International Academic Institute for Science and Technology

International Academic Journal of Organizational Behavior and Human Resource Management
Vol. 10, No. 2, 2023, pp. 30-35.

ISSN 2454-2210

International Academic Journal of Organizational Behavior and Human Resource Management

www.iaiest.com

Employee Well-Being Programs and Return on Human Capital Investment

Daniel Brooks [a*], Emily Carter [b]

[a*] *American Frontier Innovation Research Institute, Cambridge, United States.*
[b] *American Frontier Innovation Research Institute, Cambridge, United States.*

Abstract

Well-being budgets are increasingly seen as an investment in human capital and not an overhead cost. This paper summarizes empirical and theoretical research on the financial return from employee well-being programs, with a focus on human capital theory and the current human resource management environment. The review, based on a meta-analysis, randomized controlled trials, and organizational evidence of return, compares reported returns by health-care cost containment, absenteeism reduction, engagement, and productivity outcomes. Early observational and quasi-experimental studies have shown positive short-term cost-effectiveness ratios ranging from $1.50 to $3.80 per dollar invested, while more recent large-scale randomized trials show little to no short-term effects on medical spending, utilization, and clinical biomarkers. According to the paper, it is the engagement, retention and productivity channels that bring the most consistent and defensible human capital returns rather than the narrowly focused concept of health-cost containment. Measuring implications and HR strategy are explored. According to these results, companies must now check how well-being-related activities perform based on various indicators associated with workers, like their performance indicators, employee turnover, innovations made, and overall experience working in the organization, as it is important to acknowledge that those benefits may take time to materialize. A properly designed initiative has to connect the well-being aspect with job quality, managerial competence, and the inclusive nature of the organizational culture, allowing those things to convert the positive influence of improved well-being on the contribution made. Given that the existing knowledge in the field concerning the ways of contributing to both making the employees' and the employers' lives better is still negligible, further research has to combine laboratory and field experiments with standardized measures of financial and human outcomes.

Keywords: Employee Well-Being, Human Capital Theory, Return on Investment, Workplace Wellness Programs, Organizational Performance.

DOI: 10.71086/IAJOBHRM/V10I2/IAJOBHRM1007
Received: 22 August 2023/Revised: 14 September 2023/Accepted: 22 November 2023/Published: 29 December 2023

Introduction

In most industrialized economies, a large portion of salary budgets is spent on health, engagement and resilience programs for employees. The workplace wellness industry alone brings in an estimated eight billion dollars in annual sales in the United States and impacts tens of millions of people, an industry that seems to have grown in response to an increasing amount of health-care costs and greater competition for skilled workforce (Goetzel et al., 2014). These costs are increasing and now Chief Financial Officers and Boards are asking for proof that spending on employee health yields return, not just as an employee benefit or a reputation-building measure.

This need for proof has led to a considerable, but disjointed, volume of literature. Results from the older observational studies and industry sponsored studies are frequently quoted as being impressive (ROI) and studies with well-designed randomized trials yield few, if any, short-term financial returns. This paper synthesizes the relevant literature in the context of the concept of human capital theory, which posits that the health, skill and participation of employees are productive assets on which the firm can invest (Teixeira, 2014). It first explains the theoretical relationship between well-being and human capital returns, then summarizes the empirical findings, beginning with good observational studies, followed by more controversial randomized studies, and then engagement and productivity-based returns. A synthesis section summarizes the data and content in a table and figure, discusses the challenges presented by your measurements, implications for management, and conclusions.

The main contributions of this paper to the existing literature on employee well-being and human capital investments are as follows: first, it synthesizes empirical observations, meta-analyses, and randomized experiments to explain the reasons for substantial heterogeneity in estimated returns on investment in workplace well-being programs; second, it expands the scope of analysis of return on investment in well-being programs by considering other dimensions of human capital, such as engagement and productivity, in addition to health-care savings; and third, it emphasizes the significance of differentiating program elements, employees, time periods, and study designs in reporting return on investment.

