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# An Exploratory Study of Session Limited Models of Therapy Outcomes in an Employee Assistance Program

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## Abstract

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**Abstract**

Employee Assistance Programs (EAPs) have grown increasingly popular over recent years. The prevalence of organizations utilizing and investing in EAP services for their employees has grown; however, companies that purchase EAPs are not well-informed as to which session-models are most effective for various diagnoses. The current study is the first to explore treatment outcomes of session-limited models (measured by Therapist Perception of Change, TPC) for diagnoses (anxiety and depression) in an EAP delivery system. Outcomes were measured by TPC ratings including: a) Regressed, b) remained at Baseline, c) Improved, and d) issue was Resolved. Analyses (Chi-Square and =t-test) were used to assess TPC ratings across session models (3-8), diagnoses (anxiety and depression), and number of sessions completed. The results found associations between TPC, EAP Session Models, and diagnoses, $X^2(33, N = 3816) = 87.049$, $p < .001$. A relationship was found between EAP Session Model completion, and participant outcome ("Resolved" TPC rating), $X^2(3), N = 3816) = 112.511$, $p < .001$. It was found that a lower percentage of clients seeking EAP services for a depression diagnosis improved ($M = .73$, $SD = .445$) compared to those with an anxiety diagnosis ($M = .79$, $SD = .411$), $t(3812.732) = 4.078$, $p < .001$. Therapist ratings of client symptoms did show improvement for both anxiety and depression. The EAP Session Models most associated with therapist ratings of

improvement were Models 3 and 6 for both anxiety and depression. The results indicated more participants who therapists rated as having resolved their issue also completed their entire session model compared to those who did not complete their model. The results of this study are promising as therapists rated the majority of clients as improved regardless of session model. While EAPs provide treatment for a variety of diagnoses, persons who are diagnosed with anxiety or depression seem to benefit from brief treatment. This is important since a large proportion of the workforce struggles with anxiety and depression. Future directions for research should expand on the current study by using standardized measures for outcomes and investigating a broader range of diagnoses.

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**Chapter One: Introduction**

Employee Assistance Programs (EAPs) have grown increasingly popular over recent years. An EAP is a benefit provided to employees by their employers and it offers services to employees and to the organization. These services include individual, couples, and family counseling, screening and referrals for alcohol/substance treatment, trainings, case management, and consultation to management in an organization. EAPs may be internal, meaning that an organization has hired EAP providers who work full-time in their offices. EAPs may also be external, meaning that a third-party company contracted by the organization provides the services. There is also a model of EAP that offers services from a combination, or hybrid of internal and external EAP providers.

The prevalence of organizations utilizing and investing in EAP services for their employees has grown since the development of the early EAP in the 1980s (Lawrence, Boxer, & Tarakeshwar, 2002; Richmond, Shepherd, Pampel, Wood, & Reimann, 2014). Research has revealed that approximately 87% of all large companies in the United States have offered an EAP (Mercer, 2012), and that EAP services have been effective in reducing absenteeism, in increasing work productivity, and in containing costs for employers (Akabas & Kurzman, 2005; Macdonald, Wells, Lothian, & Shain, 2000; Richmond et al., 2014). The research on outcomes of session-limited therapy for specific and prevalent mental health diagnoses in an EAP setting is sparse. Furthermore, companies purchase EAP session models (number of sessions provided to employees),

although there is little empirical research to indicate which model may be best or even which models are beneficial for client mental health outcomes. With the idea that an EAP will be effective in resolving employee mental health issues while increasing workers productivity and reducing absenteeism, companies hire EAPs with little to no empirical evidence to show that the EAP will be effective. The aim of the current study is to explore therapy outcomes of session-limited models for commonly occurring diagnoses in an EAP setting. This study also explored differences in therapy outcomes between clients who have anxiety and depression diagnoses, and who completed their entire session model compared to those who did not.

Employee Assistance Programs have been used to address job stress and mental health issues among employees in the workplace. EAPs are used to help treat problems that interfere with employees' ability to perform at work (EASNA, 2009). Modern EAPs now treat a variety of presenting symptoms rather than only treating alcohol abuse (Kurzman, 2013), and offer an array of services to the employees they assist. Services include wellness focused EAP services (Loeppke, Edington, Bég, & Bender, 2011) such as individual therapy, case monitoring, work performance problems among employees and their families, providing resources and referrals, leadership trainings, and providing consultation for the companies that contract with them (Pollak, Austin, & Grisso, 2010).

EAPs are widely used and have the ability to reach a significant proportion of the United States workforce (Csiernik, 2003). The percentage of employees who have access to EAPs has steadily increased over the past few years, and in 2010 nearly half of private sector employees had access to EAP services (U.S. Bureau of Labor Statistics, 2011). Additionally, the U.S Bureau of Labor Statistics (2016) noted an increase in the

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percentage of workers who had access to EAPs which ranged from 35% of the lowest paid quarter to 72% of the highest paid quarter of workers. While the breadth of EAP services has become more comprehensive over the years (Kurzman, 2013), little research has been conducted on outcomes of the session-limited services provided by EAP vendors. The current study used archival data to examine therapy outcomes in EAP session-limited models for employees with anxiety and depression diagnoses.

Many working Americans struggle with behavioral health issues which inevitably affect their home and work life. In fact, the National Survey on Drug Use and Health (2013) reported that in 2013, 43.8 million adults had a mental illness (any mental illness that met DSM-IV criteria excluding substance use and developmental problems). This number continues to climb with 44.7 million adults in the U.S. having a mental illness in 2016. Additionally, of those 44.7 million, 23% had a serious mental illness (National Survey on Drug Use and Health, 2017). The literature clearly shows that some of the most prevalent mental health issues for the general population and employees are anxiety, depression, substance/alcohol abuse, and work/life stressors (Butler Center for Research, 2009; CDC, 2003; Frone, 2006b; International Labour Office, 2000; Kessler, Chiu, Demler, & Walter, 2005; NSDUH, 2013; Richmond et al., 2014; SAMHSA, 2013; Spetch, Howland, & Rodney, 2011). Richmond et al. (2014) reported that approximately 80% of state employees screened positive for depression. According to the Substance Abuse and Mental Health Services Administration (SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013) approximately 17.3 million adults had a problem with alcohol dependence or abuse in 2012.

