Return on Investment for Employee Assistance Programs: Conceptual Model and Outcomes from 166,116 Employee Cases at CuraLinc Healthcare

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Abstract: This study updates the return on investment (ROI) calculator created in 2019 for CuraLinc Healthcare to estimate financial savings for purchasers of the employee assistance program (EAP) benefit. It incorporates current default figures for costs and outcomes with more advanced logic. Over 100 applied research studies are reviewed to support the logic and cost inputs for each component of the estimation model. The empirical foundation used national data from 166,116 employee users of counseling and coaching services between 2017 and 2024. The methodology, sample, measures, and primary results are presented. Among those cases initially at clinical risk status on outcomes a large majority of the cases who started EAP use at-risk on the specific measure later successfully recovered to no longer be at clinical risk at the 30-day follow-up: 79% of cases recovered from mental health disorder (combined anxiety and depression); 67% of cases recovered from hazardous alcohol use; and 61% of cases recovered from work productivity problem (combined absenteeism and presenteeism) with their average hours of lost work productivity changed from 57.3 to 16.4 hours per month. These longitudinal results were all statistically significant ($p < .001$) and large size statistical effects. A case study example illustrates the model using a fictitious company with 20,000 employees, typical program use (5% counselor case rate; 3% organizational services user rate), financial conditions ($20 per employee per year fee for the EAP benefit; annual wages of $65,458 per employee), and clinical and work outcomes for EAP users. The result showed over $5 in return for each $1 invested in the EAP benefit (ROI = $5.39:1). Two components involve health care insurance claims paid by employers. The offset of outpatient mental health treatment visits and prevention of long-term treatment costs for mental health and alcohol/drug risks provided a $3.24:1 ROI. Another two components involve human capital outcomes—restored employee work productivity (from reduced absenteeism and presenteeism) and avoided employee turnover—which together provided a $2.01:1 ROI. The final component recognizes the use of organizational services from the EAP for workplace trainings, managerial consultations, and crisis event responses (delivery-only cost value at $0.13:1 ROI). These workplace level activities are crucial as they promote awareness of the service and drive overall program utilization, generating savings in the other four components. The logic model adheres to the four "C"s of proper ROI development: Comprehensive, Credible, Conservative, and Customizable. The calculator can customize the results based on financial factors (investment in EAP, employee compensation and health care claims costs), usage levels for EAP services, and how the EAP user profile mix for gender, age, clinical issues and the industry type all moderate the clinical and work outcomes. Comparison to past research indicates this approach is more conservative than how other EAPs measure ROI. A simplified version of the calculator is available at: https://curalinc.com/dashboard/

Index Terms: alcohol, anxiety, clinical outcomes, counseling, depression, employee assistance program (EAP), health care claims costs, longitudinal research, return on investment (ROI), turnover, work productivity

I. Introduction

Employee Assistance Programs (EAPs) help workers address behavioral health issues, work-related problems, and personal or family stress. EAPs aim to restore employees' well-being through confidential counseling, starting with an assessment followed by short-term treatment [1-3]. Counseling typically ranges from 3 to 6 sessions over one or two months, depending on issue severity and employer contract terms. Employees seek support for various reasons, including behavioral health, stress, and work-life balance. Full-service EAPs offer in-person counseling at community offices or remotely via phone, video, or text. A comprehensive program offers various specialty services to support work organizations and leaders [4-6]. These include preparedness training and urgent response for crises or critical incidents affecting the workplace. Events can involve natural disasters, violence, bullying, robberies, accidents, and death. Consulting services are also provided for managers and leadership to de-escalate potentially problematic situations or work involving troubled individuals or conflicts among workers and teams. Some programs advise human resources (HR) and leadership on designing policies and procedures that support a psychologically safe work environment and working conditions that promote productivity and employee loyalty. Most EAPs offer educational training to employees and managers on behavioral health and wellness topics. Many EAPs provide digital resources (websites and phone apps) that support low-severity cases with information, self-assessment, and self-care tools for stress, sleep, and mental health issues [7].

Over three-fourths of large and medium-sized employers in the United States pay for an EAP benefit to support the behavioral health and mental well-being of their workers [8]. Despite their popularity, EAPs are not legally required for employers. Employers invest in EAP services for various reasons [9]. Some believe it is beneficial for worker support and company initiatives to be a good place to work. Others consider the health and work outcomes associated with the service [10]. The decision to sponsor an EAP benefit often includes an expectation of a positive financial return on investment (ROI) for the organization. Using an ROI calculator tool to estimate the return size can be helpful [11].

1.1 ROI for EAP at CuraLinc Healthcare

CuraLinc Healthcare is a global external vendor of EAP services, based in the United States. In business since 2008, it has over 4,600 employer customers that offer the EAP as a benefit to over 10 million employees. CuraLinc Healthcare's ROI dashboard calculator tool is based on a combination of current research and a leading conceptual model developed by Dr. Mark Attridge. It is based on his 25 years of applied work on ROI concepts, data inputs and calculator tools [12-34]. This general ROI for EAP conceptual model is owned by Attridge Consulting, Inc. However, it has been customized as described in this paper for CuraLinc Healthcare and used by permission as a specific proprietary model at CuraLinc Healthcare.

The calculator is used to create ROI reports for many employer customers. These reports feature customized inputs to the model that come from the employer's annual program utilization report and their total investment in the program for the year. Other factors are defaults in the calculator can be edited by the customer. For example, the wages and benefits for the average employee in the covered population can be specified. Research results from our studies of EAP users are used to set the default rates of risks among users of the EAP and the levels of how many of the at-risk users recover to healthy (no risk) status after use and thus have avoided the cost burden associated with the risk factor. A simplified version of the EAP ROI calculator is publicly available at this website: https://curalinc.com/dashboard/

This study was done to update the original ROI Model created in 2019 for CuraLinc Healthcare with more current default figures for the costs and outcomes and integrating more advanced logic. As an empirical foundation, we used US national data collected from 166,116 employee users of the counseling and coaching services between 2017 and 2024. The details of the study methodology, sample, and primary results are presented in Appendix A. This very large dataset offered the opportunity for us to improve the procedures built into the calculator tool that are used for making estimates of financial savings for the purchasers of the EAP benefit. This paper on ROI for EAP is the 19th in a series of applied research projects conducted at CuraLinc Healthcare [see list in Appendix B].

II. THE ROI MODEL

2.1. ROI Model: Overview of Conceptual Approach

The ROI conceptual model emphasizes three pillars of financial return [12-16]:

- **Health Care Costs:** This area assesses the financial return from preventing two types of health care insurance claims paid by employers. It includes outpatient treatment claims for psychological therapy successfully managed within the EAP, thus avoiding more costly providers in the healthcare insurance benefit system. Routine avoidance of outpatient mental health claims occurs daily due to this part of the EAP service. Additionally, this ROI component also addresses higher medical cost offsets that arise from treating higher-risk EAP cases preemptively, reducing their risks for depression, anxiety, and substance abuse disorders, thereby avoiding future treatment-related costs of more serious behavioral health disorders.
- **Human Capital Costs:** This area evaluates the financial return from preventing two kinds of human capital costs. The first type of savings is generated by restoring work productivity levels for many employees who begin counseling with high absenteeism and presenteeism. Savings result from decreasing lost productivity hours back to typical (healthy) employee levels after benefiting from brief therapy. The initial high productivity loss experienced during psychological distress before EAP use is prevented from continuing into the future due to successful EAP therapy treatment that restores both health and work performance. The second aspect of this model includes the business value derived from avoiding employee turnover for a small number of individuals using counseling and specialized organizational services who are at-risk of quitting or termination.
- **Organizational Costs:** This area considers the business value provided by other non-counseling EAP services funded by the employer within the overall benefit fee but lacking a strong outcome evidence base like individual counseling. Services include

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workplace educational training for employees and managers, counselor consultations with managers, and expert responses to rare workplace traumatic incidents and crises. This EAP activity assists the organization in better managing behavioral health risks and promoting employee well-being. Increased utilization of these organizationally focused EAP services can also enhance the use of individual counseling services among employees, yielding greater cost savings in the other two ROI areas. Unlike other ROI model areas, the return here is measured not by reducing cost burdens linked to health or work-related risk factors but by enumerating typical fee-for-service costs if these training and consulting services were not included in the overall EAP contract. Consequently, this part of the ROI model significantly underestimates the true impact and financial value of these services to the business.

How the financial return is estimated for each of these three pillars depends on the logic model assumptions and the type of EAP services used that contribute counts of users from the past year. As EAP services feature multiple sources of support, the ROI conceptual model was constructed to represent several different core aspects of the service delivery model. The EAP services at CuraLinc Healthcare are grouped into three general types (See Figure 1).

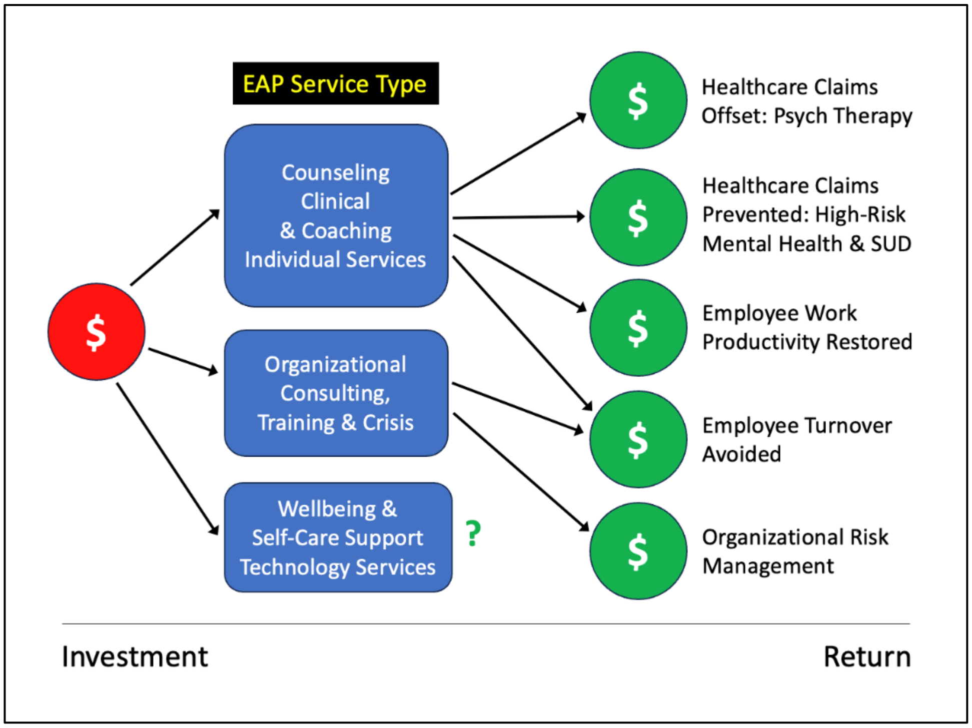


Figure 1. *Types of EAPs Services and Linkages to ROI Model Components.*

The first type includes the individual on-demand services provided by licensed human counselors for clinical issue support (brief talk therapy often lasting about two months). This type of the EAP service is widely known and popular among the human-delivered care options. A portion of employees choose the professional coaching service to address psychological growth and personal goals of a less clinical nature (about 10% of all individual cases). These services contribute to four components of the ROI Model, generating savings in healthcare claims and work-related areas.

The second type of EAP services consists of organizational specialty support activities. These involve onsite or virtual educational training for employees and managers on behavioral health and workplace topics. It also includes consultations with managers and leadership to address challenging situations involving specific employees or teams. Additionally, they cover policy development, preparedness training, and expert response for critical incidents and workplace crises. These services contribute to two components of the ROI Model, generating savings in turnover and organizational risk management areas.

The third general type of EAP service involves educational and self-care tools and resources available for personal use by employees via remote technology such as websites, email, smartphone text, and apps. Users of this third type of service account for up to 20% of all employees at a customer organization and are included in the total investment fee for the EAP; however, they are not included in the ROI Model and no cost savings are assigned to them currently. Future research will focus on measuring risk factors and outcomes from users of these kinds of services.

2.2. The Why of ROI

The ROI Model incorporates two distinct logical approaches to elucidate the returns stemming from EAP benefits. As indicated in Table 1, the basic logic of the ROI model posits that utilization of the services can potentially mitigate financial cost burdens linked to various risk factors. This methodology is employed in four of the five components of the model and accounts for 98% of the total return dollar amount in typical customer results.

Table 1. *Questions to Understand the Logic of ROI Model for EAP Services: Reducing Cost Burden*

<table>
<tr><th colspan="2" rowspan="2">ROI Model Component</th><th colspan="5">Questions Answered in Calculation Process</th></tr>
<tr><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q5</th></tr>
<tr><td colspan="7">Logic model of risk reduction. The financial cost burden to the employer associated with certain clinical conditions and adverse work experiences can be avoided if the subgroup of at-risk users of the EAP relevant to the cost burden can improve after EAP use to no longer be at-risk.</td></tr>
<tr><td>1</td><td>Claims costs for outpatient psychological therapy services from providers in the health insurance benefits avoided by use of EAP counselors instead (as a pre-paid cost)</td><td rowspan="4">Which kinds of EAP service users are logically relevant to this ROI component?</td><td rowspan="4">What is the count of relevant users in the past year?</td><td rowspan="4">How many of the relevant users start out at-risk for this cost burden?</td><td rowspan="4">How many of the relevant users who start out at-risk for the cost burden change after use to no longer be at risk?

Also, how many healthy users who start not at risk later change to become at-risk after use?</td><td rowspan="4">What is the $ amount estimated for the cost burden per 1 user for each risk factor?</td></tr>
<tr><td>2</td><td>Claims costs for excess overall medical care treatment associated with having behavioral health conditions and related comorbidities with other medical conditions</td></tr>
<tr><td>3</td><td>Lost hours of work productivity from excess levels of absenteeism and presenteeism experienced during the episode of personal distress</td></tr>
<tr><td>4</td><td>Employee turnover associated with having high-risk behavioral health conditions and experiencing certain workplace events</td></tr>
<tr><td colspan="7">For each component, the gross cost savings are calculated by multiplying the cost burden $ amount for the risk factor per case (per organizational service user) by the total number of EAP users who recovered after use to avoid the cost burden associated with the risk factor. The net savings are determined by deducting the small number of EAP users who changed to develop the clinical condition. Finally, we deduct 25% of the total savings amount. This last step is done to recognize the influence of other causal factors in the outcome results that also influenced the EAP user. Thus, 75% of the net cost savings from avoided risks are attributed to the use of the EAP as the amount of financial return.</td></tr>
</table>

The initial step involves identifying which aspects of the service offering qualify for risk reduction outcomes. Subsequently, we analyze the annual utilization report for the program to ascertain the number of EAP users pertinent to the risk factor. We then apply our research study findings to estimate the number of users of the relevant services who were classified as “at-risk” when they started to first use the program concerning the particular risk factor. Utilizing data from our follow-up research, we estimate how many of these at-risk cases improved sufficiently after using the services to be classified as "recovered." For individuals who recover, the anticipated future cost burden is avoided, thus converting it from a cost into a "savings" for the employer sponsoring the EAP (the monetary return amount). A similar logic is applied when estimating if some employees can avert turnover and remain with the company due to their use of EAP services during high-risk periods that jeopardized their employment.

