



Advantages of a 4 Week Bootcamp Exercise Intervention Program for University Staff Members

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INTRODUCTION:

Physical inactivity is a major risk factor for chronic diseases. An in-house based, low to medium intensity exercise activity intervention program, was designed to encourage and facilitate academic staff members of the University of Pretoria, South Africa, to engage in a healthier lifestyle through physical activity. Fitness Friday Bootcamp is a form of group exercise class that combines traditional calisthenics and body weight exercises with interval training and strength training. It provides a supportive and inspiring environment to participants in order to increase the amount of physical activity that is engaged in on a daily/weekly basis.

METHODS:

Forty six participants (aged 35.1±10.5 years) completed three supervised Fitness Friday Bootcamp training sessions every week, each lasting 60 minutes. Interventions lasted for one month and focused on muscular endurance, cardiovascular fitness and flexibility exercises. A follow-up questionnaire to evaluate the participant overall experience of increased physical activity and social interaction was completed at the end of the program.

Table 1: Group characteristics and descriptive statistics at baseline and after 4 weeks of exercise intervention.

Descriptive Variables	Baseline	After 4 weeks
Participants (n)	46	46
Mean Age (SD)	35.1 (10.4)	35.1 (10.4)
Mass (kg) (SD)	77.6 (23.1)	72.9 (15.6) p=0.153
Mean BMI (SD)	27.7 (7.2)	26.8 (5.5) p=0.294
Waist (SD)	84.0 (17.1)	78.9 (11.9) p=0.066
Hip (SD)	105.5 (15.0)	101.5 (9.9) p=0.085
Waist: Hip Ratio (SD)	0.79 (0.09)	0.77 (0.08) p=0.174
Sit-ups (SD)	41.1 (17.0)	51.37 (15.4) p=0.004**
Push-ups (SD)	23.4 (9.9)	30.63 (11.4) p=0.003**
12 min Walk (m) (SD)	1413.6 (246.9)	1541.0 (149.1) p=0.004**
Sit & Reach (SD)	31.9 (9.5)	36.1 (10.0) p=0.044*

*p ≤ 0.05 ; **p ≤ 0.01

RESULTS:

The results revealed that the exercise intervention, aiming to increase physical activity, was effective in improving functional performance. Over a period of 4 weeks of exercise intervention, significant increases were seen in muscular endurance doing sit-up's and push-up's (41.1±16.9 vs. 51.37±15.4, p=0.004 and 23.4±9.9 vs. 30.6±11.4, p=0.003 respectively), in cardiovascular fitness during the 12 minute walk test (1413.6±246.9m vs. 1541.0±149.1m, p=0.004) and in flexibility testing using sit & reach (31.9±9.5 vs. 36.1±10.0, p=0.044). Although not significant, improvement were also measured in BMI (27.7±7.2 vs. 26.8±5.5, p=0.29). In a follow-up questionnaire participants indicated they need the exercises (67%) and continued with exercises (80%) due to increased energy (73%), feeling good being more active (67%), decreased stress levels (53%), and social interaction (53%). The main reason for not continuing with exercise was identified as time constraints (36%).

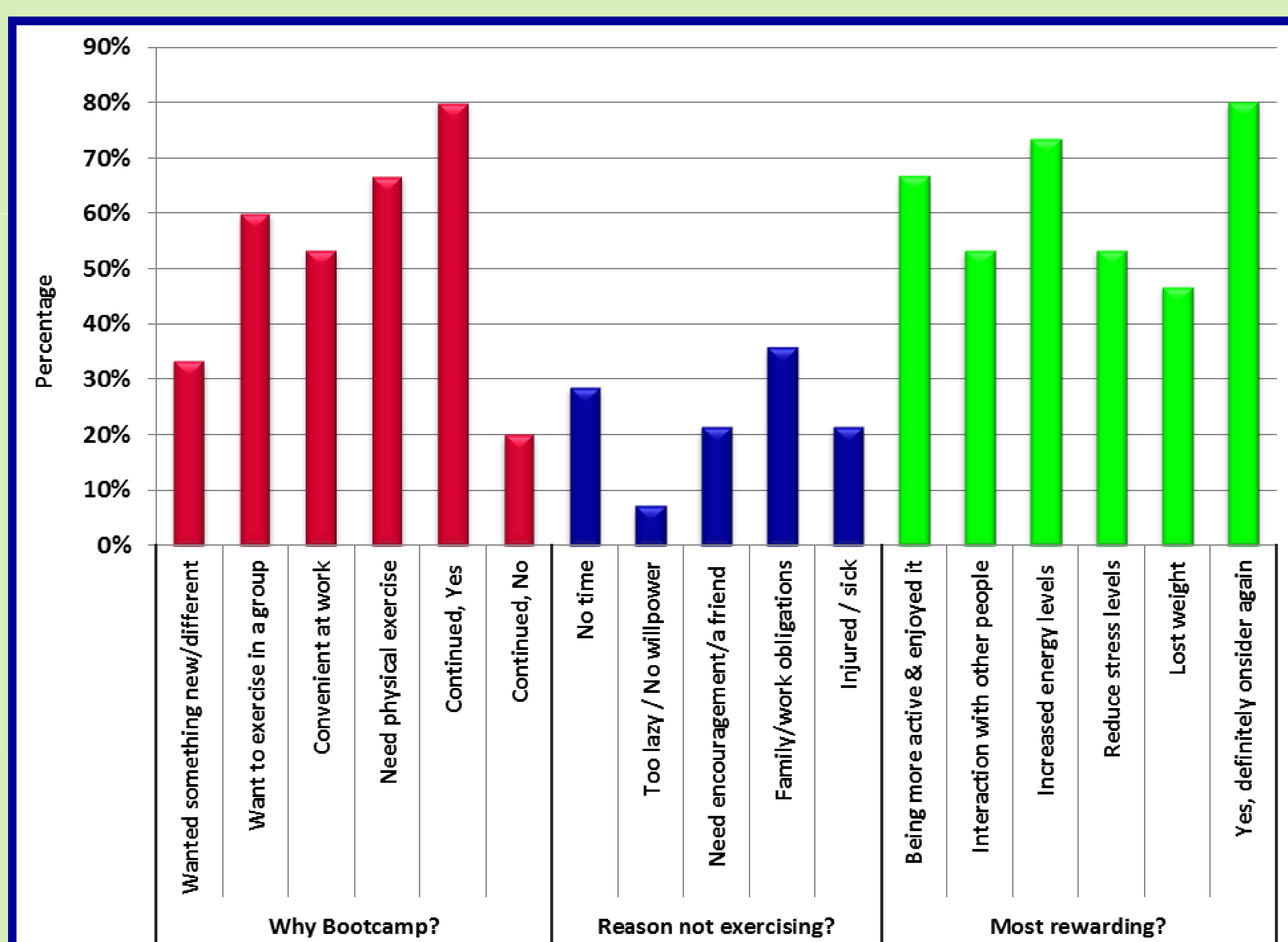


Table 1: Follow-up questionnaire after 4 weeks of exercise intervention.

CONCLUSION:

Results confirmed that even a short term intervention of increased low to medium level exercise has a positive effect on muscular endurance, cardiovascular fitness and flexibility as well as an overall feeling of increased well-being in individuals.

REFERENCES:

1. Rebold M J, Kobak MS, Peroutky K, Glickman EL. The Effects of a 12-Week Faculty and Staff Exercise Program on Health-Related Variables in a University Setting. International Journal of Exercise Science. 2015;8: Issue 1, Article 6. Available at: <http://digitalcommons.wku.edu/ijes/vol8/iss1/6>

