BMC Public Health

RESEARCH

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Exploring experiences and perceptions of early withdrawal from a height-adjustable sit-to-stand desk intervention among South African office workers

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Abstract

Background The increasing sedentary behaviour and burden of non-communicable diseases among office workers raise significant concerns. Height-adjustable sit-to-stand desks offer a potential solution, yet uptake remains challenging, limiting their effectiveness and long-term adoption. The experiences of office workers who withdrew from a height-adjustable sit-to-stand desk intervention need to be explored to inform program refinement.

Methods A qualitative approach was used, with pre-identified themes guiding data collection, while subthemes emerged inductively from transcripts and field notes. Twelve participants with a mean age of 46.0 years were conveniently sampled. These office workers withdrew from a height-adjustable standing desk randomised controlled trial and did not form any part of other studies. One-on-one semi-structured interviews guided data collection about the participants' experiences and reasons for early withdrawal from the intervention. Data were thematically analysed using Atlas.ti 23.

Results Most participants were female ($n = 10$, 83.3%). All participants completed high school, while 41.7% completed a postgraduate degree from a university and credit bureau company. Despite the participants' understanding of the benefits of height-adjustable sit-to-stand workstations, most of the participants discontinued the intervention due to perceived barriers that aligned with the themes: "discomforts and dislikes", "applicability and practicality", "people's perception—i.e., what other people will say" and "transitioning to electronic sit-to-stand desks".

Conclusions The findings of this study may assist in formulating a policy to improve compliance with height-adjustable sit-to-stand workstations in the workplace. Future studies should consider individual preferences, design, functionality, knowledge, and motivation to ensure effective implementation, utilisation, and compliance with height-adjustable sit-to-stand workstations.

Keywords Withdrawal, Health benefits, Height-adjustable sit-to-stand desk, Office-based workers, Workplace, Sedentary behaviour

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Introduction

Prolonged sedentary behaviour is of particular concern for office-based workers who spend at least 8 h in seated activities with minimal movement [1]. Technological advancements in office-based workspaces have contributed to the increase in sedentary behaviour, impacting the burden of noncommunicable diseases in the workplace [2]. To reduce sedentary behaviour in the office, two types of height-adjustable sit-to-stand workstations are frequently used: an entire desk unit that can be adjusted manually or electronically or a modular desktop unit that is fixed to an existing desk and typically adjusted manually [3, 4]. Chau and colleagues found that introducing sit-stand workstations effectively reduced sitting time by up to 73 min per day and increased standing time by up to 65 min per day among Australian office workers [3].

Other systematic studies have shown that sedentary behaviour intervention studies effectively reduce occupational sitting time in office workers. Previous studies suggest that multi-component strategies are more effective in reducing sedentary behaviour. So, interventions should have components that target the individual worker and organisational factors like occupational health and safety policies. Still, it should be noted that the results of these studies are inconsistent [5–8]. Similarly, Renaud and colleagues reported that multi-component intervention focussing on environmental, organisational and individual components promised to reduce sedentary behaviour and showed minor effects in Dutch office workers [4]. Contrary to their results, multi-component interventions conducted in a cohort of Swedish office workers were not effective in increasing physical activity and reducing sedentary behaviour [9]. Existing qualitative research, on the other hand, has shown that workers are more inclined to implement height-adjustable sit-to-stand desks as a result of the perceived health benefits and work improvements associated with their use [10–13]. The use of sit-stand desks during vocational hours while at work may be considered a more feasible alternative for office workers than workplace interventions that may require engaging in out-of-office physical activities.

The provision of a sit-stand desk is not necessarily only being used to break up sitting time in the work environment but presents opportunities and challenges for promoting behavioural change [14]. Thus, as with other longitudinal interventions which require a behaviour change, long-term adherence is not guaranteed. A recent 12-month randomised control trial (RCT) exploring the effectiveness of a height-adjustable desk intervention on physical behaviours, health outcomes, and performance revealed a dropout rate of 12.3% at three months ($n = 93$) and 22.2% ($n = 168$) after 12 months [1]. Despite the high drop-out rates observed in sedentary behaviour interventions using sit-to-stand desks in office workers, there is a lack of evidence examining the reasons for participant drop-out in these interventions [3, 5, 15]. Thus, there was a need to research and explore the reasons for drop-out, particularly given the interest in developing sustainable workplace interventions. Our pilot study identified several barriers and facilitators to using height-adjustable sit-stand desks [12]. Barriers included discomfort from prolonged standing, desk design, and the high cost of the desks. On the other hand, most participants appreciated the flexibility of being able to alternate between sitting and standing and preferred desks that could be ergonomically customised to their individual needs. Similar findings have been reported in other studies, where workplace interventions like sit-to-stand desks often face barriers such as ergonomics issues, discomfort, or lack of long-term adherence [16]. These barriers hinder the adoption of such interventions which may depend on individual preferences, habits, and the broader work environment, despite the potential benefits.