This paper is structured in the following way. In the next section, the link between investment in human capital, well-being of the employees, and the performance of organizations is described theoretically. In the following section, there is a review of evidence about financial payoffs, starting with observational studies and meta-analysis, and further continuing with evidence derived from randomized experiments. The next section discusses such aspects of human capital as engagement, productivity, and retention. The reviewed evidence is synthesized in a comparative table and figure. The last section discusses measurement issues and implications for HR practice.

Human Capital Theory and the Well-Being-Performance Link

From Overhead Cost to Capital Asset

According to human capital theory, spending on education, training, and health is an investment that increases a worker's productive capacity, like spending on physical capital increases a firm's productive capacity (Becker, 1964). As such, physical and psychological health of employees is not only a welfare issue but also a part of the organization's human resources base for output. Illness, burnout and disengagement are depreciation of that stock, expressed as absenteeism, presenteeism, turnover and reduced D.E. (discretionary effort). In this sense, well-being programs are considered to be costs for maintenance and improvement of human capital, whose benefit is a reduction in depreciation and an increase in productive output.

Guest (2017) builds upon this approach by developing a human resource management framework which connects HRM practices to employee well-being on three interrelated levels: happiness, or psychological well-being, physical health, and quality of workplace relationships. Guest (2017) is not a simple input-output relationship, but rather well-being should be considered as an outcome of HRM practices and a mediator between HRM practices and organizational performance. This mediating role is relevant to the current review because it suggests that the economic payoff of investments in well-being should not be seen only, or even foremost, in health-care claims data but also in channels such as engagement, discretionary effort and retention, which are discussed later in this paper.

Evidence on the Financial Returns of Well-Being Programs

Favorable Returns in Observational and Meta-Analytic Studies

The most often cited evidence of positive financial returns of investing in workplace well-being is in the form of a critical meta-analysis of a sample of 36 methodologically sound studies of workplace wellness programs conducted by Baicker, Cutler, and Song (2010). They say medical expenses dropped on average by about $3.27 for each $1

invested in their wellness initiatives and that absenteeism expenses declined on average by about $2.73 for each $1 invested in their wellness initiatives, and that participating employers saved an average of 1.7 to 1.9 absenteeism days per employee per year. These numbers have been widely cited in practitioner and policy documents and have influenced employers' expectations of returns in programs.

Previous reviews have also come to similar, although more conservative, findings. Based on an analysis of seventy-two peer-reviewed studies, Aldana (2001) found that health promotion programs were related to decreases in absenteeism and health-care costs, but that the associations were inconsistent in strength across studies by risk factor and design (Aldana, 2001). Similarly, in the Annual Review of Public Health, concluded that there is consistent evidence of health and cost benefits, especially for worksite health promotion programs that integrated health risk appraisals with targeted behavior change intervention and provided some level of on-going organizational support. A large-scale RAND Corporation evaluation, funded by the United States Departments of Labor and Health and Human Services, provides a more detailed-categorized return breakdown by program component (Mattke et al., 2013). The RAND team estimated that the overall program return was $1.50 for every dollar invested, with the disease-management aspect of programs returning $3.80 for every dollar invested and the lifestyle-management aspect, which targets modifiable risk factors, such as diet and physical activity in largely healthy populations, returning only $0.50 for every dollar invested. This is a significant finding because favorable aggregate ROI numbers are frequently generated by a smaller subset of program components targeted to employees who already have chronic conditions, not preventive programming for the general target population of employees.

Contested Evidence from Randomized Trials

There are selection biases in the literature reporting on observation studies: they also tend to overestimate program impacts even if they are low, as employees who are healthier, more motivated or more engaged than those who would not participate may be more likely to take part in the program. But to overcome this limitation, performed the primary large multisite randomized trial of a workplace wellness program, with approximately thirty-three thousand staff across one hundred sixty worksites of a large United States retail employer (Song & Baicker, 2019). There were no significant differences in self-reported exercise, weight management, clinical health measures, health-care spending and utilization, and employment outcomes (absenteeism, job performance, job tenure) between worksites that offered the eighteen-month program and control worksites (Harter et al., 2013).

