

# Risk Management Approach to Analyzing Outcomes from EAP Counseling: Part 1 of Series with Global Data from the Workplace Outcome Suite<sup>®</sup> by Morneau Shepell

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**ABSTRACT.** *This is the first paper in a three-part series based on the Workplace Outcome Suite<sup>®</sup> (WOS) Annual Report for 2018.<sup>1</sup> This self-report measurement tool was developed by Chestnut Global Partners in 2010 and is now owned by Morneau Shepell. It is a scientifically validated tool offered free to the employee assistance field. In this paper, we advance a risk management approach to understanding how employee assistance program (EAP) services can be used to greater advantage by employers. This approach uses an alternative procedure for coding the WOS data and for analyzing the results for change over time. This method asks, for each WOS outcome area, how many employees (as a percentage of all EAP cases) are at a problem level on the outcome when first seeking counseling and also at the follow-up? The difference in these two percentages indicates how many cases had improved after counseling to no longer have a “problem” with missing work, or with work engagement, and so on. Self-report data was collected at the start of counseling and at 60-90 days after counseling ended. The sample was 24,363 cases worldwide from multiple EAPs with data collected between years 2010 to 2018. Results found that after deducting the small percentage of cases who changed from no problem at the start to having a problem after use, the net change in rates among EAP users of having a problem in each*

*outcome was significantly reduced: work presenteeism with 56% of cases with problem at before vs. 28% after; life satisfaction with 38% of cases with problem at before to 21% after; work absenteeism with 34% of cases with problem at before vs. 20% after; work engagement with 31% of cases with problem at before vs. 10% after; and workplace distress with 22% of cases with problem at before vs. 9% after. When adding up problem status (yes or no) within person for all five WOS measures (range from 0 to 5 at each time point), the average number of outcome areas with a problem was significantly reduced from 1.81 per case at before to 0.94 at after use. These findings demonstrate that brief counseling was effective at reducing work-related problems of users, even when most employees (82%) had used the EAP for issues other than work. This study shows how a behavioral health risk management approach can be successfully applied to interpreting and reporting on work-related outcomes from EAP counseling.*

## Introduction

The Workplace Outcome Suite<sup>®</sup> was developed by Chestnut Global Partners in 2010.<sup>2</sup> In December 2017, Chestnut Global Partners was acquired by Morneau Shepell and the

ownership and administration of the WOS changed as well. The WOS is currently the only publicly available, free instrument that has been psychometrically validated and tested for use in EAP counseling settings. By 2018, more than 600 EAPs from across the globe had requested use of the WOS.

The WOS uses a short, precise, and easy-to-administer survey that collects EAP specific outcome data longitudinally (usually at the start of the counseling and at two or three months after the date of the last counseling session). The WOS examines four key aspects of workplace functioning among employees as well as general functioning (measured as overall life satisfaction):

- Work absenteeism
- Work presenteeism
- Work engagement
- Workplace distress
- Life satisfaction

In 2018, several advances were made in the WOS measures. A new way of asking the work absenteeism single item was introduced that allows the person to simply select from one of five levels of work hours. The five levels are based on the distribution of actual data from the global norms for the WOS. Using a measure of work absenteeism with a response range of 1 to 5 allowed it to be combined with the other four WOS single-item measures that are also scored on a 1 to 5 response scale. This combined measure is called the WOS SuperScore. See the *WOS 2018 Annual Report* for further details on how these new measures were created and how to score the results.<sup>1</sup>

In 2018, Morneau Shepell also introduced a new way to score the WOS measures to reflect whether or not the employee endorsed responses that can be interpreted as having a problem with that outcome area. This innovation in scoring is the focus of the present report.

## Aligning Employee Risk with Having a Problem on Work-related Outcomes

The problem status approach is an alternative procedure for coding the case-level WOS data and for analyzing change over time. This method asks, for each outcome area, how many employees (as a percentage of all cases) have a problem when first seeking counseling and then how many still had a problem at the follow-up. This metric is simply the percentage of total cases at a problem level on each of the WOS measures at before and after use. The meaning embedded in the labels on the response options for each WOS item is used to determine the subgroup of the EAP user sample who are at a problem level on a particular WOS outcome.