This work formed part of a more extensive study aimed to address the evidence gap for low- and middle-income countries (LMICs), including South Africa, since majority of research on these interventions has been in completed in high-income countries (HICs), The 'Ukumela Impilo randomised trial', sought to understand the effectiveness of height-adjustable sit-to-stand workstations on reducing sedentary behaviour and improving health outcomes among South African office workers [17]. The research, as outlined in the 'Standing Up Against Office Sitting' study protocol, employed a randomised controlled design, with participants assigned to either an intervention group using sit-to-stand desks or a control group. The primary focus was to evaluate the feasibility and effectiveness of the intervention in reducing sedentary behaviour and improving cardiometabolic risk factors, such as blood pressure, cholesterol, and body mass index (BMI). The preliminary findings indicated that while the intervention reduced sedentary time by approximately 18 min per day, this modest reduction did not translate into significant improvements in health outcomes like BMI, blood pressure, or cholesterol [18]. These results suggest that sit-to-stand desks alone may not substantially enhance health without additional strategies to support sustainable, long-term behavioural changes that could improve adherence and intervention effectiveness. Therefore, the present study aimed to explore the perceptions and experiences of participants who withdrew early from a height-adjustable sit-to-stand desk workplace intervention.

Methods

Study design

This qualitative study employed a deductive approach, using semi-structured interviews to explore why participants withdrew from the height-adjustable sit-to-stand

desk intervention. The study adheres to the guidelines for transparent reporting of the Consolidated Criteria for Reporting Qualitative Research (COREQ) (Supplementary material 1).

Participants and recruitment

This study forms part of the 'Ukumela Impilo randomised control trial [17], which provided participants in an intervention group with a height-adjustable sit-to-stand workstation (JUMBO DeskStand™, South Africa), size 81 cm (31.9 inches) x 51 cm (20.1 inches) x 2 cm (0.8 inches) (Supplementary material 2). The current research focuses on participants who voluntarily withdrew from the intervention between weeks 4 and 10 of the 12-month study. Using contact information obtained at baseline, 18 participants were conveniently invited to participate in this follow-up qualitative study [18]. The participants were informed of the study's purpose via telephone, email, WhatsApp, or SMS, depending on the established preferred mode of communication. A final sample of n = 12 office-based workers with a mean age of 46.0 years, who were not involved in prior qualitative studies in this project, was included. These participants had withdrawn from the randomised controlled trial and were not involved in prior qualitative studies in this project. This work addresses a gap by focusing on unique insights into their reasons for withdrawing and their experiences with the sit-to-stand desk intervention, which has not been explored in prior studies. Figure 1 shows the flow diagram of drop out from the study with the recruitment of 12 participants to be included in the qualitative study.

Data collection

The data were collected from January to March 2023. Semi-structured interviews lasting an average of 20 min (10–41 min) were conducted in English. The interview guide, which included demographic data such as age, sex, and highest level of education, was developed based on the literature and observation (Supplementary material 3). The experts in the field of sedentary behaviour and the study supervisor (SOO and PJG) then reviewed the interview guide. All eligible participants were interviewed by MP using Microsoft Teams (version 11; Microsoft Way, United States) or in person at the participants' workplace [19]. Interview discussions were recorded using Microsoft Teams and Phillips (DVT4010 Voice Tracer, Vienna, Austria). During the in-depth interviews, participants were encouraged to think about facilitators of and barriers to participating in the height-adjustable sit-to-stand desk intervention in their place of employment. The audio recordings were transcribed, and all transcripts were checked against the recordings to verify accuracy and credibility. Credibility was further affirmed by the researcher's (MP) experiences with a height-adjustable sit-to-stand desk, the knowledge of participants, and the set-up of their workstations. Lastly, coding and themes were confirmed and verified by researchers (SOO and PJG) experienced in qualitative research.

