


The Cons of Traditional Worksite Wellness Interventions and a Proposed Model

Elizabeth Ablah, PhD, MPH¹; Elizabeth A. Wilcox, MPH¹ ; and Allison Honn, MBA¹

Keywords

worksite wellness model, traditional, workplace, modifiable behaviors

With the intention of improving workers' health and productivity and/or a worksite's profit, worksites across the United States are offering traditional worksite wellness interventions, such as collecting biometric data or facilitating weight-loss competitions.¹ Although a growing body of research on worksite wellness can inform these interventions, a gap exists among practitioners and to some extent in the worksite wellness literature. Despite advances in research, such as the relevant influence of the built environment on one's behavior² and the need to focus on preventing the root causes of chronic disease,³⁻⁷ there appears to be little recognition of these advances among practitioners and researchers in the offered interventions. As such, it is important to differentiate between a traditional approach to worksite wellness and a more comprehensive approach to worksite wellness. This commentary provides a working definition of a traditional worksite wellness model and proposes a more comprehensive model.

Traditional Worksite Wellness

The traditional worksite wellness model has 5 features: it (1) targets the individual employee, (2) provides interventions that are predominantly informational or programmatic, (3) strives for breadth rather than depth, (4) creates and implements interventions without the benefit of science, and (5) uses diagnostics to identify disease.

Targeting Individual Employees

First, traditional worksite wellness targets the individual employee. In the traditional worksite wellness model, the employee is responsible for seeking out and taking advantage of opportunities at the worksite, such as exercise or stress management classes, bringing one's own healthy food and drink, and trying to quit tobacco. Yet, the traditional worksite wellness model overlooks the role the worksite plays in

influencing the wellness—or illness—of employees, such as the worksite's food and beverage or tobacco environment. Every environment we occupy influences our behaviors, and many worksite environments can contribute negatively to employee health.⁸⁻¹¹ For example, sedentary work environments often unintentionally encourage employees to sit most of the day, the availability and promotion of unhealthy foods and beverages at worksites make it easy for employees to consume these products, the lack of a tobacco-free policy might result in a tobacco-supportive environment, and worksites that place a high value on working long hours with few or no breaks contribute to poor employee health.¹⁰⁻¹⁴ Worksites also can negatively affect employees' health through practices promoted unintentionally by employers and intentionally by vendors. For example, vendors who sell and advertise a single brand (eg, Coca-Cola) may offer worksites lucrative contracts and exclusive selling rights. These financial incentives give vendors an edge but can lead to unhealthy eating and drinking behaviors in the worksite by making soda and candy readily available to employees.¹⁵

Providing Informational or Programmatic Interventions

A second feature of the traditional worksite wellness model is implementing interventions that are predominantly informational or programmatic. Traditional worksite wellness relies on providing information and offering programs for employees to learn about the reasons to become more physically active, consume a healthy diet, and not use tobacco. The assumption is that recipients will understand, care about,

¹ University of Kansas School of Medicine—Wichita, Wichita, KS, USA

Corresponding Author:

Elizabeth Ablah, PhD, MPH, University of Kansas School of Medicine—Wichita, 1010 N Kansas Ave, Wichita, KS 67214, USA.
Email: eablah@kumc.edu

and prioritize this information more than anything in its context, such as one's addiction to cigarettes, family and friends who smoke, undeveloped stress management skills, and lax worksite tobacco policies. Moreover, the assumption is that recipients will be motivated to take action (eg, quit tobacco) despite this context. Yet, a change in behavior based on the provision of information or knowledge is unlikely.¹⁶

By their nature, worksite wellness programs (eg, a "walk at work" program) are opt-in opportunities rather than systematic and institutionalized opportunities (eg, music plays on the worksite's speakers, encouraging employees and visitors to be physically active for 10 minutes during every shift). Providing worksite wellness interventions only through information and/or opt-in programming is akin to offering a bag of ice to a polar bear in the desert. The employee may not be interested in or able to act on the information, and any potential behavior change that might have occurred during the program is not sustainable. Yet, employees are among worksites' greatest assets and greatest expenses. Providing short-term, opt-in interventions (eg, programmatic opportunities) is not likely to lead to decreased health care costs or improved productivity, retention, absenteeism, or morale.