This is supported by complementary data from the Illinois Workplace Wellness Study. In a large public employer, found that the program was successful in recruiting healthier and more engaged employees to the program, but did not result in any significant changes in total medical costs, health behaviors, or employee productivity during the period studied, and that a majority of the financial benefits observed in a previous study were likely due to the selection of healthier participants, not the program's effectiveness (Jones et al., 2019). A similar randomized evaluation published in the Journal of the American Medical Association's Internal Medicine found no significant impact on medical use, health beliefs or health after two years of a workplace wellness program, demonstrating that rigorously identified causal effects on medical spending are much more modest and delayed than what observational meta-analyses suggest (Reif et al., 2020).

The observational and experimental literatures are not necessarily in conflict; they provide answers to different questions. Observational studies calculate the return on program participation, which depends on the program and the attributes of the employees who take part (Baicker et al., 2010). Being offered a program is a randomized treatment that, absent the intervention, would have also been offered to a given student, and as such is considered a small intervention in the short run by randomized trials, such as Song and Baicker (2019) and Jones et al. (2019). This difference is important for human capital investment decisions: a program that seems to yield a $3.27 return in an observational study might yield a return of nearly zero in a causal study, once the selection factor is taken into account.

Beyond Health Costs: Engagement, Productivity, and Retention as Human Capital Returns

Based on a weak link that is often fragile, the health-care cost savings from well-being investments are less reliable than engagement, productivity and retention results. In their 10th Q12 meta-analysis, spanning 456 research studies from 276 organisations across 54 countries and 96 industries, Gallup identified 11 organisational performance outcomes that were positively correlated with employee engagement, including profitability, productivity and customer loyalty, as well as finding that teams with lower levels of engagement had 18 to 43 per cent more turnover than teams with higher engagement. Well-being and engagement are empirically linked, so an improvement in psychological safety, workload manageability and social support can lead to human capital returns via this engagement-retention pathway even in the absence of any change in total health-care spending.

In their useful conceptual paper, Grant, Christianson, and Price (2007) offer a link between this performance-based literature and the health-based wellness literature. They identify three aspects of employee well-being that managers can impact: happiness well-being, which is how employees feel about their work; health well-being, which is physical health and stress; and relationship well-being, which is the quality of employees' social relationships at work. Specifically, Grant et al. (2007) demonstrate that some interventions that enhance one aspect of well-being can come with a cost to another, such as when redesigning the job to make it more enjoyable also makes it harder to do physically. This trade-off framework may account for the lack of measured return in a health program that is only focused on health-cost containment – it may be doing only a little bit of improving health well-being and almost anything else related to happiness or relationship well-being – the aspects that are more closely linked to engagement and retention – may be lost.

Synthesis of Reported Returns

Table 1 provides a summary of the design, scale and main conclusions of the key studies discussed above—meta-analytic reviews, national program evaluation, randomized controlled trials and cross-organizational meta-analysis using engagement data. The dollar return to the dollar invested, by cost category and program component, reported in the two studies in this review that quantify dollar return in this way is displayed by fig. 1. Taken together, the table and figure show the central conflict of this literature: returns are highest surrounding the disease-management aspects focused on individuals with known chronic conditions, but they are substantially smaller for programming that is broadly based and more focused on prevention, and smallest for causal estimates from randomized designs.