Data analysis

The transcripts were analysed via thematic analysis. Two researchers (MP and PJG) read all the transcripts independently and generated codes and themes from the data; these were further discussed until a consensus was reached. An expert in qualitative data analysis verified and validated the analysis. The deductive approach was based on pre-identified themes centred around the research question, whereas the subthemes emerged from inductive analysis of the themes derived from the transcripts and field notes. Atlas.ti 23 Scientific Software Development GmbH (Berlin, Germany) was used to manage and analyse the data [20]. Descriptive statistics were used to analyse the demographic data of the participants.

Ethical considerations

The Human Research Ethics Committee at the University of the Witwatersrand (ethics certificate number M190224) provided ethical clearance and written institutional approval from the University of the Witwatersrand, and the credit bureau company sought prior engagements with the participants. The Helsinki Declaration ethics guidelines of 1975, which were examined in 2013 for human research, were also followed. Before data collection, each participant signed the informed consent form and was granted permission by the researcher to audio-record the interviews. Participants were asked to engage with the researcher actively and were promised that their responses would be anonymised in the dissemination of results.

Results

Twelve office-based workers participated in this study. Most of these participants were female ($n = 10$, 83.3%), with a mean age of 46.0 ± 6.5 years. All participants completed high school, while 41.7% had postgraduate degrees, as shown in Table 1.

Themes emerging from the current study

Through an in-depth exploration of the participants' personal experiences, our analysis identified two major themes (perceived health benefits and perceived barriers). and eight subthemes. The subthemes, "motivations", "perceived benefits of using a standing desk", and "experiences of using a standing desk" for the theme perceived health benefits are presented in Table 2. For the theme perceived barriers the subthemes " withdrawal reasons ", "discomfort associated with using the workstation", "

