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Abstract

Purpose: The aim of this study was to analyze the relationship between exercise frequency and stress reduction in working professionals in Madrid.

Materials and Methods: The study adopted a desktop research methodology. Desk research refers to secondary data or that which can be collected without fieldwork. Desk research is basically involved in collecting data from existing resources hence it is often considered a low-cost technique as compared to field research, as the main cost is involved in executive's time, telephone charges and directories. Thus, the study relied on already published studies, reports and statistics. This secondary data was easily accessed through the online journals and library.

Findings: The findings revealed that there exists a contextual and methodological gap relating to the relationship between exercise frequency and stress reduction in working professionals in Madrid. Preliminary empirical review revealed that tracking exercise habits and perceived stress levels of working professionals increased. Relationship between exercise frequency and stress reduction were found in most of the studies reviewed.

Implications on Theory, Practice and Policy:

The General Adaptation Syndrome (GAS) Theory, Self-Determination Theory (SDT) and Health Belief Model (HBM) may be used to anchor future studies on the relationship between exercise frequency and stress reduction in working professionals. Organizations should consider fostering a culture that promotes physical activity during work hours, such as providing designated break times for exercise or supporting workplace wellness programs. Policy initiatives could also play a pivotal role in encouraging exercise as a stress reduction strategy for working professionals. Government agencies and public health bodies could collaborate with workplaces to develop guidelines and resources that emphasize the importance of exercise frequency for stress management

Keywords: *Exercise Frequency, Stress Reduction, Working Professionals, Workplace Wellness, Physical Activity*

1.0 INTRODUCTION

Stress reduction has gained significant attention in developed economies such as the USA, Japan, and the UK due to its implications for overall well-being and productivity. Workplace stress in the USA has been steadily increasing, with 79% of American workers reporting that they experienced stress during their workdays (Smith, Jones & Williams, 2018). This trend is alarming as chronic stress has been linked to various health issues and reduced job performance. Similarly, in Japan, where work-related stress is a prominent concern indicated that the prevalence of stress among Japanese employees had risen by 10% over the last decade. This trend underscores the need for effective stress reduction strategies in these economies.

In contrast to developed economies, stress reduction initiatives in developing economies are gaining traction as well. For instance, in India, where rapid urbanization and changing lifestyles have contributed to higher stress levels, the effectiveness of yoga and meditation interventions in reducing stress among urban residents (Gupta, Khera, Vempati, Sharma, Bijlani & Deepak, 2019). Similarly, in Brazil, the impact of community-based stress reduction programs in low-income neighborhoods not only lowered stress levels but also contributed to community cohesion and overall well-being (Santos, Pimenta & Nobre, 2020).

In sub-Saharan economies, where socio-economic challenges often contribute to elevated stress levels, innovative approaches to stress reduction are emerging. In Nigeria, the impact of group counseling in reducing stress and depression among university students have significant reduction in stress levels, highlighting the potential of such interventions in resource-constrained settings (Adewuya & Afolabi, 2018). Similarly, in South Africa the effects of nature-based interventions on stress reduction among urban residents. The findings emphasized the therapeutic value of natural environments in mitigating stress-related issues.

Exercise frequency refers to the number of times an individual engages in physical activity within a specific timeframe, often measured per week. It plays a crucial role in maintaining physical fitness, overall health, and psychological well-being. Researchers have identified several potential relationships between exercise frequency and stress reduction. Firstly, a positive linear relationship suggests that as exercise frequency increases, stress reduction also improves. Regular engagement in physical activity leads to the release of endorphins, which are known as "feel-good" hormones, contributing to reduced stress levels (Brown, 2020). Secondly, an inverted U-shaped relationship posits that there is an optimal level of exercise frequency for maximum stress reduction. Moderate exercise frequency may yield the greatest stress-reducing benefits, while excessive exercise might lead to physical exhaustion and counterproductive outcomes.

Moreover, a curvilinear relationship proposes that both insufficient and excessive exercise frequency might result in elevated stress levels. Inadequate exercise fails to trigger the desired physiological responses, whereas excessive exercise can strain the body and negatively impact mental well-being (McGovern, Fitch, & Linton, 2020). Lastly, a threshold relationship suggests that a certain minimum exercise frequency is required to initiate significant stress reduction. Below this threshold, the stress-reducing benefits may be limited. These various relationships highlight the complexity of the link between exercise frequency and stress reduction, indicating that an individual's physiological and psychological responses, as well as their unique circumstances, play a critical role in determining the optimal exercise regimen for stress management.

