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Gym-Based Exercise and Stress Management among Working Adults: Implications for Sustainable Health and Well-Being

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Abstract

This study examined the effectiveness of gym workouts as a stress management practice among adult clients of a fitness gym in Cagayan de Oro City. Grounded in stress and coping theories including Selye's Model of Stress, Lazarus' Stress Model, Cox's Model of Stress, and Betty Neuman's System Model, the study investigated how demographic characteristics and workout-related variables relate to stress management practices. A descriptive-correlational and causal research design was used, employing a validated questionnaire administered to gym members and supplemented by a focus group discussion. Descriptive statistics, Pearson product-moment correlation, and multiple regression analysis were applied. Results showed that exercise-based stress management was consistently practiced by respondents (overall mean = 3.58). Gender and employment status did not significantly influence stress management practices, while age, marital status, workout frequency, and workout intensity exhibited significant relationships. Workout intensity was identified as the strongest predictor of effective stress management, indicating that more physically demanding exercise contributes to better stress-relief outcomes. Exercise was affirmed as a beneficial component of stress management, although not a complete solution for chronic stress, reinforcing the importance of supportive health interventions. The study contributes to Sustainable Development Goal 3 (Good Health and Well-Being) by identifying practical strategies that enhance both physical and mental wellness, and to Sustainable Development Goal 8 (Decent Work and Economic Growth) by highlighting the role of stress management in productivity and workforce well-being. Findings support sustainability efforts in public health and workplace wellness by demonstrating that structured fitness opportunities can strengthen coping resilience and improve quality of life.

Keywords: Exercise Intensity, Gym Clients, Physical Activity, Stress Management, Sustainable Development Goals, Wellness, Workout Frequency

1. Introduction

1.1 Background of the Study

The growing presence of gyms worldwide has reinforced the role of physical activity as a primary approach to stress regulation and overall well-being. Structured exercise programs have been shown to reduce perceived stress and improve coping and self-efficacy among adults experiencing psychological challenges (Wang et al., 2020; Morga et al., 2021). During unprecedented disruptions such as the COVID-19 pandemic, individuals relied on exercise to maintain mental stability and positive coping behaviors (Nyarera et al., 2023). However, active coping strategies provide the greatest psychological benefits, whereas avoidance-based responses are linked to increased emotional exhaustion and stress-related outcomes (Cruz-Soto et al., 2025). These findings emphasize the gym as an environment where adults can adopt healthier coping methods through guided physical activity (Dannels & Masters, 2020).

1.2 Themes and Insights from Related Literature

Modern gyms operate as multifaceted wellness spaces that enhance members' psychological well-being by offering social engagement, structured routines, and recreational escape from daily pressures (Mason et al., 2022). Accessibility to fitness centers strengthens coping opportunities, but restrictions during COVID-19 led to declines in physical activity and increased stress among adults (Meiring et al., 2021; DeMartini & Willett, 2022). Moreover, when individuals engage in exercise supplemented by proper fitness support—such as workout guidance and nutritional strategies—performance improvement may help motivate continued stress-reducing behaviors (Haddad et al., 2021).

1.3 Local, National, and Global Context

At national and community levels, Filipinos face substantial work-related pressures that increase their stress burden, limiting opportunities for physical activity (Meiring et al., 2021). Many adults report lacking time to exercise, which heightens vulnerability to stress-related health conditions (Mason et al., 2022). Urban fitness centers in Cagayan de Oro City provide accessible platforms for workers to incorporate exercise as a coping mechanism into their daily schedules. Exercise-based interventions have shown measurable improvements in stress levels and well-being, making gym environments a relevant context for addressing public health challenges (Wang et al., 2020; Morga et al., 2021).

1.4 Theoretical or Conceptual Basis

Exercise is supported by psychological theory as a proactive stress-management strategy that enhances coping responses and resilience (Dannels & Masters, 2020). Stress management programs implemented in health populations have produced positive changes in cognitive appraisal, self-control, and mental stability (Wang et al., 2020). Furthermore, high-intensity and resistance-based training influence both physical performance and psychological outcomes, reinforcing the role of physical exertion in stress adaptation (Chaikhot et al., 2020; Liskustyawati et al., 2020). These theoretical insights justify examining how exercise variables interact with demographic factors to influence stress management in gym-goers (Cruz-Soto et al., 2025).