As shown in Table 2, the fifth and final component in the ROI Model uses a different logical approach is used. Here the focus is not on specific outcomes but rather to enhance the employer customer's understanding of the business value of the less used but more specialized services from the EAP that focus on prevention, risk management, and supporting workplace crisis events. Measuring the true financial return provided by high value (but rare) events that can be avoided by using these specialty services from the EAP is difficult. Instead, we estimate the market cost for providing these specialty services from the EAP is calculated for each type of service for all users over the year as a basic financial “return” from the program. Examples of adverse organizational events that EAPs can help prevent or mitigate include workplace crisis incidents (involving violence, weather disasters, deaths), on-the-job accidents, conflict between workers, abusive behavior and bullying, employee psychiatric episodes or drug use, and so on. Assigning a financial return value to such events is challenging and often unknown in advance for inclusion in the ROI model calculator. Therefore, this component primarily serves as a point of discussion between the EAP account executive and the customer representative to review these kinds of special events from the past year and assess whether the EAP’s support and response had a positive impact. Setting a financial return amount for service impact is left to the purchaser's discretion (if even possible).

Table 2. *Questions to Understand the Logic of ROI Model for EAP: Managing Organizational Risk*

ROI Model Component		Questions Answered in Calculation Process				
		Q1	Q2	Q3	Q4	Q5
Logic model of use of specialty services has financial value to business in ultimately reducing organizational level risks.						
5	EAP services that support organizational risk management goals through response to crisis incidents that impact the workplace, consultations with managers and leaders for specific problematic situations and general workplace training for psychological safety and healthy work culture initiatives.	Which kinds of EAP service users are logically relevant to this ROI component?	What is the count of relevant users in the past year?	All users or events delivered are relevant to cost savings.		What is the $ amount estimated for the business value of each service type?
For each organizational service type used, the amount of return is calculated by multiplying the business value of organizational service type ($) by the total number of EAP users of that service in the past year. Other outcomes and associated savings for the participants of EAP trainings and consultations in the areas of healthcare claims or work productivity are not estimated.						

III. Components of the ROI Model

This section of the paper describes each of the five components of the model. We describe which users of the service are included and cost savings are estimated.

3.1. Component 1: Healthcare Claims Offset for Outpatient Mental Health Treatment Episodes

Evidence Basis in Literature. Anticipating a financial return in the offset of claims costs from use of outpatient mental health care services is based on many years of applied research and logical reasoning [10-18]. In previous trainings for professionals in the field, this area of business cost savings is referred to as the *Primary Path to ROI* [26-33]. It is considered primary because counseling services are what most define EAPs and because counseling is what is the most frequently utilized part of the full range of support services offered by EAPs [1-4]. Employees who engaged with licensed professional counselors from the EAP for clinical care did not utilize similarly trained and licensed providers within the health insurance network paid for by the employer. Despite the availability of these providers, some employees in distress may avoid using them due to financial disincentives (such as the need to personally pay co-pay amounts per visit and annual deductible costs before insurance covers the care) [35,36] or stigma-related concerns about being seen visiting a local provider's office or clinic facility [37,38]. Although modern care options for some providers now include remote access virtual online visits, another limitation on the use of outpatient mental health services in benefits is the reluctance to wait days or weeks for an appropriately matched counselor from the health plan to become available for an appointment [39].

Research evidence for a therapy visit cost offset effect is found in two studies of EAPs in the United States. One study from 2010 examined annual claims costs for over 24,000 employees in one health plan and discovered that having more generous EAP coverage (i.e., more sessions allowed per case in the employer-specified contract with the EAP) was associated with fewer visits and lower spending for outpatient mental health care [40]. A second study from 2023 analyzed the claims costs for users of a workplace mental health support service and compared them to a matched group of other employees who did not use the service in the same year but had similar demographic profiles and diagnostic clinical behavioral health risks [41]. The cohorts of non-users of the service in both years of data from 2018 and 2019 incurred an average per case cost to the employer of over $1,600 in outpatient mental health and professional provider claims costs. The implication from these claims cost studies is that a substantial portion of these treatment costs could be avoided by encouraging employees to utilize EAP counselors instead of the same types of licensed therapists in the health plan network.

Cost Burden for Professional Therapy Episode. What is the financial value of a typical episode of mental health care provided in outpatient therapist offices or professional clinic settings? According to national claims data from the Kaiser Family Foundation [42], the paid cost per 1 outpatient psychology session in year 2021 was between $100 to $145 (depending on session length and clinical activities performed). If an EAP client used five sessions of counseling the total cost per episode of care would be around $500 to $725 in claims. In the ROI Model, we use **$703** for the estimate for the employer-paid portion of a typical episode of care in outpatient mental health benefits. This amount is based on claims management company that partners with CuraLinc Healthcare, which derived a cost per treatment episode of $621 from 2019 in their insurance data. Then that amount was inflation-adjusted to 2024 dollars using the Bureau of Labor Statistics medical inflation rate data. This cost is inclusive of the multiple clinical visits involved in the typical episode of care at our EAP service (often around 4 to 6 sessions used over 8 weeks – see Table A1 in Appendix A). This excludes the patient paid portion of the total amount of the care (i.e., average of 13% for co-pays fees or co-insurance charges owed by the employee). For comparison, a recent US study [43] listed $740 as the per case cost for providing a typical episode of counseling care from their EAP in year 2021 (i.e., six sessions over a 77-day period based on $140 for the initial appointment and $120 for each follow-up session).

Relevant Users. The cost savings come from EAP users who utilized a counselor (see left side of Figure 2).

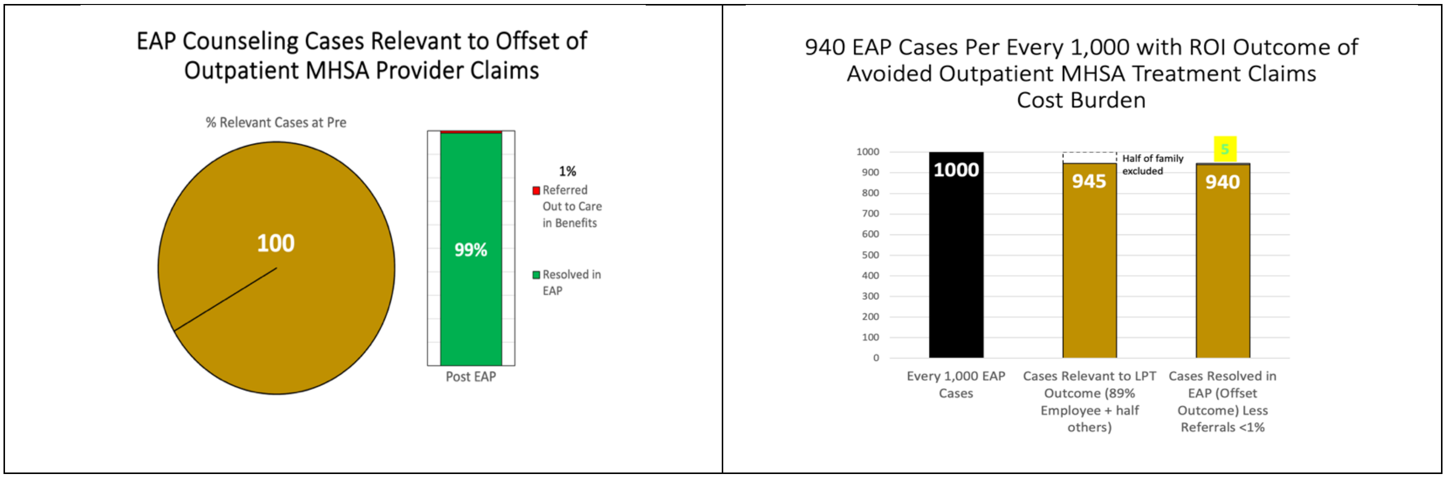


Figure 2. *ROI Model Component 1: Offset of Claims Costs for Outpatient Mental Health Visits*

This includes all employee cases and half of dependent cases, assuming some dependents are covered by other healthcare benefits. To determine this ROI area, find the relevant number of EAP counseling cases from the customer utilization report. The report lists counseling users who were employees and non-employees. Employee counseling cases are included as they are covered by employer-paid insurance. Adjust the total count by removing an estimated 50% of spouses and dependents not covered under the employee's health plan.

Do the Math. Let's consider an example of the results for 1,000 EAP counseling cases (see right side of Figure 2). At the start we have 889 are employees and 111 are non-employees. Removing half of the non-employee cases leaves 55 non-employee and 889 employee cases covered by employer-sponsored insurance. At follow-up, 99% of cases were resolved within the EAP, while 1% needed referral to psychiatric or substance abuse treatment. With 94% of remaining cases avoiding typical mental health treatment costs, 940 of 1,000 cases avoided a $703 cost burden. The total cost savings is estimated at $660,729, reduced by 25% for other causal factors, resulting in final savings of $495,546. These steps are summarized below:

- Step 0 = total employees with access to EAP benefit = 20,000
- Step 1 = all EAP counseling cases = 1,000 in past year
- Step 2 = counseling cases with health insurance from employer (100% employees and 50% of family) = 945
- Step 3 = cases from Step 2 relevant to cost savings when started EAP use (100%) = 945
- Step 4 = cases resolved by EAP use (99.5% of Step 3) = 940
- Step 5 = cases resolved by EAP use X financial cost burden for mental health risk (Step 4 x $703) = $660,478
- Step 6 = conservative deduction of 25% of the gross savings (Step 5 x 25%) = less $165,120
- Step 7 = final return amount for avoided mental health outpatient visits (Step 5 – Step 6) = $495,359
- Result = final return amount divided by investment amount yields **ROI = $1.24:1**

ROI for Component 1. If we assume a typical counselor case rate of 5% of the population of covered employees, a total of 1,000 cases using the EAP would come from a total population of 20,000 workers with access to the EAP benefit. If we also assume a typical investment rate in the EAP total benefit of $20.00 per employee covered per year, then we have a total employer investment in the EAP of $400,800. The final estimated cost savings of $495,546 for avoided outpatient mental lath care visit claims divided by the total investment is a $1.24:1 return on investment.

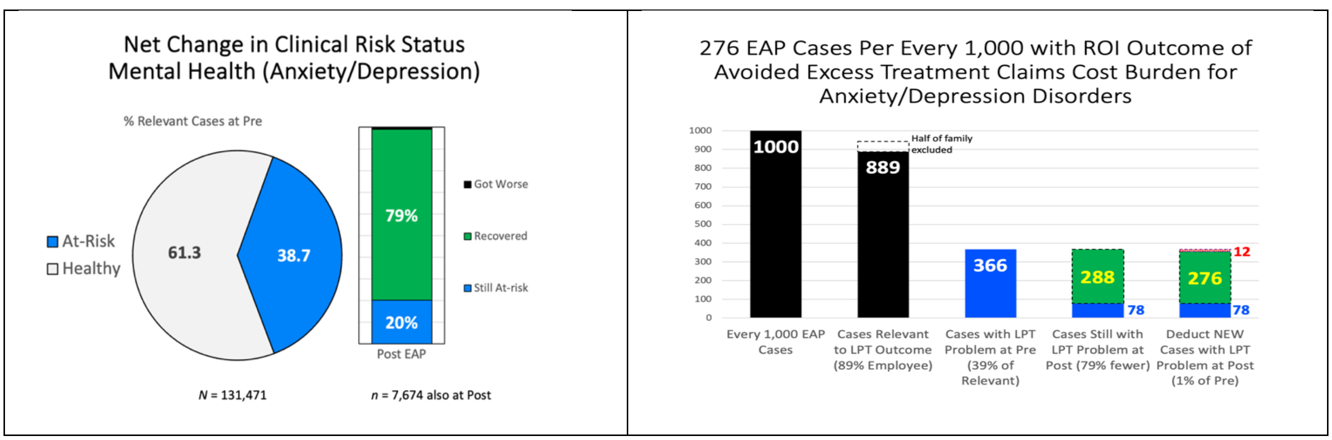
3.2. ROI Component 2: Healthcare Claims Avoided for Cases At-risk for Mental Health and Substance Disorders

Evidence Basis in Literature. The expectation of financial returns through direct cost savings in overall healthcare claims is grounded in the classic applied research literature on intensive EAP internal model programs. These programs have case-managed workers with severe alcohol and psychiatric issues, guiding them to the necessary treatments [15,20,44,45]. Evidence from approximately two dozen studies suggests that EAPs can contribute to long-term net reductions in overall healthcare costs for individual employees and their families, despite short-term increases in the costs associated with providing professional treatment for alcohol and mental health disorders. Notable employer case examples include research on EAPs at Abbott Laboratories [45], Chevron Corporation [46], McDonnell Douglas Corporation [22,47], and Southern California Edison [20,44]. Archival record data indicates that EAP-supported cases were significantly less costly over several years of follow-up than employees not utilizing the EAP for similar health conditions. When adjusted to current dollars, the average claims cost savings from three longitudinal studies conducted in the 1980s and 1990s with matched comparison groups was approximately $5,000 per year per case. Additionally, other ROI calculators for workplace support services have included estimated savings derived from the prevention of depression and alcohol disorders [18].

More recent studies conducted within the last two decades on individuals diagnosed and treated in the healthcare system for severe levels of depression and anxiety disorders (often affecting about 10% of a population) and other medical comorbidities [49-61] consistently find the cost burden for mental health to be considerably higher, ranging from $10,000 to $20,000 more per year compared to the average employee for total claims costs covering medical, pharmacy, and behavioral health treatments. Although less common (often under 3% of a population), serious levels of alcohol and drug misuse disorders tend to incur even higher healthcare and societal costs than depression and anxiety [62-67].
In previous trainings on ROI best practices for professionals in the EAP field, this component is referred to as the *Pareto Path to ROI* [26-33]. This principle aligns with the oft-cited economic tenet that a small segment of a population accounts for the majority of an outcome of interest. The Pareto Principle, named after Italian economist Vilfredo Fredrico Damasco Pareto in 1848, is also known as the 80/20 rule, signifying that 80 percent of healthcare costs are associated with just 20 percent of employees. Applying this principle to EAP involves engaging the small segment of the workforce with relatively severe behavioral health problems and supporting these cases in accessing and continually utilizing the best available intensive treatments over time. These targeted EAP operational practices have been proven to be most successful in cost-offset studies over the past 20 years [20,44,45]. Savings arise from EAP users who begin at-risk with clinical symptoms and improve to no longer be at-risk after use. These recovered users prevent future healthcare costs. The cost prevention impact is measured over a one-year period, despite savings extending further into the future.

Relevant EAP Users. This cost savings component is relevant to the users of EAP counseling services who have healthcare insurance coverage as an employee or dependent/family benefit from the employer.