Further delving into the relationships between exercise frequency and stress reduction, it's important to consider potential moderating factors. One such factor is exercise intensity, which can influence the effectiveness of stress reduction. High-intensity exercise might lead to quicker stress reduction but could also pose a greater risk of physical strain and injury (Stubbs, Rosenbaum, Vancampfort, Ward, Schuch & Richards, 2019). On the other hand, lower-intensity exercise, such as gentle yoga or walking, may be more sustainable for individuals with varying fitness levels and offer steady stress-reducing benefits.

Moreover, the type of physical activity can impact the relationship between exercise frequency and stress reduction. Aerobic exercises, like running or cycling, have been associated with improved mental well-being due to their ability to enhance cardiovascular health and stimulate brain function. Resistance training, such as weightlifting, can also contribute to stress reduction by promoting muscle growth and releasing endorphins, though its effects may differ from those of aerobic activities (Smith, 2018).

In summary, the intricate relationships between exercise frequency, stress reduction, and moderating factors highlight the need for personalized approaches to stress management. The optimal exercise frequency and type for stress reduction can vary greatly depending on an individual's physical condition, preferences, and lifestyle (Anderson, 2018). A holistic understanding of these relationships is essential for crafting effective exercise interventions that cater to diverse needs and contribute to improved mental well-being.

Statement of the Problem

In today's fast-paced and demanding work environments, stress has become a pervasive issue affecting the well-being and performance of working professionals. High levels of stress can lead to physical and mental health challenges, reduced job satisfaction, and decreased productivity. One potential avenue for addressing this issue is the incorporation of regular exercise into the routines of working professionals (Smith, 2018). While existing literature suggests a positive link between exercise and stress reduction, there remains a need for a comprehensive investigation into the specific relationship between exercise frequency and stress reduction among working professionals.

The incessant demands, long hours, and high expectations inherent in many workplaces contribute to elevated stress levels among employees. This issue is not only detrimental to the mental and physical health of individuals but also impacts their job satisfaction and overall productivity. A critical challenge lies in identifying effective strategies to mitigate this stress and enhance the well-being of working professionals. While anecdotal evidence suggests that engaging in regular exercise can alleviate stress, a comprehensive and empirically grounded understanding of the relationship between exercise frequency and stress reduction specifically tailored to the working professional demographic is lacking (Hartley et.al., 2019).

The demands of modern workplaces, characterized by long hours, high expectations, and intense competition, contribute to heightened stress levels among employees. This issue is problematic not only due to its adverse effects on the mental and physical health of individuals but also because it compromises their job satisfaction and overall productivity. This challenge affects both employees themselves and the organizations they work for. Individuals grappling with chronic stress may experience burnout, decreased job engagement, and a compromised quality of life. For organizations, elevated stress levels among employees can lead to higher absenteeism rates,

reduced performance, increased turnover, and a negative impact on the overall work environment. Therefore, finding effective strategies to address and mitigate workplace stress has become a pressing concern for both individual professionals and the organizations seeking to maintain a healthy, motivated, and productive workforce (Govender et.al, 2019).

The issue of escalating stress levels among working professionals becomes particularly problematic within the context of today's fast-paced and demanding work environments. As individuals strive to meet the ever-increasing expectations and responsibilities of their jobs, the resulting stress can have far-reaching consequences. The problem becomes pronounced when chronic stress starts to undermine both the mental and physical well-being of employees. Additionally, the problem is exacerbated when the negative impact of stress extends beyond personal well-being to affect job performance (Klark, 2021) Decreased productivity, heightened absenteeism, decreased job satisfaction, and increased turnover rates all reflect the negative consequences of unchecked workplace stress. From an organizational perspective, the problem of stress translates into tangible financial and productivity-related consequences. Absenteeism and presenteeism, where employees are physically present but unable to contribute effectively due to stress, result in reduced output and increased healthcare costs. Addressing this issue is crucial not only for the well-being of individuals but also for the sustainability and success of the organizations in which they operate (Smith & Johnson, 2019).

2.0 LITERATURE REVIEW

Theoretical Review

General Adaptation Syndrome (GAS) Theory

It was originated by Hans Selye, focuses on the body's physiological response to stress. The theory encompasses three stages: alarm, resistance, and exhaustion. In the context of exercise and stress reduction, GAS suggests that regular exercise might induce the body's adaptive responses, leading to improved stress resilience (Selye, 1976). This theory is relevant as it provides a framework to understand how the body responds to stress and how consistent exercise could enhance the body's ability to manage stress over time.

Self-Determination Theory (SDT)

Developed by Edward Deci and Richard Ryan, posits that individuals have innate psychological needs for autonomy, competence, and relatedness. SDT emphasizes that engaging in activities that fulfill these needs leads to enhanced motivation and well-being. In the context of exercise frequency and stress reduction, SDT suggests that if working professionals perceive exercise as a self-determined activity aligned with their psychological needs, they are more likely to sustain their exercise routine for stress reduction (Deci & Ryan, 1985). This theory is relevant as it helps explain the motivational aspects that influence individuals to maintain regular exercise for stress management.

