

Shaping Better Ergonomic Fitness Practices with Demographic Profiling Insights

Vanessa B. Pablo¹, Elena D. Aguila², Paraluman L. Veloz³, Leny V. Salmingo⁴, Noricel Uchida Garcia⁵, Marilyn D. Buentipo⁶

^{1,2}University of Perpetual Help System DALTA, Las Piñas City Campus, Philippines

^{3,4,5}Polytechnic University of the Philippines

⁶Colegio de San Juan de Letran

DOI: <https://dx.doi.org/10.47772/IJRISS.2025.91100466>

Received: 13 November 2025; Accepted: 19 November 2025; Published: 18 December 2025

ABSTRACT

Understanding the demographic profile insights relationship with ergonomic fitness could transform workplace wellness. This research with quantitative descriptive method using survey questionnaire in a 5-point Likert scale measurement distributed to non-teaching employees of private academic institutions explored how demographic insights can shape ergonomic fitness behaviors with a view to stimulating targeted and effective strategies. Non-teaching education workers have a good cognitive ergonomic awareness through the division of mental workload and mindfulness to bolster resilience and performance. The number of moderate efforts in balancing breaks and physical activity reveals another cultural gap where strategic rest is necessary to maintain cognition. Schools are proud of their ergonomic culture, with staff embracing healthy habits and optimizing workspaces for posture. However, the moderate use of ergonomic resources and personal workplace exercises indicate missed opportunities. This presents opportunities for further refinement by enhancing awareness and support institutionally for health-focused breaks that can reduce injury, improve well-being, and increase productivity to ensure greater benefits for participants and school communities. Age and sex have a minimal impact on ergonomic fitness habits, while job classification is a strong determinant of ergonomic fitness participation. Focus on enhancing cognitive ergonomics and workplace wellbeing is necessary by offering regular training on workload management and mindfulness, supported by smart digital tools. Recognition of mental health practices and peer support networks is highly recommended. A workplace culture valuing mental rest through breaks and open conversations while promoting ergonomic fitness includes redesigning schedules for micro-breaks, physical activity, and easy access to stretch guidelines or break zones. Regular review of workload and break policies to adapt an inclusive environment that balances productivity with cognitive wellness. Approaches to ergonomics tailored to non-teaching employees enable academic workplaces to create healthier and safer environments with long-term benefits.

Key Words: Ergonomics, Ergonomic Fitness Practices, Private Schools, Demographic Profile Insights

INTRODUCTION

Understanding how different demographic groups engage with ergonomic fitness can unlock wiser, more targeted wellness approaches at work. For independent workers, whose workday often is spent sitting for long durations or doing the same tasks over and over, ergonomic fitness is an essential consideration for health, productivity, and job satisfaction that lasts. Although most institutions invest in wellness initiatives, a one-size-fits-all model does not typically work. Employees are all of different ages, genders, physical abilities, and job types, yet prevailing ergonomic practice typically does not support these differences. This lack leads to many employees possibly not being maximally benefited or worse, possibly being at risk of injury from ill-fitting interventions. Past researches had tended to focus on general principles of ergonomics or specific industries with little specific data regarding how demographic factors drive ergonomic needs and behaviors in private-sector employees (Popova, et al., 2025; Aziz Ali & Sreedharan, 2024). This research attempts to fill the gap by

examining the significant relationships of demographic profile such as age, sex, and occupation on ergonomic fitness practices. In so doing, the study hopes to help institutions create rich, varied ergonomic fitness strategies that resonate with varied employee profiles ultimately creating healthier workplaces, reduced strain and injury incidents, and better morale and productivity. Without taking the demographic view into consideration, ergonomic solutions can be generic, less effective, and even costly mistakes.

Ergonomics and occupational health according to Kgakge, et al. (2025) shows that familiarity with ergonomics, yet limited demonstration on the high levels of knowledge, positive attitudes, and good ergonomic practices. Poor ergonomic practices were shown despite awareness wherein there is statistically significant associations between sex and ergonomic practices and between length of work experience and ergonomic practices. Emphasize was given on the gap between familiarity with ergonomic principles and their practical application in which poor ergonomic practices could contribute to the risk of musculoskeletal disorders, particularly lower back pain, reinforcing the need for targeted training, policies, and workplace interventions to improve occupational health. Hence, the present study is vital in shaping better ergonomic practices in the workplace setting.

As Santos, et al. (2025) discusses that ergonomic interventions had a major decrease in musculoskeletal pain intensity, especially in the lower back. Ergonomic strategies as a pragmatic way to reduce work-related musculoskeletal disorders (MSDs) are essential in order to maximize intervention design and ensure long-term efficacy, with advocating for ongoing improvement and customized intervention strategies as key determinants of long-term health. Therefore, the current research affirms incorporating ergonomic modifications, equipment modification, and training programs as efficient elements to decrease workplace MSD burden and enhance employee ergonomic fitness behaviors.