This approach borrows from the logic model inherent in the workplace wellness field's emphasis on finding employees who are at-risk for various health issues and then trying to reduce those risks through education, coaching and referral to relevant specialty care programs.<sup>3</sup> Central to a risk management approach to employee health is understanding the level of risk involved.<sup>4</sup> Mental health conditions and related behavioral health issues impact most workplaces. Recent epidemiological data shows that roughly 20% of all working adults are at-risk for experiencing a behavioral health issue each year.<sup>5</sup> Several articles<sup>6,7</sup> and industry trainings<sup>8-10</sup> describe the research-based rationale for why a more integrated organizational approach is needed to help employers better understand the greater potential of EAPs as a risk management tool.

## Overview of Study

This study aimed to answer two primary questions:

- How many employees who use EAPs have a problem (i.e., are at-risk) on outcomes of work absenteeism, work presenteeism, workplace distress, work engagement or overall life satisfaction?

- How do the problem rates among the full sample of counseling cases for each WOS outcome change from before to after use of EAP counseling?

The answer to these questions can help us better understand the range of work-related problem severity that employees present with at the EAP and can also be used to assess the effectiveness of EAP counseling services. The findings can be used to demonstrate the role of EAP counseling in addressing risk management issues for organizations.

## Methods

### Study Design

Employee users of the EAP completed the WOS *before* the first counseling session and again at several months *after* the final session. A 90-day timeframe was recommended by Chestnut Global Partners for when to administer the WOS measures a second time. This follow-up timing was intended to be sufficient to confirm that changes in outcomes occurring at the end of counseling were maintained over a longer time period of time after the counseling had ended.

### Sample

*Sample Sources.* As of April 2018, a variety of different EA providers, large employers or EAP industry groups had kindly shared their data with Chestnut Global Partners. Most of these 38 sources of data were external vendors of EAP services, EAPs that serve hospital systems (and often other employers in the same local community), some internal programs from large corporations, and several public sector and government organizations. Almost all of these cases were users of EA provider counseling services rather than other non-counseling services (e.g., work/life, financial, or legal). Data was collected during the years 2010 to 2018.

*Sample Size.* The sample used for analysis had 24,363 cases that had data on all five WOS measures at both before and after EAP use.

*Sample Geography.* Every case in the sample was able to be coded individually for the country where the client lived at the time of their EAP use. Most were determined by the location of the EAP vendor while others were determined at the case level from data coding provided by large global employers that had employees located in multiple countries. A total of 28 countries were represented. The mix of how many cases were from different countries was quite skewed. The vast majority of cases were from the U.S. (79% of the total cases). The second most common country was China (15%) and almost all of these cases were from one external EAP vendor – Chestnut Global Partners China. The remaining 6% of the study sample represented cases living in 26 other countries.

### Measures

*Versions of WOS Measures.* This study used data pooled from all versions of the WOS (25-, 9- and 5-item versions). The choice of which version was used was made independently by each EAP who provided the data.

- The original 25-item WOS was used by five EAPs and had 629 valid cases.
- The 9-item version of the WOS was used by two EAPs and had 5,847 valid cases. This version has the original 5-item work absenteeism set of questions but the single items for each of the other four outcomes.
- The brief 5-item version of the WOS (introduced in 2013) was used by 30 EAPs and had 17,887 valid cases. This version has only a single item taken from four of the original 5-item scales and a new item for work absenteeism.

Work absenteeism is a fill in the blank question whereas the others are rated on a Likert-type

scale where 1 = *strongly disagree*, 2 = *somewhat disagree*, 3 = *neutral*, 4 = *somewhat agree*, and 5 = *strongly agree*.