EAPs use session-limited models in offering individual therapy to employees. This study examined how effective EAPs are in treating anxiety and depression within different session-limited models. The employees typically served by this EAP receive between three and eight therapy sessions. While research has shown that short-term therapy is effective in treating persons with diverse diagnoses across various settings (Balfour & Lanman, 2011; Bond, Woods, Humphrey, Symes, & Green, 2013; Carter, 2005; Christensen et al., 2013; Escobar et al., 2007; Hindo, & Gonzalez-Prendes, 2011) there is little research that examines therapy outcomes for session-limited EAP models when treating mental health problems for employees (Hansen, Lambert, & Drexel, 2002; Hargrave & Hiatt, 2004; Harris, Adams, Hill, Morgan, & Soliz, 2002; Nel & Spies, 2006).

One measure of client outcome commonly used is the therapists' ratings of client progress. Therapist perception of their client's progress has been shown by research to be a treatment outcome measure that can offer evaluators rich data that are easily accessible and can be useful in evaluating treatment progress (Crandal, 2013). In addition, therapist ratings of client change in treatment has been noted to be a valid outcome measure that can be used to compare satisfaction scores (Lebow, 1982). Furthermore, therapist ratings of client change is a useful outcome measure in that clients and therapists have been found to have comparable perceptions of client distress. The comparable perceptions were noted despite common factors such as client and therapist gender and ethnicity (Bryan, Dersch, Shumway, & Arredondo, 2004).

In the current study, during 2010 to 2014, an EAP used a measure called Therapist Perception of Change (TPC). Each therapist completed this measure after each

session, indicating whether they perceived their clients' symptoms as having regressed, remained at baseline, improved, or resolved from the initial session. The EAP contracts with individual companies to offer different session models to their employees. Most frequently, companies purchase models between three and eight sessions to offer to their employees. The model number represents the total number of sessions offered to the employee. For example, in a 3-session model the company contracted the EAP to offer a total of three therapy sessions to their employees. This study included three session, four session, five session, six session, seven session, and eight session models.

This chapter presents a brief overview of the purpose and justification of the study. It also details the variables that were studied, the research questions investigated, the measures used to assess client outcome, data analyses, and the definitions of descriptors used in this dissertation.

## Purpose and Justification of the Study

Given that EAPs are so prevalent in today's workplace, it is prudent that research on the usefulness of their services be examined. Companies purchase EAP services for their employees, however there is little guidance for these companies as to which session models would be most beneficial to their employees as well as cost-effective for them. Companies are unaware of whether a 3-session model would be more likely to resolve an employee's mental health issue than a six-session model, for example. Empirical research investigating therapy outcomes for given session models for specific diagnoses is sparse (Hansen, Lambert, & Drexel, 2002). One study conducted a meta-analysis on the effectiveness of workplace mental health interventions for anxiety and depression. The researchers found that CBT-based stress management interventions were an effective

treatment for individuals who had anxiety or depression in the workplace, and they concluded there was an association between outcomes and counseling interventions for individuals who had anxiety and depression (Modini, Christensen, & Mykletun, 2016). While some studies on EAPs have looked at outcomes on work productivity, researchers continue to note that "rigorous research on the effectiveness of programs to improve work-related outcomes is lacking" (Richmond, Pampel, Wood, & Nunes, 2017). Further, studies have focused on EAP interventions and work outcomes such as absenteeism, presenteeism, and workplace distress (Richmond, et al., 2017), they have not addressed whether employees' mental health symptoms are improved by counseling services offered by EAPs. Richmond et al. (2017) found that EAP interventions improved absenteeism, presenteeism, and anxiety and depression scores, yet they did not improve workplace distress compared to non-EAP employees. It would be pertinent therefore, for the research community to expand on this research by investigating whether mental health symptoms are improved by EAP services across session models, which may inform companies who purchase these services as to which session models are most beneficiary for their employees and themselves.

Research on session-limited therapy has not been extended to EAP session models, which is surprising considering that EAPs use session-limited models as a typical method in contracting with companies for service. This is a gap in the literature, as session-limited models in EAPs are pervasive and long-term EAP services are not typically offered to employees in EAP settings (Mines, R. A., personal communication, September 3, 2015). Further demonstrating the lack of research in the field of EAPs is the fact that aside from the development of an accreditation process for EAP programs for

which "few organizations have invested the time and expense required to become accredited" (Attridge et al., 2010b, p. 254), there is no benchmark standard "for excellence in service and outcomes" (Attridge et al., 2013, p. 254). Consequently, the current study's investigation of therapy outcomes for session-limited EAP services will add to a very limited body of research on the usefulness of EAP session-limited models (Barkham, Rees, Stiles, Shapiro, Hardy, & Reynolds, 1996; Hansen, Lambert, & Drexel, 2002; Kopta, Howard, Lowry, & Beutler, 1994).

Research suggests that the field of EAP is regarded as more of an industry than a profession due to its lack of a foundation based on research (Attridge et al., 2013; Roman, 2012). EAPs have considered their data as "proprietary, and some view sharing data as irrelevant to their corporate goals" and therefore are often reluctant to share their data (Attridge et al., 2013, p. 255). Given this situation, it is unclear how many companies collect data and what data they collected for research purposes. Additionally, due to health and privacy acts, EAP companies are limited as to what type of information they are able to collect on clients and their treatment. These limitations have contributed to a lack of empirical research being offered to the field.

## Research Questions

The current study is an exploratory analysis of therapy outcomes in an EAP setting. This study, therefore, does not present hypotheses but rather research questions. The following five research questions were addressed in the current study (also see Table 1).

1. Are there differences in therapists' TPC responses (regressed, remained at baseline, improved, resolved issues) for clients (at the last session completed) who were in each of the six session models included in this study?

2. For the two diagnostic categories (anxiety and depression), are there differences in therapist TPC ratings at the last session each client attended for each session model?

3. Is there a difference in therapist ratings of Resolved on the TPC for client who completed and did not complete their entire session model?

4. Are there differences in the TPC ratings for anxiety and depression for clients who completed all sessions versus clients who complete less than the maximum number of sessions allowed regardless of the client's approved session model?

