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Behavior in Flexible Work Environments A Mixed Methods Study

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Feasibility of Using Mobile Standing Desks to Address Sedentary Behavior in Flexible Work Environments

A Mixed Methods Study

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Objective: The purpose of this study was to determine the feasibility of using mobile standing desks to address work-related sedentary behavior for adults working in flexible positions. **Methods:** University employees ($N = 20$) in flexible positions used a mobile standing desk for 8 weeks and completed one focus group. Paired t tests were used to determine differences in workplace behavior. Focus group transcripts were analyzed using thematic analysis. **Results:** Work-related sitting decreased ($P = 0.010$, -45.88 minutes) and standing increased ($P = 0.016$, $+41.28$ minutes). Advantages included mobility, enhanced attention to tasks, and ease of use. Disadvantages included the device's design, built environment barriers, and impact of work/life circumstances. **Conclusions:** The mobile standing desk resulted in a decrease in sitting consistent with traditional standing desk-based interventions. Future interventions should consider including goal setting, reminders, feedback, and incentives.

Keywords: workplace, sedentary behavior, standing desk, flexible work, remote work

LEARNING OUTCOMES

- Determine the feasibility of using a mobile standing desk to address workplace sedentary behavior in employees working in flexible positions.
- Explain the advantages and disadvantages of using a mobile standing desk to address workplace sedentary behavior in employees working in flexible positions.
- Describe potential modifications and adaptations for future workplace interventions using mobile standing desks to address workplace sedentary behavior in employees working in flexible positions.

Sedentary behavior is a significant public and occupational health concern.¹⁻³ Sedentary behavior refers to any waking behavior that does not require a large amount of energy expenditure (ie, ≤ 1.5 metabolic equivalents [METs]), including sitting, lying, or reclining.^{1,4} Increased sedentary behavior is associated with multiple health risks, including cardiovascular disease, musculoskeletal disorders, and premature mortality.^{5,6} In addition, recent epidemiological evidence has shown that the health risks associated with sedentary behavior may be exacerbated for

adults with high levels of sedentary behavior and low levels of physical activity.^{7,8} The importance of sedentary behavior as a health-related concern is reflected in the updated 2018 Physical Activity Guidelines for Americans, which emphasize not only the importance of meeting the physical activity guidelines but also recommend that adults aim to “move more and sit less” throughout the day.⁹

The workplace is an important and influential setting to address sedentary behavior, where workers in desk-based occupations may spend up to 79% of the workday sitting.^{10,11} Data also show that adults who spend majority of their workday sitting experience lower productivity, increased fatigue, and decreased job satisfaction.¹² Workplace interventions have demonstrated efficacy in reducing sedentary behavior, predominantly through ergonomic adaptations to the workplace environment using standing desks (eg, height-adjustable desks, sit-stand desks).¹³⁻¹⁵ Previous workplace interventions using standing desks have demonstrated reductions in work-related sedentary behavior ranging from 30 minutes to 2 hours per 8-hour workday, with an average reduction of 40 minutes per 8-hour workday.^{13,15}

Before the COVID-19 pandemic, 24% of the US workforce reported completing some work at home.¹⁶ However, during the initial COVID-19 lockdowns in Spring 2020, 71% of US workers with jobs that could be conducted at home reported working at home all or most of the time, and these trends have persisted after lockdown.¹⁷ In January 2022, 59% of US workers who reported that their job could predominantly be done from home remained working from home all or most of the time, and interestingly, 57% of these employees rarely or never worked from home before the COVID-19 pandemic.¹⁷ Emerging research from data collected during the COVID-19 pandemic found that increased home-based workdays were associated with increased work-related sitting time and decreased work-related physical activity.^{18,19} Research has also shown that the observed decreases in work-related activity are associated with the work-from-home change during the COVID-19 pandemic.²⁰

Workplace sedentary behavior interventions have traditionally been implemented in the physical workplace; however, recent workforce trends toward increased home-based and flexible (ie, work completed at home and in the workplace) working options warrant the need for contemporary strategies in workplace health promotion interventions.¹⁷ A potential intervention strategy to address these changes is to provide employees with a mobile standing desk, which allows for modification of the ergonomic environment both at work and home.²¹ Mobile standing desks are small, portable devices that function in a similar manner to a traditional standing desk. However, unlike traditional standing desks, mobile standing desks are easily stored when not in use and are transportable between work locations.

