

The Negative Consequences of Poor Emotion Management (Anger, Anxiety and Frustration) on The Brain and Body

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Abstract

Physical condition plays an important role in a person's life, but emotional is also important. The purpose of this study was to clarify the connection between negative emotions and physical state. To collect information for the study, it was decided to divide it into two parts. The first part was a consultation with employees of the Dubai Clinic. The next stage was a survey of students who had to evaluate their emotional state over the past six months, and also to report if any negative emotions caused them physical discomfort. Negative emotions have a negative effect on all body systems and can cause serious health problems. A survey of students showed that each of them experienced negative emotions at least once every six months. To teach everyone to manage negative emotions, free lectures, seminars and special psychological training can be organized.

Keywords: emotions and health; emotions control; negative emotions; physical wellness.

Introduction

Emotional well-being mirrors the emotional daily experience of a person: joy, fascination, affection, anxiety, sadness, anger, and stress (Kahneman & Deaton, 2010). In many developed countries, the level of emotional well-being remains low.

Management of emotions allows people to improve or degrade their feelings in a socially acceptable way and contributes to the achievement of hedonistic and instrumental goals (Tamir et al., 2008).

The idea that emotion regulation is costly or "debilitating ego" stems from a strong model of self-control (Baumeister et al., 2007). The force model conceptualizes self-regulation as a conscious and stressful process based on limited energy resources. In support of this idea, studies have shown that the management of emotions can lead to fatigue, memory impairment and reduced self-control (Hagger et al., 2010).

People who suffer from depressive symptoms experience emotional distress. Not only are there alterations in average levels of positive (PA) and negative affect (NA); reflected by depression's two core symptoms, anhedonia and depressed mood, the mutual relation between these affective states is also transformed (Dejonckheere et al., 2018).

Sleep problems may be another consequence of negative emotions. The negative effects of poor sleep on personal and interpersonal functioning have been widely documented in adults, as well as in children and adolescents (Shochat et al., 2014). One of the areas of interpersonal relationships that are affected by sleep disorders is aggression. Interdisciplinary research has shown a clear link between sleep problems and aggression (Krizan & Herlache, 2016).

Sleep problem can entail aggressive reaction through an affective pathway especially anger (Kamphuis & Lancel, 2015). Anger is a strong negative emotion that is felt in response to the alleged violation. People experience anger in situations that they consider unfair and unpleasant and in which someone's goals interfere. Here, the terms "anger", "angry affect" and "angry" are used interchangeably to refer to a subjective feeling of anger that embraces longer and diffused moods, as well as more specific emotions associated with the situation (Gross & Thompson, 2007).

Anxiety in adults can originate by the separation of parents in childhood. Development factors, such as poor attachment between parents and children, are believed to be associated with psychological distress in adults. It is believed that one of the consequences of attachment difficulties is the development of an increased level of juvenile separation. The persistent disorder of the attachment needs of a child and the continuing uncertainty about the presence of the attachment figure lays the foundation for anxiety associated with the separation of children and parents (Grenyer, 2002).

Thus, it can be assumed that negative emotions have a negative effect, including on physical health. This is a serious problem. In this regard, the research objectives are as follows:

- consult with medical professionals to find out what consequences negative emotions are for the human body;
- conduct a survey of university students to find out whether they are experiencing physical discomfort associated with negative emotions;
- analyze the results obtained and form possible recommendations based on the conclusions made.

Materials and methods

Ethical statement

The authors declare that the work is written with due consideration of ethical standards.

Participants

Practitioners from Medical Group Practice FZ LLC – UGRS International take part in the consultation. Consent to the consultation is given by a cardiologist, a psychotherapist and a neurologist.

The survey involves students from two universities (Al Ain University and Philadelphia University). A total of 100 students aged 19 to 21 are surveyed, among them, 38% of women and 62% of men. The survey includes representatives of different fields since a field does not affect the results in the context of this study. Among them: accounting and finance; architecture; computer technologies; psychology; journalism and marketing.

The participant's selection criterion

The choice of specialists for consultation on the negative effects of negative emotions is due to the fact that these specialists study all the major systems of the body: cardiovascular, nervous, and brain activity. This will provide the most complete information on the influence of negative emotions on the human body.

The decision to conduct a survey among students was due to the fact that, firstly, higher education inevitably carries with it stressful situations that can entail negative emotions. Secondly, at this age, respondents can more accurately assess their emotional and physical state.

Research instruments

The first part of the study is a consultation with health professionals, where each employee of the hospital speaks about the negative effects of negative emotions on the human body.

The student survey consists of nine questions: seven – close-ended, two – open-ended (Table 1).