5. Is there a difference between the anxiety and depression groups on TPC ratings of Improvement/Resolved (combined), regardless of session model or completion of session model?

Table 1

Proposed Research Questions, Variables, and Statistical Procedures

| Research Questions | Variables | Statistics |
|---|---|---|
| Question 1: Are there differences in therapists' TPC responses (regressed, remained at baseline, improved, resolved issues) for clients (at the last session completed) who were in each of the six session models included in this study? | Therapist Perception of Change Session Models 3-8 | Chi-Square |
| Question 2: For the two diagnostic categories (anxiety and depression), are there differences in therapist TPC ratings at the last session each client attended for each session model? | Therapist Perception of Change Session Models 3-8 DSM-IV Diagnosis | Chi-Square |
| Question 3: Is there a difference in therapist ratings of Resolved on the TPC for clients who completed and did not complete their entire session model? | Therapist Perception of Change-Resolved only Completion of Session Model | Chi-Square |
| Question 4: Are there differences in the TPC ratings for anxiety and depression for clients who completed all sessions versus clients who complete less than the maximum number of sessions allowed regardless of the client's approved session model? | Therapist Perception of Change Completion of Session Model DSM-IV Diagnosis | Chi-Square |
| Question 5: Is there a difference between the anxiety and depression groups on TPC ratings of Improvement/Resolved (combined), regardless of session model or completion of session model? | Therapist Perception of Change DSM-IV Diagnosis | t-test |

**Methods Overview**

This section presents a brief overview of the methods used in the current study. The session models, the diagnoses included in the study, TPC, participant inclusion criteria, and data analyses used will briefly be presented in this section.

Participants in the current study were grouped by session model (session models 3-8). The session model was determined by which the employer/company purchased from the EAP for their employees. The most commonly offered models included: three, four, five, six, seven, and eight sessions and therefore, these have been included in the analyses of the current study. Therefore, not all clients in the current study received the same number of therapy sessions. Additionally, some clients completed the maximum number of sessions available to them by their session model, while others did not complete all of the sessions in their model, either due to early drop out, resolving their symptoms, or being referred to an outside agency for ongoing outpatient therapy.

TPC is used in the current study as an outcome variable to capture participant progress in treatment. There are four TPC rating options for the therapist to choose from, client regressed, client remained at baseline, client improved, or client resolved their issues. Therapists rated participants at the end of each therapy session. For the purposes of this study, only the final TPC rating given at their final session will be used in the analysis.

Participant inclusion criteria are participants who are employees who utilized EAP therapy services, who have a primary DSM-IV diagnosis that fell in one of the two broad categories of anxiety or depression, and who were 18 years of age or older. Participants were excluded from the study if they had a primary DSM-IV diagnosis

outside of the broad categories of anxiety or depression, including learning disabilities,

medically related mental health issues, personality disorders, and psychotic disorders.

The current study used archival data from a large EAP company. Data were

collected from January 2010 through January 2014. Two statistical analyses (Chi-Square,

and one t-test) were used to analyze participant outcomes.

## Definitions

Absenteeism. This term is used to describe the frequency at which employees do not

attend work. Employees may be absent from work as a result of many reasons such as

illness, mental health issues, or other unexpected reasons (Kurzman, 2013).

Anxiety. A DSM-IV diagnosis that for the purposes of this study encompasses all anxiety

disorders.

Comprehensive Services Paradigm. An employee assistance program that offers a

comprehensive model of services to the employees it serves (Kurzman, 2013). Rather

than only providing services that address alcohol abuse as in core technology EAPs, the

comprehensive services paradigm offers wellness-based programming to its employees

(Loeppke, Edington, Bég, & Bender, 2011). Comprehensive services may include

therapy, case management, consultation to the employer, and educational groups

(Attridge, Cahill, Granberry, & Herlihy, 2013).

Core Technologies EAP. An employee assistance program that focuses on identifying

and treating alcohol abuse in employees (Kurzman, 2013).

Depression. A DSM-IV diagnosis. For the purposes of the current study, this variable

encompassed the broad range of DSM-IV depressive and mood disorders. These

disorders will be placed into one subgroup. Any depressive disorder that has been

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assigned by the therapist to the client as a primary diagnosis and that meets inclusion

criteria (not a psychotic disorder, a personality disorder, a medically related disorder, or a

learning disorder) will be included in the depression diagnosis for this study.

Diagnoses. This variable included all DSM-IV diagnoses that are identified by therapists.

In the current study, only DSM-IV diagnoses of anxiety and depressive disorders were

included in the study. In this study, therapists assess and diagnose (provide a DSM-IV

diagnosis) the clients they worked with.

Employee Assistance Program. A company contracted by an organization to provide

services to its employees. EAPs work with employees, their families, and an

organization's management to improve productivity, reduce absenteeism, and to assist

employees with problems that disturb them and that may interfere with being productive

at work (Kurzman, 2013; Lawrence, Boxer, & Tarakeshwar, 2002; Richmond, Shepherd,

Pampel, Wood, & Reimann, 2014).

External Model of EAP. In this type of model, organizations contract with vendors (an

EAP company) to provide EAP services to employees. The EAP sub-contracts with

clinical affiliates who provide services to employees. Clinical affiliates most often

include social workers, counselors, and psychologists in private practice. These services

are then supplemented by a smaller, dedicated internal staff that provides other specific

services. These supplementary services include counseling, 24-hour telephone access,

research, data reporting, account management, and wrap around services that include

managed care, and health coaching (Attridge et al., 2013)

Hybrid Model of EAP. This model integrates internal and external EAP models. A hybrid

model of EAP typically consists of EAP staff that remain onsite at the employer's

workplace. These staff are often employed by the business itself. There are also EAP

staff that are offsite who may be contracted personnel that provide EAP services to

employees (Attridge et al., 2013).

Internal Model of EAP. Internal EAPs are staffed by full-time EAP professionals who are

employed at a business that provides all EAP services to company employees (Attridge et

al., 2013).

Session-limited therapy. In the field of psychotherapy, the number of therapy sessions

needed to qualify as being short-term therapy varies. In the current study, session-limited

therapy consisted of between one and eight sessions.

Session-models. The number of sessions that are purchased by a company from an EAP.