Inherent in the use of worksite wellness information or programs is the weak nature of traditional worksite wellness. Specifically, informational and/or programmatic interventions are not comprehensive. For example, a worksite may provide a worksite wellness class that encourages employees to avoid unhealthy, highly processed foods but offers such foods in its vending machines or breakrooms.^{17,18} The messages are contradictory.

Striving for Breadth Rather Than Depth

Third, traditional worksite wellness strives for breadth rather than depth. Traditional worksite wellness programs tend to focus on multiple health topics (eg, physical inactivity, stress, tobacco) at the same time. However, each behavior is complex and requires a comprehensive set of strategies.^{16,19} It is more realistic for a worksite to focus on one health behavior at a time (eg, physical inactivity) and implement a comprehensive set of interventions that fully address that behavior. These interventions can include information (eg, a campaign to achieve at least 30 minutes of moderate daily physical activity) and programs (eg, walk at work) but, more importantly, need to include changes in benefit design (eg, subsidized gym membership), policy (eg, flexible time for physical activity), and environmental strategies (eg, providing treadmill desks).^{16,19,20} This depth is missing in the traditional worksite wellness model. After a worksite has fully implemented a comprehensive set of interventions to address one health behavior, it can maintain these interventions while beginning to address the next health behavior in a comprehensive manner.

Creating and Implementing Interventions Without the Benefit of Science

A fourth feature of traditional worksite wellness is the creation and implementation of interventions without the benefit of science. Behavioral scientists can develop, implement, and evaluate interventions to ensure that they are based on best practices. Yet, the problem is not rooted in who creates and implements interventions but in how they are created and implemented. So, why is there such a disparity between worksite wellness interventions that are effective and the traditional worksite wellness interventions that are implemented? One explanation is that behavioral scientists have not effectively disseminated the findings from these interventions to the nonscientific community.²¹ For example, the television program *The Biggest Loser* prompted worksites across the United States to adopt this style of weight-loss competitions, a short-sighted attempt for employees to become healthy.²²⁻²⁵ The highly controlled environment in which the contestants of the television program compete does not transfer to the worksite. Despite any weight loss that contestants may achieve within the television program's controlled environment, the results are not lasting, and the contestants ultimately gain weight after the show is over. This type of weight cycling does not promote health and, in fact, is dangerous and can lead to cardiovascular harm.²⁶⁻²⁸ When evaluating worksite wellness interventions, scientists generally assess whether the intervention is doing harm. However, worksites are usually not adequately equipped to evaluate worksite wellness interventions, especially weight-loss interventions.

Using Diagnostics to Identify Disease

A fifth feature of traditional worksite wellness programs is the use of diagnostics to identify disease rather than the behavior that points to the root problem of the disease (eg, residing in communities that have engineered physical activity out of Americans' lives, poor access to healthy foods, availability of highly addictive tobacco products).

At their best, worksites that implement the traditional worksite wellness model use data (eg, health risk assessments, biometric data) to inform the intervention's focus and develop interventions that reflect employees' needs and/or interests. Worksites traditionally rely heavily on the collection of these data, and many worksites spend disproportionately to incentivize such assessments.^{29,30} However, these data may not inform the worksite's next steps in their worksite wellness initiative or be worth the cost.

Traditionally, health risk assessment and biometric data have 2 purposes. The primary purpose is to collect data on health status and provide feedback to the employee. A secondary purpose is to provide a deidentified, aggregate report to the worksite wellness committee or human resources personnel to inform wellness activities at the worksite.

To address the primary purpose, the traditional model for worksite wellness relies on providing information (by offering training and/or counseling) to employees about their health risks. However, information alone generally does not change behavior.^{1,30,31} Yet, conducting health risk assessments is considered a best practice in the context of the traditional worksite wellness model.³²

To address the secondary purpose, worksites examine data that are collected and evaluated at a detailed level (eg, cholesterol levels) that is inappropriate for worksites' use. Consider a worksite that has collected health risk assessment and biometric data from its employees and determined that many employees have high cholesterol levels. How can worksites best use these aggregate data? Traditional worksite wellness programs might provide feedback to employees about their high cholesterol or address the problem by sharing low-cholesterol recipes with employees. Although these interventions may be helpful for some employees who opt in (eg, participate in a low-cholesterol recipe exchange), information alone will not generally prompt a sustainable change in behavior.