To date, little research has explored the feasibility or effectiveness of using mobile standing desks to address sedentary behavior, particularly in adults working in flexible or remote positions. A recent study by Rudecki and colleagues²¹ explored the feasibility of using a low-cost, portable standing desk to address sedentary behavior among employees working from home. Qualitative findings from this study showed an overall positive interest in using standing desks in the home-based setting, with acceptability reported in the short and long term, where almost half of participants continued using the standing

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desk 6 months post-intervention.²¹ Participants in the study suggested that in future interventions researchers consider using devices that are portable and easier to store between uses.²¹ There was also no objective measures of changes in behavior before and after implementation, but significant reductions in self-reported mean sitting time on weekdays were observed.²¹ Another recent study assessed the feasibility of using mobile standing desks with undergraduate college students, where the researchers found significant changes in sitting time after using the mobile standing desk, further supporting the potential utility of a mobile standing desk device in the home setting.²²

To date, little research has explored the use of mobile standing desks in the workplace, particularly among employees working in flexible work positions. Therefore, the purpose of this feasibility study was to use a mixed methods approach to determine the acceptability, effectiveness, and practicality of using mobile standing desks to address sedentary behavior in flexible working conditions. Feasibility studies are typically conducted with small sample sizes and use mixed methodologies, which help yield important and innovate insight from participants.²³ Findings from the present study may help provide evidence regarding the suitability of this approach in designing workplace health programs for employees working in partially or fully home-based positions. In addition, the findings from this study can be used to inform the development of future, larger-scale interventions to address sedentary behavior in flexible and remote work environments.

METHODS

Design

This study was a single arm pre-post feasibility trial. Data were collected using a sequential, explanatory mixed methods design²⁴ to determine the feasibility of using mobile standing desks to address work-related sedentary behavior among adults working in flexible work conditions. The first phase of the study included use of a mobile standing desk for 8 weeks. The second qualitative phase incorporated focus groups to determine the acceptability, effectiveness, and practicality of the mobile standing desk. The study protocol was approved by The University of Alabama's Institutional Review Board (Protocol 21-01-4286). All participants provided written informed consent before study participation.

Sample

Participants included employees at a large, public university in the southeastern United States. Participants were eligible to participate if they (1) were at least 18 years or older, (2) working in a flexible position (ie, time spent working both in the workplace and at home), (3) were not currently using a standing desk, (4) used a laptop for some or all work tasks, and (5) were employed in a sedentary occupation (ie, a job that requires sitting ≥ 4 hours/workday). Participants were recruited from August to September 2021 through emails sent to employee organizations at the university (eg, faculty and staff governance and organizations, employee wellness organization on-campus), advertisements at on-campus events for faculty and staff, and word of mouth through snowball sampling via enrolled participants. Interested participants were instructed to contact the primary investigator for eligibility screening and enrollment. After eligibility screening, participants were scheduled for their baseline study visit and assessment.

Data Collection Procedures

Quantitative Phase

Participants began the quantitative phase of the study with baseline data collection. The initial meeting (week 1) included a meeting with the PI and a member of the research team to review the study information, provide written informed consent, complete the sociodemographic questionnaire, and receive the activity monitor for baseline data collection. Each participant received an activPAL3 activity monitor

(PAL Technologies Ltd, Glasgow, United Kingdom) to measure work-related behavior before and after implementation of the mobile standing desk. Participants were asked to complete an activity log while wearing the monitor to provide contextual information to interpret the activity data (ie, work location, work hours, nonwear time). During the initial study visit, participants were provided instructions on how to remove and reattach the monitor and three extra dressings to reattach the device.

