

Perspectives of Office Workers on Physical Activity and Interventions to Increase Physical Activity: A Case Study

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ABSTRACT

Purpose: This study aimed to explore office workers' perceptions of physical activity and workplace interventions designed to increase physical activity levels, and to identify motivating factors influencing their participation.

Methods: This qualitative research was conducted within an interpretive paradigm using a holistic single case study design. The sample consisted of seven voluntary participants (four academic and three administrative staff) employed at a foundation university in Antalya, Türkiye. Data were collected through semi-structured interviews, observation, and document analysis. Data were analyzed using thematic and content analysis with NVivo 10 software. Credibility was ensured through data triangulation and member checking. Ethical approval was obtained from the Akdeniz University Clinical Research Ethics Committee (25.01.2024; TBAEK-54).

Results: Four main themes emerged regarding physical activity preferences. Walking was the most preferred activity (57.1%). Weight gain and health-related concerns were identified as the primary motivational factors (42.9%). Most participants (71.4%) expressed a preference for workplace environments that facilitate walking. More than half of the participants (57.1%) considered themselves physically inactive.

Conclusion: Workplace-based physical activity interventions may support office workers in improving health behaviors. Sustainable and feasible programs tailored to employees' needs and supported by organizational policies may enhance participation in physical activity.

Trial Registration: Not applicable.

Keywords: Motor Activity; Workplace; Occupational Groups; Sedentary Behavior; Health Promotion; Motivation.

ÖZET

Amaç: Bu çalışma, ofis çalışanlarının fiziksel aktiviteye ve işyerinde fiziksel aktiviteyi artırmaya yönelik müdahalelere ilişkin görüşlerini incelemek ve katılımlarını etkileyen motivasyonel faktörleri belirlemek amacıyla yapılmıştır.

Yöntem: Araştırma, yorumlayıcı paradigma çerçevesinde bütüncül tek durum desenine dayalı nitel bir çalışma olarak yürütülmüştür. Örneklem, Antalya'daki bir vakıf üniversitesinde çalışan dört akademik ve üç idari personel olmak üzere yedi gönüllü katılımcıdan oluşmuştur. Veriler yapılandırılmış görüşmeler, gözlem ve doküman analizi yoluyla toplanmıştır. Veriler NVivo 10 programı kullanılarak tematik ve içerik analizi ile değerlendirilmiştir. Çalışma için Akdeniz Üniversitesi Klinik Araştırmalar Etik Kurulu'ndan onay alınmıştır (25.01.2024; TBAEK-54).

Bulgular: Fiziksel aktivite tercihlerine ilişkin dört tema belirlenmiştir. En sık tercih edilen aktivite yürüyüş olmuştur (%57,1). Kilo artışı ve sağlık sorunları en önemli motivasyon kaynakları olarak ifade edilmiştir (%42,9). Katılımcıların çoğu (%71,4) işyerinde yürüyüşe olanak sağlayan düzenlemeler istemiştir. Katılımcıların %57,1'i kendilerini fiziksel olarak inaktif olarak değerlendirmiştir.

Sonuç: İşyeri temelli fiziksel aktivite müdahaleleri ofis çalışanlarının sağlıklı davranışlarını destekleyebilir. Çalışanların gereksinimlerine uygun, sürdürülebilir ve uygulanabilir programların geliştirilmesi önerilmektedir.

Anahtar Kelimeler: Fiziksel Aktivite; İşyeri; Meslek Grupları; Hareketsiz Davranış; Sağlık Geliştirme; Motivasyon

Physical inactivity refers to not meeting the recommended levels of physical activity required for health benefits. It is a major global public health concern and one of the leading modifiable risk factors for non-communicable diseases. Working conditions, particularly desk-based occupations, significantly contribute to sedentary behavior. Office workers spend approximately 73% of their working hours and 66% of their waking time sitting (1). Physical inactivity refers to not meeting the recommended levels of physical activity required for health benefits (2).