**Work Presenteeism.** Presenteeism is when an employee is physically present on the job but is not working at their normal level of job performance because of some health or personal issue.<sup>11</sup> Presenteeism assesses whether the employee is doing what he or she is supposed to do at work, rather than being distracted by a problem. On the WOS-5, work presenteeism is measured using a single item: *“My personal problems kept me from concentrating on my work.”*

**Workplace Distress.** This is the feeling an employee has about the conditions of the work environment. It is not designed to evaluate the underlying cause of the distress, but only to measure the reduction in distress caused by the EAP intervention. On the WOS-5, workplace distress is measured using a single item: *“I dread going in to work.”*

**Work Engagement.** This refers to the extent to which an employee is invested in his or her job. This construct goes beyond engagement in particular tasks to address a level of commitment to one’s job.<sup>12</sup> Engaged employees take their work home with them and are excited about being at work. Workplace problems can be expected to diminish this type of enthusiasm as the demands of a problem often interfere with the normal level of excitement connected to one’s job. On the WOS-5, work engagement is measured with a single item: *“I am often eager to get to the work site to start the day.”*

**Life Satisfaction.** As a general construct, life satisfaction is not usually a very sensitive measure of the impact of a specific personal problem, but it can be useful in addressing the impact of workplace problems on one’s general well-being and can be used to place the problem in a “life” context.<sup>13</sup> On the WOS-5, life satisfaction is measured with a single item: *“So far, my life seems to be going very well.”*

**Work Absenteeism.** Absenteeism is when an employee does not show for scheduled work time such as missing an entire shift, coming in late, or leaving earlier than planned.<sup>11</sup> Holidays or vacation days are generally not relevant to absenteeism as these are usually scheduled days off. On the WOS, work absenteeism is measured in two ways: the original 5-item version and different single-item version.

- Work absenteeism original 5-item scale: *Please report for the period of time of the past thirty (30) days the total number of hours your personal problems: (1) Caused you to miss work entirely: \_\_\_\_; (2) Made you late for work: \_\_\_\_; (3) Caused you to take off early: \_\_\_\_; (4) Pulled you away from your normal work location: \_\_\_\_; and (5) Required you to be on the phone, e-mail or Internet while at work: \_\_\_\_.*
- Work absenteeism single-item from WOS-5: *“For the period of the past 30 days, please total the number of hours your personal concern caused you to miss work. Include complete eight-hour days and partial days when you came in late or left early.” \_\_\_\_.*

The brief 5-item version was used for analyses for four of the five WOS outcomes (as the single-item was already embedded in the full 5-item versions). However, a new hybrid version of work absenteeism was created for analysis in this study.

**Hybrid Version of Absenteeism.** A new strategy was devised to use all cases in the pooled data even when different subgroups had data from the original full work absenteeism scale and others had data from the single-item measure of work absenteeism. Only the data from the first three items of the 5-item version of work absenteeism were used because these three items conceptually matched the instructions for the single-item version which asks the person to consider absence consisting of missing work altogether, arriving late, or taking off early. These two measures (i.e., the single-item and

revised 3-item matching set of items) were both used to provide a count of the work absence hours for everyone in the study sample.

**Validity of WOS Measures.** The relationships between the five WOS outcomes were examined. There were moderate size correlations between all five WOS measures at the before EAP use period ( $r = -.50$  to  $r = .25$ ; all  $p < .001$ ). These findings indicated that although the WOS measures do have some overlap, each measure still has its own meaning that is distinct from the others and thus tells a different part of the larger workplace outcomes story. Other tests revealed very small size correlations between the client demographic factors of age and sex with the five WOS measures at before EAP use ( $r = .11$  or less). These findings also offer evidence of the discriminant validity of the WOS, as there was no reasonable expectation that men and women or clients of different ages should differ on levels of workplace outcomes.

**Reliability of WOS Measures.** All five of the WOS single-item measures had significant, but moderate size, correlations over time within-person from before to after use of the EAP ( $r_{paired} = .34$  to  $.49$ ; all  $p < .001$ ). These test-retest correlations would likely be higher if they were not from conditions that involved a clinical intervention intended to try to change the scores and indicate improvement after use.