Table 1. Student Survey Questions

Question	Place to answer
1. Did you experience negative emotions over the past six months?	Yes No
2. Did you feel angry over the past six months?	Yes No
3. Did you feel anxiety over the past six months?	Yes No
4. Did you feel irritated over the past six months?	Yes No
5. Can you say that it is difficult for you to cope with negative emotions and control them?	Yes No
6. Can you quickly get rid of negative emotions, for example, by switching attention to something else?	Yes No
7. Do you agree that negative emotions affect the physical state of the human body?	Yes No
8. Have you ever noticed that after the appearance of negative emotions, you feel physical discomfort? If yes, write which one.	
9. In your opinion, what kind of health problems can cause negative emotions?	

The first question is the most common (1). In it, respondents are asked to answer whether they have experienced negative emotions over the past six months.

Three subsequent questions (2), (3) and (4) concretize the negative emotions in question. As it has been already mentioned, this study considers a period of six months.

Further, students are asked to assess whether they can cope with negative emotions (5). The ability to get rid of or reduce negative emotions can reduce the negative effects on the body.

Adverse effects of negative emotions are reducible through the act of re-focusing one's mind into something else. That is why the next question gathers information concerning this ability (6). Respondents are asked to assess whether they are able to do it.

The purpose of the last question with the choice of answer options (7) is to find out whether the respondents are aware of the connection between emotional state and physical health of a person, whether they understand the negative impact of negative emotions on health.

In the next question (8) respondents are asked to draw conclusions from their emotional state, to answer whether they experience physical discomfort associated with negative emotions.

In the last question (9) students are asked to suggest what negative consequences for the body are negative emotions. When analyzing the answers, it will be possible to identify the most common options.

Research issues and restrictions

One of the main limitations of this study is that any physiological state that students can report has not been officially confirmed. In addition, only representatives of one age group took part in the survey, which does not make it possible to judge the situation, for example, among schoolchildren or working citizens.

Data analysis

After collecting the necessary information, the analysis of the research data was carried out in the STATISTICA system. The results on the questions with a detailed answer were analyzed, among them were the most common options.

Results

According to the consultation of a psychotherapist, negative emotions have a serious impact on the psychosomatic state of the body. Constant stress, anger, anxiety, fear, etc. can lead to a breakdown, sleep disturbances, exacerbation of chronic diseases, disruptions in the hormonal sphere, reduced efficiency, etc.

The effect of negative emotions on the brain is also regarded as very serious. In the first place, an intense emotional state can lead to permanent and lasting headaches. In addition, the ability to concentrate, to formulate thoughts decreases, the short-term memory suffers, and the ability to learn is also affected.

Further, an analysis of the survey of students was conducted.

According to the data on the first question, 100% of respondents indicated that over the past six months they have experienced any negative emotions. Such a result can be considered as expected, as in the conditions of modernity, each person somehow finds himself in situations that carry in themselves some kind of negative, contributing to the emergence of negative emotions.

The answers to the following three questions concerning the negative emotional experience turned out to be identical. All respondents noted that during a specified period of time at least once experienced these emotions.

Answers to the next question indicate that 54% of respondents find it difficult to cope with negative emotions. This suggests that this category of people may be more susceptible to the negative influence of negative emotions on the physiological state of the body.

As expected from the results of the previous question, 46% of the students note that it is fairly easy for them to cope with negative emotions. This may indicate that this group of respondents

will receive less negative impact on the physiological state of the body when experiencing negative emotions.

On the following question, a rather small number of students (39%) agree that negative emotions affect the physiological state of a person. It is possible to explain such a low result by the fact that students may not be sufficiently informed in this area, which does not allow them to sufficiently assess the situation and draw the right conclusions.

The following two questions provide students with an open-ended answer. In the first of these, respondents are asked to describe the physiological sensations that they experienced with negative emotions. Among the most popular answer choices is a headache, 69 respondents out of a hundred say that they might experience a headache during stress. Some also report that such a condition was regular for them.

The following most common response options are presented in the Figure 1.