Research Objectives

The main objective of this study is assessing the private school employees' demographic profile's relationship on ergonomic fitness practices and how it helps shape a better workplace setting. Specifically, the main research questions for this paper includes; (1) What are the ergonomic fitness practices employed by the private non-teaching employees; (2) What is the significant relationship of the ergonomic fitness practices when demographic profile is considered; and (3) What strategies can be developed to have shape ergonomic fitness practices supporting a better workplace setting?

LITERATURE REVIEW

The important literature and studies are discussed as follows according to ergonomic fitness practices, importance of demographic profile considerations in ergonomics, and strategies to shape ergonomic fitness practices supporting a better workplace setting.

Ergonomic Fitness Practices

Ergonomics is more than fancy chairs but it is about designing a healthier, more comfortable working environment that improves productivity, decreases fatigue, and prevents injury. Ergonomic programs attuned to personal factors such as age, gender, job description and physical health are needed for true comfort and well-being (Sarker & Khan, 2020). Frequent exercise integrated into work procedures prevents musculoskeletal disorders (Abdollahi, et al., (2020); Rhen, 2023) due to repetitive strain. These customized ergonomics fitness strategies are not only wise decisions but imperative measures to ensure employees remain safe, healthy, and effective within their tasks (Chen, et al, 2023; Boonsem, et al, 2022; Centers for Disease Control and Prevention, 2019). Although ergonomics fitness has been proven to be of benefit, workers usually unable to determine which are most suited to their demographic requirements. The dynamic nature of work and daily activities may lead individuals to ignore ergonomics fitness, hence unable to maximize its ability to enhance job performance. Law also upholds such initiatives advocating for health rights, which demands that workplaces adhere to tight health and safety regulations. Private school employers have to create healthy and secure settings, promoting ergonomic fitness habits. To work hard in this situation is not only effort but also to stay healthy, energetic, and legally shielded that serves the interests of employees.

An effective ergonomics program fosters a healthier, more productive workplace by implementing changes such as adjustable desks, ergonomic chairs, and improved lighting, which reduce injuries and boost job satisfaction (Davies et al., 2023; Rhen, 2023; US Department of Labor, 2024). Successful ergonomics fitness requires employee involvement in planning and investment in supportive equipment, promoting mobility and good posture, especially for private school staff exposed to heavy lifting and repetitive motions (Duffy & Shaw, 2019; Middlesworth, 2024). Ergonomic interventions minimize muscle fatigue, maximize productivity, and foster a safety culture that perceives safety as a normative rather than regulatory aspect (Tersa-Miralles et al., 2022; Wulzerbacher et al., 2020). Ongoing risk assessment, process optimization, and surveillance are crucial for sustaining worker health (Tersa-Miralles et al., 2022; Wulzerbacher et al., 2020).

Santos (2024) suggests integrated model that can help assess and order the ergonomic risk factors such as human-related, cognitive, and physical stresses leading to occupational musculoskeletal disorders and mental loads. Not only does the model identify the most important risk factors but also the most affected workers, enabling targeted improvement work to be undertaken. Through the structured evaluation of ergonomic risks, the model helps organization enhance occupational safety management and design effective interventions for developing healthier, safer workplaces. Hence, the supply of scientific and data-driven method like demographic profiles of evaluating and managing workplace ergonomics effectively and comprehensively can be used broadly to minimize work-related injury and enhance worker well-being.

Workplace design should be fitted to the physical and cognitive capabilities of individuals to maximize efficiency, quality, and productivity while minimizing the risk of injury and occupational health issues (Edwards, et al, 2025). Ergonomics does not stop at physical changes but goes further to include cognitive ergonomics that deal with perception, memory, reasoning, and interaction between humans and the environment. Its overall relevance to so many various industries including educational institutions makes this foundational on understanding and implementing effective ergonomic solutions.

Despite awareness of ergonomics, when there are physical stresses, inadequate ergonomic facilities, and poor knowledge of ergonomic practices negatively affect workers' physical performance (Monera, et al, 2024). This leads to fatigue and strain among them. There are benefits arising from ergonomic interventions such as adjustable equipment and training seminars that help reduce backaches and increase productivity. However, there is still a problem caused by resource scarcity and heavy workloads. The key challenges involve urging stakeholders towards concerted efforts on the importance of creating a culture supportive of ergonomic fitness, continuous investment in ergonomic work design, and supporting employees more effectively to improve.

Importance of Demographic Profile Considerations in Ergonomics

Based on Popova, et al (2025), the majority of the office workers' occupational musculoskeletal disorders (WMSDs), with focus on demographic and occupational characteristics, presented that neck, lower back, and shoulder pain were prevalent. The current study also strongly indicates occupational interventions that enhance ergonomic fitness consciousness, posture correction, and health practices. The implementation of targeted intervention to prevent WMSDs has the potential to create healthier, happier workers and ultimately a more productive workforce. The study informs us on the way in which age, sex, job category along physical condition interacts to affect musculoskeletal health, increasing demands for office labor force occupational health changes.