EAPs typically sell session-models rather than an ongoing number of sessions to

companies. Most commonly, EAPs will offer the following session-models to companies

for purchase: three sessions, four sessions, five sessions, six sessions, seven sessions, or

eight sessions.

Therapist Perception of Change. In the current study, this variable will be used to

measure the level of change in the clients' symptoms. Therapists will assess clients and

will identify whether the client has remained at baseline, has resolved their problems,

whether their problems have worsened, or whether they have improved.

Utilization. This is a term that is used to describe how many times employees use EAP

services (Reynolds, 2003).

## Summary

This chapter outlined the current state of EAPs and argues that much more

research is necessary to determine whether session-limited models of therapy are

effective in treating mental health diagnoses in an EAP setting. Likewise, this study looked at anxiety and depression to determine whether persons who are diagnosed with specific problem areas are more effectively treated depending on the session-model they receive.

Chapter One presents the benefits of investigating EAP session-limited models for different diagnoses. EAPs are growing more prevalent in large companies across the United States. Companies are investing in EAPs to assist their employees and help improve their workforce. However, companies are not well-informed as to which session-models are most effective for various diagnoses in an EAP setting. This study is an exploratory analysis of treatment outcomes for session-limited models (as measured by TPC) and for two diagnoses (anxiety and depression) in an EAP delivery system.

**Chapter Two: Literature Review**

Employee Assistance Programs (EAP) are an important benefit for today's workers, offering mental health treatment to employees and increased productivity for employers (Lawrence, Boxer, & Tarakeshwar, 2002; Richmond, Shepherd, Pampel, Wood, & Reimann, 2014). Employee mental health issues, ranging from adjustment disorders and relational issues, to depression, anxiety, and substance abuse, have been documented to have negative impacts on employee productivity and safety in the work environment (International Labour Office, 2000). Although EAPs treat a wide range of mental health diagnoses, little is known about the treatment outcomes of session-limited therapy models that the EAPs provide. Furthermore, due to a lack of empirical research in the field of EAP, companies who hire EAPs to provide services to their employees are not well-informed as to which session models would provide the most benefit (via reduction in employee symptoms and hopefully an increase in work productivity and presenteeism) for the expense of the service. Similarly, employees who utilize the service do not know whether a particular session model has an adequate number of sessions to improve their symptoms.

EAPs have evolved from treating alcoholism, to more broadly approach treatment that includes services for many mental health diagnoses and family/relational issues (Kurzman, 2013). They offer wellness and behavioral health services and treat mental health via counseling. They also can offer some case monitoring and follow-up services,

substance issues, and work performance problems amongst employees and their families. They offer training for organization leadership, refer to other services, and offer consultation for companies who are developing new policies and educational programs (Pollak, Austin, & Grisso, 2010). EAPs serve their clients in a variety of formats, including: Face-to-face sessions, 24/7 telephonic sessions, online support, and by holding onsite workplace events (Attridge, Cahill, Granberry, & Herlihy, 2013).

Chapter two provides an overview of the existing literature on Employee Assistance Programs and session-limited EAP models of psychotherapy. The first section outlines the history of EAPs, and presents the organizational structures used in the EAP field. The following section reviews the literature on several areas in which EAPs have impacted the modern workforce including utilization, cost containment, absenteeism, and productivity. As modern EAPs provide services to individuals presenting with a variety of diagnoses, the next section will discuss the most prevalent mental health illnesses that are treated by EAPs, including but not limited to depression, anxiety, and substance abuse. The final section presents literature on the use of session-limited models of therapy in an EAP setting, treatment outcomes, and length of treatment for employees who utilize EAPs for mental health treatment.

### History and Models of EAPs

This section reviews the research available in the field of EAP. Attridge et al. (2013) conducted a study on EAP companies and their basic characteristics. These authors noted that there is no benchmark of standards for EAPs in the current literature, and there is a "lack of a solid foundation in research-based best practices" (p. 255). Furthermore, these researchers stated that EAP companies are reluctant to share data as

they view their data as proprietary. As Attridge et al. (2013) suggested, the practice of not sharing data is contrary to many other disciplines, where sharing and reporting on data is used to add scientific knowledge to the field and propel its growth. Other studies support the findings of Attridge et al. (2013), noting that EAPs are pervasive and surprisingly little research has been conducted on the therapy outcomes of EAP services. Furthermore, the Employee Assistance Professionals Association (EAPA) challenged EAP practitioners to actively participate in peer-reviewed research (Kurzman, 2013; Rothermel, Slavit, Finch, Marlo, & Dan, 2008).

**Prevalence of EAP Companies**

Although little research has been conducted on the effectiveness of EAP vendors, it is clearly noted in the literature that EAP services are pervasive and used in a variety of companies. Researchers have noted that EAPs have "become prominent across the United States and Canada" (Csiernik, 2003, p.46) and are important in providing employees and their family members with counseling services. EAPs are being implemented in other countries as well. Cekiso and Terblanche (2015) wrote about EAPs in South Africa and best price practices in the field of EAP in South Africa. The researchers noted the growth of EAPs, and the lack of uniformity in contracting and pricing processes in the field of EAP. Richardsen and Burke (2014) discussed wellness programs in the United States and Europe. They found that health promotion in the workplace is growing in other parts of the world, including Europe and South Africa.

Studies have noted that large companies that utilize EAPs have increased substantially since a review of the literature in 1985 by Dickman and Challenger. Dickman and Challenger (2009) conducted a second review of Employee Assistance

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Programs utilized by large companies, and found that in the United States in 1985, less than one third of the companies reviewed utilized an EAP. In 2009, the use of EAPs by large companies in the United States had more than doubled. In 2008, a national study of employers found that 58% of all employers in the United States provided EAPs (Galinsky et al., 2008; Pollak et al., 2010). In 2011, Mercer (2012) found that 87% of large companies in the United States utilized an EAP.

In 1997, researchers noted that over half of Fortune 500 companies used a workplace-based Employee Assistance Program (Dickman & Challenger, 1997; Lawrence et al., 2002). Smaller companies have noted the usefulness of EAPs as well. Dickman and Challenger noted that approximately 12% of all public and private sector companies utilized EAPs (Lawrence et al., 2002; U.S. Bureau of Labor and Statistics, 1989). A more recent study polled 82 EAP vendors from the United States, Canada, and 10 other countries. The EAP companies ranged from local providers to global business enterprises. The poll showed that these 82 vendors represented over 35,000 companies. Impressively, this translates to the 82 EAPs serving over 69 million employees with over 164 million lives affected (Attridge et al., 2013).