The diagnostics data are also problematic in that data used to inform the traditional worksite wellness model are typically collected at the micro-level (eg, blood pressure, blood glucose, cholesterol). The implication is that what is intended to be a macro-level change at the worksite (eg, offering only healthy foods and beverages at the worksite) will prompt clinically important changes among employees. Such macro-level changes are largely absent from the traditional worksite wellness model. Moreover, the measurement and monitoring of health outcomes is inappropriate because it assumes that they (eg, body mass index, blood glucose) are the desired outcomes that need to be modified. Accordingly, traditional worksite wellness resides in a disease-based model. A health-based model with behavior modification as a central tenet is needed.

A New Worksite Wellness Model

To step outside of the traditional worksite wellness model, it is necessary to first define the problems that worksite wellness interventions are intended to address. The roots of most chronic health conditions in the United States are physical inactivity, consumption of unhealthy foods and beverages, and tobacco use, known as the 3-4-80. Three risk factors (physical inactivity, consumption of unhealthy foods and beverages, and tobacco use) contribute to 4 chronic diseases (heart disease, type 2 diabetes, lung disease, and some cancers), which in turn contribute to about 80% of premature deaths in the United States.³⁻⁷ Moreover, these 3 risk factors are also modifiable behaviors that can be successfully addressed at the population level.^{20,33-35}

Alternately, if excess weight, type 2 diabetes, high cholesterol, and/or hypertension are identified as the problems, a micro-level, individualistic, and reductionistic perspective is adopted that misses the mark. The treatment and

management interventions for subpopulations with such conditions would be incomplete and ineffective if they did not feature at least 2 modifiable behaviors (eg, physical activity, eating healthy foods) of the 3-4-80. Undoubtedly, the 3 modifiable behaviors (physical activity, eating healthy foods, and not using tobacco) benefit everyone, not just persons with a chronic disease. Everyone needs and benefits from physical activity, eating healthy foods, and a tobacco-free environment. The subpopulations that are targeted for such treatment or management interventions (eg, older employees with an increased likelihood of having a chronic disease) are protected from providing health information to their employers by the Health Insurance Portability and Accountability Act and the Genetic Information Nondiscrimination Act.^{36,37} Consequently, why focus on these populations when their existing conditions (eg, type 2 diabetes) cannot be directly modified?

Only behaviors can be directly modified, and any environment can influence these behaviors, including the worksite. Comprehensive worksite wellness interventions address the behavioral root of most health problems. Once the problems are defined, comprehensive worksite wellness interventions that are based on research that has evaluated the effectiveness of the interventions can be implemented to address these 3 modifiable behaviors. Accordingly, the most appropriate diagnostics at the individual level are measurements of these behaviors. Compared with micro-level data (eg, body mass index), behavioral metrics (eg, minutes of moderate physical activity, servings of fruit and vegetables) are more likely to indicate employees' health status, are modifiable and can be promoted at the worksite, are less expensive to measure, and pose less risk of employers' inappropriate use of protected health information.

Worksites have an opportunity to focus on improving the health of the worksite rather than the health of employees. Worksite wellness is predominantly targeted at the worksite rather than the employee and, for it to be sustained and institutionalized, systems must be altered. Imagine worksite interventions in which, as a function of being an employee of the worksite, employees just happen to be less sedentary and more physically active, tend to eat more fruit and vegetables, and find it easy to avoid tobacco at the worksite. Many of these behaviors can be sustainably altered through policy, systems, and environmental prevention strategies.³⁸⁻⁴²