The research by Aziz Ali and Sreedharan (2024) indicates that individuals who perform physically demanding jobs possess favorable ergonomic awareness. Shockingly, the musculoskeletal disorders diagnosed with pain virtually affecting the lower back, neck, and shoulders. Consistent with this, ergonomic awareness is strongly associated with education, and age and experience years affect ergonomic practice. Thus, the current research confirms the immediate necessity for private sector employers to invest in ergonomic training and on-the-job implementation to protect workers' health, alleviate musculoskeletal injury, and promote workplace well-being.

Age, sex, and work demand affect how musculoskeletal disorders present, especially in back and shoulders, requiring customized ergonomics programs for effectiveness (Nygaard et al., 2022; Abdul Latip et al., 2025). Men tend to report less pain, aggravating long-term health status. Hence, addressing personal and ergonomic risk factors is critical to enhancing work ability, disability prevention, and quality of life through personalized

interventions such as wellness programs (Bazaluk et al., 2023; McNamara & Pitt-Catsoupes, 2020). Promotion of healthy living and educational interventions, especially among female workers, prevent musculoskeletal disorders. Better office ergonomics through training and organizational workspace design enhance health, effectiveness, and job satisfaction, as observed in the Philippines' private sector (Hosseini et al., 2023; Barrieau, 2024). The Philippine Human Factors and Ergonomics Society (HFESP) works towards increasing ergonomics education, training, and organizational coordination, emphasizing the significance of ergonomics in academic workplaces for improved employee health and productivity (International Ergonomics and Human Factors Association, 2024).

Strategies to Shape Ergonomic Fitness Practices Supporting a Better Workplace Setting

Inexpensive wellness activities that target staffs' requirements have the capability to enhance the morale, well-being, and lower absence in schools is a financial saving. Efficient programs encompass health screenings, nutrition counseling, reducing stress, fitness contests, and quit smoking, which all increase job satisfaction and indirectly improve student outcomes (El-Sherbeeney et al., 2023). Effective ergonomic habits and tools minimize soft-tissue damage, chronic pain, and fatigue, leading to improved physical and mental health (Kraemer et al., 2020; Monera et al., 2024). Risk analysis aids in the identification of risks like improper workstation design and poor lighting to design safer work environments (OSHA, 2024). For administrative staff, ergonomic training and physical exercise combat sedentary hazards, an issue exacerbated by the pandemic, promoting better lifestyles (Edwards et al., 2022; Tersa-Miralles et al., 2022; Jasmine et al., 2020; Mairaj et al., 2024). Tailored wellness initiatives with continuous monitoring drive work satisfaction and positive culture (El-Sherbeeney et al., 2023).

An effective ergonomic program continues to be dependent on ongoing evaluation, leaders' commitment, and active employee involvement for maintaining improvements and addressing emerging risks (Edwards, et al., 2025). These strategic interventions are appropriate but are particularly important in those that are physically or cognitively demanding, since there are substantial long-term health impacts that are contingent on effective ergonomic design and practice within a workplace.