EAP Users with Outcome. Next, we must determine the specific number of these EAP users from the customer who qualify as having a cost burden savings outcome. We start with the number of total cases is obtained from the annual utilization report. We reduce this count of cases by math based on our research survey study of users of CuraLinc counseling services which provides the risk rate percentage of users when starting EAP use (see Table 3). The study subsample with longitudinal data documents how many of the at-risk cases at Pre recovered at Post use to no longer be at-risk anymore. This change percentage is used to reduce the count of cases categorized in the model as at-risk at the start of EAP use. The third step makes a correction to the number of cases estimated as having a cost burden avoided outcome to deduct the very small number of other cases who did not start out being at-risk but who later at the follow-up scored above the at-risk cutoff on the outcome measure. These math steps are shown in Figure 3.



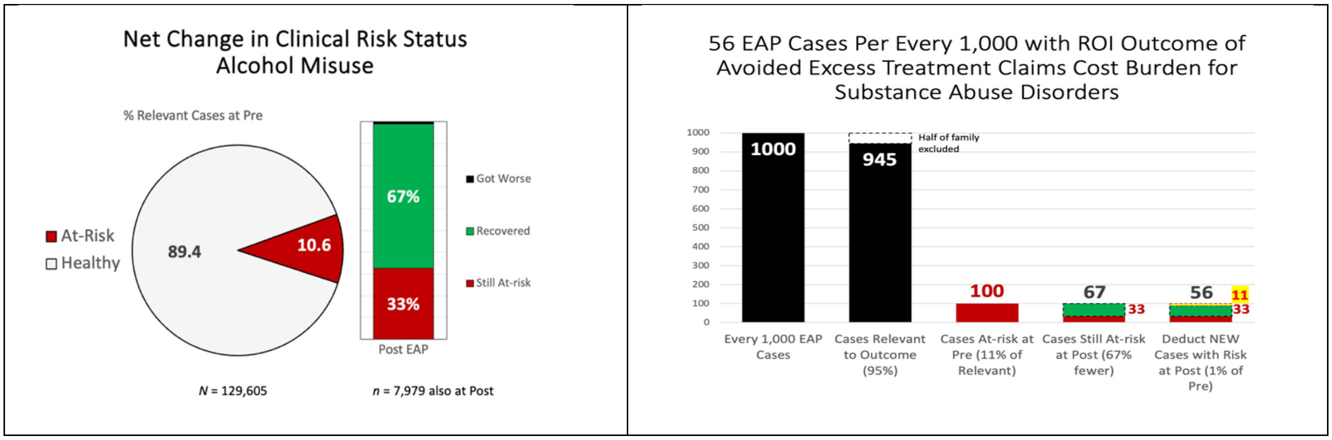


Figure 3. *ROI Model Component 2: Mental Health & Alcohol/Drug Disorders*

Cost Burden for Mental Health Risk. Employees with behavioral health risks incur higher costs than those without these risks, estimated at around $2,000 or more per person annually. This estimate is based on health risk appraisal (HRA) wellness surveys [68-73]. Lower severity at-risk employees typically use brief therapy provided by EAPs, while more clinically severe workers, who are costlier, often seek treatment through the medical and psychiatric system or are on disability leave. Using recent national healthcare claims data [74], we calculated a default basis cost of $6,416 for 2024 (see Appendix C, Table C1). Assuming 10% of employees are at risk for depression and 90% are not, with a 35% higher relative cost for the depression at-risk group, we estimated an $8,366 per person cost for at-risk individuals and $6,202 for those not at risk. The difference, **$2,164**, represents the excess cost burden for depression per case annually (see Appendix C, Table C2).

Table 3. *Summary of Key Findings from CuraLinc Study of EAP Users for ROI Model*

ROI Issue	Relevant Study Data	Counseling User Reported Outcome		
		Mental Health Risk	Alcohol Misuse Risk	Lost Work Productivity
How many cases are relevant to the ROI component to have cost burden at start of use?	Prevalence of at-risk clinical or problem status at before use among all cases	38.7% of *N* = 131,471	10.6% of *N* = 129,605	74.3% of *N* = 156,400
How many cases starting use with a cost burden recover after use to no longer have burden?	Recovery to no-risk status after use as percentage of the subgroup of at-risk cases at start	78.8% of *n* = 2,654	66.9% of *n* = 1,326	61.1% of *n* = 8,304
How many cases without a cost burden at start of use develop new cost burden at follow-up after use?	Relapse to risk status after use as percentage of total cases at start [only cases with Pre & Post data]	1.3% of *n* = 7,644	1.1% of *n* = 7,979	2.8% of *n* = 11,558
How many hours of lost work productivity define the level of burden?	Hours of lost productive time per month per case *in excess* of normal employee level (26.9 hours) - if started EAP use at a problem level of LPT			Total hours LPT at Pre = 57.73 (ABS = 5.70 + PRS = 52.03) Excess = 30.84 hours *n* = 116,172
What is cost burden per case with this risk factor?	External research sources	$2,164	$8,500	$2,623

Note: CuraLinc Healthcare data from 2017-2024. ABS = work absenteeism. PRS = work presenteeism.

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Anxiety is now more prevalent in EAP cases than depression, although together they make up from a third to half of all cases [2,75,76]. Anxiety has been studied less than depression in wellness HRA and claims studies. Research shows similar costs for treating chronic anxiety and depression disorders [54-61]. People often suffer from both conditions [59]. Therefore, we used the same cost burden estimate for anxiety as we did for depression in our ROI study. Our method combines anxiety and depression symptoms into one score (PHQ-4; See Appendix A) and among the 66,851 cases at-risk for either anxiety or depression at Pre use of the EAP, 32,781 of them - 49% - were at-risk for both disorders. Thus, combining the financial cost estimates for anxiety and depression is sensible when they exhibit such high clinical comorbidity. EAP users at risk for mental health disorders (defined by the cut-off on the PHQ-4 score that combines symptom severity for anxiety and depression) were given a cost burden of **$2,164** over one year.

Do the Math for Mental Health Disorder Risk. Let's consider an example with mental health risk survey data applied to 1,000 EAP counseling cases (see right side of Figure 3). About 95% of all EAP cases estimated to be covered in employer insurance. The survey data revealed that 39% of cases clinical mental health status when starting their EAP use. Thus, about 366 cases per every 1,000 users were relevant to this kind of cost savings. At follow-up after use, we found that 79% the counseling cases who started out being at-risk on the PHQ-4 had successfully recovered after treatment. However, we deduct from this success group of 288 cases the 1% of the total cases those who later got worse (12 cases). This change results in 276 cases eligible for a cost offset effect for mental health disorders. The number of net recovered cases times the cost burden dollar amount yields a total of $597,639 for mental health disorder risk reduction effects.

To be conservative, in the final step of the math model this amount of total savings from the healthcare claims high-risk cases outcome is reduced by 25% to account for the unmeasured role of other causal factors beyond the EAP that also influenced this outcome. Thus, a $448,229 figure is used in the ROI model for this result. These calculation steps are summarized below:

- Step 0 = total employees with access to EAP benefit = 20,000
- Step 1 = all EAP counseling cases = 1,000 in past year
- Step 2 = counseling cases with health insurance from employer (100% employees and 50% of family) = 945
- Step 3 = cases at-risk for mental health when start EAP use (38.66% of Step 2) = 365
- Step 4 = cases who recover from risk after EAP use (78.79% of Step 3) = 288
- Step 5 = other cases from start who became at-risk for mental health after use (1.26% of Step 2) = 12
- Step 6 = net cases above who recover from risk after EAP use (Step 4 – Step 5) = 276
- Step 7 = net cases recovered X financial cost burden for mental health risk (Step 6 x $2,164) = $596,915
- Step 8 = conservative deduction of 25% of the gross savings (Step 7 x 25%) = less $149,229
- Step 9 = final return amount for avoided mental health treatment costs = $447,687
- Result = final return amount mental health risk divided by investment amount yields **ROI = $1.17:1**

Cost Burden for Alcohol/Drug Risk. How much does alcohol misuse cost in healthcare claims data? This was determined using a different process than for depression or anxiety, as alcohol-risk has a more complex association with healthcare costs when examined on a same-year basis. Cross-sectional studies of alcohol use (i.e., heavy use or binge drinking assessed on HRA surveys) typically find drinkers to be approximately 10% *less* costly than non-drinkers [68-72]. However, this is a spurious finding as some individuals who had severe drinking habits in the past but were not drinking during the study were mixed in with others who had never drank alcohol [73]. This is a problem, as dependence on alcohol over a lifetime is associated with many adverse health issues and cost outcomes – particularly increased emergency room (ER) visits and hospitalizations [62-67]. There is also a high rate of comorbidity between excessive drinking, smoking and misuse of other illicit and legally prescribed substances (such as opiates).

The Substance Use Cost Calculator website [77] provides detailed information on the excess cost burden in overall health care claims associated with alcohol and drug misuse risk. This tool utilizes national U.S. large sample survey data and other established research findings to estimate typical excess health care costs for individuals with a history of excessive alcohol use and related substance abuse comorbidities. The calculator defines a worker in recovery as individuals who responded to the National Survey on Drug Use and Health (NSDUH), did not report symptoms of a substance use disorder in the year prior to being interviewed, and had undergone treatment for a substance use disorder at some point in their lives. The research was conducted by scholars at the National Opinion Research Center (NORC) at the University of Chicago and funded by the National Safety Council. According to their findings, the default amount of cost burden to employers is estimated at **$8,500** per employee per year in health care-related expenses.

Do the Math for Alcohol Disorder Risk. Let's consider an example of the results with hazardous alcohol use risk data for 1,000 EAP counseling cases (see Figure 3). About 95% of all EAP cases estimated to be covered in employer insurance. The survey data revealed that 10.6% of cases start their EAP use at a clinical level of alcohol misuse. Thus, 100 cases were relevant to this area of cost savings. At follow-up after use, we found that 67% the cases who started out at-risk on the AUDIT-3 later had successfully recovered. After deducting from this success group of 67 cases the 1% of the total group at the start who later got worse and increased their drinking behavior (11 cases), we finally have 56 cases eligible for the cost offset effect for substance use disorders. This means that 56 EAP cases who were expected to later have excess treatment costs of $8,500 for substance use instead were able to avoid that experience. The number of net recovered cases times the cost burden dollar amount yields $476,410.

To be conservative, in the final step of the math model this amount of total savings from the substance use claims high-risk cases outcome total is reduced by 25% to account for the unmeasured role of other causal factors beyond the EAP that also influenced this outcome. Thus, a $357,308 figure is used in the ROI model for this result. These calculation steps are summarized below:

- Step 0 = total employees with access to EAP benefit = 20,000
- Step 1 = all EAP counseling cases = 1,000 in past year
- Step 2 = counseling cases with health insurance from employer (100% of employees and 50% of family) = 945
- Step 3 = cases at-risk for substance abuse when start EAP use (10.58% of Step 2) = 100
- Step 4 = cases who recover from risk after EAP use (66.89% of Step 3) = 67
- Step 5 = other cases from start who became at-risk for substance abuse after use (1.14% of Step 2) = 11
- Step 6 = net cases above who recover from risk after EAP use (Step 4 – Step 5) = 56
- Step 7 = net cases recovered X financial cost burden for substance abuse risks (Step 6 x $8,500) = $476,410
- Step 8 = conservative deduction of 25% of the gross savings (Step 7 x 25%) = less $119,103
- Step 9 = final return amount for avoided substance abuse treatment costs (Step 6 – Step 7) = $357,308
- Result = final return amount substance risk divided by investment amount yields **ROI = $0.89:1**

- Combined Result = final return amount for both mental health risks and substance abuse risks of $804,994 divided by investment amount of $400,800 yields **ROI = $2.01:1**

ROI for Component 2. If we assume the same conditions as for Component 1, we have an investment amount of $400,800 in the EAP benefit for 20,000 employees. The adjusted net cost savings for mental health disorders was $447,687 and for substance use disorders it was $357,308. The combined cost savings from clinical risk reduction outcomes is $804,994. The total return divided by the cost of the EAP is $2.01:1 ratio for the return on investment. Thus, this area of the ROI Model yields about two dollars in financial return per every one dollar spent on the program.

What about double-counting of the two clinical risk outcomes? Our research data on clinical risk factors in EAP users over almost 8 years (See Appendix A) shows that of 56,590 cases who were at-risk for either mental health or alcohol misuse outcomes when starting to use the counseling, only 7,009 of them – 12% – were at-risk for both disorders. Of this combined initial at-risk subgroup who later recovered after use, the longitudinal data revealed of this dual risk subgroup of 2,086 cases, 89% recovered on one of the two conditions and 11% recovered on both conditions. Thus, there was only about 1% overlap in these two outcomes where a counseling case was categorized as getting a cost burden relief for mental health disorder *and* also getting a cost burden relief for alcohol/drug disorder (i.e., 11% had dual recovery out of the 12% of all counseling cases with dual risk at the start). Thus, there was very little "double counting" of the savings for this component of the savings.

3.3. ROI Component 3: Employee Work Productivity Restored

Evidence Basis in Literature. The expectation of financial return from cost savings in employee productivity is supported by numerous applied research studies worldwide [25,78,79]. Behavioral health conditions commonly experienced by EAP users are linked to absenteeism, work performance issues, and accidents [80-83]. Recent studies indicate that, on average, EAP service users exhibit approximately twice the levels of absenteeism and impaired productivity (presenteeism) due to distress in the month preceding their seeking help from EAP compared to typical workers [75,76,84,85]. In previous training sessions on ROI best practices for professionals in the EAP field, component is referred to as the *Productivity Path to ROI* [24,26-32].

The high rate of adverse outcomes related to work performance among EAP counseling users should concern employers. Surprisingly, only 1 in 10 EAP cases seek support for work-related issues; personal stress, mental health, and relationship/family issues are more common (see Table A1 in Appendix A) [76]. Employers may not notice this problem, as presenteeism is difficult to detect. About 80% to 90% of lost productive time among EAP users results from on-the-job underperformance (presenteeism) rather than absenteeism [75,76,84,85]. This is illustrated by the dark blue and light blue bars in lower part of Figure 4.