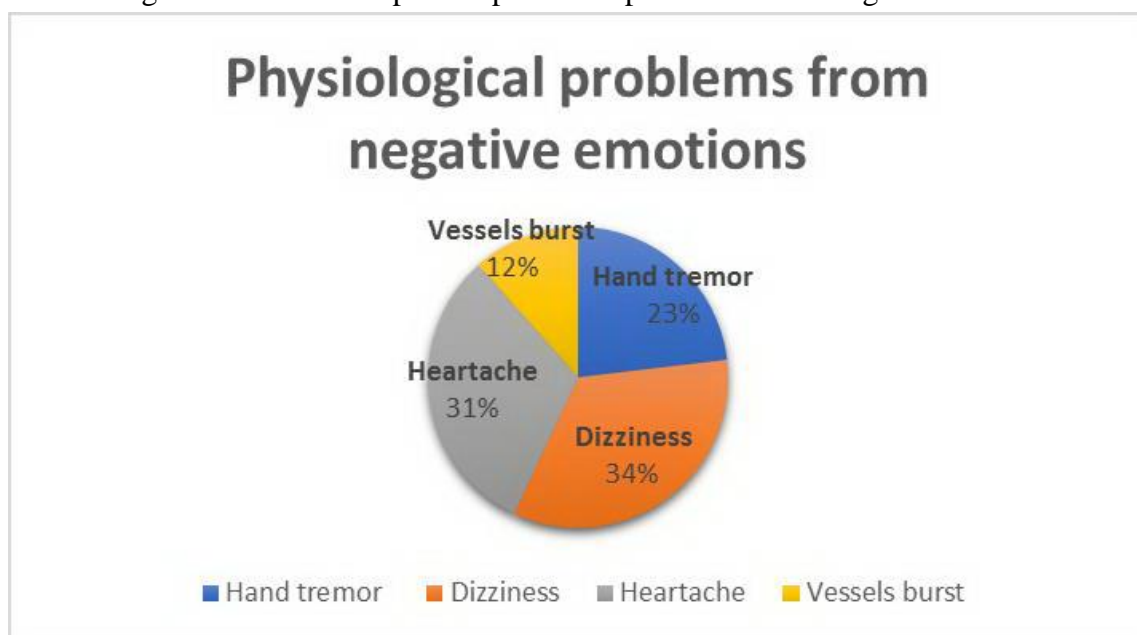


Figure 1. Physiological problems associated with negative emotions

In addition, eleven respondents indicated that they did not experience any physiological discomfort due to negative emotions.

In the last question, students are suggested to answer which, in their opinion, physiological problems may arise due to negative emotions. As the analysis shows, most often the respondents associate these problems with the cardiovascular system. Among the most popular answer choices are: heart pain, heart attack, increased pressure and other heart problems. Such answers as "headache" and "stroke" are also popular.

Negative emotions can adversely affect all systems of the body and cause them serious harm. In order to avoid negative consequences, it is necessary to take a set of measures.

Explaining the importance of controlling negative emotions

Since negative emotions can negatively affect the physiological state, it is necessary to fight them before this influence occurs. To realize this, first of all, it is necessary to organize educational activities concerning emotions and how they affect the state of the human body.

This can be done through free lectures or seminars for all comers. In addition, at such seminars, students can learn how to control negative emotions in order to prevent their detrimental effects on the body.

Trainings to control emotions

After explaining the negative effects of negative emotions on the human body, special psychological training can be organized, the purpose of which should be to train control over negative emotions. Such trainings can be conducted both in groups and individually. They can be organized for different age groups, starting from their individual needs.

Importance of medical examination

In addition, it is necessary to remember the importance of medical examination; not only in common, but also in the case when physical discomfort arises from negative emotions. Timely examination can help the development of any complications, as well as to prescribe treatment, which will help reduce the risks to the body in stressful situations.

Discussion

The connection of negative emotions with the lives of people is widely researched around the world. One such study took place in 2016; it examined the connection between the ability to control one's emotions and suicidal thoughts. Participants were selected from the Caveness registry for the study of head injury in Vietnam (VHIS). The VHIS registry included 1221 American soldiers who experienced penetrating brain injuries and closed head injuries (8% of the cohort) got in Vietnam between 1967 and 1970 (Raymont et al., 2011).

520 veterans from the registry agreed to take part in a clinical assessment study at the Walter Reed Army Medical Center (WRAMC). There were 90 (35.3%) veterans assigned to the army infantry unit, 54 (21.2%) were marines, 31 (12.2%) were in cavalry units, and 8 (3.1%) were in Special Forces. The rest of the participants were in the support service or in units that did not see direct ground combat. There were 119 (50.4%) who reported a constant combat effect and 62 (6.3%) who reported a periodic combat effect while performing their duties (Paradiso et al., 2016).

Suicidal thoughts were assessed using the Beck Depression Inventory (Beck et al., 1996) during the same visit as when measuring emotional competence. In Beck's Depression Inventory, participants are asked if they are currently suicidal or have experienced them in the previous two weeks. Participants could answer: (a) "I have no thoughts about suicide" (b) "I have thoughts of suicide, but I would not commit them" (c) "I would like to kill myself" and (d) "I would kill myself if I had a chance." There were 45 people (97.8%) who approved paragraph (b), and only one participant approved paragraph (c). They made up a group of "supporting suicidal thoughts". None of the participants approved paragraph (d). The comparative sample consisted of 139 participants who approved paragraph (a).