Research Paradigm

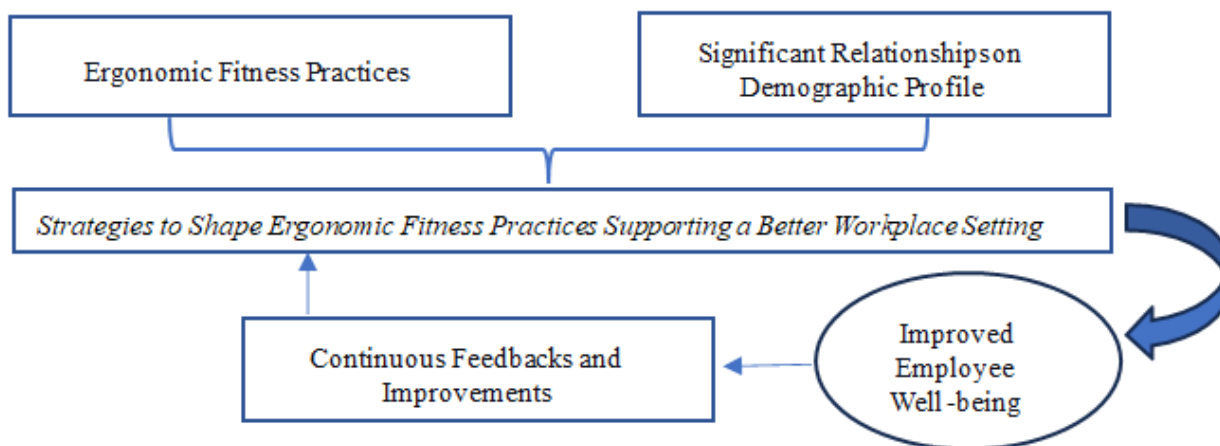


Figure No. 1 Research Paradigm

The research paradigm shows an exploration of demographic considerations and the actuality of application of such practices within the wellbeing of the workplace. Addressing the research question of what specific ergonomic fitness practices are being applied adopted a descriptive approach to answer the number and range of such practices. The question of whether there exists a significant correlation between ergonomic fitness behaviors and demographic profiles employs a correlational paradigm. Examining the demographic variables identifies patterns that might potentially indicate how it shapes attitudes and behavior toward ergonomic physical fitness. Therefore, the findings can be applied directly to policy and program development within educational contexts. The strategies are designed not merely to improve physical comfort and efficiency but also to foster a health-awareness culture. With this, ergonomic physical fitness practices need to be introduced in the workplace,

tweaked to fit the employees' demographic profiles, and supported through constant education and organizational backing.

RESEARCH METHODOLOGY

This study provides valuable insights on ergonomic fitness practices among non-teaching personnel of private schools. Time and budget constraints also restricted the extent and scope of the research. Despite these constraints in mind, the study contributes significantly to the knowledge base as far as how ergonomic fitness practices and demographic profiles helped in creating an improved workplace. Based on the descriptive correlational approach, the study utilized validated survey questionnaires with a 5-point Likert scale in its application on private schools specifically in Albay. There were 135 purposively sampled respondents. This research yields meaningful results which could guide future research in constructing better workspaces with workable environments.

RESULTS AND DISCUSSIONS

The results and discussions are as follows;

Table 1 Ergonomic Fitness Practices as to Cognitive

Indicators	Mean	Interpretation
1. I comprehend the ergonomic fitness and work productivity relationship.	3.53	Highly Practiced
2. I comprehend prevention of work injury with the help of ergonomics.	3.53	Highly Practiced
3. I appreciate the contribution of ergonomics to job satisfaction and welfare.	3.73	Highly Practiced
4. I seek ergonomic solutions actively to work environment.	3.87	Highly Practiced
5. Ergonomic activity assists me in regulating tension and mental fatigue arising from work.	3.60	Highly Practiced
6. I manage workload balancing towards breaks for ergonomic health and physical exercise.	3.27	Moderately Practiced
7. I give top priority to the division of mental workload to avoid cognitive overload.	3.93	Highly Practiced
8. I employ ergonomic devices that facilitate cognitive functions.	3.87	Highly Practiced
9. I am mindful on exercises enhancing cognitive ergonomics.	3.93	Highly Practiced
10. I facilitate teamwork to ensure productive problem-solving to maximize ergonomic work processes.	3.47	Moderately Practiced
OVERALL MEAN	3.67	Highly Practiced

Table 1 presents the ergonomic fitness practices as to cognitive with 3.67 overall mean interpreted as highly practiced. The given indicator "I give top priority to the division of mental workload to avoid cognitive overload" with 3.93 mean and interpreted as highly practiced among non-teaching education employees signals a strong self-awareness towards cognitive ergonomic fitness. This is important behavior because strategically distributing mental tasks can prevent cognitive fatigue, reduce errors, and enhance overall job performance which is all important in educational environments where support staff juggle diverse responsibilities. By giving priority to workload division, employees effectively manage their mental resources, promoting sustained attention and

preventing burnout. With the ergonomic viewpoint, which aims at the design of work systems in such a way that they match the human capacity for cognitive processes and do not overload it. Such practices are likely to lead to better mental health, higher productivity, and a more appropriate response to complex or multitasking situations commonly arising in administrative and technical areas of educational institutions. The development of further training or tools to support mental workload management may result in a working environment that protects mental well-being and ensures efficient task execution, while enhancing resilience and efficiency among support staff.

The high level of mindfulness practice in exercises increasing cognitive ergonomics with mean of 3.93 among non-teaching staff heralds a promising turn toward improving cognitive ergonomic fitness in educational institutions. Mindfulness, through focused awareness and clarity of mind, directly fosters cognitive functions such as attention regulation, memory retention, and stress management. This strong engagement in mindful exercises gives an indication that employees are paying conscious and much-needed attention to mental well-being parallel to physical health. For an academic setting, where multitasking and demands for information processing are high, this is indeed useful. Adopting mindfulness indicates an institutional culture for holistic health, not just comfort. This builds cultural momentum in people's working habits for sustainability that could reduce burnout and improve job satisfaction. Non-teaching employees who foster much better mental resilience and cognitive clarity will handle complex tasks efficiently, leaving behind a healthier and more engaged yet agile workforce.