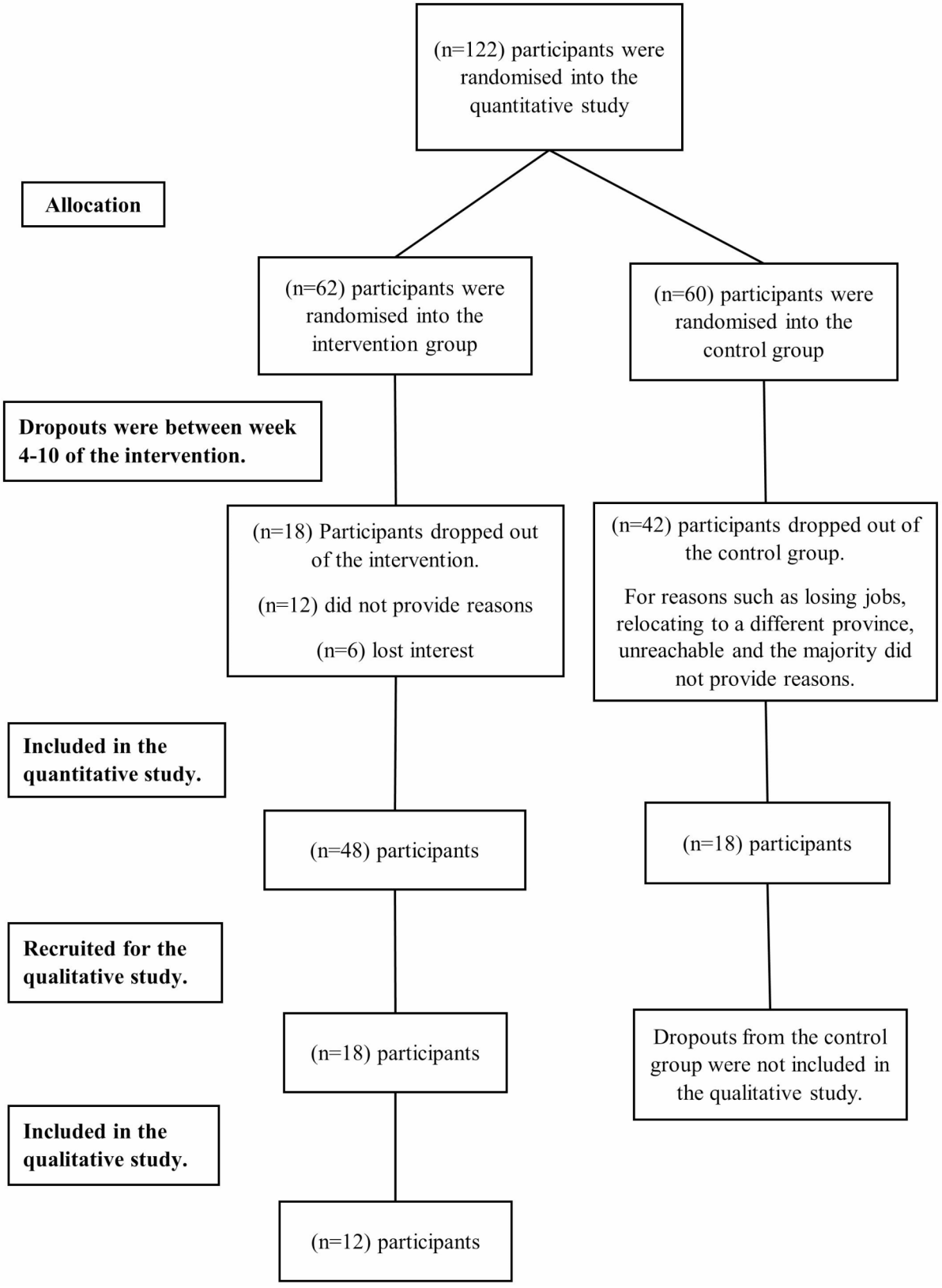

Fig. 1 Flow of participants through the quantitative and qualitative studies

Table 1 Description of study participants

Variables	Mean ± SD or *N* (%)
Age (years)	46.0 ± 6.5
Female	10 (83.3)
Male	2 (16.7)
Educational status	
Completed matric	2 (16.7)
College diploma	2 (16.7)
University Degree	2 (16.7)
Post-graduate qualification	6 (50)
Monthly salary categories	
Prefer not to answer	5 (41.7)
1100–1649 USD	2 (16.6)
≥ 1650 USD	5 (41.7)

* United States dollar (USD) equivalent for South African Rand value, Mean and Standard Deviation (±), Number (N), percentage (%) and greater than (>)

usability and practicality of the workstation ", " support and people's perceptions, i.e., what others would say, " and "adoption of electronic sit-to-stand desks", are presented in Table 3.

Perceived health benefits

Motivation for using a standing desk

Before joining the study, most participants were initially sceptical about using the height-adjustable sit-to-stand workstation. However, some indicated they were excited to break up periods of prolonged seating at work by using a height-adjustable space to stand the workstation. Others cited an interest in the research and a desire to live an active lifestyle. Despite varying perspectives before participating, all participants were motivated to use the desk initially and participate in the study.

Perceived benefits of using a standing desk

Participants highlighted that standing was a better alternative to sitting and a form of accumulating light physical activity which participants associated with improved circulation, strengthened muscles, increased physical fitness, and decreased illness risk. Most participants reported that incorporating height-adjustable sit-to-stand standing desks into their working environments improved their ergonomics and posture, resulting in less discomfort in the back, neck, and shoulder.

Experiences of using a standing desk

All study participants found standing and working to be positive experiences, even though adjusting the table to the correct height initially was challenging. Interviews revolved around the impact of using height-adjustable sit-stand workstations on overall health since that was the main reason for enrolling in the study. Despite standing and working being novel experiences for most participants, they found that standing enabled them to concentrate more intensely and improved their work productivity. In addition, participants said that working while standing made their tasks more fascinating and less repetitive.

Perceived barriers and challenges associated with using a standing desk

Withdrawal reasons

The most significant key reason most participants discontinued the study was the size of the height-adjustable sit-to-stand desk, which was cumbersome and unattractive. In addition, they could not perform certain activities while standing, including taking notes while