According to the 2020 guidelines of the World Health Organization, adults should engage in at least 150–300 minutes of moderate-intensity aerobic physical activity, or 75–150 minutes of vigorous-intensity activity, or an equivalent combination per week (3). Despite these recommendations, a substantial proportion of adults worldwide fail to achieve sufficient physical activity levels (2). Inadequate physical activity is recognized as the fourth leading risk factor for global mortality, accounting for approximately 3.2 million deaths annually (4). It is strongly associated with cardiovascular diseases, stroke, type 2 diabetes, certain cancers, and obesity (5–8).

Globally, nearly one-third of adults are insufficiently active, and in Türkiye, approximately 43.6% of adults do not meet recommended physical activity levels (9,10). Given that desk-based workers exhibit high levels of sedentary behavior, workplace-based interventions have increasingly been proposed to reduce sitting time and promote movement (11). However, many intervention studies lack long-term follow-up and comprehensive evaluation of behavioral determinants. Moreover, there is limited qualitative research exploring desk-based workers' own perspectives on physical activity and the factors influencing their participation.

Understanding employees' beliefs, motivations, and perceived barriers is essential for designing feasible and sustainable workplace interventions. Therefore, this study aimed to explore the perceptions of desk-based workers regarding physical activity and to identify motivational factors and potential workplace strategies to increase physical activity participation.

Material and Methods

Study Design

This study was conducted within the interpretive paradigm using a qualitative research design. A nested holistic single case study design was employed to explore desk-based workers' perspectives on physical activity and the factors motivating them to engage in physical activity (Figure 1).

Study Setting and Participants

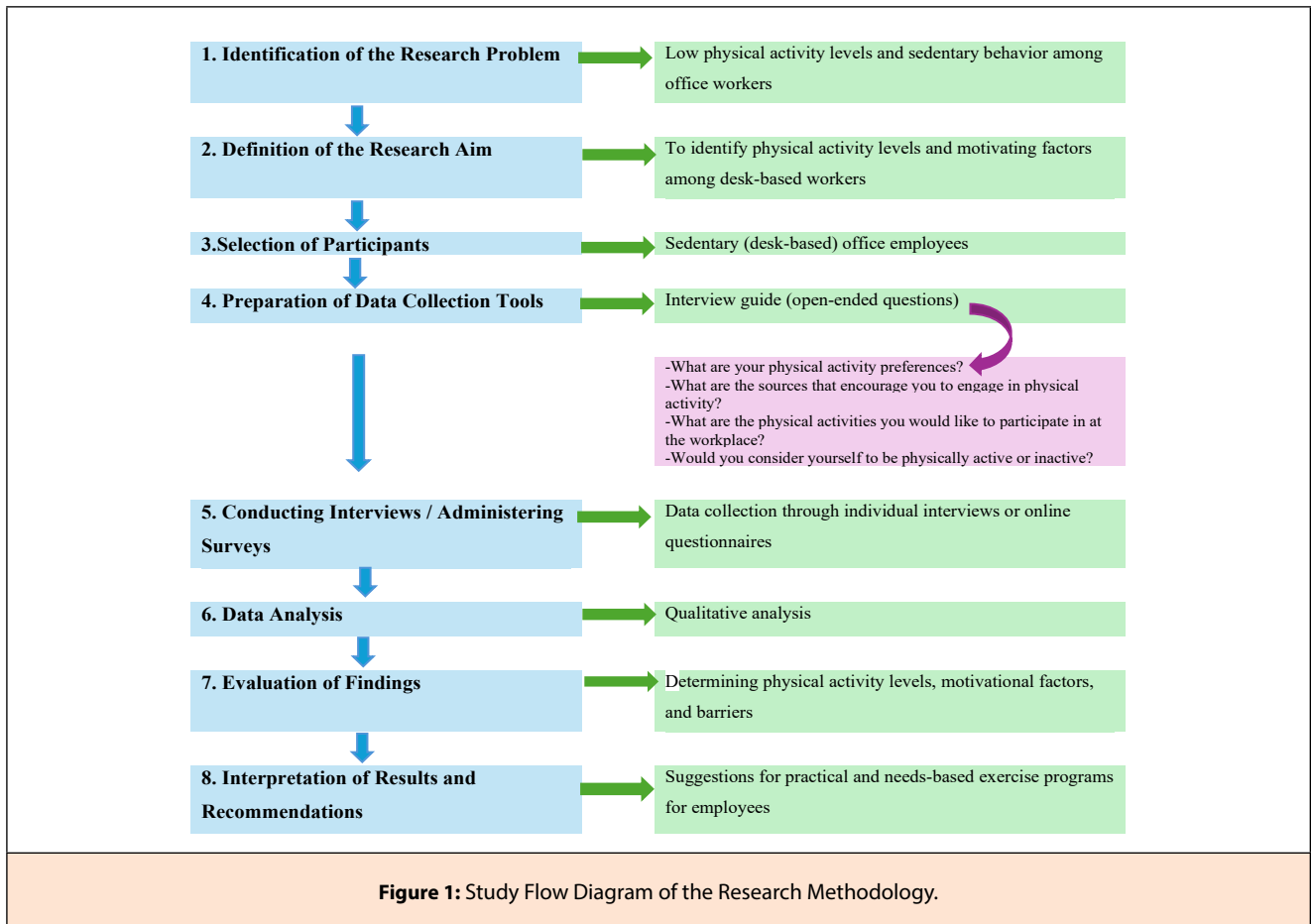
The study was conducted with academic and administrative staff working at a foundation university in Antalya during the fall semester of the 2023–2024 academic year. Purposive sampling was used. Seven voluntary participants were included in the study, consisting of four academic and three administrative staff members. Four participants were female and three were male. Participants' ages ranged from 34 to 58 years, with a mean age of 44.3 years. All participants were employed in predominantly desk-based positions. To ensure confidentiality, participants were coded as A, B, C, D, E, F, and G.