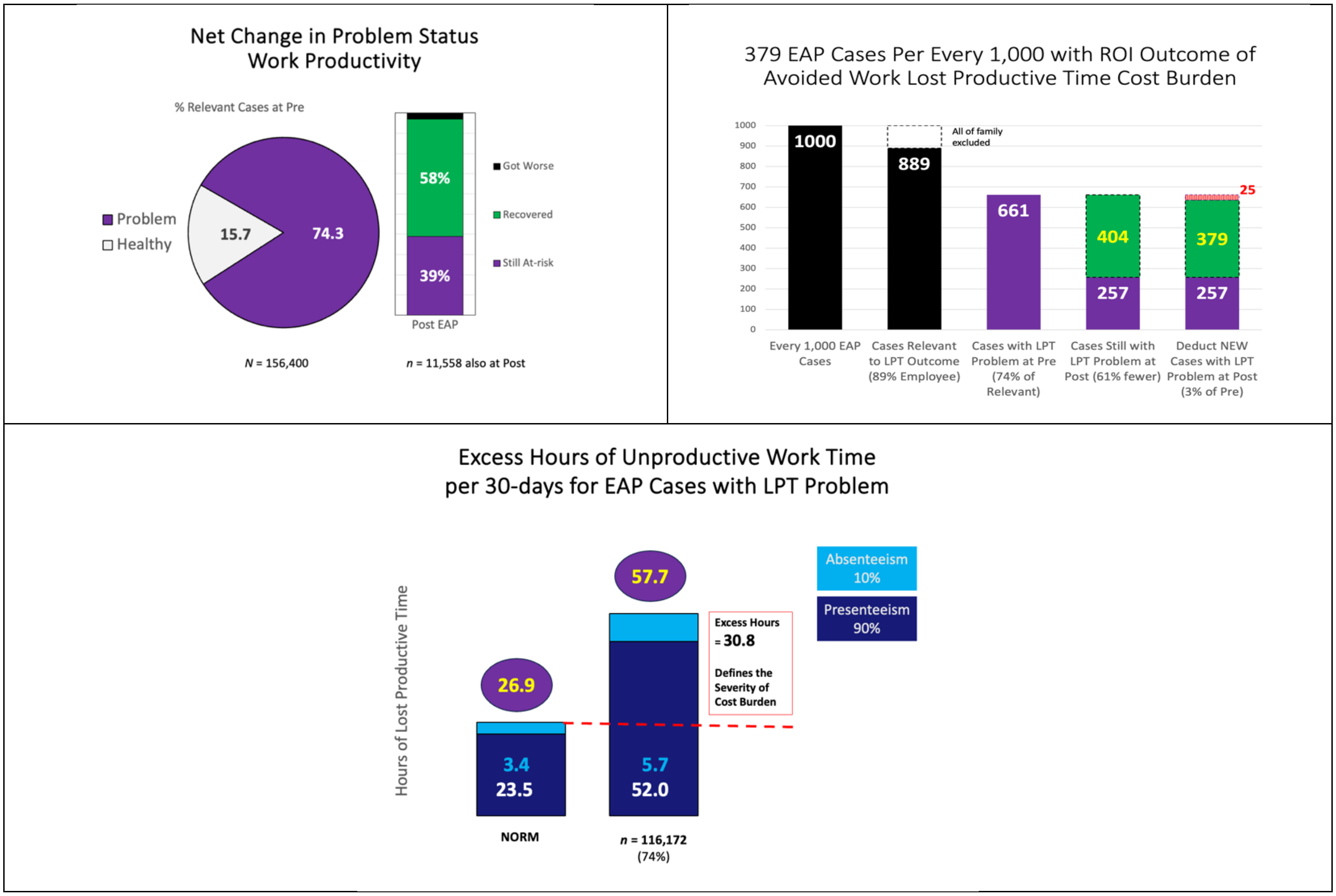

Figure 4. *ROI Model Component 3: Continuation of Lost Work Productivity Costs Prevented in Future*

Relevant EAP Users. This cost savings component is applicable to the employee users of EAP counseling or coaching (see Figure 4). Routine surveys provide data on work productivity levels before and after EAP use. After using EAP services, both absenteeism and presenteeism are typically reduced for most users, leading to a restoration of work productivity closer to normal levels. Introduced in 2003 [86], the Lost Productive Time (LPT) concept calculates a combined metric of hours missed from work and hours of reduced productivity while working (based on the percentage of time worked after deducting the absence hours from the regular work schedule) [24-34,75,76,87-88,90]. Details on this calculation can be found in EAP data from our updated study results in Appendix A, Table A2.

Cost Burden for Lost Productive Time. Employee compensation can be estimated using national U.S. data from the Bureau of Labor Statistics for different employer sizes in both the private and public sectors for the year 2024 (see Appendix C). The default compensation for the average employer in the private sector is approximately \$45 per hour (\$32 for wages combined with \$13 for paid benefits such as health insurance, vacation, retirement, and others). The question arises: What is an hour of fully productive work worth to an organization in monetary terms? Certainly, it must exceed the amount paid in compensation. If no additional value were created by the employee's work, there would be little reason to employ them. The productivity value varies across job types and classifications, salary levels, team involvement, the time sensitivity of output relative to company goals, and the ease of replacing the employee. Economists suggest that this value can be expressed as a multiplier of the hourly compensation rate, typically falling between 1.00 and 2.00 [91-92].

In the ROI Model calculator, the default productivity multiplier is set at 1.3. This metric is based on the average findings from two published research studies involving estimates provided by managers in the US. (see Appendix C). Consequently, when the \$45 hourly rate is multiplied by 1.3, it results in an estimated productivity value of approximately \$58 to the organization. This methodology for monetizing an hour of productive work has been utilized in the EAP field for ROI studies for over a decade [27-34,75,85,90].

This change from pre to post use of the EAP in hours of LPT can be converted into a financial outcome for the employer of preventing continued lost productive work time could have occurred in the future if the employee had *not* been treated. We use only a **one-month effect period** for how much additional lost work time we assume was avoided by using the EAP. From a clinical perspective, this kind of work loss when untreated can last much longer. This is why most other studies in EAP and workplace health field generally assume an impact period ranging from 3 to 12 months [27].

The total savings is calculated from the net number of EAP counseling users who recovered at Post from having a work productivity problem at Pre times the dollar value assigned to a typical work productivity problem. The productivity dollar value of $58.07 per hour when multiplied by 30.84 hours of lost productive time for a one-month episode is a cost burden to the employer of **$1,791.** Customers with a higher compensation rate than the average employer will get a higher ROI result for work productivity.

Do the Math. Let's consider an example of the results with work productivity outcome data for 1,000 EAP counseling cases. See the details in Figure 4. According to the program utilization report, about 89% of all EAP cases were employees of the work organization sponsoring the EAP benefit. The survey data revealed that 74% of these cases started EAP use with a level of lost productive time that exceeded that of the normal worker. Thus, 661 cases were relevant to this area of cost savings. As show in Table 3, at follow-up after use, we found that 61% the counselling cases who started out at the problem level for LPT later had successfully recovered to work at typical level of productivity. This number with a recovery outcome effect is 404 of the initial 1,000 cases. After deducting from this success group the 3% of the total sample who later got worse and changed their behavior to miss more work or be less productive, we have 379 cases who recovered from their productivity problem. This means that 379 cases no longer had the cost burden for lost productivity. Their ability to work productivity had been restored after benefiting clinically from the treatment experience. The final 379 cases who recovered from having a LPT problem can each be assigned the $1,791 per case cost burden dollar amount. This math yields $678,003.

As the final step, to be conservative, the amount of total return from the work productivity outcome reduced by 25% to account for the unmeasured role of other causal factors beyond the EAP that also influenced this outcome. Thus, a $508,503 figure is the amount used in the ROI Model for the cost savings attributed to the EAP. These calculation steps are summarized below:

- Step 0 = total employees with access to EAP benefit = 20,000
- Step 1 = all EAP counseling cases = 1,000 in past year
- Step 2 = counseling cases with employee status (89.9%) = 889
- Step 3 = cases with work productivity problem when start EAP use (74.28% of Step 2) = 661
- Step 4 = cases who recover from problem after EAP use (61.12% of Step 3) = 404
- Step 5 = other cases who got worse after use to have work productivity problem (2.81% of Step 2) = 11
- Step 6 = net cases above who recovered from work problem after EAP use (Step 4 – Step 5) = 379
- Step 7 = net cases recovered X financial cost burden for work productivity problem (Step 6 x $1,791) = $678,003
- Step 8 = conservative deduction of 25% of the gross savings (Step 7 x 25%) = less $169,501
- Step 9 = final return amount for avoided work productivity problem (Step 7 – Step 8) = $508,503
- Result = final return amount divided by investment amount yields **ROI = $1.27:1**

ROI for Component 3. If we assume the same conditions as for Component 1, we have an investment on the EAP of $400,800. The above estimated cost savings of $508,003 divided by the total investment is $1.27:1 ratio of return on investment. Thus, this area of work productivity has a result of about one dollar and a quarter per every one dollar spent on the program.

3.4. ROI Component 4: Avoided Employee Turnover

Evidence Basis in Literature. The expectation of financial returns from reduced employee turnover is supported by many years of applied research and employer case studies. An extensive global literature documents the correlation between mental health, substance abuse, unsafe working conditions (both physical and psychological) and employee turnover intentions and actual behaviors [93-98]. Employees who eventually leave their jobs often are frequently late, miss work days, and exhibit poor job performance long before their departure. Therefore, if EAPs can aid troubled workers in improving workplace performance it should consequently (to some extent) also reduce the likelihood of employee turnover. Additionally, employees who experience traumatic events due to critical incidents at work are at increased risk for disability leave, which can sometimes lead to job turnover if they cannot return to work [99]. Past trainings on ROI best practices for professionals in the EAP field have included this component in the *Pareto Path to ROI* [23,26-32]. Similar to the high-risk healthcare claims offset component, the impact of EAP utilization on turnover is a rare event affecting only a small portion of all EAP users.

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The question of how many EAP users at risk for turnover will remain employed due to their interaction with EAP counseling or workplace support services lacks definitive empirical research. Nevertheless, existing studies suggest that the effect is not zero. Several studies indicate that higher-risk EAP cases avoided job loss after their behavioral health or work-related issues improved through EAP treatment [15,44]. For instance, a McDonnell-Douglas company study from 1989 [22,48] compared employees referred to EAP for alcohol, tobacco, drug dependency, and psychiatric conditions with a control group who used health plan treatment services without first engaging with EAP case management. The study found that the turnover rate was lower over a four-year period for EAP-managed cases than for non-EAP users (7.5% overall for the EAP case group vs. 40% for the alcohol non-EAP group and 60% for the psychiatric non-EAP group). Additionally, the Chevron internal EAP study from 1998 focused on supervisory referral cases for drug and alcohol issues at the internal EAP [47]. Results indicated between 37% and 46% fewer terminations and a savings rate of over $50,000 per case for avoided turnover (in 1992 dollars) attributed to the EAP.

A recent study using data from 2021 [100] found that over 2,500 cases of employee counseling at workplace mental health therapy and medication management benefit had an annual turnover rate of 10.6%, which was lower than the turnover rate of 13.6% for a matched group of non-users of the service during the same period. Another study involving over 184,000 employees from 14 companies in the U.S. [101] revealed that users of various vendors' workplace mental health therapy benefits had an annual turnover rate of 11%, compared to the 22% average rate for employees who did not use the program but instead received mental health treatment through health insurance providers. Further results from the same study [101] indicated that archival data from three other customer companies at the same provider showed a 7% annual turnover rate for users of their workplace mental health therapy and medication management benefit, versus a rate of 15% for employees who did not use the benefit but utilized health plan psychotherapy providers instead.

While employer examples show lower turnover among EAP counseling service users, converting these findings into a universal ROI Model calculator is challenging. We used a conservative estimate for the EAP's impact on preventing turnover due to the complex reasons behind employee departures [102]. We assume only 1 in 10 at-risk EAP users avoid turnover *because* of EAP support (see Figure 5), estimating that only 1 in 100 overall EAP users benefit. This outcome, though rare, has the highest financial burden per case.

Relevant EAP Users. This cost savings component is relevant to some users of counseling and users of the organizational services. However, only certain kinds of these service users are included as relevant to a possible avoided turnover outcome (see Figure 5):

- All of the employees who were formally referred to EAP counseling by their manager or HR staff at work
- Half of the managers who use consulting for problems with a subordinate or work teams
- Half of the employees who experience a crisis event and possible trauma
- Half of the employees who use counseling and were referred out of the EAP for more treatment in benefits
- 1 in every 10 employees who use counseling that recover from clinical risk status for mental health or substance

Cost Burden for Turnover. What is the cost to employers when an employee leaves? According to the Society for Human Resources Management [103], the direct hiring cost in 2022 was $4,683 (median $1,244). Other factors include onboarding expenses, lost productivity, reduced employee engagement, and increased chance of work errors [104]. The average turnover cost varies by industry, organization, and position. Many HR professionals estimate turnover costs at about 6-9 months of an employee's salary. The Work Institute's *2025 Retention Report* [102] states turnover can be estimated at 33% of an employee's base pay, but costs may vary from 30-150% of annual salary. SHRM's 2016 report [105] suggests replacing an employee could cost 90%-200% of their annual salary. We chose a level in the low end of range estimated turnover costs discussed in the literature. However, we are more realistic to also include in the cost burden for turnover the productivity generated by the employe beyond just salary. The financial value of avoided turnover in the ROI Model is conservatively estimated at an amount equivalent to four months of the average employee's annual productivity value to the organization (i.e., 33% of the full productivity value of the employee for a year). The dollar amount is taken from national U.S. data from the Bureau of Labor Statistics for the average employer in the private sector for year 2024. The default for step 1 is to use average amount of paid salary and benefits (compensation). The next step is to apply the 1.3 productivity multiplier factor to the compensation figure. The result is the annual business value per one employee. From this figure we take just one-third of this amount as the estimated cost to the organization for turnover. See the calculation example below:

- Employee wages or salary (annual) = $65,458
- Employee compensation (add in benefits $) = $92,914
- Productivity multiplier factor = 1.3
- Productivity value total of employee for year = $120,788
- Turnover cost factor = 33%
- Turnover cost estimate = **$39,860**

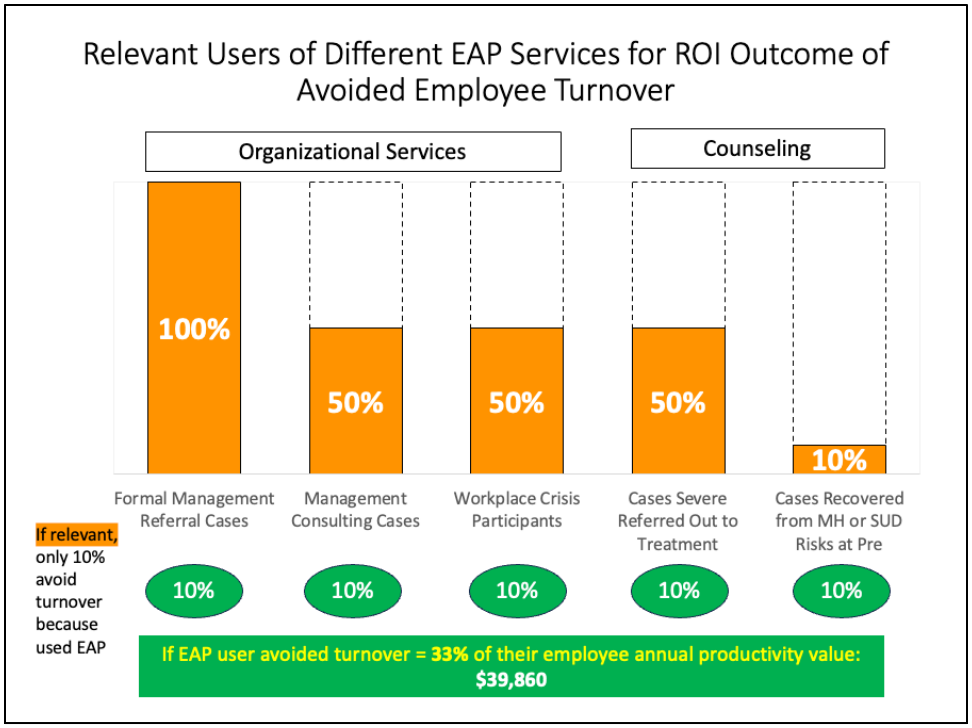

Figure 5. *ROI Model Component 4: Turnover Avoided for Select EAP Users and Cost Value per Outcome*

By comparison, the other outcomes in the ROI model are all under $3,000 in cost burden. Note that this cost burden for turnover (like the absenteeism/presenteeism outcome) is greatly influenced by the size of company (larger companies pay more in salary and benefits) and by the industry of the EAP customer because those factors determine typical wages and benefit levels that are used in this part of the ROI calculator (see Appendix C, Tables C3 and C4). Customers with a higher compensation rate than the average employer will get a higher ROI result for turnover.