Table 2 Subthemes for perceived health benefits with illustrative quotes

Sub-themes	Definition of sub-themes	Illustrative quotes
Motivation for using a standing desk	Understanding the motivation for using a standing desk involves examining the factors driving individuals to participate in the current research. These reasons can encompass personal motivations, such as seeking knowledge or wanting to contribute to others, alongside external influences like incentives or social pressures.	"Yes I was sceptical, I wasn't sure how it was going to work because part of it is that the desk has got two levels, so there was the normal level at which I was working at but you could put the computer up on the middle level and it would allow you to continue sitting or you could put it right up at the top where you would stand, so that in itself was an encouraging way to you know, accept there's a reminder because now it's in your face and yeah, accept that it's a reminder and even the way that I had to set up my office, it had to change because there was a standard desk now, so I made sure that for me to be able to maximise on the benefits of the standing desk, I had to set up my computer higher, I had to put up my phone higher so that I would be forced even to stretch and to work whilst standing. Therefore, with time, I stopped being sceptical and embraced the benefits of the standing desk, which was quite nice." (Participant 5, female, aged 43 years)
Perceived benefits of using a standing desk	The theme "Perceived benefits of using a standing desk" highlights the anticipated range from physical health improvements to increased productivity and mental well-being.	"I liked that it reminded me that I needed to stand and work, which I thought is beneficial, you know, long term, and it kind of relieves body pain and things, I think, very similar to my other answers." (Participant 4, female, aged 42 years)
Experiences of using a standing desk	The theme "Height-adjustable sit-to-stand desk experience" encompasses the user perspectives concerning overall impressions using such desks.	"Interesting. Yeah, no, I think it was a good experience; there was nothing wrong with that. I think it's just that you must find a comfortable height when you set up. Therefore, sometimes you know it wasn't at a comfortable height in the beginning. Therefore, you just had to find that comfortable height where it was on so that you can work quite well on it." (Participant 3, male, aged 49 years)

Table 3 Subthemes for perceived barriers and challenges of using the standing desk with illustrative quotes

Sub-themes	Definition of sub-themes	Illustrative quotes
Withdrawal reasons	The theme " Withdrawal reasons " encompasses the diverse obstacles and reasons that lead individuals to discontinue participation in a research project.	"If so, in the beginning, what I was trying to adjust between standing and sitting, it is a little bit cumbersome trying to go from being back in a sitting position going up to standing. Therefore, it's just a little bit finicky getting it back into those positions." (Participant 2, female, aged 52 years)
Discomfort associated with using the workstation	The theme " Discomforts of using the workstation " involves identifying and exploring the specific physical or psychological discomforts and negative aspects that individuals experienced during the intervention.	"By the end of the experiment, it was like a mistake on my part, but still, I wasn't truly comfortable using it, not the word comfortable, but I tried to comply with it, like standing up and working, but I was happy when I thought it was over because I didn't think it would have been something for me, so that's where I was at with that stand." (Participant 4, female, aged 42 years)
Usability and practicality of the workstation	The theme " Usability and practicality of the workstation " pertains to assessing the suitability and feasibility of height-adjustable sit-to-stand workstations in practical settings.	"I tend not to put it in the standing position often. I think it's more just because, for a lot of my work, I tend to use the keyboard, even during meetings. Even though I talk quite a lot during meetings, I am typing and taking a lot more notes, if that makes sense. Therefore, sitting during meetings is a lot more prevalent, so having that eye level raised from my laptop has helped. I don't have a lot more; I have a lot less up and neck and shoulder discomfort. So that's helped. However, as I say, I tend not to use the standing position at all." (Participant 6, female, aged 45 years) "Therefore, so I think that you can adjust the levels. I mean it took me a little while to get, to get the levels to be right for my height. Interesting. I got wedge heels today, so I must see if they make a difference, but I think that this one is height-adjustable and that I can fit extra screens on it. From a negative perspective, if the top shelf were slightly thinner because the laptop moved to the second, the lower shelf, the gap would be too narrow to work properly, and both screens would need to be standing. Therefore, then the tilt of the laptop screen is a problem, but I've got the smaller laptop here today, so I'm going to see if that fits better on the lower level to fit underneath the upper screen." (Participant 1, Female, aged 51 years)
Support and people's perceptions, i.e., what others would say	The theme "Support and perception" centres around the reactions and responses of participants' colleagues, families, friends, and researchers to their usage of the workstation.	"They would see me as a weird person, they used to laugh, why don't you sit down, I'm like no, this is a very nice experience because they've never experienced it." (Participant 7, Female, aged 32 years)
Adoption of electronic sit-to-stand desks	The theme "Adoption of electronic sit-to-stand desks" involves participants expressing their willingness to join future studies if there's a shift from manually adjusted height-adjustable desks to electronic ones, despite dropping out of the current study.	"Ja [Yes]. No, so I mean, I think it's the automated desk. In addition, I think finding the right balance to have the multiple screens would also make it easier– that I'm not having to plug something in and unplug something– that it's all plugged in and works." (Participant 1, Female, aged 51 years)

reading, typing, and using an Excel spreadsheet. Two participants who were laid off, still resulting in their withdrawal from the intervention, still commented favourably on the standing desk's features, particularly its wooden construction.

