



A REPORT ON THE NEGATIVE IMPACTS OF OVEREXERTION

E. Pandit¹ and S. K. Basu^{2*}

¹Senior Science Communicator, Indian Science News Association (ISNA),
Rajabazar Science College, Kolkata, West Bengal, India;

²PFS, Lethbridge, Alberta, Canada

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ABSTRACT

The report examines the harmful effects of overworking on individuals, organizations, and society. It highlights that high impact workouts without sufficient rest leads to serious physical, mental, and social consequences. One major impact identified is physical health deterioration. This increases the risk of cardiovascular diseases, high blood pressure, weakened immune function, chronic fatigue, and sleep disorders. Lack of recovery time prevents the body from repairing itself, leading to long-term health complications. The report also emphasizes mental health challenges. Prolonged workout-regime related stress contributes to anxiety, depression, irritability, and burnout. Employees who overwork often experience reduced concentration, memory problems, and emotional exhaustion, which can negatively affect job performance. In addition, overexertion harms productivity and organizational outcomes. Although longer hours may seem beneficial in the short term, sustained load decreases efficiency, increases errors, and raises absenteeism and turnover rates. The burnout can lead to reduced enthusiasm and engagement.. The report further discusses social and personal consequences, including strained relationships, reduced family time, and poor work-life balance. Over time, this imbalance can damage personal well-being and overall life satisfaction. In conclusion, the report stresses that overexertion is counterproductive and unsustainable. It recommends promoting a healthy balance, reasonable workout duration, supportive gym-policies, and regular rest to protect the trainees' well-being and maintain productivity.

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Keywords: Overexertion, negative, impacts, health, balance, stress.

INTRODUCTION

Exercise provides several health advantages and is essential for a healthy lifestyle. In the fast-paced world of today, exercise is absolutely essential (Ekelund et al., 2019). It enables the body to sustain its basic metabolic rate and helps in the preservation of both mental and physical health (Patterson et al., 2028). However, overtraining can have a number of detrimental consequences. Overtraining is when the body is subjected to excessive physical stress without enough time to recover. Initially stress from exercise

can trigger the body's adaptive response, which enhances physical performance, strength, and endurance. This delicate equilibrium is upset, nevertheless, by prolonged, intense exercise combined with insufficient rest periods (Ekelund et al., 2019, 2020).

Symptoms associated with over training are called Overtraining Symptoms (OTS).A very common OTS is rhabdomyolysis, which is caused by the breakdown of muscle tissue, which releases proteins such as

*Corresponding author: saikat.basu@alumni.uleth.ca

myoglobin and creatine kinase. Along with additional symptoms including muscle aches, weakness, black urine, and in extreme situations, decreased urine flow, it might harm the kidneys (Ekelund et al., 2016). Overtraining can lead to hormonal imbalances such as cortisol, testosterone, and growth hormone. These abnormalities might impair metabolism and muscle growth. Furthermore, overtraining can weaken the immune system, leaving people more vulnerable to infections, illnesses, and extended recovery times (Stamatakis et al., 2019).

Muscle strains, sprains, and injuries including runner's knee, tendinitis, and stress fractures can result from overexertion. Work-out enthusiasts also experience prolonged pain and stiffness in the muscles, due to overtraining. It can also cause chronic weariness and a drop in general energy levels. It negatively affects the body by weakening the immune system, leaving people more vulnerable to diseases and infections (Ekelund et al., 2016, 2019, 2020). Overtraining can cause irritation, mood fluctuations, and even depressive symptoms. Anxiety and despair can be exacerbated by the physical strain of over training. It can cause insomnia and poor sleep quality by upsetting sleep cycles (Patterson et al., 2018; Elekund e al., 2029) Excessive training without proper recuperation might result in diminished strength, endurance, and performance rather than the anticipated outcomes. Lastly, it may result in a decrease in total physical activity since it can sap motivation and enjoyment from working out (Guthold et al., 2019).

In this study, we decided to undertake a survey to understand the impact and effect of over training. The aim was to understand how over workout affected their physical and mental health. We also tried to find out the reasons behind overtraining. The study can help in building consciousness around overtraining, educate people about the negative impacts, and strategize easy preventive measures.