**EAP Utilization Rates**

Underutilization has been an issue for EAP companies. Amongst the general population, an estimated 70% of people who experience mental health disorders do not receive healthcare treatment ( Hanisch, Twomey, Szeto, Birner, Nowak, et al., 2016; Thorncroft, 2007). Literature has noted that in many cases employees who most need EAP services are most reluctant to use them (Reynolds, 2003). Other studies have documented the benefits of EAPs for employees and their families (Lawrence et al.,

2002; Rodriguez & Borgen, 1998). Low utilization rates amongst employees may be due to employees' perceptions of EAPs including their concern about the efficacy and confidentiality of the services, administrative support of the program, and ease of accessing the services (Lawrence, 2002; Rodriguez & Borgen, 1998).

More current research has investigated industry trends in EAP utilization rates. Employees who do use EAP services are more likely to be female, have higher educational attainment, work at smaller companies, work at companies where the management is seen to be trusted by its employees, and are more likely to work in a helping profession such as medical or health care providers or counselors (Attridge et al., 2009). In EAP outcome research, women have generally been overrepresented in EAP caseloads (Spetch, Howland, & Lowman, 2011). Another study compared EAP users to non-users and found EAP users to have higher household income levels, to be slightly older, to be nearly twice as likely to identify themselves as Black, and more likely to be married (Jacobson & Sacco, 2012).

In sum, it appears that there is a good body of research on the utilization rates of EAP companies. The research that has been conducted indicates an increase in the number of employees covered by EAPs, in employee utilization of EAP services, and there is great variation between the individual companies that were surveyed (Taranowski & Mahieu, 2013).

<div align="center">

**Systems of EAP**

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**Internal, External, and Hybrid Systems**

Generally, an EAP is an organization that is hired by a company to serve its employees. The employees of that company and their family members benefit from a

multitude of services that the EAP offers, such as counseling, education and programming, referrals to outside resources, and consultation. Employee Assistance Programs have evolved to include different models of care. Internal, external, and hybrid models of EAP exist to offer a range of focus and service to employees.

Internal EAPs are staffed by full-time EAP professionals who are employed by a business that provides all EAP services to employees (Attridge et al., 2013). This internal model of EAP currently is not widely used, although it was commonly utilized in the early years of EAPs.

A more pervasive model is the external EAP model. According to Attridge et al. (2013), there is no current consensus on the number of external EAPs that are utilized in the United States because there is no registry of vendors that is used by the EAP industry. However, estimates for external EAP providers in the United States range from 925 to 1,530 (Amaral, 2008; Attridge et al., 2013). In this type of model, businesses contract with vendors (an EAP company) to provide EAP services. The EAP vendor typically sub-contracts with clinical affiliates who provide services to employees. Clinical affiliates most often include social workers, counselors, and psychologists in private practice. These services are supplemented by a smaller dedicated internal staff that provide other specific services. These supplementary services include counseling, 24-hour telephone access, research, data reporting, account management, and wrap around services that include managed care, and health coaching (Attridge et al., 2013).

The final model of EAP is the hybrid model. This model integrates internal and external EAP models, although it appears that external models of EAP are most widely used (Attridge et al., 2013). A hybrid model of EAP typically consists of EAP staff that

remains onsite at the employer's workplace and are often employed by the business itself. There also are EAP staff that are offsite (Sharar, Pompe, & Attridge et al., 2013) who may be contracted personnel that provide EAP services to employees (Sharar et al., 2013). Although the models have been well-defined, there is little research investigating the outcomes of the session-limited models for delivery of services. According to Sharar et al. (2013) "there is little evidence to suggest that one type of EAP (internal versus external systems) produces superior workplace outcomes" (p. 1).

**Comprehensive Service Paradigm and Core Technologies EAPs**

Kurzman (2013) described the evolution of the modern EAP where he defined both the comprehensive service paradigm and discussed its development from the core technology of EAPs. In 1985, Roman and Blum sought to define the roles and functions of EAP providers. They referred to these roles and functions as the core technology of EAPs. They reported that their research indicated that the success of EAPs would include a focus on alcohol problems and drug abuse. Their assertions that EAPs should focus on alcohol problems and drug abuse, and their establishment of the "core technology" was seminal to the field at the time. The National Institute on Alcohol Abuse and Alcoholism funded Roman and Blum's research. As a result of Roman and Blum's study and their urging that the emphasis of EAP be on alcohol problems, the Association of Labor-Management Administrators and Consultants on Alcoholism (ALMACA) adopted Roman and Blum's suggestions. The ALMACA was the trade association for EAP specialists that was later renamed the Employee Assistance Professionals Association (EAPA). Since Roman and Blum's (1985) article was published, the model of EAP has

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evolved to incorporate a broader view of the needs of employees and the services that EAPs offer (Kurzman, 2013).

Researches were in agreement with establishing a more comprehensive model of EAP rather than focusing on the more narrow treatment of substance and drug abuse as Roman and Blum advised. Research following the release of the Roman and Blum study supported the idea that EAPs can still effectively treat employees by offering a broad range of services rather than focusing only on alcoholism (Courtois, Dooley, Kennish, Paul, & Reddy, 2004; Cunningham, 1990; Kurzman, 2013; Sharar, 2013).

Employers and EAPs are now looking to become more proactive by implementing wellness-focused health care rather than the illness-based, reactive oriented care system that has been used in the past (Loeppke, Edington, Bég, & Bender, 2011). Kurzman (2013) reported that EAPs are moving toward a focus on a "workers' health rather than pathology" approach to providing EAP services (p. 389). In 2002, researchers reported that approximately one third of EAP companies offered integrated programs (Attridge, Herlihy, & Turner, 2002). Furthermore, Scully (2011) outlined a comprehensive EAP model used with emergency service personnel. They employed a new comprehensive model that was collaborative, requiring communication between the employer, the personnel, professional counselors, and trained peer support officers. Scully (2011) reviewed data on the peer support model (self-report, usage data, and archival data) that were collected across 18 years. The data indicated that the new comprehensive model positively impacted the employees and their family members to a significant degree (Scully, 2011). According to researchers, the peer support system of debriefing resulted in benefits to the employee in the form of "social support, genuine

empathy, and interest shown by work colleagues or peers who are trained to provide support for individuals at the time of debriefing" (Scully, 2011, p. 41).