After baseline data collection (week 2), participants met the PI to return the activPAL3 and activity log. Participants received the mobile standing desk during this visit. The mobile standing desk selected for this study is intended to be used on top of any existing workspace, accommodates a 15-inch laptop, included a carry case, and is transportable between work and home. Participants were briefed on how to set up the mobile standing desk and were encouraged to use the mobile standing desk as much as they were comfortable throughout the next 8 weeks (weeks 2–9). During the last week using the mobile standing desk (week 9), participants met the PI to receive the activPAL3 monitor for posttest assessment using the same measurement procedures in the pretest assessment. Participants were offered a \$15 gift card as compensation for completing the quantitative phase.

Qualitative Phase

After the quantitative phase, participants were invited to participate in one of five focus group sessions with three to five study participants. Each focus group lasted approximately 1 hour. Two focus groups were conducted in-person, and the remaining three were conducted over Zoom video conferencing platform due to the status of the COVID-19 pandemic during data collection. The aim of the focus group session was to gather in-depth information about the participants' experiences using the mobile standing desk. The PI facilitated each focus group session using a semistructured guide with open-ended questions. This process allowed for consistency among the focus group sessions and minimized the potential for facilitator bias. All focus group sessions were audio recorded for data analysis purposes. Participants were offered a \$10 gift card as compensation for their participation in the focus group.

MEASURES

Sociodemographic Questionnaire

Participants completed a paper-and-pencil sociodemographic questionnaire at the initial study visit (week 1) that contained closed and open-ended items to assess demographic and work-related variables. Items assessed age, race and ethnicity, gender, education level, job classification, length of employment, time spent working at home and in the workplace, height, and weight. Height and weight were self-reported by participants at baseline to determine body mass index (BMI).

Workplace Activity

The activPAL3 was used to assess activity outcomes (ie, sitting, standing, stepping time). The activPAL3 monitor is small, unobtrusive, and collects accelerometer derived triaxial activity data and classifies the data into time spent sitting, lying, standing, and stepping based on thigh position. Activity data were collected using the device's default settings.²⁵ The monitor was waterproofed with a finger cot and affixed to the right anterior thigh with a waterproof film dressing. Participants were required to wear the monitor 24 h/d for seven consecutive days during each assessment period (ie, baseline and posttest). Participants were instructed to only remove the device if it would be submerged in water (ie, swimming) and were instructed to reapply the device as soon as possible and note when the device was removed and reapplied in the activity log. Participants completed a daily paper-and-pencil activity log while wearing the monitor to document contextual information

for data analysis, including monitor nonwear time (>10 minutes), daily work location (work, home), and work start and end times.

Semistructured Interview Guide

Focus group data were collected using a semistructured guide that contained open-ended questions to capture the acceptability, practicality, and demand for using mobile standing desks at work and home. The focus group guide contained seven primary questions and optional probing questions for each primary question. Examples of primary questions in the guide include, “Tell me about the positive experiences you had using the mobile standing desk” and “Tell me about the disappointments or negative experiences you had using the mobile standing desk.”

Data Analysis

Quantitative data were analyzed using SPSS Version 28 (IBM Corp, 2022). Descriptive statistics were calculated to describe the sample and study variables, including frequencies for categorical variables and mean (standard deviation) for continuous variables. Activity data were considered valid if the activPAL3 was worn at least 80% of the workday. Using the activPAL3 event files and the activity log, work-related activity data were extracted to determine sitting, standing, and stepping time during work hours. All activity outcomes were reported in minutes per 8-hour workday to account for participant variations in work time and to compare with previous research.^{26,27} Mean changes in sitting, standing, and stepping were explored using paired *t* tests (baseline to posttest), including effect size (Cohen *d*) and mean change calculations. Statistical significance was set a priori at *P* < 0.05.