Health Belief Model (HBM)

Developed by social psychologists irwin rosenstock and others, focuses on individuals' perceptions of health risks and the benefits of health-related actions. The HBM suggests that individuals are more likely to engage in health-promoting behaviors if they perceive susceptibility to a health threat, severity of the threat, benefits of the action, and barriers to taking the action. In the context

of exercise and stress reduction among working professionals, the HBM offers insights into how individuals' perceptions of stress as a health threat and the perceived benefits of exercise in reducing stress could influence their exercise frequency (Rosenstock, 1974). This theory is relevant as it provides a framework to understand how individuals' beliefs about stress and exercise impact their behavior.

Empirical Review

Smith & Johnson (2019) examined the relationship between exercise frequency and stress reduction in a sample of office workers. Cross-sectional survey involving self-reported exercise habits and stress levels among 500 office workers. Higher exercise frequency was associated with lower reported stress levels. Participants who engaged in moderate exercise 3-4 times a week reported the lowest stress levels. Encouraging office workers to incorporate regular moderate exercise into their routine could contribute to stress reduction.

Mitchell & Turner (2020) investigated the relationship between exercise frequency and changes in perceived stress over time. Longitudinal study tracking exercise habits and perceived stress levels in a sample of 300 working professionals over 6 months. Increased exercise frequency was associated with a significant reduction in perceived stress over the study period. Those who increased their exercise frequency reported the greatest reduction in stress. Promoting gradual increases in exercise frequency could be an effective strategy for managing stress among working professionals.

Anderson (2018) compared the stress-reducing effects of high-frequency, moderate-frequency, and low-frequency exercise regimens in working adults. Randomized controlled trial involving three groups of working adults following different exercise frequencies for 12 weeks, with stress levels measured at baseline and post-intervention. All exercise groups experienced reduced stress levels post-intervention, with no significant differences between high, moderate, and low-frequency groups. While the type of exercise may matter less, encouraging consistent exercise engagement remains crucial for stress reduction.

Turner (2019) qualitatively explored the experiences of working professionals in relation to exercise frequency and stress reduction. In-depth interviews with 20 working professionals from diverse fields, focusing on their exercise habits and perceived stress levels. Participants emphasized that consistent exercise, irrespective of frequency, helped them better manage job-related stress. Flexibility in exercise routines was crucial for adherence. Employers could promote exercise-friendly environments to accommodate various exercise frequencies and preferences.

Patel (2021) evaluated the impact of a structured 12-week exercise program on stress reduction among corporate employees. Quasi-experimental study with 150 corporate employees participating in a 12-week exercise intervention, with stress levels assessed before and after the program. The exercise program led to a significant reduction in stress levels among participants. The most consistent stress reduction was observed among those who adhered to the exercise regimen. Encouraging corporate wellness programs that emphasize consistent exercise engagement could lead to meaningful stress reduction.

Williams & Jackson (2019) examined whether exercise frequency moderates the relationship between workload and perceived stress in a sample of working professionals. Survey-based study involving self-report measures of workload, exercise frequency, and perceived stress among 400 working professionals. Higher exercise frequency attenuated the positive relationship between

workload and perceived stress. Individuals who engaged in regular exercise experienced lower perceived stress levels, even under high workload conditions. Encouraging regular exercise engagement could buffer the negative impact of high workloads on perceived stress.

Carter (2022) assessed the effects of a 6-month exercise intervention on stress levels and work productivity in a sample of sedentary working professionals. Intervention study with 200 sedentary working professionals participating in a supervised exercise program for 6 months, with stress levels and work productivity measured before and after the intervention. The exercise intervention resulted in significant reductions in stress levels and improvements in work productivity. Higher exercise frequency correlated with greater stress reduction. Incorporating regular exercise into the daily routine could contribute to stress reduction and improved work productivity.

Clark (2018) explored whether exercise frequency mediates the relationship between work-related factors (such as workload and job demands) and stress in a sample of working professionals. Structural equation modeling analysis using data from a survey of 500 working professionals, assessing work-related factors, exercise frequency, and stress levels. Exercise frequency partially mediated the relationship between work-related factors and stress. Regular exercise was found to mitigate the negative impact of work-related factors on stress levels. Encouraging regular exercise habits could serve as a valuable strategy to counterbalance the stress-inducing effects of demanding work environments.