**Assigning EAP Cases into “Problem” or “No Problem” Status based on WOS Responses.**

The WOS data was re-coded for problem level status in the following manner. The two WOS measures that are phrased as unhealthy constructs (presenteeism and workplace distress) were considered to be at a “problem level” when a person either *agreed* or *strongly agreed* with the item (ratings of 4 or 5). Conversely, the other two WOS measures that are phrased as healthy constructs (work engagement and life satisfaction) were considered to be at a “problem level” when a

person either *disagreed* or *strongly disagreed* with the item (rating of 1 or 2). For work absenteeism this re-coding process had to be done differently. As the typical employee misses less than half a day of work each month due to health reasons,<sup>19</sup> a criterion of four or more hours absence per month was established as a “problem level” for work absenteeism. The WOS scores were re-coded in this manner for all cases (see Table 1).

**Table 1.**  
*Re-coding of WOS-5 Items for Problem or No Problem Status*

WOS Measure	Problem	Not a Problem
Work Absenteeism (fill in hours or rating 1-5)	4+ hours or new rating of 3, 4 or 5	0-3.99 hours or rating of 1 or 2
Work Presenteeism	Agree (4,5)	Neutral or Disagree (1,2,3)
Workplace Distress	Agree (4,5)	Neutral or Disagree (1,2,3)
Work Engagement	Disagree (1,2)	Neutral or Agree (3,4,5)
Life Satisfaction	Disagree (1,2)	Neutral or Agree (3,4,5)

**Data Analysis**

Statistical testing of change from before to after use of EAP in the percentages of cases at each time point was performed with Chi-Square tests. Tests of the change over time in the total number of problems was conducted using a paired *t*-test. All tests were conducted using the SPSS V25 statistical software.

**Results**

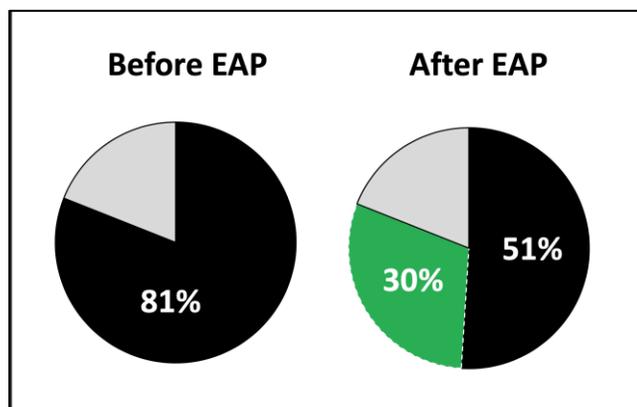
The results are presented in three parts. The first part presents the overall results of change in percentage of the full sample of EAP counseling cases that were at the problem level on each WOS outcome. The second part presents more detailed results of changes from baseline for initial problem status or no problem status on each WOS outcome. Part 3 of the paper presents a more detailed look into the

data that sorts the cases into a 2 x 2 table based on problem status (yes or no) at before and at after use of counseling.

**Results Part 1:  
Overall Reduction in Average Number of WOS Outcomes at Problem Status**

Using data from the full sample, we calculated the number of cases that had a “problem” with one or more of the WOS outcomes at the start of EAP counseling. At the start, about 4 in 5 cases (81%) were at a problem level on one or more of the five WOS outcomes (see Figure 1).

**Figure 1.**  
*Percentage of All EAP Users at Before and at After Use with At Least One Workplace-related Problem*



Note: N = 24,363. Green slice is the difference between the results at before and after time points.

This is an important finding considering that work or occupational issues were the specific focus of the counseling for a much smaller portion of this sample (only 18%). Thus, even though other clinical issues (e.g., mental health, personal stress, family, or substance use problems) were usually the reason to get help from the EAP, one or more areas of work were nonetheless adversely affected.

At the follow-up after counseling, only half of the cases (51%) had a problem on one or more of the five WOS outcomes. Thus, there were 30% fewer cases in total with a problem after

use. This also indicated that the percentage of EAP cases who did *not* have a problem on any of the five WOS work-related outcomes increased from 19% at before use to 49% after use.

Table 2 shows the full distribution of how many work-related problems (from 0 to all 5) were experienced among EAP users at before and after. In both of the time periods, there was an inverse pattern such that as the percentage of users decreased the number of total problems increased. When tested in the entire sample, the average number of WOS outcomes at a problem level per person was reduced from 1.81 to 0.94. This difference was significant in a paired *t*-test = 96.99, *p* < .001, *r*<sub>paired</sub> = .41.