The indicator "I manage workload balancing towards breaks for ergonomic health and physical exercise" with mean of 3.27 is moderately or least practiced shows a critical gap in cognitive ergonomic fitness among non-teaching staff in educational institutions. It means workers are not incorporating scheduled breaks and physical activity into the workday needed to sustain cognition. Poor workload management, not considering ergonomic breaks, may lead to a decline in concentration and increased levels of stress, with an increased risk of musculoskeletal discomfort. A moderate or low level of practice in this area would signal a possible lack of awareness or structural support in the workplace to enable such breaks. One must take into consideration the demanding nature of the roles non-teaching personnel often faces. Without systemic workload balancing to encourage frequent pauses and movement, there is inevitably a cost in cognitive acuity and physical health. The institutional culture needs to change from one that values unbroken work to one that values strategic rest as a booster for productivity.

From Table 1, non-teaching education staff highly value workload division in terms of mental workload, hence showing very strong cognitive ergonomic awareness, which bolsters focus to prevent burn out. Mindfulness practices are similarly high reflecting a healthy culture in support of mental clarity and handling stress. On the other hand, workload balancing through breaks and exercises was found to be least which exposes risks of cognitive fatigue and physical strain. It therefore calls for schools to shift the focus toward promoting strategic rest and movement in the pursuit of sustained productivity and wellness that is resilient and active in support of emerging complex demands at work.

Table 2 Ergonomic Fitness Practices as to Workplace

Indicators	Mean	Interpretation
1. I emphasis on health and well-being in school culture supports ergonomic participation.	4.27	Highly Practiced
2. The values and vision of school encourage me with uniform ergonomic practice.	4.27	Highly Practiced
3. Physical activity policies in the workplace lead to increased my comfort and productivity.	3.93	Highly Practiced
4. I participate in initiatives promoting ergonomic fitness and wellness programs.	3.80	Highly Practiced

5. I believe in the leadership commitment of the school to ergonomic standards and improvements.	3.93	Highly Practiced
6. I appreciate resources available for ergonomic fitness.	3.27	Moderately Practiced
7. I conduct periodic ergonomic evaluation and feedback mechanisms to modify workplace systems.	3.47	Moderately Practiced
8. I value incorporation of ergonomic factors into general organizational planning and policies.	3.93	Highly Practiced
9. I promote employee involvement in ergonomic decision-making.	3.47	Moderately Practiced
10. I appreciate partnership with external ergonomic specialists to develop and enhance workplace ergonomics.	3.93	Highly Practiced
OVERALL MEAN	3.83	Highly Practiced

Table 2 exhibits the ergonomic fitness practices as to workplace with overall mean of 3.83 interpreted as highly practiced. The strong emphasis on health and wellbeing within the school's culture with mean of 4.27 and interpreted as highly practiced serves as a major driver for nonteaching staff in educational settings which promotes the acceptance and embracing of ergonomic practices. Such a commitment is directly translated for non-teaching staff who often have to perform physically demanding tasks or spend long hours in fixed postures. A matter of creating a culture that cares about the health of each individual can have a ripple effect on general institutional effectiveness. Fundamentally, embedding health and wellbeing at the heart of one's organization allows an active, caring approach toward workers' long-term health, morale sustainability, and the enhancement of an environment that thrives in education and is essential for sustainable wellness in the workplace.

The indicator, "The values and vision of school encourage me with uniform ergonomic practice" with mean of 4.27 and interpreted as highly practiced. When non-teaching staff believe that the core values of their institution actively encourage continuous ergonomic practices, it builds a cohesive, motivated workforce. The shared vision acts as a catalyst; instead of compliance with ergonomic guidelines becoming a checked-box activity, it becomes an embraced routine. Such institutional commitment is as clear as an endorsement from leadership as one is likely to find, and it is often the most powerful impetus for change in long-term behavior in the workplace. It's more than just a confirmation of how important ergonomic health is but rather takes the guesswork out of how one conducts their postures, utilization of equipment, and regular breaks to move around. This alignment reduces fatigue and injury risk, increasing overall productivity.

The indicator "I appreciate resources available for ergonomic fitness" with mean of 3.27 and only receives a moderate practice suggests an important missed opportunity within workplaces in educational institutions. Non-teaching staff who are engaged in repetitive tasks, appreciating and utilizing ergonomic resources directly impacts comfort, productivity, and longterm health. However, the moderate level of appreciation may reflect awareness without full commitment or access barriers because there could be availability of ergonomic resources, employees might not fully recognize their benefits or feel unencouraged to engage. Engaging non-teaching staff through targeted communication enhances understanding about how ergonomic tools such as adjustable chairs, keyboard supports, and timely breaks bolster wellbeing and job performance. The culture regarding ergonomic fitness needs elevation from moderate appreciation to active utilization. When employees value and integrate the practices of ergonomics, lower injury rates, improved morale, and sustained efficiency become expected institutional gains. Its moderate status, therefore, constitutes a warning and an invitation to transform everyday practice for healthier workplaces.