Methodology

The study is primarily based on an online survey. People staying in and around Kolkata, India were the survey participants. They were asked to fill a simple questionnaire that included the following questions:

1. Name-
2. Age-
3. Sex-
4. Ever experienced OTS?

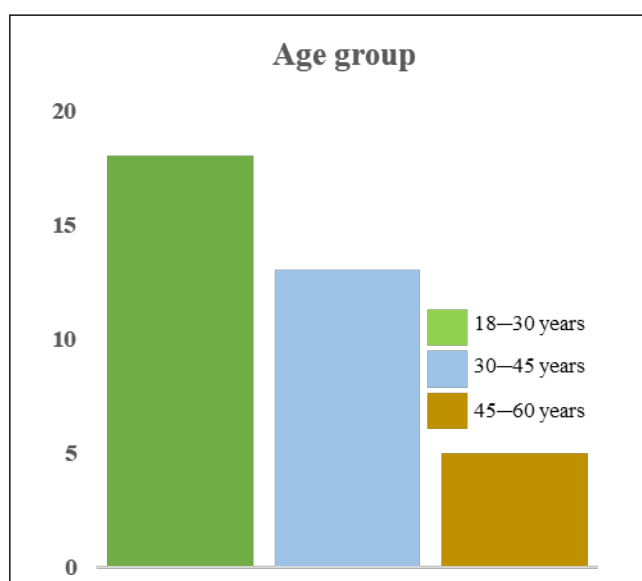
5. Type of work out practiced?
6. Is it a daily practice?
7. Any diet/workout practice that negatively impacted your health?
8. Describe the adverse effect of over training?
9. Ever misled by a trainer or coach?
10. If yes, share your experience
11. Did it affect your mental health?
12. If yes, how?
13. Share your thought: How to avoid negative impact of workout and only make it a positive experience

The survey was done vis Facebook messenger, WhatsApp and email. Some of the participants connected via calls to share their thoughts were recorded and later analyzed for the survey.

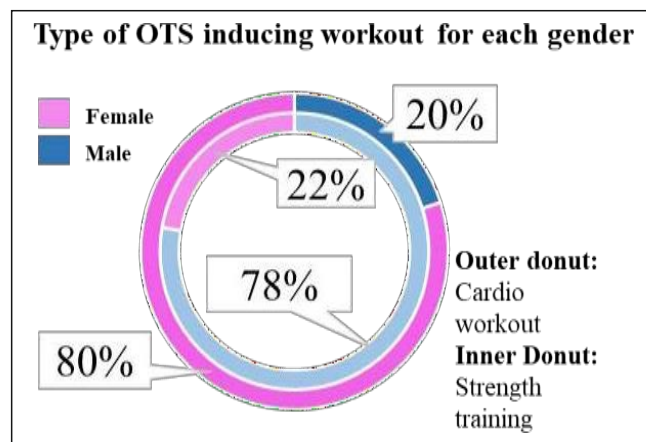
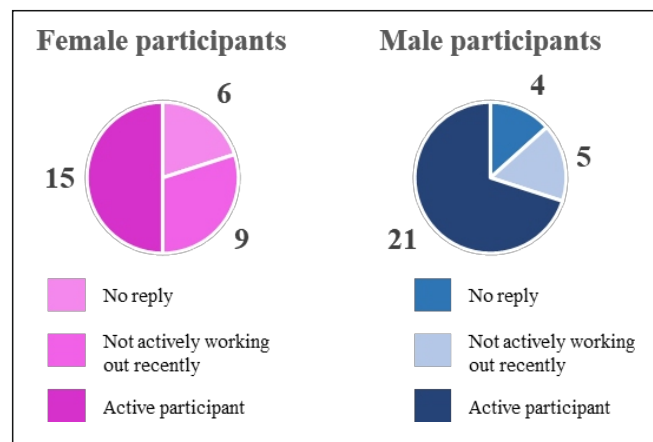
RESULT

Age group and gender of the participants

Participants of this survey were all above the age of 18. As children mostly exercise under adult supervision, they were not included for this survey. A majority of the participants were from the age group of 18-30 years (n=18), followed by the age group of 30-45 years (n=13). A few participants were from the 45-60 age group (n=5).