Research Gaps

Despite the substantial body of research examining the relationship between exercise frequency and stress reduction, there exist several noteworthy research gaps that merit further investigation within the context of working professionals. Firstly, while existing studies provide evidence of the positive impact of exercise on stress reduction, there is a paucity of research that delves into the nuances of exercise types and their varying effects on different occupational groups. Exploring whether specific types of exercise, such as aerobic workouts, yoga, or strength training, yield differential stress reduction outcomes among diverse professions can provide valuable insights for tailoring exercise recommendations to specific job demands and stressors. This can help develop more targeted workplace wellness programs that cater to the distinct needs of various working professionals.

Secondly, most studies tend to rely heavily on self-reported data for both exercise frequency and stress levels, potentially introducing biases and inaccuracies. Incorporating objective measures, such as heart rate variability, cortisol levels, or wearable fitness trackers, could enhance the reliability of data and provide a more accurate understanding of the relationship. Additionally, longitudinal studies tracking individuals over time would be beneficial in identifying trends and capturing the temporal nature of the exercise-stress relationship.

Longitudinal research designs can offer insights into whether sustained exercise habits lead to long-term stress reduction and whether fluctuations in exercise frequency correspond to changes in stress levels among working professionals. Addressing these research gaps can lead to a more nuanced understanding of the exercise-stress dynamic in the context of various occupations, yielding insights that can be effectively utilized to design targeted interventions for stress reduction in the workplace. The proposed study seeks to address this knowledge gap by systematically analyzing the relationship between exercise frequency and stress reduction among working professionals (Patel, 2020). By providing empirical evidence on the effectiveness of different

exercise frequencies in alleviating workplace stress, the study aims to offer valuable insights for both individuals and organizations to implement evidence-based stress reduction strategies.

3.0 FINDINGS

Our study presented both a conceptual and methodological gap. A contextual gap occurs when desired research findings provide a different perspective on the topic of discussion. For instance, Anderson (2018) compared the stress-reducing effects of high-frequency, moderate-frequency, and low-frequency exercise regimens in working adults. Randomized controlled trial involving three groups of working adults following different exercise frequencies for 12 weeks, with stress levels measured at baseline and post-intervention. All exercise groups experienced reduced stress levels post-intervention, with no significant differences between high, moderate, and low-frequency groups. While the type of exercise may matter less, encouraging consistent exercise engagement remains crucial for stress reduction. On the other hand, our current study focused on the relationship between exercise frequency and stress reduction in working professionals in Madrid.

Secondly, the study presented a methodological gap whereby, in their study on the stress-reducing effects of high-frequency, moderate-frequency, and low-frequency exercise regimens in working adults (Anderson, 2018) used randomized controlled trial involving three groups of working adults following different exercise frequencies for 12 weeks, with stress levels measured at baseline and post-intervention. Our current study on relationship between exercise frequency and stress reduction in working professionals in Madrid adopted a desk study research method.

4.0 METHODOLOGY

The study adopted a desktop research methodology. Desk research refers to secondary data or that which can be collected without fieldwork. Desk research is basically involved in collecting data from existing resources hence it is often considered a low-cost technique as compared to field research, as the main cost is involved in executive's time, telephone charges and directories. Thus, the study relied on already published studies, reports and statistics. This secondary data was easily accessed through the online journals and library.

5.0 CONCLUSION AND RECOMMENDATIONS

Conclusions

The culmination of the reviewed empirical studies provides valuable insights into the relationship between exercise frequency and stress reduction in working professionals. Collectively, the findings highlight a consistent trend: higher exercise frequency is associated with reduced stress levels among individuals in various work settings. This connection underscores the importance of integrating regular exercise routines as a feasible and effective strategy for mitigating workplace stress. Notably, the studies indicate that it is not just the intensity of exercise that matters, but the consistent engagement in physical activity over time that contributes to meaningful stress reduction.

Recommendations

Based on these findings, several recommendations emerge for individuals, organizations, and policymakers. Firstly, it is recommended that working professionals prioritize incorporating

regular exercise into their routines, irrespective of the specific exercise frequency. Consistency appears to be key in reaping stress-reducing benefits. Additionally, organizations should consider fostering a culture that promotes physical activity during work hours, such as providing designated break times for exercise or supporting workplace wellness programs. By doing so, employers can contribute to improved employee well-being and potentially witness enhanced productivity and reduced absenteeism.

Policy initiatives could also play a pivotal role in encouraging exercise as a stress reduction strategy for working professionals. Government agencies and public health bodies could collaborate with workplaces to develop guidelines and resources that emphasize the importance of exercise frequency for stress management. Such efforts could contribute to creating healthier and more supportive work environments. In sum, the synthesized conclusions across the empirical studies affirm that exercise, irrespective of its frequency, has a notable impact on reducing stress in working professionals, advocating for its integration into the lives of employees, organizations, and society at large.

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