Table 3 Ergonomic Fitness Practices as to Physical

Indicators	Mean	Interpretation
1. I implement ergonomic principles to set up workspace for improved posture and movement	3.93	Highly Practiced
2. I set up workspace ergonomically to improve movement and posture	3.60	Highly Practiced
3. I utilize ergonomic tools and break spaces to minimizes physical discomfort	3.60	Highly Practiced
4. The ergonomic processes I used minimize physical discomfort and injury	3.80	Highly Practiced
5. Timings to do ergonomic exercises is within my work hours	3.47	Moderately Practiced
6. Workspace designed ergonomically improves my comfort and productivity	3.60	Highly Practiced
7. Daily adjustments of furniture and equipment to suit my personal ergonomic requirements	3.60	Highly Practiced
8. I track physical fatigue and reconfiguration of tasks or posture to reduce discomfort	3.87	Highly Practiced
9. I follow instruction given on proper ergonomic methods and body mechanics	3.73	Highly Practiced
10. Ergonomic awareness enhances my comfort and physical effort	3.80	Highly Practiced
OVERALL MEAN	3.70	Highly Practiced

Table 3 shows ergonomic fitness practices as to physical with overall mean of 3.70 and interpreted as highly practiced. The indicator about "I implement ergonomic principles to set up workspace for improved posture and movement" with mean of 3.93 and interpreted as highly practiced among non-teaching staff serves to point out a promising trend for healthier ways of working within an educational institution. The employees, through conscious arrangement of their working environment by changing chair height, monitor position, and keyboard placement, reduce immediate physical strain and are cultivating long-term well-being. This is a clear indication of increasing awareness and self-care among the employees themselves, and thus an indicator of effective training on ergonomics or personal initiative. Moreover, it is likely to increase productivity and job satisfaction. As comfort and freedom of movement improve, cognitive focus and physical energy tend to increase, benefiting both the person and the institution. These data suggest that employees are not just passively putting up with but actively optimizing their work setup, which can be a huge cultural shift.

The indicator about "Timings to do ergonomic exercises is within my work hours" with mean of 3.47 and interpreted as moderately practiced, showing a critical gap in priorities for health at work from the perspective of educational institutions among non-teaching staff. While there's increased awareness of physical ergonomic fitness, this moderate engagement seems to suggest that times for exercises are either overlooked or considered secondary to the demands of work. A moderate rating shows an imminent need for institutional policies anchoring the intention to make ergonomic exercises part of daily schedule requirements and not optional or extra-time activities. Non-teaching employees often report repetitive tasks or sustained static postures that heighten physical discomfort and long-term health risks with no relief in time. Thus, institutions should encourage a culture believing in taking physical breaks, provide training in ergonomics, and probably structure regular but short periods for exercises within work hours as a way of moving from a rating of moderate to high practice. Embedding ergonomic exercises into work time will pay off by contributing to improved physical well-being, morale, and job performance via a healthy, energetic workforce that faces educational outcomes with sustained vitality.

Table 4 The Significant Relationship between the Respondents Demographic Profiles and their Ergonomic Fitness Practices

Demographic Profile	Ergonomic Fitness Practices	Correlation Coefficient	pvalue	Significance/ Interpretation
Age	Cognitive	-0.163	.286	Not Significant
	Workplace	-0.169	.266	Not Significant
	Physical	-0.117	.445	Not Significant
Sex	Cognitive	0.060	.693	Not Significant
	Workplace	0.052	.733	Not Significant
	Physical	0.129	.399	Not Significant
Job Classification	Cognitive	-0.460	.001	Significant
	Workplace	-0.685	.000	Significant
	Physical	-0.561	.000	Significant

The relationship between the respondents' demographic profiles and their current ergonomic fitness practices revealed that age exhibited very weak negative correlations with cognitive, workplace and physical, all of which were not statistically significant. This suggests that the age of the respondents does not meaningfully influence their engagement in any of the measured ergonomic fitness practices. Similarly, sex demonstrated very weak positive correlations which were also not significant. This indicates that biological sex does not appear to be a determining factor in the respondents' participation in ergonomic fitness routines. Conversely, job classification showed a more notable relationship with the participants' ergonomic fitness practices. Moderate to strong negative correlations were observed between job classification and ergonomic fitness practices, all of which were statistically significant. With this, it implies that job responsibilities suggesting that workload and job responsibilities have impacts on active participation. Moreover, ergonomic fitness practice awareness is present and valued regardless of age and sex but job demands creates more factor on engagement.

CONCLUSIONS

The non-teaching personnel manage their cognitive workload well, pointing both to high personal commitment and to supportive organizational practices that promote cognitive ergonomic fitness. This proactive distribution of mental tasks seems to lower or avoid overload, reduce stress, and maintain performance in demanding educational settings. Similarly, the integration of mindfulness activities is found to develop cognitive clarity, reduction in fatigue, and overall productivity, reflecting an emergent holistic wellbeing culture for individuals and organizations alike. Integration of break and other physical activities into daily routines remains inconsistent, pointing to potential threats against mental and physical health. Existing workload and institutional culture may increase their support to ergonomic practices that will help people maintain long-term resilience and productivity. More emphasis should be directed, in future interventions, toward promoting and facilitating regular rest periods and physical movement so as not to fall into the processes of cognitive weariness and decline brought about by stress, hence improving the wellbeing and the effectiveness of the organization. Age and sex have a minimal impact on the response variable of ergonomic fitness habits, while job classification is a strong determinant of participation. This shows how workload and responsibilities shape engagement in the ergonomic fitness practices, with high awareness across demographics of how job demands often outweigh personal factors in sustaining the practice of ergonomic health.