This new model of worksite wellness offers a focus on one health behavior at a time. A worksite that implements this new model of worksite wellness would implement a comprehensive set of interventions through multiple strategies (eg, information, programs, benefit design, policy, environment) to fully address that behavior, before shifting focus to another behavior. This new worksite wellness model promotes working upstream by including comprehensive strategies, such as policy, systems, and environmental changes. Rather than providing a traditional worksite wellness program (eg, healthy recipe exchange, vegetable taste testing) in isolation, an employer that is thoughtfully and

intentionally dedicated to improving employee health and the financial health of the workplace (eg, through improved productivity, reduced absenteeism, and/or lower health care costs) would provide these and other programs (eg, fruit and vegetable challenge, consultations with a dietitian). In addition, the employer would institute a “no dumping” policy that would not allow employees to bring unwanted snacks to the worksite’s breakrooms, and the worksite would ensure that only healthy foods and beverages are plentiful at the worksite.

The traditional worksite wellness model often uses a treatment approach to chronic disease (eg, weight loss) or, if a prevention strategy is used, it is to prevent a chronic disease (eg, stroke) in a manner that is consistent with national awareness of a condition or disease (eg, Stroke Awareness Month). This strategy does not reinforce the simple messages associated with behavior modification.⁴³ Rather than focusing on chronic disease, the new worksite wellness model would focus on behaviors that are modifiable: physical activity, eating healthy foods, and not using tobacco. Accordingly, this new worksite wellness model promotes prevention. Moreover, the desired prevention behaviors (eg, physical activity) are often the desired treatment behaviors, resulting in a clear message that applies to all.

Conclusions

Five characteristics of worksite wellness can help practitioners and researchers differentiate between a traditional worksite wellness model and a comprehensive worksite wellness model, potentially challenging interventionists to better translate knowledge from research into the implementation of effective worksite wellness interventions. Research is needed to explore the feasibility and satisfaction of worksites that implement this new worksite wellness model. In addition, research is needed to compare health and financially related outcomes from the implementation of both worksite wellness models.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Kansas Health Foundation.

ORCID iD

Elizabeth A. Wilcox, MPH  <https://orcid.org/0000-0003-0747-6688>

References

1. Mattke S, Liu H, Caloyeras JP, et al. *Workplace Wellness Programs Study: Final Report*. Santa Monica, CA: Rand Health; 2013.
2. Saelens BE, Handy SL. Built environment correlates of walking: a review. *Med Sci Sports Exerc*. 2008;40(suppl 7):S550-S566. doi:10.1249/MSS.0b013e31817c67a4
3. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000 [published correction appears in *JAMA*. 2005;293(3):298]. *JAMA*. 2004;291(10):1238-1245. doi:10.1001/jama.291.10.1238
4. McGinnis JM, Foege WH. Actual causes of death in the United States. *JAMA*. 1993;270(18):2207-2212.
5. Yach D, Hawkes C, Gould CL, Hofman KJ. The global burden of chronic diseases: overcoming impediments to prevention and control. *JAMA*. 2004;291(21):2616-2622. doi:10.1001/jama.291.21.2616
6. Katz DL, Frates EP, Bonnet JP, Gupta SK, Vartiainen E, Carmona RH. Lifestyle as medicine: the case for a true health initiative. *Am J Health Promot*. 2018;32(6):1452-1458. doi:10.1177/0890117117705949
7. Ford ES, Bergmann MM, Kröger J, Schienkiewitz A, Weikert C, Boeing H. Healthy living is the best revenge: findings from the European Prospective Investigation Into Cancer and Nutrition—Potsdam study. *Arch Intern Med*. 2009;169(15):1355-1362. doi:10.1001/archinternmed.2009.237
8. Luckhaupt SE, Cohen MA, Li J, Calvert GM. Prevalence of obesity among U.S. workers and associations with occupational factors. *Am J Prev Med*. 2014;46(3):237-248. doi:10.1016/j.amepre.2013.11.002
9. Peter R, Alfredsson L, Hammar N, Siegrist J, Theorell T, Westerholm P. High effort, low reward, and cardiovascular risk factors in employed Swedish men and women: baseline results from the WOLF Study. *J Epidemiol Community Health*. 1998;52(9):540-547.
10. Theorell T, Jood K, Järvholm LS, et al. A systematic review of studies in the contributions of the work environment to ischaemic heart disease development. *Eur J Public Health*. 2016;26(3):470-477. doi:10.1093/eurpub/ckw025
11. Yang H, Hitchcock E, Haldeman S, et al. Workplace psychosocial and organizational factors for neck pain in workers in the United States. *Am J Ind Med*. 2016;59(7):549-560. doi:10.1002/ajim.22602
12. Church TS, Thomas DM, Tudor-Locke C, et al. Trends over 5 decades in U.S. occupation-related physical activity and their associations with obesity. *PLoS One*. 2011;6(5):e19657. doi:10.1371/journal.pone.0019657
13. Ham DC, Przybeck T, Strickland JR, Luke DA, Bierut LJ, Evanoff BA. Occupation and workplace policies predict smoking behaviors: analysis of national data from the Current Population Survey. *J Occup Environ Med*. 2011;53(11):1337-1345. doi:10.1097/JOM.0b013e3182337778
14. Larson N, Story M. A review of environmental influences on food choices. *Ann Behav Med*. 2009;38(suppl 1):S56-S73. doi:10.1007/s12160-009-9120-9
15. ChangeLab Solutions. Developing a healthy beverage vending agreement. https://changelabsolutions.org/sites/default/files/HealthyVendngAgrmnt_FactSheet_FINAL_090311_rebranded.pdf. Published 2011. Accessed February 19, 2019.