Focus group recordings were transcribed verbatim and uploaded into NVivo (QSR International, 2018, Version 12) for data management. All transcripts were checked for accuracy prior to data analysis. Data analysis was conducted using a thematic analysis approach, including creation of a codebook.²⁸ The codebook was created by the research team after all focus groups were completed and transcribed and contained seven conceptual codes to guide the analysis, including “Advantages of Standing Desk,” “Disadvantages of Standing Desk,” and “Recommendations for Improvement.” Two members of the research team (A.H.W. and N.T.M.) coded the transcripts. Initial coder agreement was 94%. Any discrepancies were resolved by consultation

with another research team member (C.R.E.). After coding, themes were established based on the information in the coded transcripts, codebook criteria, and the study aims. Qualitative trustworthiness was ensured through confirmability by conducting independent data analysis with multiple investigators and dependability by thoroughly documenting all study methods, analyses, and procedures.²⁹

RESULTS

Initially, 33 participants expressed interest in the study (Fig. 1). After screening, nine participants did not meet the inclusion criteria, and 24 participants qualified and agreed to participate in the study. Of the 24 participants, 20 completed all study procedures (ie, 8-week mobile standing desk trial, one focus group session). One participant failed to return the activity log, which prevented the research team from determining work-related activity variables for quantitative analyses.

Participants (Table 1) were predominantly university staff (N = 15, 75%), female (n = 12, 60%), and White (n = 13, 65%). Majority of participants (n = 16, 80%) had a graduate degree (ie, master’s, doctorate, professional degree). The mean age was 39.35 years (SD, 9.33 years). At baseline, mean BMI was 30.15 (SD, 8.34), with half (n = 10, 50%) classified as overweight (BMI from 25 to <30). The mean tenure in the current position was 4.72 years (SD, 4.90 years). At baseline, the average proportion of time participants spent working at their workplace was 3.33 days (SD, 1.26 days) during the 7-day assessment period.

Quantitative Outcomes

Medium effects were found for work-related sitting and standing time after using the mobile standing desk, with no significant difference in stepping time (Table 2). Work-related sitting time significantly decreased (*t*(18) = 2.89; *P* = 0.010; -45.88 minutes/8-hour workday; *d* = 0.66), where mean work-related sitting time was 374.4 minutes/8-hour workday at baseline and 328.94 minutes/8-hour workday at posttest. Work-related standing time significantly increased (*t*(18) = -2.65; *P* = 0.016; +41.28 minutes/8-hour workday; *d* = 0.61), where mean work-related standing time was 101.28 minutes/8-hour workday at baseline and 142.94 minutes/8-hour workday at posttest.

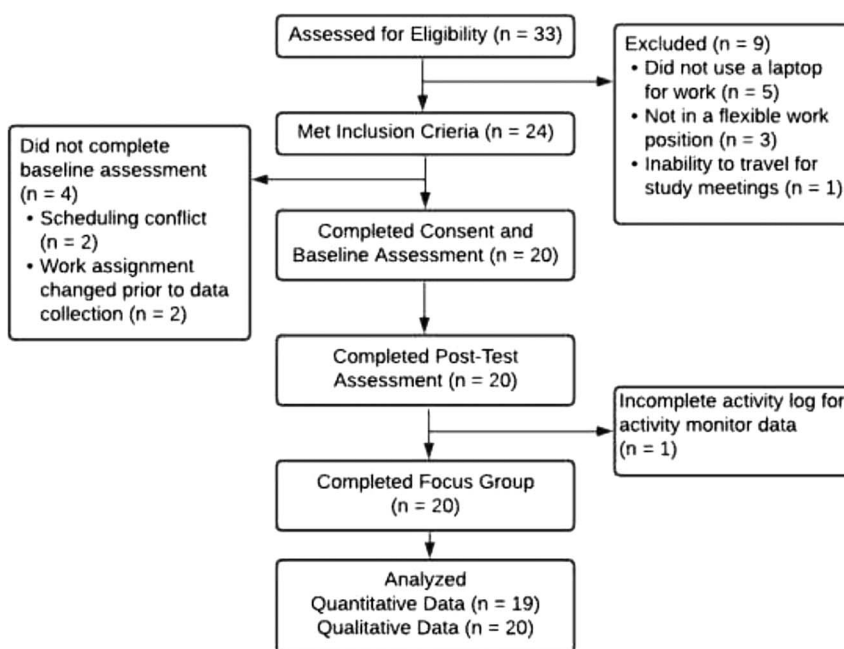


FIGURE 1. Participant flow through the mixed methods feasibility trial.