RECOMMENDATIONS

Sharper Mind: A Better Cognitive Ergonomics

Offer regular training sessions on practical workload management according to job demands. Introduce smart, upgraded digital tools and workflow systems that support clear organization of tasks. Encourage recognition and praise from leaders for best practices in taking care of one's mental health including peer support networks regardless of age, sex and job positions. Regular monitoring can head off overload before it builds into stress. Further, mindfulness programs, health screenings and nutrition counselling will enhance the mental resilience needed to meet everyday task challenges. Combine these interventions with ergonomic education to bring about full-circle cognitive wellness.

Culture of Care at Work

Breaks for mental rest as productivity power-ups should be part of culture of care at work regardless of age, sex, and job classifications. Ergonomic fitness practices advocacy helps employees balance workload with mental and physical wellbeing supported by structured ergonomic risks evaluation. Open conversations ensure that everyone cares for cognitive and physical health with no stigma while keeping support and connection.

Ergonomic Fitness Culture in the Workplace

The education of ergonomic fitness culture may allow for regular breaks, especially with physical activities that could improve brainpower and help promote ergonomics. Redesign daily schedules to incorporate necessary micro-breaks while allowing and providing time for staff to step away to reset. Make healthy behaviors easy by ensuring access to the ergonomic resources such as guidelines about stretching or specific break zones. Create an environment that supports movement and rest throughout the workday and normalizes it without compromising age, sex and job designs. Revisit workload and break practices regularly and make sure healthy habits stick and change with the needs of the employees.

ACKNOWLEDGEMENT

The authors would like to extend gratitude to the private schools and their non-teaching employees who participated in this research study along with mentors, colleagues, and family members for their support. Without their appreciation and willingness, this study would never have been completed within time period.

REFERENCES

1. Abdollahi, T., et. al., (2020). Effect of an Ergonomics Educational Program on Musculoskeletal Disorders in Nursing Staff Working in the Operating Room: A Quasi-Randomized Controlled Clinical Trial. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7578944/>
2. Abdul Latip, S. N. N., Abdul Latip, M. S., & Daniels, G. (2025). Work Ergonomics and Employee Task Performance in the Hospitality and Tourism Industry: The Moderating Role of Gender, Length of Service, and Employment Status. *Journal of Quality Assurance in Hospitality & Tourism*, 1–27. <https://doi.org/10.1080/1528008X.2025.2460057>
3. Aziz Ali, N and Sreedharan, J. (2024). Ergonomic awareness and practices to prevent musculoskeletal disorder among healthcare workers in UAE: A cross-sectional study. *Journal of Bodywork and Movement Therapies*, Volume 40, October 2024, Pages 1973-1978. <https://www.sciencedirect.com/journal/journal-of-bodywork-and-movementtherapies>
4. Barrieau, K. Ergonomics Assessment in the Philippines. <https://us.anteagroup.com/projects/ergonomics-assessmentphilippines#56656>
5. Bazaluk, O., et. al. (2023). Ergonomic risk management process for safety and health at work. <https://doi.org/10.3389/fpubh.2023.1253141>
6. Boonsem, A., et. al. (2022). Relationship between the factors affecting exercise behavior and physical fitness among university students. <https://www.scielo.br/j/jpe/a/WZRVRLldvDqcpSP8jLj7qyg/?format=pdf&lang=en>