Do the Math. The first step is to find the number of users of the EAP counseling and EAP organizational services in types conceptually relevant to turnover. Across the five areas of service that conceptually have a high risk for turnover, the utilization normative data had total for our ROI example of 1,128 users – with 1,000 for counseling and 128 for the organizational types of services. From this group, the estimated sub-group who we declared at-risk for turnover is almost 100. This is about 1 in every 10 of these users is relevant and also at-risk for this potential outcome of job turnover. Next, the outcome of avoiding turnover because of using the EAP was estimated at only 10% of this at-risk group. This means that just one employee per every 100 of the total users across the clinical and the organizational service areas *combined* would avoid the $39,860 cost burden for avoided turnover. To be conservative, this amount of total savings from the Turnover outcome is also reduced by 25% to account for the unmeasured role of other causal factors beyond the EAP that also influenced if the employee did not quit. Thus, $437,817 is the final return amount in this ROI Model example for avoided turnover. The steps for calculating turnover savings are summarized below:

- Step 0 = total employees with access to EAP benefit = 20,000
- Step 1 = all EAP counseling cases = 1,000 in past year
- Step 2 = employee counseling cases referred to psych benefits (50% at-risk) = 4.4 x 50% = 2.2
- Step 3 = employee counseling cases recovered from MH/SUD risk (x 10% at-risk) = 324 x 10% = 32.4
- Step 4 = total counseling cases: deduct Step 2 from Step 3 case count = 32.4 – 2.2 = **30.2**
- Step 5 = all organizational service users relevant to turnover = 128 [*excludes* digital health service users, educational training participants and health fair attendees]
- Step 6 = formal management referral cases (x 100% at-risk) = 11 x 100% = 11
- Step 7 = manager consultation cases (x 50% at-risk) = 13 x 50% = 6.5
- Step 8 = workplace crisis event response participants (x 50% at-risk) = 104 x 50% = 52
- Step 9 = total organization users: sum above = **69.5**
- Step 10 = sum of above EAP users at-risk for job turnover (Step 4 + 9) = 99.5

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- Step 11 = turnover prevented by EAP use for 10% of above total of users = 99.5 x 10% = 9.9 with outcome
- Step 12 = round the number from Step 11 for # of employees = 9.9 = **10** employees with outcome
- Step 13 = total cases with turnover outcome X financial cost burden for turnover (10 x $39,860) = $398,599
- Step 14 = conservative deduction of 25% of the gross savings (Step 13 x 25%) = less $99,650
- Step 15 = final return amount for avoided employee turnover (Step 13 – Step 14) = $298,950
- Result = final return amount divided by investment amount yields **ROI = $0.75:1**

ROI for Component 4. We can assume the investment in the EAP is $400,800. The above estimated cost savings of $298,950 divided by the total investment yields a $0.75:1 ratio of the return on investment. Thus, this area of return dollars results in $0.75 in business value per every $1 spent on the program. Preventing employee turnover, as we have measured it, is close to a break-even ROI result.

3.5. ROI Component 5: Business Value of Specialty Services to Manage Organizational Risks

Evidence Basis in Literature. The final component of the ROI model is conceptualized differently from those based on post-use changes in clinical and work outcomes. Other non-counseling EAP services hold financial value comparable to similar services procured by the organization from other business partners and suppliers. This component underscores the dual role of a full-service EAP in serving both the employee and the work organization [1,4]. This dual purpose distinguishes EAP as a unique benefit separate from mental health services provided under health insurance plans. The significance of organizational level training [106], manager consulting [107], and crisis response [99,108] has been cited as effective methods to further integrate EAP services and personnel within the organization [105]. Utilizing these specialized services contributes to broader objectives, leveraging the expertise of EAP professionals to assist human resources and leadership as a reliable resource for managing behavioral health risks [109-116].

In previous trainings on ROI best practices for professionals in the EAP field, this area of business cost savings has been included in what is termed the *Partnership Path to ROI* [27-32]. The organizational services aspect of an EAP benefit is highly effective in enhancing the efficiency of other employee support programs at the same employer through the development of partnerships. Some EAP programs provide services that align with the objectives of other health-related initiatives sponsored by the same host/customer organization. The EAP can add value to these other programs through case-finding, referral into the programs, and co-management of complex cases, thereby contributing to the “return” ledger of these initiatives. Consequently, the EAP can assume a more strategic role within the organization. Indeed, through training sessions, consultations, and crisis response, the EAP assists the broader organization in managing behavioral health risks while collaborating with HR, leadership, and allied programs. This larger role for the EAP is consistent with contemporary arguments popular in employee benefits community that advocate for the evaluation of EAP services using a more comprehensive Value on Investment (VOI) conceptual approach. The VOI approach broadens the scope of analysis beyond traditional healthcare and human capital cost categories [117,118] to include the impact of the EAP benefit on enhancing employee well-being and promoting company-level growth, performance, and profitability goals.

Relevant Users. The three areas of EAP service that conceptually fit this area of value include: 1) Providing specialists onsite for response to crisis and workplace critical incidents; 2) Educational and prevention-oriented trainings that are provided onsite at the workplace to employees and managers; and 3) Consultations with management and supervisors by EAP counselors experienced in workplace issues. The counts for each of these kinds of services are taken from the annual utilization report for the employer customer. A cost value per hour is applied to each kind of service (based on consultant review of market costs from 2019 that were inflation-adjusted to year 2024): Crisis response services are valued at $1,131 per hour; Worksite trainings are valued at $566 per hour; and Management, supervisory and policy consultations are valued at $170 per hour. The total savings for this component are determined by the number of events or hours of each kind of service applied to the estimated market cost to provide each unit of service.

Do the Math. The calculation steps are summarized below for organizational service users:

- Step 0 = total employees with access to EAP benefit = 20,000
- Step 1 = crisis response service events = 35 (with 104 participants total)
- Step 2 = crisis response service event X financial cost per hour (Step 1 x $1,131) = $39,585
- Step 3 = worksite training events = 17 (with 513 participants)
- Step 4 = worksite training events X financial cost per hour (Step 3 x $566) = $9,622
- Step 5 = organizational consulting cases = 24
- Step 6 = organizational consulting cases X financial cost per hour (Step 5 x $170) = $4,124
- Step 7 = total relevant employee users of organizational services = 641
- Step 8 = total cost savings across use events (Step 2 + Step 4 + Step 6) = $53,331
- Result = final return amount divided by investment amount yields **ROI = $0.13:1**

ROI for Component 5. If we assume the same conditions as for Component 1, the investment in the EAP is $400,800. The above estimated cost savings of $53,331 divided by the total investment is a $0.13:1 ratio of the return on investment. The service delivery fee offset for these services yields 13 cents for every dollar invested in the EAP. This is only about 2% of the total return dollars. Yet, the use of organizational-level services is important to include in the ROI model to remind the purchaser of these unique specialty areas provided by the EAP go beyond counseling. The three areas included in this component represent the actions intended to improve the work culture and build greater resilience of the workforce. Use of worksite trainings and manager consultations also expands the awareness of the EAP benefit within the larger employee population which can increase the rate of referrals to the EAP made by managers and coworkers, which drives up the cases featured in the other four components of the ROI model.

3.6. Summary of ROI Results by Components

Table 4 shows the results in total for each component and also the average savings per every one counselor case or per every one user of organizational services from the EAP (regardless of relevance to the different outcomes). These return dollars per typical user are useful for estimating a total return for different levels of utilization at other employers for their rate of counseling cases and for their rate of the same set of organizational services.

On a per person level in this example, the typical user of EAP counseling (regardless of relevance to the ROI outcomes) had an average of $459 in avoided outpatient mental health treatment costs, $806 in prevention of treatment costs for behavioral health risks, $508 in avoided lost work productivity and $95 in avoided turnover. For the typical user of EAP organizational services, the average business service value was $83 per participant of trainings, manager consulting or crisis response and $318 in avoided turnover. The typical counselor case had about four times the return dollar amount of the typical user of organizational services ($1,905 vs. $401).

Table 4. *Summary of ROI Results: Total and Per Counseling Case or Per Organizational Services User*

		Employee Assistance Program (Investment total = $400,800)			
		Counseling Services		Organizational Services	
ROI Component	Sub-Components	Total for 1,000 Counseling Cases $	Average Per 1 Counseling Case $	Total for 641 Organizational Service Users $	Average Per 1 Organizational Services User $
Health Care Costs	Non-Acute (Outpatient MHSA) Claims Offset	459,359	459	NA	NA
	High-Risk Cases Recovered from Mental Health (Anxiety & Depression)	447,687	448	NA	NA
	High-Risk Cases Recovered from Substance Use (Alcohol & Drug)	357,308	358	NA	NA
	Subtotal:	**1,300,353** **ROI = 3.24**	**1,302**		
Human Capital Costs	Work Absenteeism Reduced	50,207	50	NA	NA
	Work Presenteeism Reduced	458,295	458	NA	NA
	Employee Turnover Avoided	94,965	95	203,985	318
	Subtotal:	**604,581** **ROI = 2.01**	**603**		
Organizational Risk Management	Costs to Provide Business Specialty Support Services	NA	NA	53,331	83
Full Model	**Total = 2,161,136** **ROI = 5.39**	**1,903,820** **ROI = 5.26**	**1,904**	**257,316** **ROI = 0.13**	**401**

Note: 20,000 employees covered by EAP benefit. Counseling cases include employees and family/others also covered by benefit. Organizational services include only educational trainings, manager consultations and crisis event responses (others excluded). NA = not applicable.

Key outcomes obtained from the ROI analysis process are listed below:

- Users avoided mental health care outpatient treatment in benefits: 940
- Users recovered from behavioral health disorder clinical risk: 332
- Days of lost work productivity avoided in year: 1,459
- Employees who avoided job loss (turnover): 10

Figure 6 shows how the five components contribute to the overall ROI of $5.39:1 and estimating over five dollars in return for each one dollar invested in the EAP benefit for a large employer. The left side displays two components related to health care insurance claims, providing a $3.24:1 ROI. The right side features two work-related components, yielding a $2.01:1 ROI. Employers can focus on either the health care or the work-related returns or both areas for their ROI result. At the bottom of the figure is the financial return from organizational services at $0.13:1 ROI.

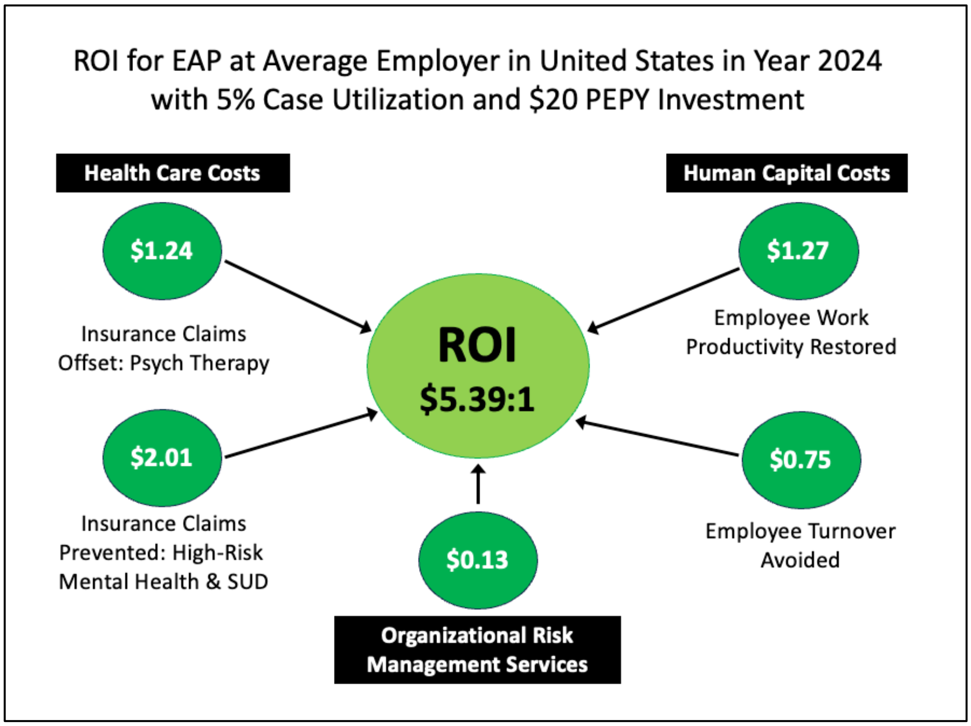

Figure 6. *ROI Model Results by the Five Components: Summary*

IV. Discussion

4.1. Strengths of the Model

This model has many conceptual and design strengths to it. Foremost is that it follows the four "C"s of proper ROI development [20].

- Comprehensive
- Credible
- Conservative
- Customizable

4.1.1. The first "C" stands for *Comprehensive*.

The results encompass the three main areas of business value important to employers when purchasing employee benefits: 1) reducing direct benefit budget costs in health care; 2) reducing the indirect costs associated with lost productivity due to employee absenteeism and presenteeism and also avoiding employee turnover; and 3) managing organizational risks related to workplace crises and behavioral health threats and fostering a workplace culture that promotes psychological safety.

The practical advantage of a comprehensive model is its flexibility; not every component needs to be addressed for the customer's result. Some employers may prioritize health care savings, while others may value the work performance component. If a particular component does not align with an employer's internal audience, it can be excluded from the final ROI results. For instance, estimating the impact of EAP use on employee turnover costs may not be as persuasive to senior management as avoided health care or work productivity costs. Benefits professionals may consider the health care claims to be a direct (or "hard") cost whereas the human capital and organizational areas of the model are considered an indirect (or "soft") cost. International customers without an employer-sponsored healthcare system (unique to the US, where health care is predominantly government-sponsored) can focus on other components of the model, such as work performance and organizational risk management.