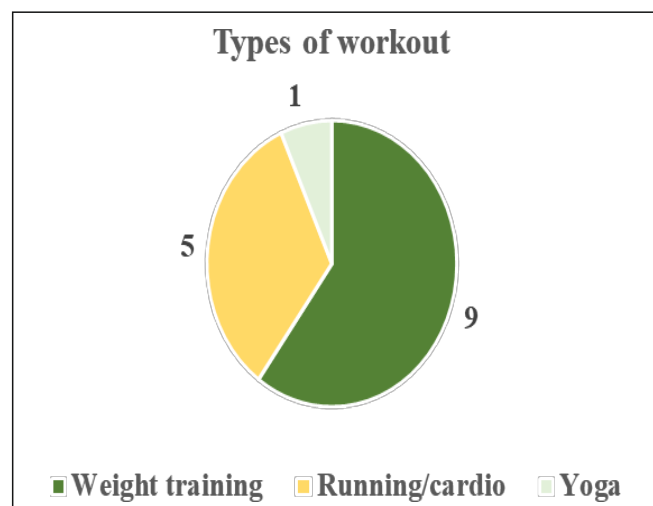


The survey was shared with a total of 60 members (30 female, 30 male), among which 36 were final participants. Members who did not reply to the survey or mentioned not actively working out over the past 6 months were not considered for the survey



Participants experiencing OTS and nature of their workout

Among the participants, a total of 15 participants reported experiencing OTS. 7 out of the 15 female participants experienced OTS (46.6%) and 8 out of 21 male participants confirmed their OTS experience (38%). A look into the kind of outwork practiced by the participants who experienced OTS revealed an interesting data.



9 participants experiencing OTS mentioned weight training was their primary workout, which was more than 60%. 5 participants stated that their primary workout involved cardiovascular activities like running (on field or in at treadmill). While majority of weight training induced OTS was seen among male participants, female participants mostly experienced OTS from cardio.

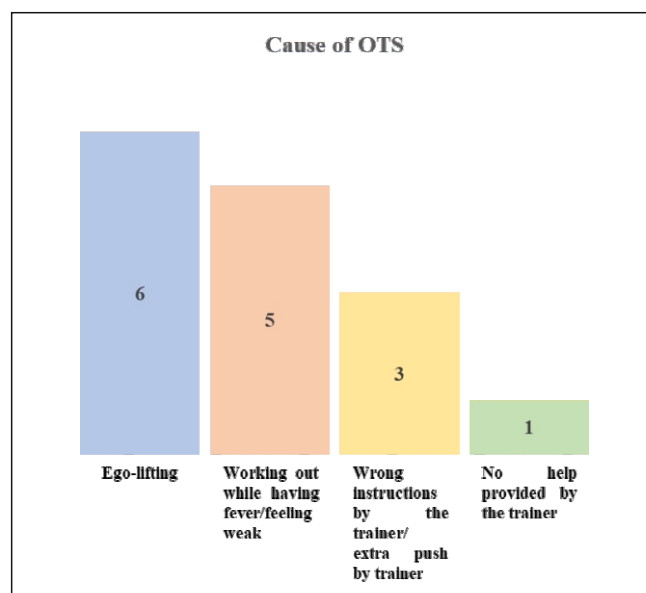
All the participants, barring one, mentioned that they work out regularly (4-7 days a week). All those who experienced OTS, workout for 6-7 days every week.

Adverse effect caused by overtraining

Participants have mentioned varied symptoms starting from back-ache to prolonged joint pain. Many participants mentioned experiencing multiple symptoms, often at the same time. The list of adverse effects has been listed below along with the number of participants who mentioned them.

- High fever and muscle pain (13)
- Back/lower back pain (10)
- Stiffness (9)
- Breathing issues (12)
- Sprain/ligament tear (7)
- Hormonal imbalance (3)
- Sleeping disorder (6)
- Headache and fatigue (15)

Some of the participants mentioned that they were hospitalized for issues like muscle tear, severe fever etc.

