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Positive psychological hints and exam stress in adolescence: a literature review

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Abstract:

This essay discusses how psychological hints can be used to reduce exam stress. Nowadays, many candidates have exam stress in the face of intense competitive pressure. This manifests in the inability to concentrate in class or anxiety about the progress of one's revision. Moderate stress is expected before an exam and sometimes motivates students to score better. However, if stress has affected students' physical and mental condition, there are ways to prevent it. Psychological suggestions are the focus of this essay. Analyzing the expectancy effect and autosuggestion helps us understand the mental suggestion process and how it can be applied in real life.

Keywords: suggestion; exam stress; Autosuggestion; Expectancy effect; Placebo effect

1. Introduction

Initially, 'stress' was defined as the body's non-specific response to any noxious stimulus. Then, stress was refined into 'stress responses' and 'stressors.' The 'stress response' refers to the reaction of an organism in restoring homeostasis. 'Stressor' is a stimulus threatening homeostasis (Chrousos, 2009). Stress causes our bodies to react mentally and physically. Mild stress is beneficial for our performance and cognitive tasks. But constant compound stress can lead to depression, anxiety, and other disorders (Kathyayani et al., 2022). Exam stress, which can also be described as test anxiety, is the feeling of tension and worry that comes from test-taking situations.

Exam-related stress can be considered a relatively short-term experience, yet it can harm academic performance and well-being (Roome,2019). Feeling stressed about upcoming tests, exams, papers, or presentations is normal. However, exam stress becomes problematic when it interferes with the ability to perform and achieve academic and learning goals. Exam stress can destroy our well-being and health, causing negative emotions and educative consequences (Putwain, 2007). Now, most of the research in this area focuses on the causes of test anxiety and how to prevent it. In this paper, I would like to discuss how adolescents can effectively use mental hints to reduce test anxiety. Due to the many causes of test anxiety, it cannot be avoided entirely. As a result, many students develop more severe conditions such as depression, bipolar disorder, etc. If this phenomenon is to be prevented and improved, parents and students need joint efforts. Parents must provide correct guidance in children's growth (specific behaviors will be analyzed later in the paper). One of the essential variables in a child's mental health as they grow up is their parents. The child's growth process will be much more joyful if given the correct guidance. For students, it is vital to learn to intervene in exam stress positively,

thus significantly reducing the stress caused by anxiety. Stress reassessment is a novel approach that aims not to eliminate stress but to change the type of stress response experienced. Transform stress from a "threat" to a "challenge." This approach needs to maintain the adaptive level of sympathetic arousal and optimize positive performance and coping styles in emergencies. The stress response can be presented as a positive coping resource (Jamieson, 2018). Regulating the mind can be very effective in reducing our stress. One of the most practical methods for teenagers is psychological suggestion. Psychological suggestion can be defined as the process of inducing acceptance of an idea or course of action, primarily through indirect or subtle means. It can influence how people perform learning and memory tasks, which products they prefer, and how they respond to supplements and medicines, which accounts for the well-known placebo effect. In this paper, I want to combine psychological suggestion and test stress to explore how the former helps the latter.

2. Summary of Literature Research

Several articles of relevance to this review were selected based on a selection of the large number of literatures. The summary analyses are listed below.

2.1 Expectancy effect

The expectation effect is the process by which expectations become self-fulfilling prophecies. In other words, the phenomenon is known as the expectation effect when expectations affect outcomes. Robert Rosenthal and Irving Kirsch are the most well-known studies of secondary impacts. They expanded the placebo effect study to show that similar mechanisms play a role in natural social situations.

In line with the findings of Meichenbaum (1969), this paper documents how the expectation effect has an impact on institutionalized adolescent female offenders' academic and classroom performance. The experiment first used the expectation effect on the girls' teachers, telling them that the experimenter had identified several late-blooming girls through a particular intelligence test and told them their names. After knowing the name, the teacher's reaction was as follows: 1. They affirmed the name of half of the girls, thinking that the IQ was higher, and at the same time, they thought that the other half had a lower IQ potential.2. Soon, some teachers showed affirmation of a student who had been classified as having low IQ potential, thinking that there was potential. 3. The rest of the teachers also expressed their affirmation of the girl, which later changed to affirmation of all the girls. The teacher's classroom behavior was observed during the experiment, and the mode, nature, and frequency of the teacher's interaction with the students were recorded. The experimenter recorded every interaction (verbal and non-verbal) in the classroom and judged the teacher's behavior as positive, negative, or neutral. The experiment results showed that the subjects in the expectation group improved their academic performance in the objective graded test. This study effectively supports the expectancy effect, which is that teachers' academic potential for students can dramatically change students' academic performance. Even if some girls' academic potential was not initially expected, expectancy instructions changed their academic performance during the experimental period. Expectancy instructions to be imposed on teachers in group meetings where teachers reinforce each other's perspectives. Successfully persuaded that girls considered to have low academic potential were, in fact, late bloomers. One way to change a student's academic performance is to change the teacher's perception of a student's academic potential in the first place.