Both the health care and work-related areas have gathered data from the EAP that is relevant to a majority of counseling cases over the past year. Specifically, this includes data on the use of EAP counselors instead of psychological treatment visits covered by benefits, and the reduction in employee absenteeism and presenteeism. Additionally, both areas include less common outcomes such as clinical risk disorder costs and employee turnover costs. Future prevention of adverse events depends on the assumption that these events will not occur, which is uncertain. In contrast, the other two outcome components have more concrete data, measuring behaviors before and after EAP use. If the future-oriented components are excluded from consideration, the remaining outcome components with stronger data still show a positive ROI of over $3:1.

With multiple components in the ROI Model, one could argue that there is some double counting of savings across the various users of the EAP. We contend that this criticism may be true to small extent (the reader will recall the 1% overlap for mental health recovery and alcohol/drug recovery outcomes). However, the employee with a more serious mental health issue may well have experiences and behaviors that quality for more than one of the areas of cost savings. A depressed employee who uses the EAP counselor for psychological treatment will have cost savings in four of the ROI components and all four outcomes can be true at the same time: a) the employee used the EAP counselor visits instead of generating costs in outpatient services provided by the health plan; b) the employee reduced his or her clinical risk status after use to recover from depression disorder risk and avoided longer-term health care claims costs; c) the employee reduced the hours of lost work productivity from the initially abnormal level; and d) the employee decided against leaving the employer.

4.1.2. The second "C" is that the ROI model is *Credible*.

The core components of the ROI Model are based on extensive research in workplace mental health, including risk factors, outcomes, and employer case studies of EAP services. These concepts are widely recognized cost factors examined in many other similar studies documenting the business case for workplace mental health services in general [25] and EAP services specifically [3]. The logic and mathematical steps for calculating ROI follow standard practices in workplace health, refined by scholars and business authors. Default numbers come from multi-year data collected at CuraLinc Healthcare, involving over 166,000 users across diverse industries with assessments of clinical risks and work performance that utilize validated self-report measures. These assessments were collected both at the start and after service use to provide evidence of changes over time. The new findings for users of EAP counseling are based on largest sample size study ever used in research study for the EAP field. The findings replicate many past studies in the field that have examined anxiety, depression, alcohol, and work absenteeism and presenteeism factors among users of EAP services [34,43,44,75,76,84,85,120,121].

4.1.3. The third "C" in the ROI model is *Conservative*.

To avoid overestimating results, the model only includes users of the EAP who are relevant to the specific outcome area. For healthcare treatment cost savings, non-employee counseling users without health insurance coverage as dependents are excluded (estimated at half). For health risk and work problem savings, research data identifies the smaller group of counseling users who start at a clinical risk level and later recover. We deduct cases where users' symptoms worsened significantly after EAP use (about 1% to 3%). This ensures fair cost savings estimates for the EAP customer.

High-quality research studies on EAP outcomes utilizing experimental randomized assignments of users and non-users or matching non-users to program users have seldom been conducted over the 50 plus years of applied science on workplace mental health services [2,4,119-121]. Therefore, precise levels of cause and effect for EAP outcomes remain unknown. One small-scale study employing a matched control group of non-user employees compared to EAP counseling users found that the EAP group demonstrated significantly better outcomes in clinical risks and work performance during the follow-up period [120]. The non-user group achieved only about 23% of the improvement over time in restored work productivity hours relative to the EAP users. Consequently, a 25% size-down factor is utilized in the Return on Investment (ROI) model as a standard across all outcome-related components. This causal factor relevant to savings is set at 75%. The rationale for this adjustment acknowledges the presence of other influencing factors affecting the changes observed in outcomes experienced by EAP counseling cases and organizational service users beyond the therapeutic impact provided by EAP counselors and consultants.

Cost savings represent a one-year impact period. For high-risk behavioral health conditions, it is plausible that some of these cost savings, which were prevented and measured as one-year cost burdens, could have persisted for multiple years if left untreated by the EAP (or other treatment sources referred to by the EAP). Depression, anxiety, and substance abuse issues, once they are serious enough to be diagnosable and treated as clinical disorders, can become chronic conditions lasting many years. For example, depression is identified by the World Health Organization as the leading cause of disability worldwide [50].

Our approach to setting calculation parameters used in the ROI mechanical operation is more conservative than other efforts in the EAP field. For the work productivity impact period we assume just one month of financial losses were avoided if the EAP had not been used. Some EAPs also do this [33,], but most assume the untreated cost burden episode is three months [34,90], or six months [85,100] or even as long as a full year [21,27]. Thus, our $1.27 ROI for work productivity outcome would become $3.81:1 if extended over a 3-month duration; or $7.62:1 if continued for a 6-month duration; or a whopping $15.24:1 if assumed to last over a 12-month duration. Based on the data for brief counseling treatment and the initially high level of excess presenteeism and absenteeism (which would be unlikely to go unnoticed by work colleagues and thus eventually require an intervention from a manager or HR), we argue that a 1 to 3-month range for the impact period is the most realistic for the lost work productivity outcome part of the ROI.

Concerning the health insurance claims cost savings part of the model – when combining the offset of OPMH visits and the high-risk cases prevented – the average result was $1,381 per any 1 EAP counseling case covered by the employers' insurance benefit. This amount is about $1,000 *less* than the dollar amounts reported in other healthcare claims data studies conducted by actuary firms for two other companies that compared counseling and medication support service users against matched groups of non-users of the service [41,124; 43,100,125]. Thus, the CuraLinc Healthcare ROI approach is more conservative.

4.1.4. The fourth "C" is that the ROI model is *Customizable*.

The purpose of the ROI calculator tool is to provide each employer customer with a unique report estimating the financial return on their investment in the EAP benefit based on their use of the program and investment in the program. However, creating a completely customized ROI result for each employer account is not feasible for several reasons. First, only the largest employers have sufficient utilization in the total case count per year to yield the needed number of users with both pre- and post-survey data on health and work risk outcomes. Therefore, research-based outcome norms for risk and recovery rates, as well as hours of work absenteeism and presenteeism, are used from data aggregated across all customers. Nevertheless, many parts of the model can be tailored to the employer's context using moderator variable research analysis results. These areas are described below.

Customization Factor 1: Utilization Level of EAP Services. This includes specific counseling case counts and organizational services event counts from the annual program utilization report. The overall level of service usage is crucial for customization. These counts for different parts of the program are used as inputs in the savings analysis calculation. The level of program use greatly impacts the ROI results and is the most important driver of total cost savings from the EAP.

Customization Factor 2: Moderator Factors in EAP User Profile Data. The utilization report data enables a severity case mix adjustment to the sample of service users. The first moderator factor involves the percentage of counseling users who are employees or non-employees. The clinical and work outcome metrics used in the ROI Model were also analyzed in the new large sample data and found to have small moderating effects based on client gender, client age, mix of presenting issues (such as how many cases focused on ROI-relevant specific issues of depression, anxiety, alcohol/drug , or work stress problems) and industry type [see past studies: 75,76,122,123; Appendix B]. These demographic, clinical issue and industry factors are used to adjust the initial risk rates for mental health, alcohol misuse, and work productivity for the EAP users at a customer. These factors typically yield only small increases or decreases the ROI results. Nonetheless, the estimated ROI result is as precise as possible using the current research conducted by CuraLinc Healthcare.

Customization Factor 3: Financial – Investment in EAP. Specific dollar input for the total investment in the program made by the employer organization (EAP budget).

Customization Factor 4: Financial – Healthcare Treatment Costs. The average per member per year spending for the employer-paid portion of healthcare treatment costs (not insurance premiums) is based on US normative national insurance paid claim data for the year 2024 (see Table C1 in Appendix C). The model automatically adjusts this national norm based on the customer's user profile mix for age and gender. This amount can be further adjusted to match the specific level experienced at the employer customer of the EAP – if known. This amount may differ from the national norm due to various factors unique to each employer, such as whether the employer is self-funded, the health insurance company, discounts and network contract conditions for healthcare providers, regional differences in the cost of treatment, and the extent of the cost-sharing required to be paid by the employee in annual deductibles, co-pays, co-insurance, and so on. These customizations to the model inputs may affect the savings in the two healthcare treatment areas.

Customization Factor 5: Financial – Worker Salary & Benefits. Specific dollar inputs for employee compensation (wages and benefits) can also be adjusted from the default of the U.S. average employer at the end of year 2024. These figures can also be estimated by using the appropriate normative data for small, medium and large size employers and for large size employers in eight different industries (see Tables C4 and C5 in Appendix C). This customizations to the model inputs affects the human capital area of savings.

Customization Factor 6: Financial – Business Value of Worker Productivity. For the work performance cost savings areas, the productivity multiplier factor applied to employee hourly compensation is defaulted at 1.3. But this number can be customized to be lower or higher to match the employer's preference (customize from 1.0 to 2.0). This customizations to the model inputs affect both components in the human capital area of savings.

Customization Factor 7: Financial – Duration of Untreated Worker Productivity Loss Episode. A key factor in the work performance cost savings area is the expected duration of continued under-performance if the EAP had not intervened. The default is set at one month (customize from 1 to 3). Although using a longer impact period is supported by data (our typical EAP counseling case lasted 56 days and then had a 30-day follow-up, thus we know that the deficit in work performance took approximately three months to return to a normal level), it can result in a much higher savings amount in the ROI math.

Customization Factor 8: Financial – Worker Turnover Cost. Similarly, the financial impact of employee turnover can be adjusted up or down from the default level of a third of the employee's annual productivity value to the organization (default at 33%; customize from 20% to 200%). This level depends on many factors involving simple direct costs for hiring tasks, for the length of time to recruit, hire and train a new employee, the length of the expected period of under-performance while the new employee learns to properly do the job, the level of employee autonomy or integration into work teams and organizational structures, the loss of accumulated company knowledge, expertise and relationships, and so on.

4.2. Conclusion

This study provides applied evidence that supports making the business case for EAPs. We hope it can become an effective resource to be used by leaders in human resources and employee benefits departments to better understand their employee assistance program. Finally, it is important to understand that the ROI Model is not as comprehensive as it should be. As illustrated in Figure 1, not all areas of the EAP benefit services are included in the Return on Investment Model and not all outcomes are linked to each service area. The use of EAP trainings, consultations, and crisis incident counseling for trauma likely has a positive impact on employee productivity for some users; however, there is currently no return for these services reflected in the model. Additionally, it is probable that a smaller portion of users of work/life support (such as personal financial issues, personal legal issues, childcare, eldercare, family life issues) and users of wellness and prevention-oriented digital self-care tools for mental wellbeing also face behavioral health risks and work performance risks. Consequently, the model represents an underestimate of the full business value of the service offering, as the total investment fee is considered, but only parts of the services used contribute to the return aspect of the ROI ratio. Future enhancements to the ROI model could incorporate outcomes and cost savings for these areas of EAP utilization.

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Declarations

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Author Contributions: MA developed the conceptual model, performed the statistical analyses, conducted the literature review and drafted the initial manuscript. DP developed the project, managed the ROI tool use at the EAP business, provided employer customer benchmark utilization data used for revising the ROI. All authors discussed the results and contributed to the final manuscript.

Conflict of Interests: MA is an independent research scholar and consultant who received financial support from CuraLinc Healthcare for preparing this research manuscript and has worked on other projects for this company. DP works for CuraLinc Healthcare company.

Ethical Considerations / IRB / Informed Consent: The privacy of users for the study in Appendix A was protected by having all program use and survey data deidentified before being shared with the independent consultant (first author) who conducted all statistical analyses. All data was collected as part of the normal business practices and not for a separate specific research project. Project approval from a university internal review board (IRB) was not required. As this was an applied study of archival anonymized data collected from routine use of the service, informed consent from individual participants beyond their initial consent agreement in terms of use of the EAP service was not required. The use and analysis of archival operational data in this manner for applied research is consistent with the published ethical guidelines of the American Psychological Association [126]. All counselors involved in the delivery of the clinical treatment services were fully licensed and trained professionals. The real-world conditions for this study are like other applied studies published in peer-review journals that have examined the effectiveness of commercial mental health support programs [34,120,121].

Appendix A

CuraLinc Healthcare Research Study Results for ROI Defaults

We used archival data collected from employee users of individual counseling or coaching from a single national EAP business in the United States. Data was obtained from archival records of the normal course of business at CuraLinc Healthcare. The study period spanned 93 months, from April of 2017 through December 31, 2024, based on the start date of program use. The last case included in the study had a Post use data collection date of January 31, 2025. The year of use was defined by date of when the employee contacted the program and completed the initial intake assessment. The case-level raw data was aggregated into one master dataset and analyzed for the present paper on ROI.

A.1. Sample Profile

The full sample included 166,116 clients who worked at 3,417 different employers in the United States. This is one of the largest samples of EAP users ever examined in the literature. Our previous paper had 85,432 cases [76]. Background factors included industry, employee status and client age and gender. Users were grouped into eight industry types according to their employer (see Table A1): manufacturing and related heavy labor (20% of the total cases); healthcare (18%); financial and business (14%); transportation (12%); restaurants and retail trade (12%); education in K-12 or higher (college/university) (9%); state and local government and municipality (7%); and technology (7%). Other non-employee users of the service were excluded (i.e., spouse, children or other family member of the employee with the EAP benefit). Most of the clients were females (60%; males 37%; 3% other). The age of clients ranged from late teenage years to over 80, but the average client was 40 years old. All users were employees.

The clinical factors included service type, referral type, modality of access, and presenting issue. Most users chose to use a licensed mental health counselor (90%). Only 10% of employees selected a professional coach to address non-clinical issues involving emotional fitness or mild mental health concerns (see our other paper profiling users of coaching [Appendix B, #17]). The vast majority (98%) of users were self-referrals into the service, with only 2% being formally referred to use EAP counseling by their manager at work (see our other paper profiling this group [Appendix B, #8]). The modality of how the counseling was delivered was evenly split between in-person at the counselor's office (51%) or online video/other remote technology (49%) but coaching services were delivered only via online video. The reason given for why these clients wanted to use the service included over 30 different specific kinds of issues. The most common issues for EAP use involved mental health topics (43%; anxiety = 14.2%, depression 12.5%, other emotional/psychological = 15.8%), followed by personal stress and other issues (29.8%), relationships (18%; marriage 14.1%; family issues 3.6%), work-related issues (6.6%) and substance use (1.4%; involving alcohol 0.5% or drugs 0.9%).