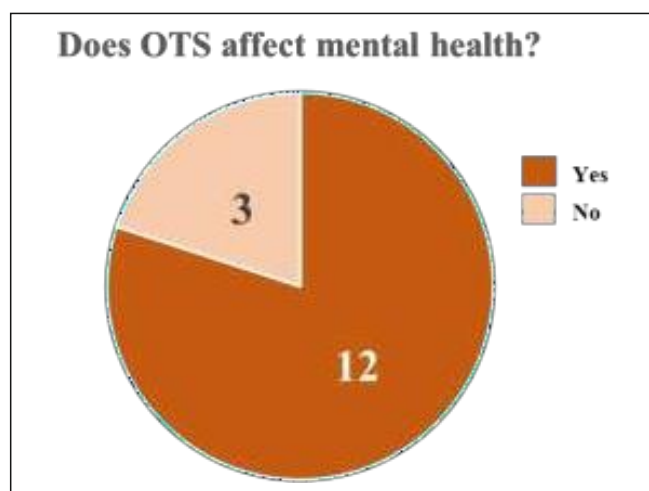


When asked about the reasons behind the OTS; participants mentioned some very common symptoms. While the majority of OTS symptoms among weight-training participants was because of ego-lifting (67% of weight lifters, 40% in general), around 33% experienced OTS after working out while being weak or feeling feverish. Lack of proper guidance or misguidance by trainers also played an important role in OTS symptoms among participants (27%).

Role of diet

The right diet plays an important role in replenishing the body for people who work out on a regular basis. The right balance of macro as well as micro-nutrients is a must to maintain the strength and agility. Many of the participants who experienced OTS were not following proper diet and were starving themselves to lose weight quickly (11/15). Some also mentioned not drinking water in between workout sets. This can be a major reason that causes muscle stiffness and soreness while working out.

Impact of OTS on mental health



Overtraining has been shown to have negative impacts on athletes' mental health, including an increase in eating disorders, depression, low motivation, and rage. Furthermore, up to 10% of athletes experience burnout as a result of overtraining; which has been shown to impair their mood, confidence, and sense of self and result in despair. In our study, most of the participants suffering from OTS, reported that their mental health was affected. Some of the other participants, who did not experience adverse physical effects of OTS, also mentioned being affected mentally. Some of the common symptoms mentioned included:

1. Complete loss of motivation to workout (3 participants)
2. Increased rage associated issues (10 participants)
3. Could not focus on job/family requirements (7 participants)
4. Did not want to socialize and only focus on training (3)
5. Desire to take shortcut measures (steroid intake) to get quick results

How to avoid the adverse effects of overtraining

The participants were also asked to share their thoughts on how to avoid the negative impact of workout and only make it a positive experience. Most of them mentioned that proper guidance and support is required to maintain a healthy workout routine throughout. Most of the participants who did not experience OTS mentioned that stretching before workout helps them to avoid the problem. Some participants mentioned that changing their focus from 'working out to lose weight' to 'working out to stay healthy' allowed them to avoid overtraining and associated complications.

Discussion

The survey helped to understand the most frequent adverse effects associated with overtraining. Individuals practicing weight-training 6-7 days every week often suffer from OTS. Strength training should be practised with adequate rest in between as that allows the body to recover. Lack of rest leads to stress and can increase the risk of injuries. The study also shows how important it is to understand the health conditions before working out. Self-evaluation is absolutely important and should be given to the body in case weakness or fever is experienced. Ego lifting is going to the gym to flaunt muscles and strength rather than to gain them. It is common among people who care more about their appearances than they do about improving themselves. It is often associated with increased risk of injury along with poor forms and stunted progress. It was also identified as a chief reason for OTS. Finding a good trainer to assist and guide during workouts is absolutely necessary. The study also focuses on that, showing how lack of right guidance causes adverse effects during training. The study also highlights how OTS affects mental health. Exercise would be uplifting for mental wellbeing. If certain workout routines are causing a negative impact on mental health, that requires change and modification.

Limitations

The study has certain limitations. The participants lacked diversity as most of them were urban dwellers from Kolkata. A bigger group of participants can help in drawing confirmatory conclusions. Also, most of the result is based on answers provided by the participants. Physical and mental evaluation of participants suffering from OTS can help in better understanding of the adverse effects.

Conclusion

Overtraining can be extremely harmful for the body. This study can be conducted among a bigger group of participants in the future to get more confirmatory data. Discussions with doctors, psychologists and other experts can help in chalking out a guideline that can make overtraining and related effects avoidable and make the workout sessions truly beneficial for the overall health of trainees.

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