**Table 2.**  
*Number of WOS Outcomes Per EAP Case with Problem Status at Before and After Use*

WOS Measure	Before EAP	After EAP
None	19%	49%
1 Problem	26%	25%
2 Problems	26%	14%
3 Problems	16%	7%
4 Problems	9%	4%
5 Problems (maximum)	4%	1%
Total	100%	100%
Average (SD)	<b>1.81</b> (1.36)	<b>0.94</b> (1.19)

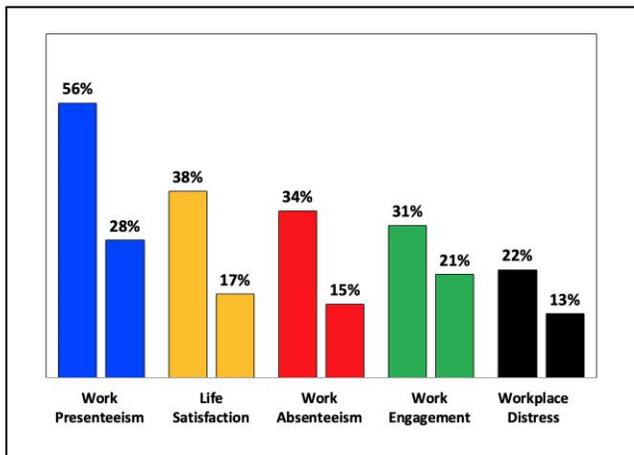
Note: N = 24,363. SD = standard deviation.

**Results Part 2:  
Overall Reduction in Prevalence Rates of Problem Status on Each WOS Outcome**

Other results showed the variability between the different WOS outcome constructs in how many EAP cases had a problem at the start of use, which ranged from 56% to 22%. The most defining work problem initially was presenteeism, with over half of all cases reporting that a personal issue affected their ability to concentrate at work. The least common kind of problem at the start of counseling was workplace distress, affecting 22% of EAP users.

After counseling, the problem prevalence rate among the cases was lower for each of the five WOS outcomes (see Figure 2). Each result for change over time had an improvement that was statistically significant (all at  $p < .001$ ) and which represented a medium size statistical effect (partial eta squared  $\eta_p^2$ ).

**Figure 2.**  
*Problem Prevalence at Before and After EAP Use for Each WOS Measure*



Note: Percentage of  $N = 24,363$  cases. For each pair, left bar = before use and right bar = after use.

Having a problem with work presenteeism was reduced from 56% of all cases at before to 28% after ( $X^2 = 1,751, \eta_p^2 = .08$ ). This amount of change is a relative reduction of 50% in the rate of cases having a problem with presenteeism.

Having a problem with life satisfaction was reduced from 38% of all cases at before to 17% after ( $X^2 = 1,611, df = 1, \eta_p^2 = .07$ ). This amount of change reflects a relative reduction of 55%.

Having a problem with work absenteeism was reduced from 34% of all cases at before to 15% after ( $X^2 = 1,775, df = 1, \eta_p^2 = .07$ ). This amount of change reflects a relative reduction of 56%.

Having a problem with work engagement was reduced from 31% of all cases at before to 21% after ( $X^2 = 2,731, df = 1, \eta_p^2 = .11$ ). This amount of change reflects a relative reduction of 32%.

Having a problem with workplace distress was reduced from 22% of all cases at before to 13% after ( $X^2 = 3,003, df = 1, \eta_p^2 = .13$ ). This amount of change reflects a relative reduction of 41%.

Note that the percentage of cases with a problem at after use reflects the sum of the users who stayed at risk over time combined with those who increased in risk after use. Conversely, the remaining percentage of cases without a problem at after use reflects the sum of the users who stayed at low risk over time added to also those who decreased in risk after use. These findings after use are explored more fully in the next part of the Results.

### Results Part 3: Details of Change Over Time in Problem Status on Each WOS Outcome

This part of the paper presents details of results that were not included in the 2018 WOS Annual Report. This is a more detailed look into the same data by sorting the cases into a 2 x 2 table based on problem or no problem status at before and after use of the EAP. Table 3 shows the four possible categories resulting from this analysis which include two types of “good” outcomes and two types of “bad” outcomes.