Data Saturation

Data collection continued until data saturation was achieved. Saturation was considered to be reached when no new codes, categories, or themes emerged from the interviews. After the seventh interview, repetitive patterns were observed and no additional conceptual insights were identified.

Inclusion / Exclusion Criteria

Inclusion criteria were: (1) being employed as academic or administrative staff, (2) working in a predominantly desk-based position, and (3) volunteering to participate. Employees on leave during the data collection period or those with medical conditions preventing physical activity were excluded.



Data Collection

Data were collected through semi-structured individual interviews, observation, and document analysis. The interview form was developed based on the relevant literature. Content validity was evaluated by subject matter experts, and necessary revisions were made. A pilot application was conducted before the main data collection process. Interviews were conducted face-to-face and audio-recorded with participants' consent. Each interview lasted approximately 30–45 minutes. Interviews were conducted face-to-face in a private office within the workplace, at pre-scheduled times convenient for the participants. The setting ensured privacy, minimized interruptions, and allowed participants to speak freely.

Data Analysis

Data were analyzed within the case study framework using a combination of descriptive, content, and thematic analysis techniques. Initially, descriptive analysis was conducted to summarize participants' statements. Subsequently, content analysis was performed to

identify meaningful units and generate initial codes. Finally, thematic analysis was applied to organize codes into categories and develop overarching themes. Audio recordings were transcribed verbatim. The researchers read the transcripts multiple times to ensure familiarity with the data. Initial open coding was performed independently by two researchers. Codes were compared, discussed, and refined through consensus. NVivo 10 software was used to organize and manage the data. Analytical notes were taken during the coding and theme development process to enhance rigor and transparency. The final themes were structured around physical activity preferences, motivational sources, workplace physical activity preferences, and self-assessment of physical activity status.