16. Sallis JF, Owen N, Fisher EB. Ecological models of health behavior. In: Glanz K, Rimer BK, Viswanath K, eds. *Health Behavior and Health Education: Theory, Research, and Practice*. San Francisco, CA: Jossey-Bass; 2008:465-485.
17. Lesser LI, Hunnes DE, Reyes P, et al. Assessment of food offerings and marketing strategies in the food-service venues at California children's hospitals. *Acad Pediatr*. 2012;12(1):62-67. doi:10.1016/j.acap.2011.09.004
18. Shimotsu ST, French SA, Gerlach AF, Hannan PJ. Worksite environment physical activity and healthy food choices: measurement of the worksite food and physical activity environment at four metropolitan bus garages. *Int J Behav Nutr Phys Act*. 2007;4:17.
19. Brownson RC, Haire-Joshu D, Luke DA. Shaping the context of health: a review of environmental and policy approaches in the prevention of chronic diseases. *Annu Rev Public Health*. 2006;27:341-370. doi:10.1146/annurev.publhealth.27.021405.102137
20. Story M, Kaphingst KM, Robinson-O'Brien R, Glanz K. Creating healthy food and eating environments: policy and environmental approaches. *Annu Rev Public Health*. 2008;29:253-272. doi:10.1146/annurev.publhealth.29.020907.090926
21. Woolf SH, Purnell JQ, Simon SM, et al. Translating evidence into population health improvement: strategies and barriers. *Annu Rev Public Health*. 2015;36:463-482. doi:10.1146/annurev-publhealth-082214-110901
22. Hall KD. Diet versus exercise in "The Biggest Loser" weight loss competition. *Obesity (Silver Spring)*. 2013;21(5):957-959. doi:10.1002/oby.20065
23. Sonnevile KR, Austin SB. Does addressing obesity create risk for eating disorders? In: Brownell KD, Walsh BT, eds. *Eating Disorders and Obesity: A Comprehensive Handbook*. 3rd ed. New York, NY: Guilford Press; 2017:152-156.
24. Clifford D, Ozier A, Bundros J, Moore J, Kreiser A, Morris MN. Impact of non-diet approaches on attitudes, behaviors, and health outcomes: a systematic review. *J Nutr Educ Behav*. 2015;47(2):143-155. doi:10.1016/j.jneb.2014.12.002
25. Fothergill E, Guo J, Howard L, et al. Persistent metabolic adaptation 6 years after "The Biggest Loser" competition. *Obesity (Silver Spring)*. 2016;24(8):1612-1619. doi:10.1002/oby.21538
26. Heilbronn LK, de Jonge L, Frisard MI, et al. Effect of 6-month calorie restriction on biomarkers of longevity, metabolic adaptation, and oxidative stress in overweight individuals: a randomized controlled trial [published correction appears in *JAMA*. 2006;295(21):2482]. *JAMA*. 2006;295(13):1539-1548. doi:10.1001/jama.295.13.1539
27. Lee IM, Paffenbarger RS Jr. Change in body weight and longevity. *JAMA*. 1992;268(15):2045-2049.
28. Karahalios A, English DR, Simpson JA. Change in body size and mortality: a systematic review and meta-analysis. *Int J Epidemiol*. 2016;46(2):526-546. doi:10.1093/ije/dyw246