TABLE 1. Demographic Characteristics of the Feasibility Study Participants

Demographic Characteristic	M (SD)	n (%)
Age	39.35 (9.33)	—
Tenure in current position, y	4.72 (4.90)	—
Body mass index	30.15 (8.34)	
Normal weight (BMI 18.5–24.9)		6 (30)
Overweight (BMI 25.0–29.9)		10 (50)
Obese (BMI ≥ 30)		4 (20)
Employment classification	—	
Staff		15 (75)
Faculty		5 (25)
Gender identity	—	
Female		12 (60)
Male		8 (40)
Racial identity	—	
White		13 (65)
Black or African American		3 (15)
Other		4 (20)
Education level	—	
Bachelor's degree		4 (20)
Master's degree		9 (45)
PhD, MD, or other professional degree		7 (35)

Qualitative Findings

All participants (N = 20) that completed baseline and posttest data collection during the intervention participated in a focus group to discuss the advantages and disadvantages of the mobile standing desk and provided recommendations for future intervention development (Table 3). Advantages of the mobile standing desk included (1) portability, (2) ease of use, and (3) enhanced attention to tasks. Participants described the device as easy to carry from work to home and vice versa, including that the device was easy to store in both locations. This was viewed as an advantage, particularly for those participants who wanted to use the mobile standing desk at work and home. Participants described the device as easy to use and set up. Aside from mechanical issues, a few participants reported little difficulty with the device. Overall, participants found the mobile standing desk to be most beneficial for tasks that required minimal materials (ie, videoconferencing, data entry, email, proofreading) due to the smaller surface area when compared with traditional standing desks. Participants also found that the device helped with productivity and focus during the workday, especially when completing monotonous or repetitive work tasks. In these descriptions, participants explained how the mobile standing desk helped them focus on their work tasks, which helped them feel more productive during the workday.

Disadvantages of the mobile standing desk included (1) design of the device, (2) built environment barriers, and (3) impacts of work and life situation on use. Participants explained that the design of the device impacted the ability to use the device for all work tasks. For example, because of the smaller surface area of the mobile standing desk, the device was only compatible with a laptop computer, which limited

the surface area available for documents, monitors, and/or an external mouse. In addition, because of the small design, participants described that sometimes the device did not feel stable, particularly when typing for prolonged periods. A few participants also described mechanical issues (ie, inability to raise/lower the device) they experienced throughout the intervention, which impacted the ability to use the device until the mechanical issue was resolved. Although participants primarily attributed the disadvantages of the device to the size and design, participants also described that changing these features (ie, making the mobile standing desk larger or more stable) would impact the mobility of the device and potentially detract from the initial intention of the device's portability between work locations.

Participants also described inherent limitations of using the device due to their work and life situations as well as the built environment at home and in the workplace. Some participants found that they used the mobile standing desk more in one work location than the other, which was mostly due to the type of tasks they performed in each location. Other participants found that the built environment in the home and workplace impacted their use of the mobile standing desk. Generally, participants found that they used the mobile standing desk more often in the work location where they relied on their laptop to complete work tasks. Some participants described using the mobile standing desk at home due to the lack of a designated workspace or desk, and they found the mobile standing desk helped improve their home workspace.

Participants also provided suggestions to improve future mobile standing desk interventions. Suggestions for improvement included (1) reminders, (2) goal setting, (3) behavioral feedback, (4) incentives, and (5) pretesting. Participants suggested that in larger-scale interventions, participants may benefit from goal setting at the beginning of the intervention to establish daily standing goals. In addition, participants described that behavioral feedback, such as increasing participants' awareness of their behavior through intermittent monitoring of sitting and standing time during the intervention and reminders to use the standing desk, may help sustain use of the device long-term. Finally, to potentially resolve any mechanical issues, participants suggested that it may be beneficial to test the mobile standing desk before distributing the device to employees to identify and resolve mechanical issues that may impact use of the mobile standing desk during the intervention.

