016

09h00 - 11h00

PROVA DE INGLÊS

Responda às dez perguntas seguintes com referência ao texto reproduzido abaixo. Existe apenas uma resposta correta para cada questão.

Q1. O subtítulo sugere que

- A. as agulhas utilizadas na prática da acupuntura são cheias de buracos
- B. a acupuntura é um tratamento holístico
- C. há muitas dúvidas com relação à eficácia da acupuntura
- D. toda forma de medicina alternativa deve ser rejeitada pelos profissionais de saúde

Q2. Segundo Parágrafo 2, a crença equívoca que espalhou nos Estados Unidos depois da publicação do artigo de John Reston foi a de que

- A. já havia muito interesse em relação à acupuntura entre médicos estadunidenses
- B. a história de Reston foi confusa demais para ser verdadeira
- C. a acupuntura tinha sido utilizada como anestesia geral na cirurgia de Reston
- D. a acupuntura era considerada um tratamento exótico até na China

Q3. Segundo Parágrafo 3, por que Mao Zedong reintroduziu a acupuntura na China dos anos 1950?

- A. porque acreditava na medicina tradicional chinesa do século XVIII
- B. para fingir que o governo chinês tinha uma política eficaz de saúde apesar da falta de recursos financeiros e médicos
- C. porque o partido comunista chinês tinha rejeitado a ciência médica ocidental como superstição
- D. porque queria levar a China de volta para os valores mais simples do século XVI

Q4. Segundo Parágrafo 5, Harriet Hall

- A. acha que o efeito placebo é coisa de teatro
- B. tem criticado a medicina alternativa faz muito tempo
- C. trabalha como piloto de avião na força aérea dos Estados Unidos
- D. é praticante da acupuntura, entre outras formas de medicina alternativa

Q5. Qual dos quatro itens abaixo NÃO é mencionado no Parágrafo 7?

- A. Segundo alguns pesquisadores, a acupuntura funciona, mas o seu mecanismo ainda não é compreendido
- B. Segundo a acupuntura, as doenças são provocadas por bloqueios nos canais no corpo nos quais flui a força vital
- C. Algumas pesquisas têm encontrado que o posicionamento das agulhas na acupuntura não influencia no desfecho do tratamento
- D. Médicos ocidentais acham que o conceito de qi tem uma certa validade científica

Q6. A meta-análise publicada por pesquisadores do Memorial Sloan Kettering Cancer Center (Parágrafo 8)

- A. não foi conduzida segundo as normas metodológicas de estudos duplo-cegos
- B. mostrou que todos os pacientes submetidos à acupuntura relataram um alívio significativo da dor
- C. desmentiu a crítica de que a acupuntura é um tratamento enganoso
- D. não encontrou nenhuma diferença entre a acupuntura e o placebo

Q7. Qual dos quatro itens abaixo é verdadeiro segundo o nono parágrafo?

- A. Consumidores sem plano de saúde já investiram milhões de dólares na Mayo Clinic
- B. O Governo Federal dos Estados Unidos investiu mais de US\$73 milhões em programas de acupuntura em 2008
- C. Hoje em dia alguns planos de saúde pagam tratamentos com acupuntura
- D. Pessoas que estão considerando se submeter a tratamento com acupuntura deveriam realizar uma avaliação psicológica

Q8. Segundo o Parágrafo 10, Josephine Briggs

- A. é praticante da medicina alternativa
- B. acredita que a aspirina fornece maior alívio para a dor do que a acupuntura
- C. acha que o efeito placebo seja provavelmente responsável pela eficácia aparente da acupuntura
- D. não acha que seja possível o uso de agulhas para efetuar alterações no processamento central da dor

Q9. 'PAPuncture' (Parágrafo 11)

- A. é um procedimento que envolve a injeção de uma enzima com o intuito de aliviar a dor
- B. funciona por diminuir a quantidade de adenosina no corpo humano
- C. tem o efeito de aumentar a sensibilidade ao calor em ratos
- D. é um tipo de acupuntura utilizado na medicina veterinária

Q10. Em termos gerais, o artigo pode ser descrito como

- A. subjetivo e sensacionalista
- B. crítico mas objetivo em relação à acupuntura
- C. uma tentativa de promover todas as formas de medicina alternativa
- D. um estudo longitudinal de um coorte de pacientes submetidos à acupuntura

