

Workplace physical activity intervention programs: costs and benefits

Abstract

The execution time of the Workplace Physical Activity Intervention is not clear in the literature, in which some authors recommend to organize programs with weekly duration of about 3 hours and 45 minutes. This amount of spent time makes the cost of Workplace Physical Activity Intervention greater than the possible benefits. The Workplace Physical Activity Intervention generates costs for institutions, such as the hiring of professionals, materials that will be used and the hours left to perform physical exercises. However, this expense may be lower if the company opts for Workplace Physical Activity Intervention proposals that are shorter in duration but prove their benefits to employees and the contracting institution. From this perspective, the purpose of this manuscript is to discuss the cost and benefit of the traditional Workplace Physical Activity Intervention and the proposal of Laux.

Keywords: workplace, physical activity, health, life quality

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Introduction

Technological advances transform people's lives and the way they relate to work. This excess of connectivity associated with the speed of communication of modernity causes an excessively increasing of hours at work bringing some physical and mental harms.¹ These occupational diseases can be aggravated in administrative services, in which employees have work activities with sedentary tasks, such as sitting for many continuous hours.²

In an attempt to improve the quality of life, health and increase productivity emerges primary intervention programs for worker health.³ These programs introduced into the work environment aim at combating smoking and preventing work-related and sedentary diseases.⁴

Workplace Physical Activity Intervention stands out for the prevention of the diseases in the skeletal muscle system (muscles, joints and bones) and the decrease of the stress. In Brazil, this kind of program is known as Labor Gymnastics.^{5,6} Despite the numerous studies using these programs, there are still many disagreements over the execution time and number of weekly sessions.^{6,7} According to Branco⁷ the ideal would be to apply this type of program with sessions of 15 minutes, three times a day, every day of the week, however, if a quick analysis is done, it is observed that this generates an average expenditure of 3 Hours and 45 minutes without considering dislocating time of the employees for the execution of the exercises.

The traditional method has proven benefits, such as decreasing the intensity and frequency of muscle pain and improving posture in the sitting position⁸ and decreasing absenteeism and increasing productivity⁹ but the main issue is cost-benefit, as new intervention proposals⁶ also have benefits such as the reduction of medical attestations⁵ improvement in mood and reaction time.⁶ In view of this discussion about the ideal time and the time savings in the realization of these programs, the purpose of this manuscript arises, it is to discuss the cost and benefit of the traditional Workplace Physical Activity Intervention and the proposal of Laux.⁶

Comparison of the traditional workplace physical activity intervention and laux proposal (2016)

The implementation of Workplace Physical Activity Intervention generates expenses for the company, in addition to the expenses with the professionals involved and the purchase of material, the institution has costs with the execution of the project. In the ideal model of implementation of the program addressed by Branco⁷ the duration of each session should be 15 minutes, in three different periods - at the beginning of the work, preparatory gymnastics; In the middle of the work day, compensatory gymnastics; and at the end of the work day, relaxation gymnastics. However, this method of application generates a weekly cost referring to 3 hours and 45 minutes of the total production of the company, not including the displacement of employees. Pereira⁸ & Figueiredo, Mont'alvão⁹ emphasize that these sessions should take between 10 and 15 minutes, three times a day.

It is not the purpose of this article to calculate the company's spent money, but rather to emphasize the time spent and to point out methods of classes that bring benefits without causing a high cost of application, and its benefits to employees and companies. According to the proposed Workplace Physical Activity Intervention Laux⁶ these programs should last between 8 and 15 minutes per daily session, without indicating the weekly amount required. The study by Laux et al.⁵ with workers from an industrial waste company, with 10-minute sessions twice a week, using the Laux proposal⁶ observed a decrease of 51.52% in the total of medical attestations, in which there was a decrease of 43.48% in medical attestations by systemic diseases and 55.56% in medical attestations by musculoskeletal diseases. With the application of this program with the same duration per session, three times a week, there was an improvement in the negative aspects of mood (depression, fatigue, mental confusion, tension and anger) and the time of simple reaction and the time of choice.⁶

The studies of Laux et al.⁵ prove that the benefits of Workplace Physical Activity Intervention occur in programs with short sessions,

with two or three applications per week. Considering that these interventions had a weekly duration of between 20 and 30 minutes and improved the number of medical attestations and the cognitive aspects related to mood and speed of response, but with a reduction of at least 3 hours and 15 minutes a week than the recommended by other authors,⁷ the institutions may have a less time expenditure of about 86.67%.

The Workplace Physical Activity Intervention showed several benefits, whether cognitive⁶ physical^{5,10,11} or emotional⁶ however, some methods of application are more economical in the time used in the application of the exercise program. Other methods of promotion of physical activity in the work environment are highlighted, but it is necessary to emphasize that in the majority there is no direct intervention with physical exercise, as for example in the study by McEachan et al.¹² who used physical activity awareness material, or in the research of Cocker, Bourdeaudhuij et al.¹³ who used pedometers and the intervention was by established goals, in which the subject would have to reach the weekly or monthly steps goal. Another factor that is observed in research is that the intervention with physical activity is out of the work environment, as in the study of Edmunds¹⁴ first disfiguring the type of intervention and reducing the level of participation in the program, since workers need to go to another environment to carry out the activity.

Conclusion

In discussing the cost and benefit of the traditional Workplace Physical Activity Intervention and the proposal of Laux (2016), it is important to emphasize the importance of opting for proposals of programs that have obtained relevant results in aspects related to presence and work performance, such as the reduction of medical attestations and cognitive improvement, in addition to the savings of 86.67% in the execution time of the physical exercise program. It is emphasized that other studies should be carried out in order to prove other possible benefits of this program, in addition to the comparison with other methods of Workplace Physical Activity Intervention.

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Conflict of interest

The author declares no conflict of interest.

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