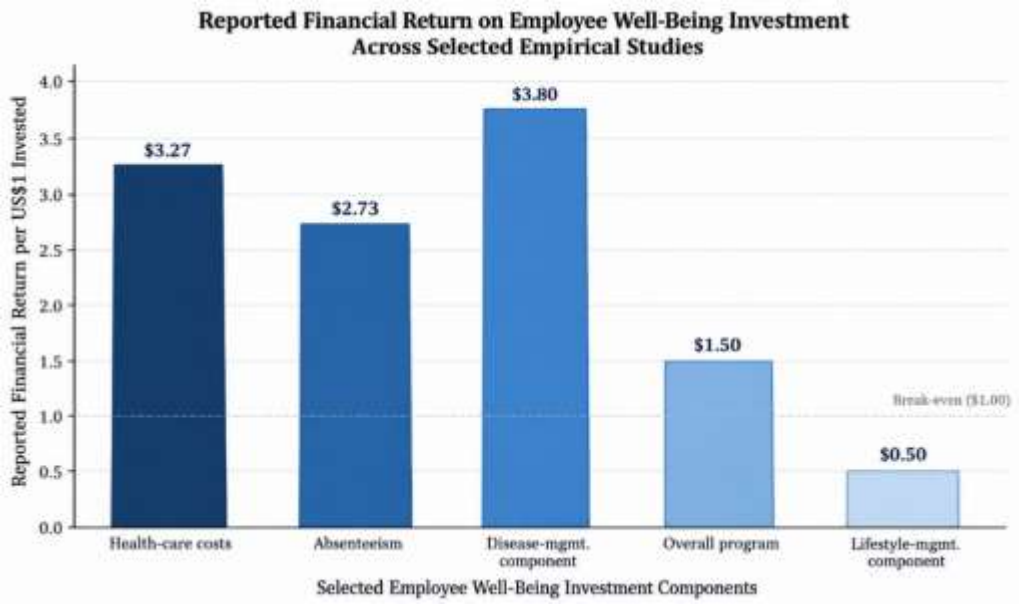


Fig. 1: Reported Financial Return per Dollar Invested in Employee Well-Being Programs, by Cost Category and Program Component

The aggregate (program-wide) dollar per dollar returns in the two studies reporting such figures are between $1.50 and $3.27, as shown in Fig. 1, with returns in disease management systems as high as $3.80 and returns in prevention-oriented lifestyle systems as low as $0.50, below break-even. The numbers in this graph are not from a randomized design, and the randomized studies reported in Table 1 do not show a statistically significantly return on investment for the duration of the studies. This fits the selection-effect argument described above, and indicates that expected ROIs from observational studies should be considered to be above the headline ROI, not the expected value.

Discussion: Measurement Challenges and Managerial Implications

Why Reported Returns Diverge

There are three explanations for the great variability in returns as reported in Table 1. First, self-selection into participation can result in observational comparisons that are biased toward positive outcomes as employees who participate are different from those who do not participate in some unobserved ways, such as in terms of motivation

and baseline health (Jones, Molitor, & Reif, 2019). Second, measurement windows are significantly different, with health-care cost effects potentially taking years to become apparent, and most follow-up periods studied in the trials reviewed in this paper ranging from 12 to 24 months. Third, there are two different ways to study a disease management program and arrive at an estimate of return; one includes a focus on different components (such as disease management for chronically ill employees) while the other measures the return on a bundled program intended for a complete workforce; returns vary by more than seven times in the same organization, depending on the type of program studied (Mattke et al., 2013).

Implications for Human Resource Practice

Based on this review, three implications for human resource leaders and executives as they consider well-being investment as a form of human capital expenditure. First, claims about ROI should be used with caution, and, if possible, compared to randomized or quasi-experimental evidence, before using them to justify budget requests. Second, measurement should go beyond health-care claims to include measures of engagement, discretionary effort, and turnover, as evidence reviewed here indicates that these channels may provide the more enduring human capital return (Guest, 2017). Third, investment in well-being resources should focus on those who have been identified as having chronic health risk, for which the evidence of financial return is greatest; and broad-based prevention programming should be assessed based on engagement, culture and retention factors instead of short-term cost offsets.