TEXT 1

Scientific American, August 2016

The Acupuncture Myth

Scientific studies show that the procedure is full of holes

By Jeneen Interlandi

1. In 1971 then New York Times columnist James Reston had his appendix removed at a hospital in China. The article he wrote about his experience still reverberates today. His doctors used a standard set of injectable drugs — lidocaine and benzocaine — to anesthetize him before surgery, he explained. But they controlled his postoperative pain with something quite different: a Chinese medical practice known as acupuncture, which involved sticking tiny needles into his skin at very specific locations and gently twisting them. According to Reston, it worked.
2. Readers back home were fascinated. In a rush of excitement over this new, exotic knowledge, the original story was quickly jumbled. Before long, it was commonly believed that the Chinese doctors had used acupuncture not just after Reston's appendectomy but as anesthesia for the surgery itself. Interest in acupuncture soared in the U.S. and has remained high ever since.
3. But it turned out that acupuncture as Reston described it was not the enduring bit of ancient Chinese wisdom enthusiasts supposed. In fact, the procedure had been written off as superstition back in the 1600s and abandoned altogether in favor of a more science-based approach to healing by the 1800s. Chinese Communist Party leader Mao Zedong had only revived acupuncture in the 1950s as part of his initiative to convince the Chinese people that their government had a plan for keeping them healthy despite a woeful dearth of financial and medical resources.
4. Even more impressive than how well Mao's campaign worked in China at the time is how well it is working in the U.S. today. Every year hundreds of thousands of Americans undergo acupuncture for conditions ranging from pain to post-traumatic stress disorder, and the federal government spends tens of millions of dollars to study the protocol.
5. So far that research has been disappointing. Studies have found no meaningful difference between acupuncture and a wide range of sham treatments. Whether investigators penetrate the skin or not, use needles or toothpicks, target the particular locations on the body cited by acupuncturists or random ones, the same proportion of patients experience more or less the same degree of pain relief (the most common condition for which acupuncture is administered and

the most well researched).

“We have no evidence that [acupuncture] is anything more than theatrical placebo,” says Harriet Hall, a retired family physician and U.S. Air Force flight surgeon who has studied, and long been a critic of, alternative medicine.

6. But the news is not all bad. In the process of putting acupuncture to the test, scientists have gained insights that could lead to the development of new and urgently needed methods for treating pain.

SMALL EFFECTS

7. Acupuncture is based on the concept of qi (pronounced “chi”), a life force or energy that practitioners say flows through the body along 20 distinct routes called meridians. Blocked meridians are believed to cause illness by disrupting the flow of qi. Inserting acupuncture needles at specific points along specific meridians is thought to clear those blockages and restore qi's natural flow, which in turn restores patients to health. Scientists have long understood that qi is not a legitimate biological entity; many studies have shown that the effects of acupuncture are the same whether needles are placed along the meridians or at random locations around the body. But the acupuncture proponents among them have argued that acupuncture itself might still work, albeit by an as yet unknown mechanism.
8. Some of the best support for this contention came in 2012, when researchers at Memorial Sloan Kettering Cancer Center and their colleagues published a meta-analysis of 29 studies involving nearly 18,000 patients, which found that traditional acupuncture produced a somewhat greater reduction in pain than placebo or sham acupuncture. The finding was widely touted as the first clear proof that acupuncture actually works. But critics have dismantled that interpretation. For one thing, they point out, acupuncture studies are extremely difficult to double blind—a methodological approach in which neither the researchers nor patients know who is receiving the treatment under investigation and who is receiving the placebo or sham. The researchers knew which patients were and were not getting real acupuncture, and that awareness almost certainly biased their results. In addition, although statisticians detected a difference in pain relief between treatment and placebo, the effect may have been lost on patients. “What [the study authors] are arguing is that a change of 5 on a 0–100 pain scale is noticeable by patients,” David Gorski, a surgical oncologist at the Wayne State University School of Medicine, observed in a blogpost. “It's probably not.”
9. The lack of scientific support for acupuncture has not curbed enthusiasm for the practice. Blue-chip medical centers such as the Mayo Clinic and Massachusetts General Hospital now have dedicated acupuncturists

on staff. Health insurance programs are starting to cover acupuncture to a limited extent, and individual consumers who cannot get insurance to foot the bill are collectively shelling out millions from their own pockets. Nor have the findings stopped the flow of government money into acupuncture programs, which has totaled more than \$73 million since 2008. In that time, Mass General has received \$26 million in such funding from the Department of Health and Human Services, largely for studies that scan the brains of people being treated with acupuncture or thinking about being treated with acupuncture. And the Department of Defense has awarded more than \$12 million in acupuncture contracts and grants.