**Table 3.**  
*Four Possible Outcomes in 2 X 2 Conceptual Model for Change or No Change from Before to After Use*

Before EAP Use	After EAP Use	
	Not a Problem	Problem
Not a Problem	No Change Still Not a Problem GOOD Outcome	Change to Got Worse BAD Outcome
Problem	Change to Got Better GOOD Outcome	No Change Still a Problem BAD Outcome

The mix of cases in the four cells of the 2 X 2 model on each WOS measure is presented in Table 4. A change ratio statistic is also presented. This was created by dividing the percentage of cases who got better over the percentage of cases who got worse.

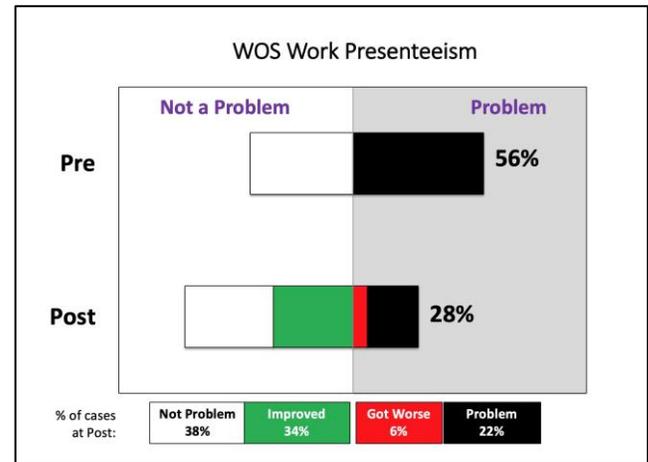
**Table 4.**  
Results of 2 X 2 Analysis of Change in Problem Status Over Time: By WOS Measure

Good Outcomes %		Bad Outcomes %		Ratio of Good Change vs. Bad Change
Stayed No Problem %	Got Better %	Got Worse %	Stayed Problem %	
<b>Work Presenteeism Problem</b>				
72			28	
38	34	6	22	6.3
<b>Life Satisfaction Problem</b>				
83			17	
56	27	6	11	4.5
<b>Work Absenteeism Problem</b>				
86			14	
62	25	5	9	5.0
<b>Work Engagement Problem</b>				
79			21	
61	18	8	13	2.3
<b>Workplace Distress Problem</b>				
87			13	
73	14	5	8	2.8

Note: N = 24,363.

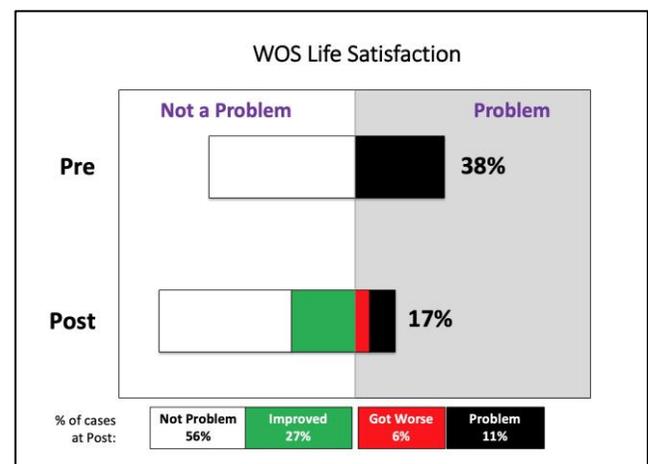
**Work Presenteeism Detailed Results.** The distribution of cases into the four outcomes for work presenteeism is displayed visually in Figure 3. The “good outcomes” for work presenteeism represented 72% of the total cases and included 38% of cases that stayed at no problem status and 34% of cases that got better. The “bad outcomes” represented 28% of all cases and included 22% of cases that stayed at problem status and the 6% of cases that got worse. For every case that changed to have a presenteeism problem at after use, there were 6.3 other EAP users who changed from initially having a presenteeism problem to no longer having that problem. This good-to-bad change ratio was the best of the five WOS measures.