Discomfort associated with using the workstation

Due to the rigidity of the workstation, participants experienced several challenges, which led to an unpleasant experience. These issues included discomfort while standing, working, slouching, shoulder pain, and exhaustion. The discussion highlighted that prolonged standing was uncomfortable and that intermittent, smaller bouts of standing were a better alternative. One of the participants mentioned that although standing and working might present some challenges, she chose to wear comfortable shoes to motivate her to stand more often and for longer periods.

Usability and practicality of the workstation

While most participants thought that the workplace was an appropriate context for introducing modalities to promote reduced sitting, others thought that the context was not appropriate. Participants indicated that standing while working could become a habit with increased awareness of the benefits. Participants preferred to alternate between standing and sitting positions throughout the day, while some stood more in the morning or after lunch. While some participants thought it was impractical to stand and work, others found it productive to complete certain tasks, such as working on Excel spreadsheets, capturing, typing, answering calls, and attending meetings. Some participants had more than one screen, making it challenging for them to manually switch between sitting and standing throughout the day; they found it exhausting and difficult to accommodate their technical needs.

Support and People's perceptions, i.e., what others would say

The participants expressed gratitude for bringing attention to the significance of reducing sedentary behaviours and cultivating health practices in the workplace. The interviews highlighted the outstanding support received from family members, managers, and coworkers for using the height-adjustable sit-to-stand desk. They were also sceptical about what people would say about them working while standing. Only one participant stated that her manager was not supportive of this aspect.

Adoption of electronic sit-to-stand desks

Participants indicated a desire to continue interrupting prolonged occupational sitting time if given an aesthetically designed tiny electronic height-adjustable workstation instead of the manual height-adjustable sit-to-stand desk employed in the current study. In addition, three participants stated that they enjoyed reducing sitting time and planned to purchase electronic height-adjustable desks within their budgets.

Discussion

This study sheds light on challenges associated with implementing height-adjustable sit-to-stand desk interventions in a South African workplace. Given the limitations of our research, this novel study explored the perceptions and experiences of a group of participants who withdrew early from the intervention, which supported the researchers in identifying critical areas for improvement. Notably, some participants withdrew due to losing their jobs, highlighting the limited job market and unemployment challenges in South Africa. The findings suggest that human factors, workplace culture, and habit formation as well as management of behaviour change are key policy and program development targets which impacted the adherence to the height-adjustable sit-to-stand desk intervention. Our analysis revealed two primary themes: perceived health benefits and experiences and barriers and challenges associated with using the standing desk, along with their respective subthemes, which offer a comprehensive understanding of the participants' experience and reasons for withdrawal from the study. There was general acceptance of the workstation by participants, which was consistent with a systematic review of 22 qualitative studies exploring barriers and facilitators to reducing workplace sitting time [21]. In agreement with previous studies, our participants found that although working while standing was a new experience, it was feasible within this cohort and, for some, led to improvements in their work productivity, allowing them to immerse themselves in their work tasks [22]. This suggests that height-adjustable sit-to-stand desks are an effective strategy for interrupting prolonged sitting time for some office-based workers. Similarly to previous studies office based workers' motive to participate in strategies to interrupt occupational sitting time was based on perceived health benefits such as reducing musculoskeletal pain, improving ergonomic posture, and incorporating bouts of light physical activity to improve the overall health [21, 23, 24]. This did support the existing relationship observed in the motivation to participate and increased use and compliance in workplace strategies to address sedentary behaviour in workers [8]. Interestingly, the participants in this cohort all withdrew early from the height-adjustable sit-to-stand desk intervention, despite being motivated to participate initially.