10. Part of that continued investment could have to do with patient demand. But there are other justifications. Josephine Briggs, director of the National Center for Complementary and Integrative Health (the division responsible for all alternative medicine research), acknowledges that the balance of evidence points to a placebo effect for acupuncture. Yet in her view, there is still good reason to study the procedure. “It isn’t implausible that the effect of a lot of needles may change central pain processing in some concrete way,” she says. Just as the finding that tea made from willow bark could alleviate headaches led scientists to the discovery of salicylic acid—which in turn led to the invention of aspirin—many acupuncture researchers think that their work might lead to a treatment for pain that is more effective than acupuncture. Their goal, in other words, is not to justify acupuncture *per se* but to find out if a mechanism of some kind can explain those very small effects and, if so, whether that mechanism can be exploited to produce a viable treatment for pain.

A POSSIBLE MECHANISM

11. With this goal in mind, scientists have been studying a roster of potential biological pathways by which needling might relieve pain. The most successful of these efforts has centered on adenosine, a chemical believed to ease pain by reducing inflammation. A 2010 mouse study found that acupuncture needles triggered a release of adenosine from the surrounding cells into the extracellular fluid that diminished the amount of pain the rodents experienced. The mice had been injected with a chemical that made them especially sensitive to heat and touch. The researchers reported a 24-fold increase in adenosine concentration in the blood of the animals after acupuncture, which corresponded to a two-thirds reduction in discomfort, as revealed by how quickly they recoiled from heat and touch. Injecting the mice with compounds similar to adenosine had the same effect as acupuncture needling. And injecting compounds that slowed the removal of adenosine from the body boosted the effects of acupuncture by making more adenosine available to the surrounding tissue for longer periods. Two years later a different group of researchers went on to show that an injection of PAP, an enzyme that breaks other compounds in the body down into adenosine, could relieve pain for an extended chunk of time by increasing the amount of adenosine in the surrounding tissue. They dubbed that experimental procedure “PAPupuncture.”
12. Both sets of findings have excited researchers—and for good reason. The current options for treating pain are limited and rely mostly on manipulating the body’s natural pain-management system, known as the opioid system. Opioid-based painkillers are problematic for several reasons. Not only does their efficacy tend to wane over time, but they have been linked to an epidemic of addiction and overdose deaths across the U.S.—so much so that the Centers for Disease Control and Prevention has recently advised doctors to seriously restrict their use. The available non-opioid pain treatments are few; many of them require multiple injections or catheterization to work; and they often come with side effects, such as impaired movement. Adenosine offers an entirely new mechanism to exploit for potential treatments—one that may come with fewer side effects and less potential for addiction. What is more, adenosine can be made to circulate in the body for prolonged stretches. Pharmaceutical companies are actively investigating adenosine-related compounds as potential drugs.
13. But however promising adenosine may be as a treatment, the findings from this research do not prove that acupuncture itself “works.” For one thing, the researchers did not show that the release of adenosine was specific to acupuncture. Acupuncture needles might cause adenosine to flood the surrounding tissue, but so might a hard pinch, or applied pressure, or any number of other physical insults. In fact, both of the studies found that when adenosine was turned on in mouse tissue by other mechanisms, the pain response was equal to or better than the response generated by acupuncture. For another thing, the study results offered no support for the use of acupuncture to treat any of the other conditions for which the procedure is often advertised. A localized adenosine response may mitigate localized pain. That does not mean it can also cure insomnia or infertility.
14. It may well be that the reams of research scientists have done on acupuncture have lit the path toward improved understanding of—and eventually better treatments for—intractable pain. But it may also be time to take whatever bread crumbs have been laid out by that work and move on.



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Nome do candidato: _____

RG do candidato: _____

CPF do candidato: _____

Questão	Resposta			
1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D

Questão	Resposta			
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D

BY

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English