

Effects of Corporate Wellness Programs on Absenteeism and Health Care Costs: A Meta-Analysis

Douglas J. Bonner
Greensboro News and Record

This paper reports the results of a meta-analysis investigating the effectiveness of corporate wellness programs. On the basis of the results of 18 published studies, wellness programs appear to reduce absenteeism and health care costs by a slight, but statistically significant amount ($d = .26$).

The establishment of corporate wellness programs has increased exponentially within the last 15 years. These programs range from elaborate multi-acre on-site facilities to corporate subsidization of employee membership fees at local health clubs. The potential short-term benefits of these programs are readily identifiable to the employee and include improved cardiovascular fitness, improved self-esteem, loss of weight, and with the adoption of healthier lifestyle behaviors, decreased risk of cancer, illness, disability, and death. However, the question remains regarding the potential cost effectiveness of these programs. That is, will organizations reap the long-term benefits of a healthier work force through the reduction of absenteeism and health care costs?

Despite mounting anecdotal evidence overwhelmingly in favor of corporate wellness programs, the effectiveness of the programs and their impact on the bottom line are as yet uncertain. In an attempt to clarify this issue, this paper will present the results of a meta-analysis of the effects of corporate wellness programs on reducing absenteeism and health care costs.

THE META-ANALYSIS PROCEDURE

Meta-analysis (Hunter, Schmidt, & Jackson, 1982) is a statistical method for cumulating the results of research articles. The technique is based on the transformation of various forms of statistical results into one overall statistic called the “mean effect size” or “d.”

The meta-analysis procedure begins with the cultivation of research articles. In this case, articles listed in the Social Science Citation Index and the Business Periodicals Index for the past 10 years were used. Of the 49 articles found that discussed corporate wellness programs, only 18 were appropriate for use in this meta-analysis because most articles did not report statistics.

For each study, an effect size was determined based on the statistical tests that were used to analyze the data. These effect sizes were then weighted by the sample size in the study. Some of the articles used in this meta-analysis did not report sample sizes. For those articles, the average sample size from the other studies was used. Finally, a mean effect size was determined which represents the average effect across all of the studies.

RESULTS AND DISCUSSION

The effects of corporate wellness programs on the reduction of absenteeism are shown in Table 1 and the effects on health care costs are shown in Table 2. The mean effect on absenteeism was .26 with a confidence interval that does not include zero. Thus, it can be concluded that corporate wellness programs will result in a slight reduction in employee absenteeism.

The mean effect size for health care costs was also .26 with a confidence interval that does not include zero. Thus, it can be concluded that corporate wellness programs will result in a small reduction in health care costs.

Table 1
Studies investigating effects on absenteeism

Study	N	d
Shepard (1981)	83	1.66
Shepard (1981)	449	.51
McKendrick (1982)	759	.16
Hoffman (1984)	100	.16
Hoffman (1984)	759	.16
Hoffman (1984)	759	.65
Langevin (1984)	759	.72
Klock (1985)	1,281	.24
Baun (1986)	221	.34
DiBlase (1986)	3,000	.10
Aberth (1986)	737	.00
Kocolowski (1986)	759	.36
Knadler (1987)	759	.36
Welter (1988)	759	.14
Welter (1988)	759	.18
TOTAL	11,943	.26
95% Confidence Interval		
Lower Bound	.07	
Upper Bound	.45	

Note: Average sample sizes were used when articles did not include sample sizes

Table 2
Studies investigating effects on health care costs

Study	N	d
Kilpatrick (1984)	1,200	.28
Shapiro (1984)	1,175	.98
Gatty (1985)	1,175	.26
Fink (1986)	1,175	.22
Patterson (1986)	1,170	.06
Baun (1986)	21	.98
Baun (1986)	1,500	.24
DiBlase (1986)	3,000	.12
Aberth (1986)	737	.16
Knadler (1987)	1,500	.24
Knadler (1987)	1,175	.26
Modic (1987)	200	.58
Welter (1988)	1,175	.12
TOTAL	15,203	.26
95% Confidence Interval		
Lower Bound	.16	
Upper Bound	.35	

Note: Average sample sizes were used when articles did not include sample sizes

REFERENCES

- Aberth, J. (1986). Worksite wellness programs: An evaluation. *Management Review*, 75(10), 51-53.
- Baun, W. B. (1986). A preliminary investigation: Effect of a corporate fitness program on absenteeism and health care cost. *Journal of Occupational Medicine*, 28, 18-22.
- DiBlase, D. (1986). Wellness program pays off in money, employee health. *Business Insurance*, October 27, 37.
- Fink, W. (1986). Employers use fitness to hike worker morale. *National Underwriter*, April, 22-23.
- Gatty, B. (1985). How fitness works out. *Nation's Business*, July, 18-24.
- Hoffman, J., & Hobson, C. J. (1984). Physical fitness and employee effectiveness. *Personnel Administrator*, 29, 101-113.
- Kilpatrick, R. D. (1984). Wellness helps public and industry. *National Underwriter*, December, 13.
- Klock, H. S. (1985). The benefit that's growing by leaps and bounds. *Personnel*, 7, 13-16.
- Knadler, G. F. (1987). Linking employee fitness programs to lower medical costs and absenteeism. *Monthly Labor Review*, November, 27-28.
- Kocolowski, L. (1986). Wellness program pays off for Indiana Blues. *National Underwriter*, April 26, 17.
- Langevin, K. (1984). Conference urges wellness programs. *National Underwriter*, March 17, 1.
- McKendrick, J. (1982). Portraits of fitness programs: How six major companies are helping their employees keep fit. *Management World*, August, 19.
- Modic, S. J. (1987). Putting wellness program payoffs into hard numbers. *Industry Week*, November 16, 20-21.
- Nay, W. R. (1985). Worksite health promotion programs. *Employee Benefits Journal*, June, 57-65.
- Patterson, D. (1986). Can a company evaluate the cost/benefits of its wellness efforts? *Risk Management*, November, 63-68.
- Shapiro, S. (1984). Prove to superiors that fitness programs work. *Business Insurance*, April 9, 26.

- Shepard, R. J. (1981). Fitness program participation: Its effect on worker performance. *Journal of Occupational Medicine*, 23, 359-363.
- Welter, T. R. (1988). Wellness programs: Not a cure-all. *Industry Week*, February 15, 42-45.