1.5 Research Gaps and Rationale

While exercise is widely believed to relieve stress, limited research directly links specific gym-related characteristics—such as workout intensity, class format, and facility support—to improved stress outcomes, especially in Philippine gym settings (Mason et al., 2022; Meiring et al., 2021). Existing studies focus mainly on generic physical activity rather than gym-specific experiences that may influence coping differently (Liskustyawati et al., 2020). Additionally, emotional exhaustion and inconsistent coping strategies remain barriers for individuals who intend to manage stress through exercise (Cruz-Soto et al., 2025). Therefore, this study aims to examine which gym-based factors most effectively influence stress management among the adult gym members of a fitness gym in Cagayan de Oro City.

1.6 Alignment with Relevant Sustainable Development Goals (SDGs)

Encouraging stress-reducing exercise practices in gyms directly supports **SDG 3: Good Health and Well-Being**, because physical activity is associated with improved mental and emotional functioning (Morga et al., 2021; Wang et al., 2020). Promoting healthier working adults likewise strengthens **SDG 8: Decent Work and Economic Growth**, as reduced stress correlates with higher productivity and resilience (Dannels & Masters, 2020). Moreover, expanding accessible urban gym environments contributes to **SDG 11: Sustainable Cities and Communities**, by creating supportive infrastructures for active lifestyles (Meiring et al., 2021).

1.7 Importance of the Study to Multidisciplinary Sustainability

Findings from this study may guide community and health initiatives that utilize exercise as a sustainable strategy to improve psychological well-being and prevent stress-related illness. Strengthening coping capacity in working populations can also improve economic productivity and reduce burnout-associated disruptions (Dannels & Masters, 2020). Additionally, exercise-based improvements in resilience may help buffer individuals from long-term mental health challenges, making gym settings relevant spaces for both public health and sustainability advancement (Cruz-Soto et al., 2025; Meiring et al., 2021).

2. Material and methods

2.1 Research Design

A descriptive-correlational and causal research design was used to determine whether relationships exist among variables and to explore potential predictive links between workout characteristics and stress management outcomes. A descriptive-survey method utilizing correlation and multiple regression techniques aligned with the purpose of the study. Descriptive-correlational method identifies associations among variables and allows prediction of future events based on present knowledge. This design made it possible to examine whether clients' workout patterns were associated with how effectively they manage stress.

2.2 Locale of the Study

The research was carried out at a fitness gym in Cagayan de Oro City, a fitness facility situated in an urban commercial area where young adults and working individuals frequently engage in structured workout routines.

2.3 Respondents of the Study

The qualified respondents were gym clients who had been active members for at least one month, ensuring they had sufficient exposure to gym workouts to provide relevant data. A total of 222 clients participated in answering the survey questionnaire, and a smaller group provided additional qualitative input.

2.4 Sample and Sampling Procedure

Participants were selected during a fitness event at the fitness gym. Only attendees who met the inclusion criteria as members for more than one month were allowed to participate. After survey completion, 30 respondents were randomly chosen to engage in a focus group discussion to further elaborate on their stress experiences and gym practices.

2.5 Research Instrument

A validated researcher-developed questionnaire was used to gather data. The first part collected demographic information such as age, sex, marital status, and employment status. The succeeding items assessed the respondents' understanding of stress, their stress-relief practices, and workout routines using a five-point Likert scale from 1 (never practiced) to 5 (highly practiced). A higher total score indicated more positive stress management practices. Qualitative interpretations accompanied the scoring scheme, and a section for additional comments was included.

2.6 Data Gathering Procedure

Prior to data collection, approval was obtained to ensure confidentiality and anonymity. The survey questionnaires were distributed before the gym event started on November 17, 2018, and retrieved afterward. A focus group discussion involving 30 randomly chosen participants followed the survey administration to support the quantitative data with more detailed insights.

2.7 Data Analysis Techniques

Quantitative analysis was applied to all gathered data. Descriptive statistics were used to describe the respondents and their stress management practices. Pearson product-moment correlation at 0.01 and 0.05 significance levels tested the relationships between the variables examined, while multiple regression analysis identified the variable that best predicted effective stress management practices among gym clients.