Trustworthiness

To enhance credibility, multiple data collection methods (interview, observation, and document analysis) were used. Participant confirmation was obtained. For dependability, an independent researcher coded the data. Inter-rater reliability was assessed using Cohen's Kappa coefficient,

yielding full agreement ($\kappa = 1.00$). Transferability was supported through purposive sampling and detailed description of the research context. Confirmability was ensured through external review of the coding and analysis process.

Research Team and Reflexivity

The primary researcher (SE), who conducted this study as a preliminary phase for her PhD dissertation, has also conducted a bibliometric analysis and a meta-analysis on related topics, which are currently under publication. She is a PhD candidate in Public Health Nursing with experience in qualitative research and an interest in health promotion. The second author (SG) is a professor of Public Health Nursing, and the third author (İG) is a professor specializing in qualitative research methodology. The researchers were aware of potential biases related to their professional backgrounds and maintained reflexive notes throughout the research process.

Ethical Considerations

Ethical approval was obtained from the Akdeniz University Clinical Research Ethics Committee (25.01.2024; TBAEK-54). Written informed consent was obtained from all participants. Confidentiality was ensured by anonymizing the data and securely storing all research materials.

Reporting Guideline

This study was reported in accordance with the Consolidated Criteria for Reporting Qualitative Research (COREQ).

Results

A total of seven participants were included in the study, consisting of four academic staff members and three administrative staff members. Findings are presented under four main categories: physical activity preferences, motivational sources, preferred workplace physical activities, and self-assessment of physical activity status.

Physical Activity Preferences

Participants' physical activity preferences are presented in Table 1. Walking was the most frequently preferred physical activity (57.1%). This was followed by yoga and pilates (42.9%), team sports such as football and volleyball (28.6%), and running (14.3%).

"Walking is the easiest activity for me because I sit most of the day." (Participant D)

"I prefer walking because it is simple and does not require special preparation." (Participant E)

Table 1. Frequency and percentage distribution of participants' physical activity preferences

Physical Activity Preferences	A	B	C	D	E	F	G	f	%
1 : Walking	✓		✓	✓	✓			4	57,1
2 : Yoga, pilates, fitness		✓	✓	✓				3	42,9
3 : Football, volleyball, basketball, etc.						✓	✓	2	28,6
4 : Running							✓	1	14,3

Table 2. Frequency and percentage distribution of the sources encouraging participants to do physical activity

Resources to encourage physical activity	A	B	C	D	E	F	G	f	%
1 : Weight gain and other health problems			✓	✓	✓			3	42,9
2 : Group of friends						✓	✓	2	28,6
3 : Having fun, relaxing		✓						1	14,3
4 : Psychological state, sources of motivation							✓	1	14,3
5 : Body stimuli (back pain, redness in the eyes, etc.)	✓							1	14,3

Sources Encouraging Physical Activity

The sources that encouraged participants to engage in physical activity are shown in Table 2. Weight gain and other health-related problems were the most frequently reported motivating factors (42.9%). Other reported sources included group of friends (28.6%), having fun and relaxation (14.3%), psychological state and motivational sources (14.3%), and body-related stimuli such as back pain and eye redness (14.3%).

“When I gain weight or feel back pain, I realize that I need to move more.” (Participant C)

“Doing activities with friends motivates me more than doing them alone.” (Participant G)

Preferred Physical Activities in the Workplace Environment

Participants' preferences regarding workplace physical activities are presented in Table 3. The majority of participants (71.4%) indicated that they would like to participate in walking activities in the workplace environment. Stretching exercises such as neck and arm movements were reported by 28.6% of participants.

Other preferred activities included tennis (14.3%) and team sports such as volleyball and football (14.3%). One participant (14.3%) stated that ergonomic tools such as monitor risers should be provided instead of physical activity. One participant (14.3%) reported not being in favor of activities in the workplace environment.