The novel finding of this study is that the motivation to continue with the intervention was hindered by the large and poor design of the height-adjustable sit-to-stand workstation. There were divergent opinions about the size of the height-adjustable sit-to-stand desk, with most participants perceiving it as too large and only a few reporting it was an ideal size. This included concerns about the desk's bulkiness, rigidity, ability to occupy excessive space on the supporting desk, and difficulty configuring multiple screens when alternating between sitting and standing positions. A previous study showed that participants stopped using a height-adjustable sit-to-stand desk due to a perceived lack of functionality, although there is a paucity of data on the links between size, aesthetics and usability of workstations [16]. The importance of involving participants in selecting a functionally appropriate workplace intervention for sustained usage and long-term adherence emerged from the data, since participants expressed their willingness to continue with the intervention or a similar strategy if provided with an electronic height-adjustable desk [25]. These findings suggest that the height-adjustable sit-to-stand desk sourced for this study may not be appropriate for everyone and in every organisation. An electronic height-adjustable desk with a smaller footprint that naturally blends with the workspace arrangement is more likely to increase compliance and effective utilisation and potentially contribute to successful implementation. However, there is a need to assess the long-term usage, compliance, and retention of height-adjustable sit-to-stand workstations before investing in expensive electronic units.

Consistent with earlier research, participants in this study reported that standing while working was tiresome and uncomfortable [26]. This finding suggested that employees avoid using the height-adjustable sit-to-stand desk to prevent discomfort and musculoskeletal aches associated with its use. Our study also highlights varying perspectives regarding the suitability of the workplace as a context for standing and working and whether the workplace is appropriate for standing and working; However, very few participants deemed it inappropriate to stand and while working although some were affected by

the perceptions of others that it was out of place in a work setting. The findings are in line with previous studies [16, 21] suggest that human factors, workplace culture, and habit formation as well as management of change in behaviour are key policy and program development targets which impacted the adherence to the height-adjustable sit-to-stand desk intervention. Therefore, it is important to consider individuals' existing workstations and preferences, potential discomfort, fatigue, job requirements, and productivity when implementing height-adjustable sit-to-stand workstation interventions in the workplace. However, it is not worth providing a height-adjustable sit-to-stand workstation alone, as it is unlikely to lead to long-term behaviour change.

Limitations

This study has three limitations. First, the majority of the participants were female, with only two males, which may limit the generalisability of the findings to other office workers. Second, most of the interviews were conducted online, which hindered the observation of nonverbal cues such as facial expressions and body language. Lastly, all participants were 40 years and above, a factor that may influence experiences related to vision, acute lower back pain and other age-related conditions, i.e., such as sarcopenia and fatigue. Due to the highlighted limitations, the findings of this study should be interpreted with caution and not be generalisable.

Conclusions

The findings of this study highlight barriers to the effective implementation of, including human factors, workplace norms, and the need for behavioural change and habit formation. These barriers, such as discomfort using the workstation, usability concerns, and the influence of social perceptions, present significant challenges for workplace adoption of height-adjustable sit-to-stand workstations. To address these issues, policies and programs should focus on improving ergonomic design to accommodate the needs of users, fostering a supportive workplace culture, and incorporating strategies for behaviour change, such as motivational interviewing and tailored support. Future research should investigate how individual preferences, design, functionality, knowledge, and motivation influence successful adoption, ensuring effective and sustainable interventions, particularly in resource-constrained environments.

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12889-025-22415-x.

Supplementary Material 1

Supplementary Material 2

Supplementary Material 3

Acknowledgements
We want to thank Dr Josephine Chau and Dr Denise Franzsen for their editorial input.

Author contributions
MP and PJG conceived the study design, and analysed and interpreted the data. MP drafted the manuscript. SOO and PJG provided interpretive and editorial input. All the authors read, edited and approved the last version of the article.

Funding
The research reported in this publication was supported by the South African National Research Fund (NRF). MP is supported by the NRF Thuthuka post PhD grant (.
Grant number: TTK23030380785), and PJG was funded by the NRF (Grant number: CPRR23030380650). Any opinion, finding conclusion or recommendation expressed in this material is that of the author(s), and the NRF does not accept any liability in this regard.

Data availability
The data collected from the study participants were sensitive and personal. Consequently, the collected data is not accessible to the general public. Data is available upon request to Merling Phaswana (Merling.phaswana@wits.ac.za).

Declarations

Ethics approval and consent to participate
The Human Research Ethics Committee at the University of the Witwatersrand approved this study (ethics certificate number- M190224). All participants provided written informed consent for the interviews and audio recordings.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

Received: 9 March 2024 / Accepted: 20 March 2025
Published online: 31 March 2025

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