The historical structure of core technology EAPs is usually made up of an alcoholism counselor "who provides counseling, confrontation, and referral to outside treatment programs, but offers few prevention services" (Kurzman, 2013, p. 385). The focus of these EAPs is regarded as being primarily focused on identifying and treating alcoholism (Kurzman, 2013). Since the development of core technology EAPs, researchers have been in favor of offering preventative measures of care (Nathan, 1984). Additionally, the shift in the structure of the workplace necessitates a more comprehensive approach to providing EAP services (Kurzman, 2013). In past years, American workers were employed in a more authoritarian and hierarchical system (Naisbitt & Abrdene, 1985) where core technologies would manage an alcoholic employee by offering constructive confrontation to the identified worker.

Comprehensive EAPs are beneficial to employees and employers alike in that they offer wellness programs to employees. This has resulted in both reducing costs for employers and in increasing health benefits for the employees. Wellness-focused EAP services have been shown to be an effective means of containing costs for many employers (Loeppke et al., 2011). Kurzman (1992) found that companies who utilized comprehensive EAPs that included attention to health education, fitness, and wellness spent approximately $500 less in health care expenses per employee in a given year. A more recent study investigated associations between behavioral health interventions through an EAP vendor and workplace outcomes. Employees were screened and offered brief interventions to address at-risk substance use and depression. The study found that

approximately 80% of EAP clients screened positive for depression, and that there was a strong association between depression and impaired workplace productivity. The study concluded that after a brief intervention, clients had significant improvements in depression and workplace productivity which they noted translated to substantial cost savings (Richmond, et al., 2014). Another study implemented a prevention plan for one year among a cohort of 2606 employees from multiple employers. The researchers found that the cohort had "significant reductions in 10-15 key health measures that were predictors of future conditions" (Loeppke et al., 2011, p. 265). Participants in the prevention plan were able to maintain gains after 2 years of being in the prevention program. They showed improvements in physical activity, lowered blood pressure, fewer health-related sick days, lower cholesterol, reduced stress, improved fasting blood sugar, smoking cessation or tobacco use, and lowered body mass index measures. The researchers reported overall reduced health risks for participants after 2 years. As a result of the participants' health improvements, the researchers noted that costs in the form of medical claims and absenteeism days were lowered (Loeppke et al., 2011).

**Session-Limited Therapy**

Employee Assistance Programs utilize varying session-limited (number of sessions) models of therapy almost exclusively short-term, session-limited formats with little or no use of long-term (extended-session) approaches. In the field of general psychotherapy, the number of therapy sessions needed to qualify as being short-term therapy varies. For example, Balfour and Lanman (2012) conducted an evaluation of time-limited psychodynamic psychotherapy for couples. The researchers defined short-term therapy as being 40 sessions or less (Balfour & Lanman, 2012). This is consistent

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with other researchers' definitions of short-term therapy. Malan (1963) defined brief psychotherapy as treatment sessions lasting up to 40 sessions. Other researchers have investigated session-limited therapy using less than 40 therapy sessions. Robbins et al. (2011) conducted a study of the effectiveness of brief strategic family therapy (BSFT) compared to treatment as usual (TAU). The participants were multiethnic adolescents who were treated in one of eight community-based adolescent drug abuse programs located across the country. Participants in the BSFT group completed 12-16 sessions at least one time per week over a 4-month time period, while those in the TAU group received standard agency services (individual and/or group therapy, or case management) at least one time per week. The researchers concluded that BSFT was "significantly more effective than TAU in engaging and retaining adolescents into treatment and improving parent-reported family functioning" (Robbins et al., 2011, p. 723).

Session-limited therapy research has provided evidence that change can occur in far fewer than 40 sessions. Barkham (1989) reported that change has been seen in as little as four sessions or less. A study by Falkenstrom et al. (2016) found significant symptom reduction based on pre and post-test data in patients treated in a primary care and a psychiatric outpatient setting. The average number of sessions completed was six sessions for participants in the primary care setting, and nine sessions for patients in the psychiatric outpatient setting. Further, the researchers found that for the primary care patients, those who attended more sessions appeared to have better outcomes (less symptomatic at the end of treatment). A nine-session brief Interpersonal Psychotherapy model used with low-income, depressed pregnant women found the intervention resulted in significant decreases in depression scores and participants' report of improved social

support satisfaction (Lenze & Potts, 2017). Research in brief interventions is often associated with crisis intervention, which usually is contained within a five-week period (Barkham, 1989; Ewing, 1978). A study by Barkham (1989) examined a two-plus-one therapy session model. The model in Barkham's study was based on a Conversational Model of psychotherapy developed by R.F. Hobson. In Barkham's study, of the two-plus-one therapy model, clients were seen for two therapy sessions one week apart, followed by a third therapy session three months later.

Research has been conducted on treatment outcomes of one-session therapy models which have often focus on the area of exposure therapy. Hindo and González-Prendes (2011) conducted research using a one-session therapy model. The researchers treated individuals who were diagnosed with social anxiety disorder with exposure-based therapy. Participants were offered one, three hour graduated exposure therapy session to group public speaking. Participants were also required to practice homework between post-treatment and follow-up session. The researchers reported that the results suggest that the intervention "contributed to significant reductions in levels of social anxiety and public-speaking anxiety from pre to posttest" (Hindo & González-Prendes, 2011, p. 534).