Table A1. *Profile of Cases at Start of EAP Use in Full Sample*

Factor	*n* count	% of cases
Total EAP users	166,116	100%
Total Employers	3,417	
Year of use	All	
2017	1,929	1%
2018	4,992	3%
2019	5,918	4%
2020	9,171	5%
2021	9,699	6%
2022	8,144	5%
2023	49,380	30%
2024	76,883	46%
Industry of Employer	All	
Manufacturing	31,073	19%
Healthcare	25,846	17%
Financial & Business	25,209	15%
Transportation	25,053	15%
Restaurant & Retail Trade	22,628	14%
Education	14,086	9%
Government & Municipality	10,169	6%
Technology	9,352	6%

Client status EAP benefit	All	
Employee	166,116	100%
Family / Other = excluded	-	-
Client age	161,892	
Under 30 years	35,041	21%
30-39 years	49,522	31%
40-49 years	38,405	24%
50 plus years	38,894	24%
Average years (min-max)	40 (16-93)	
Client gender	All	
Female	100,165	60%
Male	61,128	37%
Other / declined	4,823	3%
EAP service used	All	
Counseling	149,018	90%
Coaching	17,098	10%
EAP referral source	All	
Self / family / other	162,252	98%
Formal management at work	3,864	2%
EAP modality of use	All	
In-person office (face-to-face)	85,027	51%
Online video / other technology	81,089	49%
EAP presenting issue	166,048	
Mental health	70,655	43%
Substance use – alcohol, drug	5,706	3%
Stress personal / other	49,429	30%
Relationships – marital, family	29,322	18%
Work stress	10,936	6%
EAP use duration (if had post data with specific date)	11,731	
1-30 days	3,135	27%
31-59 days	4,231	36%
60-89 days	2,543	22%
90 plus days (max 336 days)	1,822	15%
Average:	56 days	
Longitudinal follow-up	All*	
Any outcome data at Post	11,731	7%

**some active users were still active in treatment at time of data extract*

The criteria for inclusion in the longitudinal group for each outcome was having the valid score collected at Pre (the start of the counseling) and a valid score at the follow-up for the same measure. The obtained longitudinal paired data sample size for each outcome measure and represented from 5% to 13% of the total relevant starting sample sizes. It is typical in EAP research to engage about 10% of counseling cases at a longitudinal follow-up after use. Treatment duration data was available only from the subset of users with valid longitudinal data. Use episode was defined by the difference in days between the date of case open at first session to the date of the longitudinal follow-up to measure the outcomes, minus either 30 days for counseling cases or 7 days for coaching clients. Most clients engaged in multiple counseling treatments or coaching sessions over a two-month period, with the average being 55.9 days (range 1 to 336; median 47). This 8-week average episode of use was based on a much wider actual range that depended on the clinical severity and needs of the specific client and varied from just one session to use of multiple sessions lasting almost a year.

A.2. Self-Report Outcomes Measures

The outcomes were collected in two phases. During Phase 1 – which lasted from 2017 through July of 2021 – clinical symptom outcome data was collected at Pre for cases that had a relevant clinical issue (i.e., the case had either depression or alcohol as a primary or secondary issue) whereas the work outcome data at Pre was collected for more cases regardless of treatment issue. The Post use data was collected routinely at 30 days after last session for those cases who had the same outcome(s) collected at the start of use. During Phase 2 – which lasted from cases opened in August of 2021 through the December 31, 2024 – shorter measures were used for depression, anxiety, alcohol misuse, work absenteeism and work presenteeism. In addition, the entire set of five outcome measures were routinely collected for as many cases as possible at Pre during Phase 2 and thus this period is a true representative sample of the EAP users with more range in severity levels of outcomes.

During the initial assessment, the multiple self-report measures were collected, either over the telephone or from a brief online survey. After the treatment phase was completed, the EAP conducted individual follow-ups with clients about 30 days after the last clinical session to collect outcome measures and evaluate other quality of use metrics. Standardized measures of behavioral health and work outcomes were assessed using published and validated self-report scales. Each measures had acceptable levels of validity and reliability.

The health measures included symptoms of anxiety, depression and hazardous alcohol use. The symptom severity for **mental health** disorders of anxiety and depression was measured using The Patient Health Questionnaire 4-item brief scale (PHQ-4) [127]. This scale ranges from 0 to 12 and higher scores indicate greater anxiety and/or depression. Clinical risk status for mental health was categorized as scores of 6 or higher. Developed by the World Health Organization (WHO), the Alcohol Use Disorders Identification Test's brief 3-item version (called the AUDIT-C) was used to assess the level of **problematic alcohol consumption** [128]. This scale score can range from 0 to 12 and higher scores indicate more hazardous alcohol use. "At risk" clinical status on the AUDIT-C is defined as a score of 3 or higher for women or 4 or higher for men. A cutoff of 3 or more was used if gender of the client was missing (3% of cases).

The work measures included hours of absenteeism, level of presenteeism and a post hoc derived measure of combined hours of lost work productivity from both missed work and poor performance while working. **Work absenteeism** was assessed from clients in Phase 1 on the original WOS scale (using all 5 items) [129] and in Phase 2 using the revised WOS single item for absenteeism [85,88,123,130]. Both versions had a fill in the blank response. Cases who reported 160+ hours missed in the past 30 days were judged as not actively working and were excluded (1% of all cases). **Work presenteeism** was assessed using two different measures over the study period. During Phase 1, the 6-item Stanford Presenteeism Scale [131,132] was used while during Phase 2 the shorter single-item work presenteeism question from the WOS was used: "My personal problems kept me from concentrating on my work." The method of scoring on the two work presenteeism measures was standardized to have the same meaning and scale score range [see 76]. The SPS-6 was rescored as the level of productivity while working as follows: score 6-10 = 95% productive; score 11-15 = 85% productive; score 16-20 = 75% productive; score 21-25 = 65% productive; score 25-30 = 55% productive. The WOS presenteeism item was rescored as level of productivity while working as follows [see 76,85]: rating 1 strongly disagree = 95% productive; rating 2 somewhat disagree = 85% productive; rating 3 neutral = 75% productive; rating 4 somewhat agree = 65% productive; rating 5 strongly agree = 55% productive. We also wanted to determine how much total work productivity loss there was among users of the EAP service. Seminal research conducted for the American Productivity Audit project [86] identified how a single simple metric can be used to index the dual impact of work absenteeism and work presenteeism. This metric is called **lost productive time (LPT)** [76,85-87]. It is measured in hours of time per month. We combined data from the WOS work absenteeism hours and the recoded presenteeism measure (See Table A2).

Table A2. *Calculation of Lost Productive Time (LPT) Hours per EAP Counseling Case*

Step	Concepts	Data Example
1	Full work schedule in month	160 hours (4 weeks x 40 hours per work week)
2	Amount of absence experienced in month	10 hours
3	Actual hours worked in month	160 hours scheduled minus 10 hours absent = 150 hours worked
4	Level of work productivity while working on a 0% to 100% scale (lowest to highest)	100% maximum level minus presenteeism deficit of 30% = 70% productive
5	Level of work presenteeism while working	100% maximum minus 70% productive level = 30% presenteeism
6	Hours of productivity lost to presenteeism	150 hours worked multiplied by 30% presenteeism loss = 45 hours of presenteeism
7	Combination of hours of absenteeism reported and hours of estimated presenteeism	10 hours absenteeism + 45 hours presenteeism = 55 hours total LPT

The new methodology to define a problem level of work productivity based directly on the number of hours of combined missed work and presenteeism (i.e., it is a problem if the case has more than the norm of 26.9 hours for the typical U.S. worker) yielded 74% of all employee counseling users at the start of service. This is higher risk rate than the 52% found using our previous methodology [76] that used a more complicated criteria based on scoring for two measures: if the worker missed more time away from work (absenteeism problem of 4+ hours); or if the worker had a problem level of presenteeism (i.e., 65% or less of worked time being productive) or if the worker had both problems. However, the amount of unproductive time in hours per average case remained unchanged as it is not affected by the criteria for much LPT is considered a problem.

A.3. Results for Outcomes

Risk at Start of Counseling. Statistical test results are presented in Table A3. We found that mental health clinical risks represented 39% users and that about 1 in every 10 cases had hazardous alcohol use (11%). We also found that 74% of EAP cases had a level of work productivity loss that exceeded the typical worker. Among those with a work problem, presenteeism accounted for 90% of their total lost productive time while absence was only 10%. Correlational tests determined that these behavioral health and work problem factors were experienced together to various degrees.

Change in Risk After Counseling. Statistical test results are presented in Table A3. The longitudinal test indicated the brief counseling and coaching from EAPs improved the clinical and work outcomes for a large majority of relevant users who were at-risk on a particular outcome when first seeking support from the EAP. Of those who started EAP use at-risk for mental health disorder, 79% recovered. Of those who started EAP use at-risk for hazardous alcohol use, 67% recovered. Of those employee cases who started EAP use with a problematic level of lost work productivity, 61% recovered. All of these improvements were significant beyond chance levels ($p < .001$).

Table A3. *Results for At-Risk Status for Clinical and Work Outcomes from Pre to Post Use of EAP Counseling*

		Full Sample	Longitudinal Subsample If At-risk at Pre	Test Statistics for Change
Mental Health Disorder Risk	*n* cases	131,471[a]	2,654	Full longitudinal sample test of change in risk status: Pre at-risk = 34.7% vs. Post at-risk = 8.6%; $X^2(1,7644) = 818.29$, $p < .001$, $\eta_p^2 = .107$ medium effect
	At-risk at Pre %	**38.7** (*n* = 50,830)	100%	
	At-risk at Post %		21.2%	
	Recovered at Post		**-78.8%**	
Alcohol Misuse Risk	*n* cases	129,605[a]	1,326	Full longitudinal sample test of change in risk status: Pre at-risk = 16.6% vs. Post at-risk = 6.6%; $X^2(1,7979) = 1796.10$, $p < .001$, $\eta_p^2 = .225$ large effect
	At-risk at Pre %	**10.6** (*n* = 13,707)	100%	
	At-risk at Post %		33.1%	
	Recovered at Post		**-66.9%**	
Work Productivity Problem[b]	*n* cases	156,400	8,304	Full longitudinal sample test of change in risk status: Pre at-risk = 71.8% vs. Post at-risk = 30.7%; $X^2(1,11558) = 916.80$, $p < .001$, $\eta_p^2 = .080$ medium effect
	At-risk at Pre %	**74.3** (*n* = 116,172)	100%	
	At-risk at Post %	NA	38.9%	
	Recovered at Post	NA	**-61.1%**	
Hours of Lost Productive Time in the Past 30 Days: *If Start EAP with Work Productivity Problem*	*n* cases Pre	116,172 ABS = 5.70 + PRES = 52.03 = 57.73 hours		Norm 26.89 hours typical employee Difference from norm is excess burden of **30.84 hours of LPT**

Note: η_p^2 = partial eta squared statistical effect size. ABS = work absenteeism. PRES = work presenteeism.
[a] = Only data from Phase 2 of study. [b] = Typical "healthy" US worker = 26.89 hours LPT; Problem status is more hours than this amount.

Change in LPT Hours After Counseling. Longitudinal data on hours of lost productive time was available for 11,558 cases. Statistical test results are presented in Table A4. Among the subgroup who recovered after EAP use from having a work productivity problem before use (*n* = 5,075; 43.9% of total), the amount of lost productive time was reduced from 57.3 hours at the start to just 16.4 at the follow-up. Note that this level at Post is far below the LPT level of a normal worker at 27 hours. By comparison, the group of EAP counseling users who started out their use not at a problem level of LPT and stayed at that low level (*n* = 2,929; 25.3%) had 14.2 at Pre and 11.3 hours at Post. The group of EAP counseling users who started out their use at a problem level of LPT and remained at the problem level after use (*n* = 3,229; 27.9%) had LPT hours of 59.6 at Pre and 48.9 at Post per case per month. The final very small group of EAP counseling users who started out their use not at a problem level of LPT but got worse to have a problem after use (*n* = 325; 2.8%) had LPT hours of 15.7 at Pre and 48.1 at Post per case per month.

Table A4. *Change in LPT Hours from Pre to Post Use of EAP Counseling: By Four Groups and Total*

Change Group	Outcome	Pre	Post	Change	Test Statistics for Change
Stayed No Problem (*n* = 2,929)	Absenteeism	1.23 (2.90)	0.06 (0.72)	-1.17	$F(1,2928) = 137.31$, $p < .001$, $\eta_p^2 = .045$ small size effect
	Presenteeism	12.95 (7.44)	11.21 (6.41)	-1.74	
	Combined LPT	**14.17** (7.32)	**11.27** (6.43)	-2.90	
Recovered (*n* = 5,075)	Absenteeism	8.05 (14.85)	0.07 (0.67)	-7.98	$F(1,5074) = 19,967$, $p < .001$, $\eta_p^2 = .797$ very large size effect
	Presenteeism	49.22 (14.52)	16.29 (8.00)	-32.93	
	Combined LPT	**57.27** (16.66)	**16.36** (7.99)	-40.91	
Got Worse (*n* = 325)	Absenteeism	1.98 (3.42)	3.61 (13.39)	1.63	$F(1,324) = 1,319.55$, $p < .001$, $\eta_p^2 = .803$ very large size effect
	Presenteeism	13.70 (7.77)	44.44 (12.04)	30.74	
	Combined LPT	**15.68** (7.07)	**48.05** (14.40)	32.37	
Stayed Problem (*n* = 3,229)	Absenteeism	7.91 (15.55)	3.45 (13.53)	-4.46	$F(1,3228) = 623.94$, $p < .001$, $\eta_p^2 = .164$ large size effect
	Presenteeism	12.95 (7.44)	11.21 (6.41)	-1.74	
	Combined LPT	**59.62** (16.67)	**48.92** (14.62)	-10.7	
Total (*n* = 11,558)	Absenteeism	6.11 (113.27)	1.11 (7.68)	-5.00	$F(1,11558) = 7746.90$, $p < .001$, $\eta_p^2 = .401$ very large size effect
	Presenteeism	39.72 (20.82)	23.95 (16.94)	-15.77	
	Combined LPT	**45.82** (24.58)	**25.05** (18.96)	-20.77	

Note: η_p^2 = partial eta squared statistical effect size. See Figure A1.

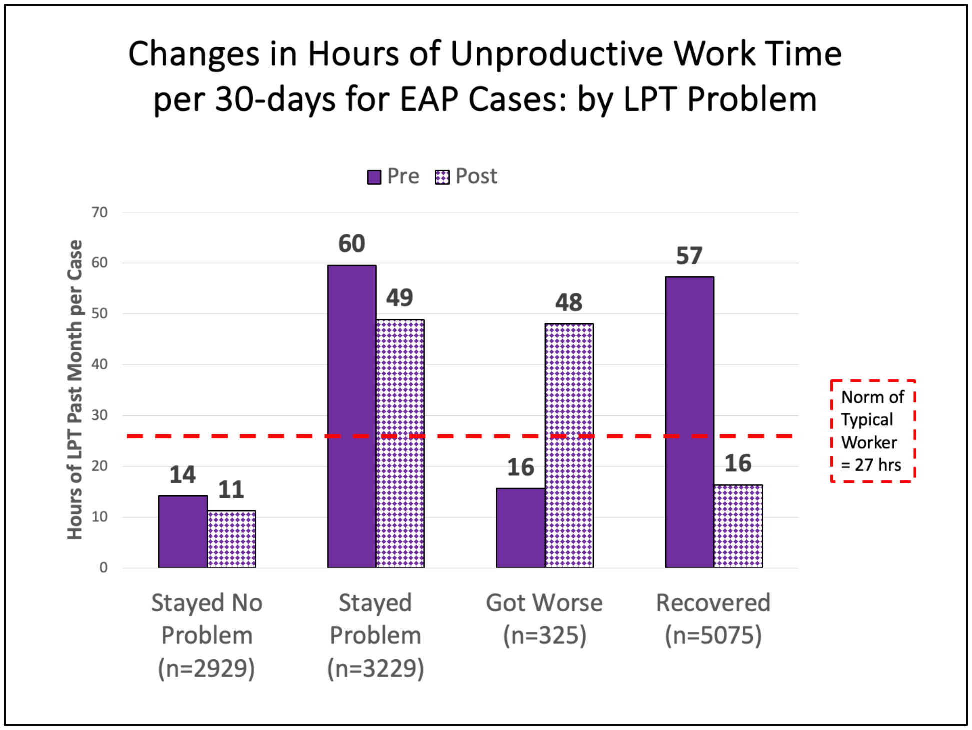

Figure A1. *Hours of Lost Productive Time at Pre and Post EAP Counseling Use: By Change Group*

APPENDIX B

CuraLinc Healthcare Research Papers
https://www.eapoutcomes.com

1 CuraLinc Healthcare. (2018). *EAP Outcomes and Impact, Case Study 2018* [White paper]. Chicago, IL, United States.

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3 CuraLinc Healthcare. (2020). *EAP Outcomes and Impact, Case Study 2020* [White paper]. Chicago, IL, United States.