DISCUSSION

The purpose of this study was to determine the feasibility of using a mobile standing desk to address sedentary behavior among employees working in a flexible work environment (ie, completing work- and home-based work). Overall, findings from this study support the feasibility of using mobile standing desks to address sedentary behavior for people working in flexible work positions. Findings from the present study showed a mean decrease in work-related sitting (−46 minutes) and increase in standing (+41 minutes) after using the mobile standing desk, with medium effect size estimates for each change in behavior ($d = 0.66$ and 0.61 , respectively). This finding aligns with current research using traditional standing desks in workplace settings, where a meta-analysis of workplace interventions found

TABLE 2. Changes in Work-Related Activity Outcomes From Baseline to Posttest During the Feasibility Trial

Outcome ^a	Baseline M (SD)	Posttest M (SD)	Mean Change MΔ (95% CI)	<i>t</i> (<i>df</i>)	<i>P</i>	Cohen's <i>d</i>
Sitting time	374.40 (37.44)	328.94 (73.44)	45.46 (12.48, 79.2)	2.89 (18)	0.010*	0.664
Standing time	101.28 (37.92)	142.94 (70.08)	41.66 (8.59, 74.64)	−2.65 (18)	0.016*	0.607
Stepping time	35.14 (15.36)	37.78 (20.02)	2.62 (5.79, 11.02)	−0.65 (18)	0.521	0.150

Note. Analyses include n = 19 participants due to missing activity log data to contextualize activity monitor output (n = 1).

* $P < 0.05$ for within group changes from baseline to posttest (paired *t* test).

^aMinutes/8-hour workday = standardized to 8 hours of work time (ie, standardized minutes = minutes × 8/observed work hours).

TABLE 3. Focus Group Themes and Illustrative Quotes

Themes	Theme Description	Illustrative Quotes
Advantages		
Portability	Advantages of the mobile standing desk including portability between work locations and ability to store the mobile standing desk between uses	“You can just put it away when you’re done. It’s not like a desk. It’s not like you have to change so much for a meeting. You can just move it.”
Ease of use	Advantages of the mobile standing desk including the simplicity of using the device and lack of training needed to use the mobile standing desk	“Um, so it was very easy to take it home and get and do things at home, and it was very easy to get it to up and down. So, just using it was not cumbersome and didn’t make it something that I didn’t want to do.”
Enhanced attention to work tasks	Advantages of the mobile standing desk associated with increased focus and productivity while completing work tasks	“...I always felt more productive when I used the standing desk because I wasn’t waiting until like for an hour to go by to go pick up the copies from the printer. Like I’m already up. I’m just going to go get [them] and come back.”
Disadvantages		
Device design	Disadvantages associated with the design and functionality of the device, including periods of nonuse due to device malfunction	“It was too small. I felt like my computer took up most of the space. Um, there wasn’t place for my mouse.”
Built environment barriers	Disadvantages associated with the built environment in the home and workplace office infrastructure that impacted when and where participants used the mobile standing desk	“Well, at home, I did use it with my laptop because again I was able to put it in a room at a nice level...In the office because I do like my dual monitors, um, it was a little bit more difficult to figure out how to use it”
Impact of work-life situation	Disadvantages associated with personal and work-related factors that impacted how and where participants used the mobile standing desk	“I think for me it was more of the task that I was doing. I could read some articles and do some quick things. I tried, uhh, to do a little bit more writing, like ya know, longer, journal preparation kind of things. It could work for a little bit, but it was such a habit of being able to sit down and do that. Or, if I needed to use something else like my iPad so that I could have two screens next to me that became a little trickier.”

an average reduction in sedentary behavior by 40-minutes/8-hour workday across the reviewed studies.¹³

To date, research using mobile standing desks is limited. Most previous workplace sedentary behavior interventions have used traditional standing desks (ie, large, immobile devices) and were implemented in the physical workplace setting, rather than at home or in a flexible work environment.^{13,15} Given the trends in work-from-home and negative associations found between home-based work and work-related activity, additional research is needed to continue to explore the feasibility of using mobile standing desks to reduce work-related sitting time for people working in flexible or home-based environments. Our results provide preliminary support for the utility of mobile standing desks to address sedentary behavior among employee subgroups that warrant a flexible, adaptable option to reduce their sitting time and improve standing time during the workday. Findings from this study are promising and support the need for future research to assess the effectiveness of mobile standing desks to reduce work-related sedentary behavior for people working in flexible work environments. Because this was a feasibility study, future research should assess the effectiveness of mobile standing desks using larger, more diverse samples and a control group.