**Figure 3.**  
Changes for Work Presenteeism Problems



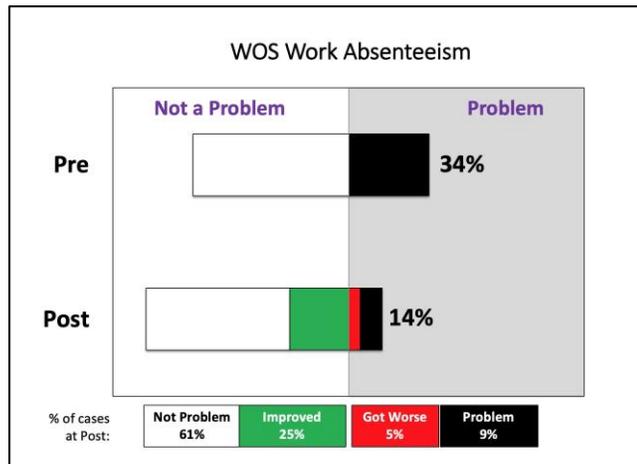
**Life Satisfaction Detailed Results.** The mix of cases into the four outcomes for life satisfaction is displayed in Figure 4. The “good outcomes” included 56% of cases that stayed at no problem status and another 27% of cases that changed from at-risk to not being at “problem level” at follow-up. The “bad outcomes” 11% of cases that stayed at problem status and 6% of cases that changed from not at-risk to being at “problem level” at follow-up. For every case that changed from high to low satisfaction after use, there were another 4.5 EAP users who changed to become more satisfied overall with their lives after completing counseling.

**Figure 4.**  
Changes for Life Satisfaction Problems



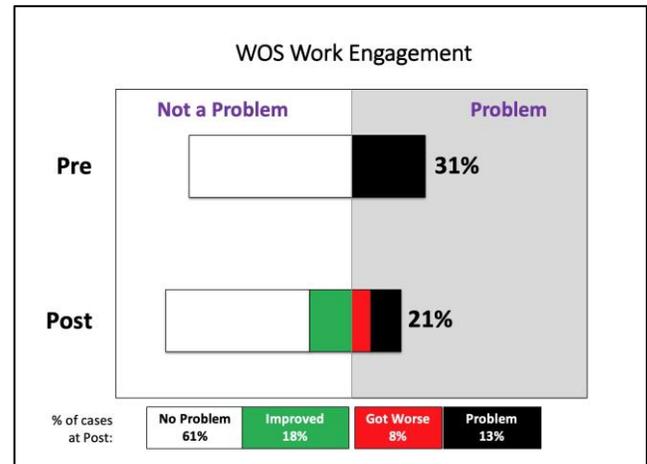
**Work Absenteeism Detailed Results.** The findings for work absenteeism are displayed in Figure 5. The “good outcomes” represented 86% of cases and this included 62% of cases that stayed at no problem status and another 25% of cases that changed from at-risk to not having an absenteeism problem at follow-up. The “bad outcomes” represented 14% of cases and included 9% of cases that stayed at problem status and 5% of cases that changed to have a problem at follow-up. For every case that changed to have an absenteeism problem at after use, there were 5 other EAP users who changed to no longer have a problem after use.

**Figure 5.**  
*Changes for Work Absenteeism Problems*



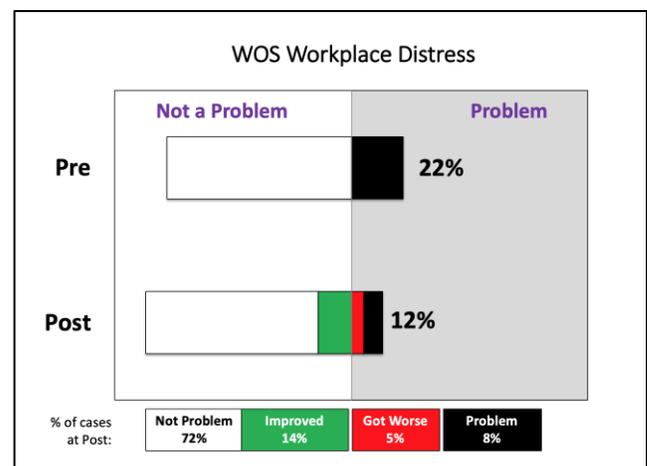
**Work Engagement Detailed Results.** The mix of cases into the four outcomes for work engagement are displayed in Figure 6. The “good outcomes” represented 79% of cases and included 61% of cases that never had work engagement problems and another 18% of cases that changed from at-risk to being more engaged at the follow-up. The “bad outcomes” represented 21% of all cases and included 13% of cases that stayed less engaged and 8% of cases that changed from not at-risk to then lacking engagement at follow-up. For every case that got worse, there were another 2.3 users who changed to be more eager to get to the work site to start the day.