7. Centers for Disease Control and Prevention (2019). Physical activity facts. <https://www.cdc.gov/healthyschools/physicalactivity/facts.ht>
8. Chen, S., et. al. (2023). Analysis of National physical activity and sedentary behavior policies in China. <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-023-15865-8>
9. Davies, K., et. al., (2023). A participatory ergonomics intervention to re-design work and improve the musculoskeletal health of paramedics: protocol for a cluster randomised controlled trial. doi:10.1186/s12891-023-06834-8
10. Duffy, V. G., & Shaw, W. S. (2019). Engagement and ergonomics: a review of the literature. *Work*, 63(2), 227-238
11. Edwards, C. et. al. (2022). *Ergonomics*. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK580551/>
12. El-Sherbeeney, A. et. al. (2023). How Is Job Performance Affected by Ergonomics in the Tourism and Hospitality Industry? Mediating Roles of Work Engagement and Talent Retention. <https://doi.org/10.3390/su152014947>
13. Hosseini, et. al. (2023). Predictive factors of ergonomic behaviors based on social cognitive theory among women workers on assembly lines: application of Bayesian networks. <https://bmcmusculoskeletdisord.biomedcentral.com/articles/10.1186/s12891-023-07021-5>
14. International Ergonomics and Human Factors Association (2024). Human Factors and Ergonomics Society of The Philippines (HFESP). <https://iea.cc/member/human-factors-and-ergonomics-society-of-the-philippines-hfesp/>
15. Jasmine M, Fasna L, Chellaiyan VG, Raja VP, Ravivarman G. A study on knowledge and practice of Ergonomics among the Software Engineers in a private firm, Chennai, Tamil Nadu. *J Family Med Prim Care*. 2020 Aug 25;9(8):42874291. doi: 10.4103/jfmpe.jfmpe_848_20. PMID: 33110847; PMCID: PMC7586624.
16. Kgakge, K.; Chelule, P. K.; Ginindza, T. G. Ergonomics and Occupational Health: Knowledge, Attitudes and Practices of Nurses in a Tertiary Hospital in Botswana. *Healthcare; Basel* Vol. 13, Iss. 1, (2025): 83. DOI:10.3390/healthcare13010083
17. Kraemer, K. et. al., (2020). Musculoskeletal pain and ergonomic risks in teachers of a federal institution. Retrieved from doi:10.47626/1679-4435-2020-608
18. Mairaj, S. M. ., Hasnain, S. M. ., Hasan, A. ., Khan, L. M. ., Batool, S. ., Fatima, A. ., Ilyas, J. ., & Khan, W. A. . (2024). Enhancing Employee Retention through Ergonomic Practices: Examining the Moderating Effect of Work-Life Balance. *Bulletin of Business and Economics (BBE)*, 13(3), 84-91. <https://doi.org/10.61506/01.00447>
19. McNamara TK, Pitt-Catsoupes M. Current and Emerging Trends in Aging and Work. Springer Nature Switzerland; 2020. The stickiness of quality work: Exploring relationships between the quality of employment and the intent to turnover; pp. 375–395.
20. Middlesworth, M. (2024). The Value of Ergonomics — How Ergonomics Shapes Safety Culture. <https://ergoplus.com/ergonomics-improves-safety-culture/>
21. Monera, S. et. al., (2024). Examining the Impact of Ergonomic Practices on Physical Work Performance of Medical Workers in Public Hospitals Within Metro Manila: A Qualitative Study on Medical Personnel's Perspectives. <https://dx.doi.org/10.47772/IJRISS.2024.803112S>
22. Nygaard, N. et. al. (2022). Ergonomic and individual risk factors for musculoskeletal pain in the ageing workforce. <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-022-14386-0>
23. Occupational Safety and Health Administration (OSHA) of United States (2024). *Ergonomics*. <https://www.osha.gov/ergonomics/identify-problems>
24. Popova MS, Nikolova SP, Filkova SI. Demographic and Occupational Determinants of Work-Related Musculoskeletal Disorders: A Cross-Sectional Study. *J Funct Morphol Kinesiol*. 2025 Apr 20;10(2):137. doi: 10.3390/jfmk10020137. PMID: 40566433; PMCID: PMC12015905.
25. Rhen, I. (2023). Ergonomics risk assessment methods for creating healthy work environments. Universitetsservice US-AB, Sweden 2023, ISBN: 978-91-8040-590-4. TRITA-CBH-FOU-2023:22
26. Santos, J.V. (2024). Evaluating Human Factors and Ergonomics: A Comprehensive Ergonomic Safety Assessment Model. <https://sanad.iau.ir/Journal/jiei/OpenAccess>
27. Santos W, Rojas C, Isidoro R, Lorente A, Dias A, Mariscal G, Benlloch M, Lorente R. Efficacy of Ergonomic Interventions on Work-Related Musculoskeletal Pain: A Systematic Review and Meta-

-
- Analysis. *J Clin Med*. 2025 Apr 28;14(9):3034. doi: 10.3390/jcm14093034. PMID: 40364066; PMCID: PMC12073017.
28. Sarker, S., & Khan, M. (2020). Ergonomics and its impact on productivity and employee health. *Journal of Advanced Management Science*, 8(1), 1-5.
29. Tersa-Miralles, C., et. al., (2022). Effectiveness of workplace exercise interventions in the treatment of musculoskeletal disorders in office workers: a systematic review. *BMJ Open*. 2022 Jan 31;12(1):e054288. doi: 10.1136/bmjopen2021-054288
30. United States, Department of Labor (2024). Prevention of Musculoskeletal Disorders in the Workplace. <https://www.osha.gov/ergonomics>
31. Wulzerbacher, S., et. al. (2020). The effectiveness of ergonomic interventions in material handling operations. *Appl Ergon*. 2020 May 8;87:103139. doi: 10.1016/j.apergo.2020.103139