Conclusion

While a health and wellness program can be justified by human capital as an investment, this does not necessarily imply a financial return. Much of the literature considered here demonstrates that there is a significant disparity between the short-term financial returns in observational studies ($1.50 to $3.80 per dollar invested) and randomized trials which, once selection bias is corrected for, show no short-term financial effect. This separation does not mean that well-being investment is not working; it means that benefits to well-being are more likely to be seen as a return on investment on engagement, retention, and productivity measures, than on aggregate health-care cost containment measures. Randomized designs with longer term follow-ups and measures of human capital outcomes that cover a wider range of metrics, including turnover, productivity and engagement as well as health care expenditure are warranted for future studies to generate return estimates that human resource leaders and finance functions can confidently use. Such researches should also look into the effects that are likely to vary among different categories of employees, different kinds of occupations, and different organizational settings. Measurement instruments should be consistent so as to allow for the comparison of results among studies and to make clear which are the effects that occur immediately and which develop slowly over time. Moreover, organizational gains should not be overlooked – for example, lower absenteeism rates, better morale at work, and increased employee commitment.

References

Aldana, S. G. (2001). Financial impact of health promotion programs: a comprehensive review of the literature. *American Journal of Health Promotion*, *15*(5), 296-320. https://doi.org/10.4278/0890-1171-15.5.296

Baicker, K., Cutler, D., & Song, Z. (2010). Workplace wellness programs can generate savings. *Health affairs*, *29*(2), 304-311. https://doi.org/10.1377/hlthaff.2009.0626

Teixeira, P. N. (2014). Gary Becker's early work on human capital–collaborations and distinctiveness. *IZA Journal of Labor Economics*, *3*(1), 12. https://doi.org/10.1186/s40172-014-0012-2

Goetzel, R. Z., Henke, R. M., Tabrizi, M., Pelletier, K. R., Loeppke, R., Ballard, D. W., ... & Metz, R. D. (2014). Do workplace health promotion (wellness) programs work? *Journal of occupational and environmental medicine*, *56*(9), 927-934. https://doi.org/10.1097/JOM.0000000000000276

Grant, A. M., Christianson, M. K., & Price, R. H. (2007). Happiness, health, or relationships? Managerial practices and employee well-being tradeoffs. *Academy of management perspectives*, *21*(3), 51-63. https://doi.org/10.5465/AMP.2007.26421238

Guest, D. E. (2017). Human resource management and employee well-being: Towards a new analytic framework. *Human resource management journal*, *27*(1), 22-38. https://doi.org/10.1111/1748-8583.12139

Jones, D., Molitor, D., & Reif, J. (2019). What do workplace wellness programs do? Evidence from the Illinois workplace wellness study. *The Quarterly Journal of Economics*, *134*(4), 1747-1791. https://doi.org/10.1093/qje/qjz023

Mattke, S., Liu, H., Caloyeras, J., Huang, C. Y., Van Busum, K. R., Khodyakov, D., & Shier, V. (2013). Workplace wellness programs study. *Rand health quarterly*, *3*(2), 7. https://doi.org/10.7249/rhq-03-02-07

Reif, J., Chan, D., Jones, D., Payne, L., & Molitor, D. (2020). Effects of a workplace wellness program on employee health, health beliefs, and medical use: a randomized clinical trial. *JAMA internal medicine*, *180*(7), 952-960. https://doi.org/10.1001/jamainternmed.2020.1321

Song, Z., & Baicker, K. (2019). Effect of a workplace wellness program on employee health and economic outcomes: a randomized clinical trial. *Jama*, *321*(15), 1491-1501. https://doi.org/10.1001/jama.2019.3307

Harter, J. K., Schmidt, F. L., Agrawal, S., Plowman, S. K., & Blue, A. (2013). The relationship between engagement at work and organizational outcomes. *Gallup Poll Consulting University Press, Washington*.