29. Taitel MS, Haufle V, Heck D, Loepcke R, Fetterolf D. Incentives and other factors associated with employee participation in health risk assessments. *J Occup Environ Med*. 2008;50(8):863-872. doi:10.1097/JOM.0b013e3181845fe2
30. Mattke S, Schnyer C, Van Busum KR. *A Review of the U.S. Workplace Wellness Market*. Santa Monica, CA: Rand Health; 2012.
31. Kaiser Family Foundation, Health Research and Educational Trust. *Employer Health Benefits: 2015 Annual Survey*. Menlo Park, CA: Kaiser Family Foundation; 2015.
32. Task Force on Community Preventive Services. Recommendations for worksite-based interventions to improve workers' health. *Am J Prev Med*. 2010;38(suppl 2):S232-S236. doi:10.1016/j.amepre.2009.10.1033
33. Heath GW, Parra DC, Sarmiento OL, et al. Evidence-based intervention in physical activity: lessons from around the world. *Lancet*. 2012;380(9838):272-281. doi:10.1016/S0140-6736(12)60816-2
34. Frazer K, Callinan JE, McHugh J, et al. Legislative smoking bans for reducing harms from secondhand smoke exposure, smoking prevalence and tobacco consumption. *Cochrane Database Syst Rev*. 2016;2:CD005992. doi:10.1002/14651858.CD005992.pub3
35. Thomas S, Fayter D, Misso K, et al. Population tobacco control interventions and their effects on social inequalities in smoking: systematic review. *Tob Control*. 2008;17(4):230-237. doi:10.1136/tc.2007.023911
36. US Department of Health and Human Services. Summary of the HIPAA Privacy Rule. <https://www.hhs.gov/hipaa/for-professionals/privacy/laws-regulations/index.html>. Published 2013. Accessed August 17, 2018.
37. The Genetic Information Nondiscrimination Act of 2008. Pub L No 110-233, 122 Stat 881 (2008).
38. Bale JM, Gazmararian JA, Elon L. Effect of the work environment on using time at work to exercise. *Am J Health Promot*. 2015;29(6):345-352. doi:10.4278/ajhp.130731-QUAN-393
39. Grzywacz JG, Casey PR, Jones FA. The effects of workplace flexibility on health behaviors: a cross-sectional and longitudinal analysis. *J Occup Environ Med*. 2007;49(12):1302-1309. doi:10.1097/JOM.0b013e31815ae9bc
40. Sorensen G, Linnan L, Hunt MK. Worksite-based research and initiatives to increase fruit and vegetable consumption. *Prev Med*. 2004;39(suppl 2):S94-S100.
41. Hopkins DP, Razi S, Leeks KD, Priya Kalra G, Chattopadhyay SK, Soler RE; Task Force on Community Preventive Services. Smokefree policies to reduce tobacco use: a systematic review. *Am J Prev Med*. 2010;38(suppl 2):S275-S289. doi:10.1016/j.amepre.2009.10.029
42. Callinan JE, Clarke A, Doherty K, Kelleher C. Legislative smoking bans for reducing secondhand smoke exposure, smoking prevalence and tobacco consumption. *Cochrane Database Syst Rev*. 2010;(4):CD005992. doi:10.1002/14651858.CD005992.pub2
43. Purtle J, Roman LA. Health awareness days: sufficient evidence to support the craze? *Am J Public Health*. 2015;105(6):1061-1065. doi:10.2105/AJPH.2015.302621