Friedrich (2015) suggested that regardless of whether the teacher's expectations of the students are accurate, the students will have a specific reaction or perception of the teacher's expectations. These responses and perceptions can lead to a certain degree of positive academic outcomes. Proper assessment of students' school performance and progress is significant for students' subsequent academic development. Indicators of evaluation are usually grades and standardized test scores. The former is biased towards holistic assessment, combining multiple oral or written assessments throughout the school year so that individual grades have less impact. The range of results is also very wide, which can test the comprehensive ability. Later, focus more on the actual achievement of the student. This study included both variables. There were three measurements in total, each with an interval of two months. In the first measure, teachers are asked to report their expectations of the fifth-grade students' mathematical abilities in the first stage. In the second stage, students are asked to report their mathematical self-concept. In the third stage, students are assessed in mathematics and grades. In this paper, the experimenter compares the results by looking at two indicators. In the first study question, the coefficient of mathematics achievement was improved by looking at teachers' expectations and predictions of test scores. In Research Question 2, the effect of teacher expectation on students' math grades was slightly higher than the impact on math test scores. According to the results, regardless of whether the teacher's previous expectations of students are accurate, these responses and expectations will somewhat affect students' learning outcomes. In this experiment, teacher expectations were

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positively correlated with students' math performance at the end of the school year.

Gündüzalp and Özan (2019) researched how managers' expectations impact employees in educational institutions. The study results showed that faculty members said their manager's expectations strongly impacted their behavior, regardless of gender, task, or length of service. Teachers believe that high expectations lead to improved performance. Every supervisor has certain expectations of their employees, which they demonstrate verbally or non-verbally, and the employees act accordingly. Based on faculty responses to the two open-ended questions raised in the qualitative portion of the study, faculty members indicated that the high expectations of their superiors had a significant positive impact on them. The percentage of people who think high expectations have a negative effect is low. Research shows that high expectations lead to greater confidence, which leads to more excellent job completion, increased motivation to work, and increased productivity.

2.2 Autosuggestion

The concept of autosuggestion comes from the idea that individuals can control cognitive and physiological brain states. Autosuggestion can be defined as the repetition and instantiation of an idea or concept by ourselves. This repetition can be oral or verbal and can be reinforced by imagery. Autosuggestion can be divided into two types: one is invisible, i.e., suggestions taken and internalized from external sources; one is explicit, i.e., consciously and voluntarily used (Myga et al., 2022).

Kathyayani (2022) experimented: this experiment wanted to study whether psychological suggestions can help students reduce stress during exams. The researchers suggested that positive self-suggestion can enhance students' confidence and reduce stress, thereby improving their academic performance. The observation results of this experiment are as follows: through self-suggestion, the perceived stress score dropped significantly, and the academic performance also improved. This phenomenon proves that continuous self-suggestion can help students create a trained thinking process in their subconscious mind; under this continuous suggestion, negative thoughts can be transformed into positive ones until students begin to honestly believe in them, which leads to behavioral changes and helps students cope with challenges.

2.3 Placebo effect

A placebo is defined as an objective substance or procedure without specific activity for the condition being treated (Moerman & Jonas, 2002). The placebo effect is an effective mechanism. In clinical trials, the placebo effect is used to confirm the effectiveness of the new intervention by comparing it with regular drugs or treatments (Gremsl et al., 2018). Of course, the placebo effect, as one of the most well-known psychological cues, can also be applied to the scenario in this essay; that is, it can be associated with adolescent stress.

In the experiment conducted by Gremsl, participants were tested with eye tracking in two cases (once with a placebo pill and once without a placebo pill). People with spider phobia are given pictures to observe (spider pictures paired with neutral images) to see if a placebo helps with the phobia. The results are analyzed in three aspects: fixation count, fixation duration, and dwell time. From the point of view of fixation count, when there is a placebo, the fixed count will be longer when observing the spider picture. For fixation duration, viewing a photo of a spider would be shorter than that of a neutral photo (in the presence of a placebo).