“Walking during lunch breaks would be the most feasible activity at work.” (Participant A)

Self-Assessment of Physical Activity Status

Participants' self-assessment of their physical activity status is presented in Table 4. More than half of the participants (57.1%) defined themselves as physically inactive. Two participants (28.6%) stated that they were physically active because they participated in sporting activities outside of work. One participant (14.3%) reported being physically active due to performing stretching exercises at the desk.

“I spend most of my day sitting, so I consider myself physically inactive.” (Participant E)

Table 3. Frequency and percentage distribution of participants regarding the physical activities they would like to participate in the workplace environment

Physical activities they would like to participate in the workplace environment	A	B	C	D	E	F	G	f	%
1 : Having a walk	✓	✓	✓		✓		✓	5	71,4
2 : Stretching exercises (neck, arm, etc.)	✓			✓				2	28,6
3 : Ergonomic tools (monitor riser etc.)	✓							1	14,3
4 : Tennis						✓		1	14,3
5 : Volleyball, football							✓	1	14,3
6 : I am not in favor of activities at work						✓		1	14,3

Table 4. Frequency and percentage distribution of participants' self-assessment of themselves as physically active or inactive individuals

Participants' self-assessment in terms of physical activity	A	B	C	D	E	F	G	f	%
1 : I am physically inactive		✓	✓	✓	✓			4	57,1
2 : I am physically active because I can participate in sporting activities outside of work						✓	✓	2	28,6
3 : I am physically active, because I do desk stretching exercises	✓							1	14,3

Content Analysis by Position

Content analysis results according to staff position are presented in Table 5. Differences were observed between academic and administrative staff regarding

physical activity preferences, motivating factors, workplace activity preferences, and self-assessment of activity status. The distribution of responses is detailed in Table 5.

Table 5. Content Analysis Results

I. Physical Activity Preferences by Position		
Physical Activity Preferences	Administrative Staff (Qualitative percentage)	Academic Staff (Qualitative percentage)
1 : Taking walks	1 (29.63%)	3 (70.37%)
2 : Yoga and Pilates	1 (42.11%)	4 (57.89%)
3 : Running	1 (100%)	0 (0%)
4 : Football, volleyball, basketball, etc.	2 (100%)	0 (0%)
II. Resources to promote physical activity by task		
Resources to promote physical activity		
1 : Body stimuli (back pain, redness of the eyes, etc.)	0 (0%)	1 (100%)
2 : Psychological state, sources of motivation	1 (100%)	0 (0%)
3 : Weight gain and other health problems	1 (8.33%)	2 (91.67%)
4 : Having fun, relaxing	0 (0%)	1 (100%)
5 : Group of friends	2 (100%)	0 (0%)
III. The preferred physical activity in the workplace environment according to the task		
The preferred physical activity		
1 : Having a walk	1 (1.74%)	4 (98.26%)
2 : Volleyball, football	1 (100%)	0 (0%)
3 : Tennis	1 (100%)	0 (0%)
4 : I am not in favor of activities at work	1 (100%)	0 (0%)
5 : Stretching exercises (neck, arm, etc.)	1 (32.26%)	1 (67.74%)
6 : Ergonomic tools (monitor riser etc.)	0 (0%)	1 (100%)
IV. Staff's views on their own activity status		
Activity status		
1 : I am physically inactive	1 (28.43%)	3 (71.57%)
2 : I am physically active because I can participate in sporting activities outside of work	2 (100%)	0 (0%)
3 : I am physically active, because I do desk stretching exercises	0 (0%)	1 (100%)