Descriptive statistics were used to characterize participants based on their support for suicidal thoughts. All analyzes suggested that the dispersion between groups was not equivalent on the basis of Leven's test for equality of variance. The same procedure was applied to all the

problems of the theory of thinking before adapting the estimates of variables to the logistic regression model (Abdollahi & Talib, 2015).

It was suggested that veterans who are inclined to suicidal thinking during the previous two weeks would have lower emotional competence than Vietnam veterans who do not approve of suicidal ideas. In accordance with this hypothesis, participants who endorse suicidal thoughts have demonstrated worse efficiency in solving emotional problems, measuring understanding of emotions, relief of emotions and their management. There are no significant group differences in the ability to detect basic emotions or predict the mental states of other people. Veterans who support suicidal thinking are deployed at a younger age, have relatively lower education and tend to report more negative experiences of social interactions upon their return to the US (Black et al., 2011).

The participants were second year students of secondary education. They were recruited through schools that were randomly selected from a pool of all high schools in the province of Antwerp, Belgium. Of the 30 schools that were contacted, 13 agreed to participate; others refused for practical reasons, because they did not want to lose study time for the survey or because they could not fulfill all the requests for participation in the research. The participating schools were representative in terms of the type of education offered. After school principals gave active informed consent, all second-year students had the right to participate, and their parents received passive informed consent. Thirteen students refused to participate, which resulted in a sample of 1746 adolescents.

Teenagers were asked how often they were angry in the past month. They rated their experience on a 7-point Likert type scale ranging from 1 (never) to 7 ([almost] all the time) (Zhao et al., 2010).

The revised sleep and wakefulness scale for adolescents (ASWS) (Essner et al., 2015), an abbreviated version of ASWS (LeBourgeois et al., 2005) assessed the quality of participants' sleep. This scale of 10 subjects includes three subscales: falling asleep and re-sleeping (FARS), returning to wakefulness and going to bed, measured on a 6-point Likert type scale ranging from 1 (never) to 6 (always), with higher ratings indicate better sleep quality.

Studies increasingly show that sleep problems contribute to aggression (Kamphuis et al., 2012; Krizan & Herlache, 2016). One of the suggested ways in which sleep disorders can fuel aggressive tendencies is an effective way, namely, through anger (Kamphuis & Lancel, 2015). This study is aimed to test this process for a form of aggression that is especially relevant in adolescence: cyberbullying. Since both poor quality of sleep (Cain & Gradisar, 2010) and participation in cyberbullying (Walrave & Heirman, 2011) involve the use of digital media, the influence of this variable has also been taken into account. Using longitudinal data collected among adolescents aged 12 to 13, a mediating sleep quality model is tested that predicted subsequent cyberbullying with anger, with an initial loading test of an indirect effect.

The results show that, after taking into account previous cyberbullying cases and the frequency of using digital media, poor sleep quality is predicted by subsequent cyberbullying indirectly through an increase in anger. These data support the hypothetical affective pathway for sleep problems and aggression through anger (Krizan & Herlache, 2016) and are consistent with predictions (Anderson & Bushman, 2002) about how personal variables, such as sleep problems, can lead to aggression through affective way.

The results of this study indicate that some negative emotions entail serious consequences. Since the results suggest that sleep problems fuel cyberbullying behavior due to heightened anger, several suggestions can be made for practitioners. These may be intervention strategies and prophylaxis against cyberbullying may be useful if you consider the sleep patterns of adolescents. Some measures can be taken to improve adolescent sleep, both at an individual and institutional level, such as promoting sleep hygiene (Moran & Everhart, 2012).

By teaching adolescents how to manage their anger, they may feel less inclined to act out their anger towards other people on the Internet. In this regard, programs aimed at managing emotions in adolescents, such as the awareness-based Learning to BREATHE program (Metz et al., 2013), and interventions that prevent people from expressing their feelings on the Internet when they are angry can be useful.

According to the results of interviews with specialists, it turns out that negative emotions have a negative impact on all body systems and can cause serious health problems. A survey of students show that each of them experienced negative emotions at least once every six months, and most of the respondents note any physiological discomfort associated with these emotions. To solve the problem, several ways are proposed. Since negative emotions can negatively affect the physiological state, it is necessary to fight them before this influence occurs. For this, it is possible to organize free lectures or seminars for everyone. After explaining the negative effects of negative emotions on the human body, special psychological training can be organized, the purpose of which should be to train control over negative emotions. Such trainings can be conducted both in groups and individually. They can be organized for different age groups, starting from their individual needs. In addition, timely medical examination can help the development of any complications, as well as for the purpose of treatment, which will help reduce the risks to the body in stressful situations.

This study can be carried out more broadly, among different age groups, social strata of the population, as well as among residents of other countries. In addition, medical workers can be involved in the study to examine respondents who may complain of physiological discomfort associated with negative emotions.

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