Some research however, has indicated that approximately 50% of clients experience a relief from their symptoms with 13 to 18 therapy sessions (Hansen, Lambert, & Drexel, 2002). A study by Hansen, Lambert, and Drexel (2002) sought to determine how many sessions are needed for clients to recover when treated for a range of diagnoses. The study included 6,072 participants. Researchers determined an effective dose-response rate for therapy sessions by identifying the median response time (treatment outcome). They found that 50% of participants made positive responses to

treatment. Participants included in the study attended diverse settings (including an EAP company, an HMO, a university counseling center, a university-supported training clinic, and a community mental health center), and had various treatment duration. After reviewing the data, researchers concluded that patients were not provided enough sessions "to reach even a moderate level of clinically meaningful change" (p. 338). The researchers were discouraged that the site with the most successful participants only had 10% of participants meet criteria for recovery, and less than 25% of participants met criteria for improvement. While participants in the study received an average of 3-5 sessions, the researchers reported that literature indicates that 13-18 sessions are needed to see alleviation of symptoms in 50% of participants.

Past research has revealed positive effects for patients even when they have either terminated from therapy early or have dropped out of therapy (Barkham, 1989). A study examining session length and treatment outcomes in psychotherapy reported "symptom change rate during psychotherapy is related to treatment length, so that patients who improve quickly will leave treatment earlier than patients who improve slowly" (Falkenstrom, Josefsson, Berggren, & Holmqvist, 2016, p. 138). The researchers concluded that there is not one session length that works for every person, instead session length should be determined on a case-by-case basis (Falkenstrom et al., 2016).

Lutz et al. (2014) examined patterns of treatment and treatment outcomes for individuals who screened positive for panic disorder. Among other inclusion criteria, participants were included in the study if they attended the 11-session CBT treatment for at least three sessions. Session by session PDSS-SR rating was collected at each session and was used to measure the severity of panic disorder symptoms (Lutz et al., 2014). The

researchers identified four treatment patterns that occurred within the first five sessions (rapidly improving group, an initially highly symptomatic and slowly improving group, an initially low symptomatic and slowly improving group, and an early deteriorating group) and were predictive of treatment outcome and number of sessions attended (Lutz et al., 2014). These researchers concluded, that within five sessions "patients with early positive change were likely to be reliably improved at the end of the treatment" (Lutz et al., 2014, p. 295). Additionally, the researchers reported that patients in the early symptom deterioration and the high symptoms and slow to improve groups had "lower completion rates than other participants" (Lutz et al., 2014, p. 295). The researchers noted that patients who had early improvements in panic disorder symptoms were also more likely to complete all 11 sessions. Other research has indicated the opposite, that early response to treatment is more related to fewer sessions received (Haas et al., 2002; Lutz et al., 2014).

Overall, although there is a broad range of opinions on how many sessions constitute session-limited therapy, there is some agreement indicating that 40 sessions or less is sufficient to qualify as brief therapy. Research also indicates that change can be noted in much fewer than 40 sessions. As referenced above, there is literature that indicates that therapeutic change can occur in as little as one, three-hour session (Hindo & González-Prendes, 2011).

**Effectiveness of Session-Limited Therapy**

Comparing the effectiveness of these short-term models has been an ongoing topic of debate in the field of psychology. While there is a reasonable body of research supporting the effectiveness of short-term therapy, there is little research that examines

the effectiveness of short-term therapy specifically focusing on an EAP setting where session model and diagnoses are examined. This is of particular importance as short-term models of therapy in EAPs are pervasive.

There is a large body of outcome research that shows that short-term therapy is an effective treatment for mental health systems (Cowell, Bray, & Hinde, 2012; Knekt et al., 2012; Lambert, 2004; Muench, 1965; Vonk & Thyer, 1999). Worthy of note are research findings that short-term therapy is effective regardless of modality. Maljanen et al. (2012) conducted a more recent study of cost-effectiveness in outcomes for Solution-Focused Therapy (SFT) and Short-term Psychodynamic psychotherapy (SPP). The study included 381 participants of whom,198 were randomly assigned to either solution-focused or psychodynamic therapy. Another group was randomly assigned to a comparison group that was not included in the analysis. Outcomes were assessed at four points during a one-year follow-up. Measures used to assess severity of symptoms included the Beck Depression Inventory (BDI), the Hamilton Rating Scale for Depression (HRSD), the Symptom Checklist-90, Anxiety Scale (SCL-90-ANX), and the Hamilton Anxiety Rating Scale (HAM-A). The researchers found that in treating mood and anxiety disorders, both SFT and SPP were statistically significant in reducing symptoms of depression and anxiety at a 1-year follow-up (Maljanen et al., 2012). The differences between the two treatment groups in terms of symptom reduction were not statistically different at any measurement point (Maljanen et al., 2012). Vonk and Thyer (1999) studied short-term therapy (therapists at a university counseling center provided varying modalities of therapy) for a maximum of 20 sessions. The researchers found that clients receiving

short-term treatment with or without waiting, statistically and clinically improved after counseling.

Research on whether long-term therapy is more beneficial to the client than short-term therapy is mixed (Knekt, et al., 2012). In this study, 580 participants were recruited. Participants were between the ages of 20 to 45 with a long-standing (greater than 1 year) DSM-IV disorder of anxiety or mood disorder that caused dysfunction in their work ability. Participants were randomly assigned to either short-term therapy (solution-focused therapy, SFT or short-term psychodynamic psychotherapy, SPP) or long-term therapy (long-term psychodynamic psychotherapy, LPP). The SFT group received a maximum of 12 sessions over no longer than 8 months, the SPP group received 20 sessions once per week over 5-6 months, and the LPP group received 2-3 sessions per week for up to 3 years. The researchers reported:

> During the first year of follow-up, patients treated with short-term psychodynamic psychotherapy recovered faster from both depressive and anxiety symptoms, and patients with solution-focused therapy recovered faster from depressive symptoms than patients receiving long-term psychodynamic psychotherapy. (Knekt et al., 2008, p. 699)

Interestingly, at the 3-year follow-up, the researchers reported a "stronger treatment effect for the long-term psychodynamic treatment group for both patients with depressive and anxiety symptoms" (Knekt, et al., 2008, p. 699). The researchers concluded that "long-term psychodynamic psychotherapy was more effective than the brief therapies" Knekt et al., 2008, p. 699).