In addition to changes in behavior, participants in our study were allowed to share their perspectives to inform future workplace interventions using mobile standing desks. Advantages of the mobile standing desk included increased mobility, enhanced attention to tasks, and ease of use. Similar findings have been found in qualitative research about traditional standing desks, where employees revealed that using a standing desk provided flexibility in movement and increased energy expenditure throughout the workday.^{30,31} Like the perceptions of increased attention and productivity in our participants, quantitative findings from traditional standing desk-based interventions have shown improved subjective health and productivity outcomes after using a standing desk.³² A comprehensive review of findings from previous qualitative research shows that participants frequently associate positive psychological and emotional changes with using a standing desk, including increased alertness and concentration for work tasks.³³ When promoting the use of mobile standing desks among workers in flexible

or home-based work positions, researchers and practitioners may consider sharing positive effects of using the mobile standing desk such as mobility, increased productivity, and ease of use to encourage participation in their study and use of the device.

Participants also expressed disadvantages of using the mobile standing desk, which were mostly attributed to the design of the device and the participants’ work-life circumstances. Participants who described limitations due to the design of the mobile standing desk were predominantly concerned with the limited surface area of the device. Like our findings, a previous qualitative assessment of a home-based standing desk intervention found that participants reported that their device had limited surface area, inadequate height, and was not aesthetically pleasing.²¹ Aside from the device itself, other disadvantages reported in our study were attributed to the incompatibility of using the mobile standing desk within the confines of the built environment, both at work and home. Employees using traditional standing desks have also reported barriers with the device due to the workplace environment.³⁴ To address the disadvantages reported in this study, future studies using mobile standing desks should consider using devices with a larger surface area, provide a sturdier base, and address modifiable built environmental factors that may impact use of the device.

Findings from the focus group phase of the study also provided information to modify or adapt future mobile standing desk-based interventions. Considering the preliminary findings from this study support moderate decreases in sedentary behavior and increases in standing, future research should incorporate additional intervention strategies, include a control group, and recruit larger sample sizes to further test the effectiveness of mobile standing desks for employees in home-based and flexible work environments. Previous research has shown that traditional standing desk interventions are most effective when environmental strategies (ie, providing a standing desk) are combined with behavioral strategies (ie, education, reminders, goal setting) in a multicomponent intervention format.¹³ Suggestions from participants in the present study that may help improve future interventions include the incorporation of behavior change techniques to address needs for goal setting, use of reminders to sustain use of the

standing desk, and educational information to accompany the provision of the mobile standing desk. In addition, researchers and practitioners may consider pilot testing the mobile standing desk device to determine any device-related barriers before providing the device to participants in the intervention.

Findings from this study should be interpreted in the context of the following limitations. First, although the study used objective measures of work-related activity (ie, activPAL3), employees were required to self-report their work location and start/end time for each workday. Because of the self-reported nature of this information, there may be errors in the start/end time reported. To address this limitation, the research team sent daily reminders at the end of the workday to prompt participants to complete the activity log. Inherent limitations were also due to the feasibility nature of the study, which did not include a control group and included a small sample of university employees. Although appropriate for the feasibility nature of the present study, future studies should recruit larger samples and include a control group to further test the effectiveness of mobile standing desks. In addition, employees were recruited from one university in the southeastern US and were predominantly White and women, which limits the generalizability of the study findings to other workplace settings and employee subgroups. Future research should aim to recruit more diverse groups of employees from different workplace sectors. Lastly, the COVID-19 climate and regulations at the workplace where participants were recruited changed throughout data collection, which may have impacted the amount of time participants spent working in the workplace and at home. Although this was beyond the research team's control, future studies should consider recruiting participants with fixed versus temporary flexible or work-from-home status to further assess the feasibility of using a mobile standing desk in these work contexts.

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