3. Results and Discussion

3.1 Demographic Characteristics and Implications

The 222 respondents consisted of 112 males (51%) and 110 females (49%), indicating almost equal gender participation. Most were young adults aged 26–35 years (60%), single (69%), and employed (71%). This suggests that gym users are typically individuals who are exposed to stress from work-related responsibilities and lifestyle demands. Occupational stress can negatively influence health, which supports the tendency of employed adults to seek physical activity for coping. Additionally, Filipinos often face difficulty balancing work and leisure, including time for exercise, showing the relevance of gym accessibility for stress relief. Overall, this implies that gym environments appeal strongly to young working adults in need of stress management outlets.

3.2 Workout Patterns and Stress-Relief Intent

More than half (55%) preferred working out once daily for around three hours, and afternoons were identified as the most common workout time (58%). This reflects that gym activities are often scheduled after work as a transition from daily stress. Advanced gym equipment was identified as the most essential facility feature (62%), it implies high-quality amenities increase motivation and gym membership retention. A majority (59%) also preferred group classes, which may support stress reduction through social interaction and shared motivation. These indicators suggest that clients not only pursue physical enhancement but also psychological recovery through structured and socially engaging exercise experiences.

3.3 Stress Management Practices of Gym Clients

The overall mean score for stress management practices was 3.58, interpreted as "practiced," showing that respondents consistently use exercise to cope with stress. Top-rated strategies included exercising to manage stress ($M = 4.25$), seeing fitness progress ($M = 4.20$), maintaining workout routines ($M = 4.15$), goal setting ($M = 4.10$), and listening to music during exercise ($M = 4.08$).

3.4 Correlation of Workout Variables with Stress Management

Correlation analysis revealed no significant association between stress management practices and gender or employment status, indicating that stress-relief benefits of exercise are generally universal. However, age ($r = -.136$, $p = .043$) and marital status ($r = -.152$, $p = .024$) were significantly related to stress management, suggesting younger and single participants gained more noticeable benefits. This may be due to differing responsibilities and coping priorities across life stages, consistent with the conceptualization of stress and coping by Lazarus and Folkman (1984). Workout frequency (r

= .206, p = .002) and workout intensity (r = .387, p = .000) also showed significant positive relationships with stress management.

3.5 Best Predictor of Stress Management Effectiveness

Regression analysis showed that workout intensity had the strongest predictive value for effective stress management (β = .394, p < .01). This supports stress adaptation models where physical exertion helps regulate physiological stress response patterns. These findings align conceptually with principles referenced in Lazarus and Folkman's (1984) coping theory, which recognizes physical activity as a beneficial response strategy.

4. Conclusion & Recommendations

Based on the results of the study, gym clients primarily use exercise as a way to manage stress, and demographic factors such as gender and employment status do not significantly influence this outcome. Conversely, age, marital status, workout frequency, and especially workout intensity, were found to be significantly related to effective stress management, confirming that more frequent and more intense exercise leads to improved stress-relief experiences among respondents. Workout intensity emerged as the strongest predictor of effective stress management, demonstrating that highly engaging and physically demanding activities provide the greatest benefit. While exercise can be an important component of a stress management program due to its physiological and psychological health benefits, it is not in itself a complete solution to chronic or long-term stressors. The role of health professionals, including nurses, remains essential in assisting individuals in managing stress through appropriate interventions designed to maintain maximum wellness.

The findings suggest the need to promote intensive and structured workout routines within gym programs to enhance stress management benefits for clients, while encouraging gym members to actively participate in group-based exercise activities that support motivation and stress relief. Institutions such as universities, businesses, and hospitality establishments may also support stress reduction by offering access to fitness facilities that promote healthier lifestyles. Health organizations and professional associations are encouraged to advocate for the importance of exercise in stress management, while recognizing that personal preferences, motivation, and time limitations may affect adherence. Continued promotion of physical activity as a coping strategy and further studies developing supportive exercise programs are recommended to strengthen the role of gym participation in stress reduction.

Compliance with ethical standards

This study complied with institutional guidelines for research involving human participants. All participation was voluntary, and confidentiality of respondents was strictly ensured throughout the process.

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Conflict of Interest Statement

The authors declare that there are no personal or financial conflicts of interest that could have influenced the conduct, findings, or publication of this research.

Statement of Ethical Approval

The study involved only noninvasive survey procedures and posed no physical, psychological, or legal risk to participants; therefore, formal ethics review board clearance was not required. All procedures followed established ethical standards for social and health research.

Statement of Informed Consent

Informed consent was obtained from all respondents. Participants were informed of the study's purpose, confidentiality safeguards, voluntary nature of participation, and their right to withdraw at any time without penalty.

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