Regarding dwell time, the residence time was longer with a placebo than without a placebo. For fear measures, Bonferroni-corrected t-tests showed lower values in a placebo. Regarding disgust measurements, the numerical value was significantly reduced in the presence of a placebo. This experiment is a good summary of how the placebo effect can effectively help alleviate phobias. Studies have shown that after successful treatment, patients can control and divide attention to threatening stimuli at a later stage, although they still show attention to spiders.

Interestingly, the placebo effect can be linked to the abovementioned expectancy effect. Expectations are the results that people expect. In some experiments that study pain, the experimenter often compares the expected and actual pain values of the participants by asking the participants (Price, 2008). We can analyze this through the experiments of Montgomery and Kirsch, who manipulated and measured expected pain (Montgomery & Kirsch, 1997). In the experiment, they used iontophoresis to stimulate the participants and cause them to feel pain in the skin. Once the stimulus is applied, the participant will secretly receive the reduced intensity stimulus in the presence of an inert cream, restore the intensity of the stimulus, and then use different stimuli in a placebo experiment to test the conditioned reflex results. Participants were divided into two groups and were required to rate the expected pain before the placebo test. The first group was unaware that the stimulus was manipulated and had significantly lower expected pain scores in the placebo trial; The second group would be told that the ointment was ineffective and did not alleviate the pain. There was no placebo effect (analgesic effect) in the second group. In 1999, Price further tested the degree of grading of pain relief expectations. In the experiment, the experimenter ap-

plied placebo ointment to the three connected areas of the participant's forearm and convinced the participant that the ointment ABC had a different analgesic effect. A is a strong analgesic, B is a weak analgesic, and C is a control agent. After the stinging test, participants were asked to score pain in different placebo areas, and the conclusion was that A<B<C. In summary, conscious expectation is necessary for placebo analgesia. Self-regulation in the placebo effect is not specific to placebo analgesia but is related to emotional self-regulation, including cognitive regulation of pain (Beauregard, 2007).

3. Conclusion

Based on the above analysis, psychological cues can help us relieve academic pressure and improve our grades. Next, we will analyze how to bring psychological suggestions into real life. First, autosuggestion is the most straightforward suggestion we can accomplish independently. Autosuggestion can be done in several ways: Simplistic. Don't make too many negative assumptions before an exam. For example, "What happens if I don't do well in the exam?", "Will my parents be disappointed in me or scold me for this?" etc. We should consider whether we can go on vacation after the exam, what exciting things we can do, and so on, which can help us relax. The second is refining. Suggesting the self is meant to mobilize our subconscious. Therefore, do not describe it in complicated words.

Use simple words such as "I can do it," "I can learn this knowledge," "I will do well in the exam," etc. Then, there is the repeated stimulation. Autosuggestion is a long-term process that needs to become a fixed habit for us. For example, we can set aside 15 minutes daily for positive autosuggestion (motivational words) that can be read aloud or silently in our minds. Finally, there is the rationalization of expectations. The expectations you set for yourself should not be too difficult, and the hints to yourself should not be absolute but rationalized. For example, "I can play better" or "I can improve next time than this time."

Another type of psychological suggestion is the suggestion of others. It's like the expectancy effect analyzed earlier. If your student or child is experiencing symptoms of pre-test anxiety in the future, you can show them what you expect from them—for example, showing confidence. Suggest they are earnest about their studies so that the exam results will be good, etc. If the expectation effect is successfully applied, students' subconscious mind is persuaded, and the corresponding exam stress will be reduced. However, there are some limitations. Although the expectation effect works in most cases, it still negatively impacts some people. People will show words such as nervous, uneasy, and stressed in the face of high expectations. Some people will worry they won't live up to that high standard (McNatt, 2000). For some people with low self-confidence, high expectations can even make people less productive than they used to be. At the same time, for some people, lower expectations can provoke their desire to win, and they will work harder to counteract such low expectations. As for the placebo effect, despite being the most well-known form of psychological suggestion, it has some limitations in what can be used in real life. If you want to apply it to teenagers, it belongs to the category of external cues. For example, tell the teenagers before an exam that the walnuts they eat during this time can help with brain development. Children are very likely to feel relaxed before the exam because of the blessing of the "walnut" item, so they are less likely to play abnormally. However, this method is only suitable for short-term use. If teenagers fail to do well in the exam once, they will likely stop believing in the efficacy of "walnuts."

In summary, mental suggestion is an effective and practical tool for reducing academic stress and achieving good grades. The role of psychological suggestions in our practical lives is significant. However, these general effects and experiments do not represent everyone, as each person's personality is different and, therefore, has a different effect when subjected to psychological cues.

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