**Figure 6.**  
*Changes for Work Engagement Problems*



**Workplace Distress Detailed Results.** The mix of cases for workplace distress is displayed in Figure 7. The “good outcomes” represented 87% of all cases and included 73% of cases that stayed at no problem status and another 18% of cases that changed from at-risk to no longer being distressed at follow-up. The “bad outcomes” represented only 13% of cases, which included the 8% of cases that stayed distressed and the 5% of cases that changed to become distressed at the follow-up. For every case that got worse, there were another 2.8 EAP users got better on level of workplace distress.

**Figure 7.**  
*Changes for Workplace Distress Problems*



## Discussion

Changing the scoring of these work-related outcomes into a simple binary variable of problem or no problem has yielded some valuable insights into the use of EAP counseling. More than 4 out of every 5 users of EAP counseling initially had a problem with at least one of these core workplace outcomes. Thus, the measurement of work-related outcomes should be a routine part of service delivery as these kinds of outcomes are indeed relevant to the vast majority of EAP users. A related key point is that after benefiting from the use of EAP counseling, the high rate of workplace problem prevalence among users dropped considerably such that almost 1 in 3 cases no longer had a workplace outcome problem.

Although each WOS measure had a statistical result that was significant beyond chance and all were of these results were of medium size, the greatest change over time was found for the reduction in the rate of how many cases had a problem with work presenteeism. This result occurred despite the fact that most cases did not come to use the EAP seeking support for work performance issues. This indirect effect of counseling on restoring the work productivity of distressed employees is a finding that should be of great interest to the employers who sponsor EAP benefits.

Problems with the life satisfaction and work absenteeism outcomes also had net improvements after use and these results were closer to the level found for work presenteeism. But the other two outcomes of work engagement and workplace distress both had much lower problem rates overall initially and had less net improvement. It could be that the individual focus of EAP counseling has less impact on altering the larger workplace and organizational level factors that tend to drive engagement in work and influence why employees get distressed over their workplaces. Both of these are factors more out of the span of direct control for the employee than are the

other WOS factors of work absenteeism and work presenteeism.

Life satisfaction is the only measure of the WOS that is not specific to work and had the broadest definition and sources of influence. Given the somewhat high prevalence rate of not being satisfied initially (more than 1 in 3 cases) and the success of counseling in reducing this problem rate, perhaps life satisfaction on the WOS can be interpreted as a proxy for overall clinical status.

Revealing how many cases “got worse” after use for each outcome area also adds to the clinical validity of what happens with EAP counseling and the overall credibility of the research results. Just as it is unrealistic to expect that every case will improve after counseling, it is also unrealistic to expect that no cases will experience an increase in certain problem areas. Indeed, both of these good and bad kinds of changes did occur. However, a comparison of the two findings revealed far more cases (from 2.3 to 6.3 times as many) had changed to no longer have a problem (which ranged from 14% to 34%) than those who had changed to develop a new problem after counseling (which ranged from 5% to 8%). This kind of case level profiling of the frequency of different types of outcomes is lost when using the standard analytic approach of testing for change over time in the mean scores on outcome measures.<sup>14</sup>

In closing, this evidence shows that brief counseling from EAPs was effective at reducing the risk status of employees on multiple kinds of workplace-related outcomes. Thus, the results successfully demonstrate how to examine the outcomes of EAP counseling from a behavioral health risk management perspective.

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