Discussion

This study aimed to gain insight into desk-based workers' perspectives on physical activity, including their beliefs and values, and the factors motivating them to engage in physical activity. According to the findings, participants most frequently preferred walking, followed by yoga, pilates, fitness activities, volleyball, football, and running. When the literature is examined, it is seen that the most commonly reported physical activities include walking, hiking, dancing, jogging, running, cycling, swimming, bodybuilding, and fitness sessions, which is consistent with the findings of the present study (19–21). When asked about the factors that encouraged them to engage in physical activity, participants reported that weight gain, health problems such as back and neck pain, friendship, psychological state, and having fun were important triggers. Similar findings have been reported in previous studies, indicating that peer environment serves as a source of motivation in the workplace and that health problems such as obesity and back pain encourage participation in physical activity (22,23). Regarding physical activities that university staff would like to participate in within the workplace environment, walking was the most preferred activity, followed by stretching exercises (neck, arm, etc.) and team activities such as volleyball and tennis. Differences between academic and administrative staff may reflect variations in workload structure, job flexibility, and age distribution. Administrative staff appeared to prefer more competitive and team-based activities, whereas academic staff favored moderate-intensity and individual activities such as walking and yoga. In addition, one participant stated that ergonomically appropriate equipment should be provided in the workplace, while another participant indicated that they were not in favor of physical activity in the workplace environment. Previous studies conducted with similar populations have reported that office workers engage in activities such as walking, standing relaxation exercises, stretching exercises, hip- and knee-dominant exercises, and breathing exercises during working hours (24–26).

In the present study, 57.1% of participants defined themselves as physically inactive. In a similar study, it was reported that 63% of university employees were inactive and 17% were active (23). Another study found that musculoskeletal disorders were common among office workers and that their physical activity levels were

low (27). This study is considered to contribute to the determination of programs aimed at increasing physical activity levels among office workers. The findings provide guidance regarding the types of physical activities that can be included in future intervention programs, their frequency, and possible implementation areas. The suitability of the workplace environment and managerial support during planning and implementation stages are important factors for the applicability and sustainability of such programs.

Conclusion

This study showed that desk-based office workers generally have low levels of physical activity and spend most of their working day in sedentary conditions. Walking, stretching exercises, and team activities were identified as the most preferred forms of physical activity in the workplace environment. Health-related concerns such as weight gain and musculoskeletal discomfort, as well as peer support and psychological factors, were identified as motivating factors for participation in physical activity. On the other hand, barriers such as workload and individual preferences were also reflected in participants' responses. These findings indicate the importance of developing short, easily applicable, and sustainable workplace-based physical activity programs tailored to employees' needs. Such programs may contribute to promoting physical activity and improving overall health among office workers. Workplace-based interventions should include structured short walking breaks, designated walking routes, brief stretching sessions integrated into working hours, and peer-supported group activities. Organizational support and managerial encouragement are essential for sustainability. Programs should be tailored to the needs of desk-based employees.

Declarations

Funding

The researchers received no funding for this study.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Ethics Approval

Ethical approval was obtained from the Akdeniz University Clinical Trials Ethics Committee (25.01.2024; TBAEK-54), Antalya, Türkiye. All procedures were conducted in accordance with the Declaration of Helsinki and relevant regulations.

Limitations

This study has several limitations. The small sample size and single-institution setting may limit the generalizability of the findings. Physical activity levels were self-reported and not objectively measured. Additionally, the cross-sectional design does not allow evaluation of long-term behavioral change. Despite these limitations, the findings provide valuable insights into desk-based workers' physical activity preferences and motivations, which can inform future workplace interventions and research.

Consent to Participate

Written informed consent was obtained from all participants after explaining the purpose of the study, their roles, potential risks and benefits, and their right to voluntary participation. Participants' anonymity was ensured by removing identifying information. All data were securely stored on a password-protected computer, and printed materials were kept in a locked cabinet accessible only to the research team.

Consent for Publication

Informed consent for publication was obtained from all individual participants included in the study.

Availability of Data and Materials

The data generated and analyzed during this study are available from the corresponding author upon reasonable request.

Authors' Contributions

SE designed the study, conducted data collection, and drafted the manuscript.

SG supervised the research process and critically revised the manuscript.

İG contributed to the methodological framework and data analysis.

All authors read and approved the final manuscript.

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