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6 Attridge, M., Pawlowski, D., & Fogarty, S. (2022). Employee Assistance Program counseling improves clinical and work outcomes: Longitudinal results from CuraLinc Healthcare 2017-2022 in United States. *International Journal of Scientific and Research Publications, 12*(8), 1-31. http://hdl.handle.net/10713/19539

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APPENDIX C

ROI Model Development Details for Cost Defaults

C.1. Default Claims Paid Cost Basis Annual Per Person

The Health Care Cost Institute 2024 report [74] calculated overall health care spending in the United States in year 2022 for adults and dependents covered by employer-sponsored insurance. This is the most comprehensive and recent independent public resource available on this topic. It is based on over 42 million covered individuals in 2022 from four national insurance companies: Aetna, Humana, Kaiser Permanente, and UnitedHealthcare. The ROI model focused on adults and only on the employer-paid portion of healthcare costs. Therefore, adjustments were made to the overall average of $6,710 total for everyone in 2022 to represent only the adults ($7,141). From this amount, the portion paid by the employee was deducted ($921). This left $6,219 paid by the employer in Y2022. Finally, this figure was inflation adjusted to year 2024 (based on US Bureau of Labor Statistics inflation data for medical care economic sector). Based on this analysis, the basis per member per year cost for healthcare treatments paid by their employer in year 2024 was estimated at **$6,416.**

Table C1. *Healthcare Basis Cost in 2022 Estimated from Health Care Cost Institute Report for Year 2024*

Age Group (years)	% adult age total years	PMPY Paid Total Costs
Child 0-17	NA	3,885
Adult 18-24	16	4,251
Adult 25-34	24	4,741
Adult 35-44	22	6,389
Adult 44-54	20	8,731
Adult 55-64	18	12,176
Total	100	7,141
Out of Pocket Employee Paid Portion (12.9%)		-921
Employer Paid Portion		6,219
Adjusted from year 2022 to 2024 (BLS inflation data for medical care)		197
Total Final for Y2024		**$6,416**

Source: Health Care Cost Institute (2024). Average adult age = 46 years. PMPY = per member per year.

C.2. Default Claims Cost Burden for Depression Risk

Inspired by the methodological approach was used at another EAP in their study published in 2022 to estimate depression risk cost burden [34], we applied the same approach for the ROI calculator. To determine a financial cost estimate for each depression risk outcome, we used data from four other research studies that examined healthcare claims data [68-71]. In these studies, large samples of employees working for employers in the US (and some covered dependents) had completed structured interviews or self-report questionnaires about their health risks and behaviors (i.e., responses to a health risk appraisal [HRA]). This risk factor profile and other archival demographic and employer context characteristics was then linked with the same person's archival healthcare claims utilization and expenditure data during the same period from the records of major commercial insurance providers. The typical annual costs were inclusive of healthcare delivery and services (i.e., an annual summary of the combined employer paid costs and the employee co-pay amounts for use of medications, visits to doctors, emergency room visits, hospital admissions and outpatient and inpatient visits to medical, substance abuse, and mental health providers). To conduct these studies, individuals were placed into subgroups based on certain health-risk factors. From there, the average paid costs for healthcare coverage were calculated for both subgroups. Each of these studies conducted tests comparing the costs of the risk group with the non-risk group using sophisticated statistical control procedures to equate the groups on relevant available covariates, such as demographics, employer/insurance context and other health risks. This adjustment process was important, as analyses that are done without controlling for these kinds of other (often correlated) factors can provide misleading results concerning the amount of excess healthcare costs attributed to a certain risk factor [72,73].

The results from four high-quality published studies of almost 285,00 people was used to determine the excess claims cost amount associated with risk for depression (see Table C2).

Table C2. *Summary of Four Studies on Depression Cost Burden in Health Care Claims Costs*

Mental Health: Depression Risk in Self-Report Annual Wellness HRA Surveys of Employees in US										
Study	Source data year	Sample Size			Annual Claims Costs PEPY			Cost Burden if At-risk for Depression		
		Total *N*	At-risk *n*	Not *n*	Total basis $	At-risk $	Not $	$ higher than not	% higher than not	Average weighted by sample
HERO Goetzel (1998) [68]	1996	46,026	2.2%	97.8%	1,712	3,189	1,679	1,179 [a]	70.2	
Pepsi Co. Henke (2010) [69]	2008	11,216	10.8%	89.2%	2,562	2,679 [a]	2,214 [a]	465 [a]	21.0	
HERO Goetzel (2012) [70]	2009	92,486	10.9%	89.1%	3,961	6,738 [a]	4,553 [a]	2,185 [a]	48.0	
HERO Goetzel (2020) [71]	2016	135,215	11.8%	88.2%	4,182	4,717 [a]	4,101 [a]	616 [a]	15.0	
Total		284,943	9.9%						38.9%	34.9%
estimated	2024	*1,000*	9.9% (*n*=99)	91.1% (*n*=901)	6,416[b]	*8,366*	*6,202*	***2,164***		34.9% higher

Note: HRA = health risk appraisal. HERO = Health Enhancement Research Organization.
[a] = adjusted result for other demographic and risk factors.
[b] = 2022 average figure adjusted by inflation index rate in U.S. for medical, behavioral and pharmacy costs to 2024 per employee per year employer paid portion of treatment costs from national multi-employer commercial health insurance in the Health Care Cost Institute's 2024 report [74].

The primary findings were that the risk rate prevalence for depression across the four studies was 10% and the average difference in claims cost for the depression risk group was 35% greater than the cost for not-at risk group. These figures were used as targets in a mathematical exercise to estimate the specific dollar costs for each of the two groups such that when the cost average was multiplied by number of employees in each group (i.e., 10% of employees times X cost and 90% of employees times Y cost) that the resulting summary of the two groups total costs would produce a total cost that equated to the basis cost of $6,416 for year 2024. The results of this exercise were that the depression risk group was estimated to have a per person annual cost of $8,366 and the not-depressed group was estimated to have a per person cost of $6,202. The difference of $2,164 matches the target of a 34.9% difference between the two groups in their average costs. These are in year 2024 dollars. The difference between the two groups of **$2,164** is the excess cost burden for depression per case per year.

How accurate is the estimated cost burden for a person with depression risk? Two recent unpublished actuarial studies are useful for the question as they describe the cost profile for employees relevant to using a workplace mental health support program. They obtained the per person per year average total medical, behavioral and pharmacy paid claims costs for a group of employees who were matched to the demographic and health risk severity profile of an EAP counseling user group but who had *not* used the EAP. This is called creating a matched comparison group of non-users.

The first study was conducted by Aon company for Lyra Health [124]. It had four years of data that repeated the same one-year study design for three employer customers in the US with users of their mental health and medication management program. The average per person per year cost for the matched non-user group of 2,737 people for year 2021 was $8,877. This included $5,032 for medical (non-mental) health, $1,947 for mental health, and $1,898 for all pharmacy. These people had an average of 4.5 visits for treatment of mental health related disorders used per case in health insurance benefits. When inflation adjusted from 2021 to 2024, this becomes $9,529. This amount in 2024 dollars is close to the $8,366 cost we estimated (see above) for the depression at-risk group in 2024 (but 14% higher). The second claims data study was conducted by Santa Barbara Actuaries for Spring Health [125]. It had a small sample of 222 matched non-users of Spring Health's mental health and medication management program taken from data from MarketScan national data in the US from three employer customers. This small group of non-users had a per member *per month* total claims cost of $665 for all total medical, behavioral health and pharmacy paid claims in year 2021 dollars. When extended to 12 months this was $7,980 per year. Inflation adjusted from 2021 to 2024 makes this average cost $8,566. This amount is also very similar to our estimated depression risk group's annual total cost of $8,366 in 2024 (only 2% higher). The conclusion is that our estimated claims cost annual cost for an employee with depression risk was similar to employees in two other recent studies of healthcare claims costs with a personal and health severity profile similar to EAP users.

Our Estimate = $8,366
EAP Study A = $9,529 +14%
EAP Study B = $8,566 +2%

Unfortunately, neither of these actuarial studies presented in their reports the average cost for the rest of the covered adults who were not in the user-matched group. Thus, their data could not be used to determine a specific cost burden difference of the at-risk (matched) group and a not at-risk group (like the other studies in Table C2). What it can tell us, however, is that our mental health at-risk group had an estimated annual cost amount that is representative of what is found in other studies that examined archival data for healthcare claims paid by employer sponsors of EAP services.

C.3. Default Employee Compensation Data

Specific dollar inputs for employee compensation (wages and benefits) can also be adjusted from the default of the U.S. average employer at the end of year 2024. These figures can also be estimated by using the appropriate normative data for small, medium and large size employers and for large size employers in eight different industries.

Table C3. *Employee Compensation Costs 2024 US: by Employer Size*

Cost component	National Average United States			
		Size (worker total)		
	Average for All	Small (1-99)	Medium (100-499)	Large (500+)
	$	$	$	$
Wages – hourly	31.47	26.70	32.40	42.82
Benefits – hourly	13.20	9.27	13.90	22.60
Compensation – hourly	44.67	35.98	46.30	65.42
Wages - annual	65,458	55,536	67,392	89,066
Compensation – annual	92,914	74,838	96,304	136,074
Productivity Multiplier (PM) = 1.3 for business value				
Compensation – hourly x PM	58.07	46.77	60.19	85.05
Compensation – annual x PM	120,788	97,290	125,195	176,896

Source: United States Bureau of Labor Statistics (2025, March 14) - Employer Costs for Employee Compensation - December 2024, Table 6. https://www.bls.gov/news.release/ecec.t04.htm

Table C4. *Employee Compensation Costs 2024 US: by Industry Type*

Cost component	Industry (all for large size employers with 500 or more workers)							
	Retail & Hospitality Services	Transport. Utility	Manufacturing & Heavy Labor	Government State & Local	Healthcare & Social Services	Education	Financial Business	Information Technology
	$	$	$	$	$	$	$	$
Wages (h)	21.09	26.88	36.56	39.22	41.94	51.93	50.05	67.36
Benefits (h)	7.96	12.24	21.91	24.23	22.02	23.86	27.21	39.96
Combined (h)	29.05	39.12	58.48	63.46	63.96	75.79	77.26	107.32
C. Annual	60,424	81,370	121,638	131,997	133,037	157,643	160,701	223,226
Productivity Multiplier (PM) = 1.3 for estimated business value								
C. Hourly x PM	37.77	50.86	76.02	82.50	83.15	98.53	100.44	139.52
C. Annual x PM	78,551	105,780	158,130	171,596	172,948	204,936	208,911	290,193

Note: C = Compensation (wages + benefits). (h) = hourly rate. *Source*: United States Bureau of Labor Statistics (2025, March 14) - Employer Costs for Employee Compensation - December 2024; Tables 3, 6. All for employers with 500 or more workers.
https://www.bls.gov/news.release/ecec.t06.htm

C.4. Productivity Multiplier for Business Value of Work

Nicholson, Pauly and colleagues in 2006 had a sample of 804 managers in 12 industries and focused on productivity loss from worker absence [91]. Results for a 3-day period of worker absence had a multiplier of 1.44. Study 2 was a replication of the 2006 paper by Nicholson, Pauly and colleagues in 2008 [92]. It had a sample of 790 managers from 12 industries. They found a productivity multiplier for a 3-day period of worker absence was 1.45. They also determined a productivity multiplier of 1.12 for work presenteeism due to acute health issues. For the input in the ROI model that uses a mix of both absence and for work presenteeism, we used the average of the research results for short-term absenteeism (Study 1 = 1.44 & Study 2 = 1.45; average of 1.45) and for work presenteeism (Study 2 = 1.12). The resulting average of 1.28 was simplified to **1.3** for use in the ROI model.

C.5. Default Size-Down Factor for Realistic ROI Return

In the CuraLinc longitudinal research, there was no control group of other similar employees who were equally distressed but did not use the EAP. This is no surprise, however, as it is exceedingly unusual for any EAP study to use a comparison group study design [1-4,119]. Yet, two relevant examples do exist. A quasi-experimental study in 2015 at the EAP for the State of Colorado [120] featured data on the same absenteeism and presenteeism measures used in our study that were collected at prior to and following program use from an EAP user group (*n* = 158) and from a comparison group (*n* = 188). The comparison group had employees matched to the EAP users on demographic and clinical risk factors at the baseline. The EAP user group had a decrease in work absenteeism from 15.0 hours per month at the baseline to 10.7 hours at follow-up. This differs from the matched group, which had an *increase* from 13.0 hours per month at the baseline to 16.9 hours at follow-up. The results showed that the EAP users had reduced their level of work presenteeism by 21% following counseling, which was significantly better than the 11% reduction in the same measure found for the matched group. The same defaults and calculation process for LPT was repeated using these results from the Colorado study (see Appendix C of the 2018 WOS Annual Report [88]. The EAP user group had a 21% reduction in LPT while the matched non-EAP user group had only a 5% reduction in LPT. Comparing these results shows that the non-users of the EAP only achived approximately one-fourth of the reduction in combined hours of lost work as did the users of the EAP (5% divided by 21% = 23% as much improvement as the EAP users). Of related interest is a 2019 study by Milot that also used a quasi-experimmental prospective longitudindal design with a Canadian EAP [121]. Like the Colorado study, it also found that the change results for the EAP counseling users (n = 152) were superior on both mental health and work outcome measures than the outcomes experience in the comparison group (n = 152). [*Note*: The Milot report did *not* provide the details of scores on the work absenteeism and presenteeism measures needed to allow us to retrospectively calculate the LPT hour difference between the user and non-user groups].

Thus, for the ROI model, we chose a 25% level to simply the math for reducing the estimated cost savings from the EAP use for the area of work outcomes. This was done to remove the portion of the improvement in the workplace outcomes that may occur naturally over time without use of EAP, as evidence indicates that similarly distressed employees typically do have some improvement over time without using EAP counseling.

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