Knekt et al. (2012) conducted a replication study of the 2008 Helsinki Psychotherapy Study. A sample of 326 participants were pulled from the original population of the Helsinki Psychotherapy study. Participants were referred to the study

from psychiatric services in the Helsinki region. Criteria for inclusion in the study required participants to be between the ages of 20-45; to have had a long-standing (greater than 1 year) disorder that caused dysfunction in their work ability; and to have met DSM-IV criteria for anxiety and mood disorders. Participants were randomly assigned to solution-focused therapy (SFT), short-term psychodynamic psychotherapy (SPP), and long-term psychodynamic psychotherapy (LPP). SFT participants received 12 sessions over no more than 8 months, SPP participants received 20 sessions, one time per week, and LPP participants received 2-3 sessions per week for a period of 3 years (Knekt et al., 2012).

Knekt et al., (2012) reported results for the 5-year follow-up for the replication study. After the participants completed either the LPP or the SFT or SPP therapy, the advantages of long-term therapy over short-term therapies did not persist at the year 4 and 5 follow-up points. The authors theorized that the lack of difference in scores at the 4th and 5th year follow-up points may have been due to a "considerable use of auxiliary treatment especially in the short-term therapy groups (p. 66). The researchers then adjusted for the use of auxiliary treatment and reported "recovery from psychiatric symptoms was more common in the LPP group during the 4th and 5th year of follow-up after adjustment of auxiliary treatment" (p. 66). Regarding working ability, the researchers found that the LPP group was "more improved at the end of the follow-up" (p. 66).

A recent study by Lorentzen, Ruud, Fjeldstad, and Høglend, (2015) investigated outcomes of short vs. long-term group therapy for patients with personality disorder diagnoses in Norway over a three-year study period. One hundred and sixty-seven

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outpatients with one or more Axis-I or II DSM-IV diagnoses were randomly assigned to either short-term (STG) psychodynamic group psychotherapy that received 6 months (20 weekly sessions) of treatment, or long-term (LTG) psychodynamic group psychotherapy that received 2 years (80 weekly sessions) of treatment. A sample of participants without personality disorder (PD) was used as a comparison group and was assigned to either short-term or long-term therapy groups as well. A total of 18 psychotherapy groups were created, nine of the groups were STG and nine were LTG. Each group met one time each week for 90 minutes. A host of psychiatric assessments were used to diagnose and track symptom reduction. Additionally, participants were interviewed three years after treatment had commenced. The interview documented patient diagnosis on Axes I and II, and patients were rated on the GAF (Lorentzen et al., 2015). The researchers found that for the PD group at the 3-year follow up, these patients improved significantly more in long-term therapy than in short-term therapy. The researchers reported that initially STG and LTG had similar improvements for the first 6 months. However, "LTG was more effective during the last 2.5 years of the study period" (Lorentzen et al., 2015, p. 141). The study also revealed that patients who were not diagnosed with a personality disorder did not appear to have additional gains from the LGT compared to the STG. Ultimately, the above research indicates that there are mixed results about whether short- or longer-term therapy is more effective.

Additionally, EAPs that offer session-limited therapy to their employees save costs for the employer by offering services including education, prevention, and early intervention (Akabas & Kurzman, 2005), and by reducing absenteeism (Kurzman, 2013; Pollack et al., 2010). Researchers noted that employees who were depressed cost

employers 50 billion dollars in one year (Hutchison & Spruill, 2009). Added costs to employers have been noted in the literature to include employee issues such as unaddressed personal and health issues that can lead to more accidents at work which results in costly workers' compensation premiums (Kurzman, 2013). Researchers reported an average of $18 million in annual earnings and close to $1 billion in lifetime earnings is lost by employees experiencing Intimate Partner Violence (Pollack et al., 2010; Centers for Disease Control and Prevention, 2003; Corso, et al., 2007). Further, absenteeism increases when employees are experiencing mental health issues and/or life stressors (Kurzman, 2013; Pollack et al., 2010). Research has found that more than 8 million workdays annually are missed by employees because of relational issues (CDC, 2003; Corso et al., 2007).

## Mental Health

Richmond et al. (2014) reported that approximately 80% of state employees screen positive for depression. According to the National Survey on Drug Use and Health (2013), in 2013 43.8 million adults (ages 18 or older) had some mental illness (defined as any type of mental disorder that meets DSM-IV criteria for a diagnosable disorder, excluding substance use and developmental problems). This figure is concerning, as it represents 18.5% of all adults in the United States (Center for Behavioral Health Statistics and Quality, 2013).

### Depression

A significant portion of the general population reported having a serious mental illness in 2012. In research conducted by the National Survey on Drug Use and Health (2013), approximately 4.2% or roughly 10 million adults (age 18 or older) reported

having serious mental illness in 2012 with a significant portion having depression. Approximately 9.1% of the United States adult population reported experiencing symptoms that are consistent with major depression in 2010-2011 (National Survey on Drug Use and Health, 2011). Furthermore, in 2013 15.7 million adults living in the United States reported having had at least one major depressive episode within the past year. That equates to 6.7% of all adults in the US. Based on the survey, rates of depression were higher among females (8.1%) compared to males (5.1%), and higher among young adults ages 18-25 (8.7%), compared to individuals aged 26-49 (7.6%) and individuals aged 50 or older (5.1%) (NSDUH, 2013). Of adults who reported having severe mental illness, 68.5% or approximately 6.9 million adults reported having received treatment for depression in 2012.

Researchers investigating the influence of mental health issues on work productivity have noted an association between behavioral health and work productivity. Richmond et al. (2014) conducted a study of a Colorado State Employee Assistance Program (C-SEAP) that served state employees. The investigators offered a brief intervention to individuals who screened positive for unhealthy substance use or for symptoms of depression. Follow-up interviews were conducted approximately 90 days after intake. During the follow-up interview, a research assistant phoned employees and collected data on workplace productivity, depression, and substance use (Richmond et al., 2014). They found that approximately 80% of EAP clients screened positive for depression. Researchers also found that for the variables of presenteeism and workplace distress, the greatest improvements were seen for individuals who screened positive for depression at intake. They noted a "strong association between depression and impaired

workplace productivity" (Richmond et al., 2014, p. 1). The researchers found that a large portion of the employees reported experiencing at least mild symptoms of depression. They also reported that the presence of depressive symptoms was strongly linked to impaired work outcomes and productivity, absenteeism, and workplace distress. This evidence was noticed when depressed employees were compared with non-depressed counterparts (Richmond et al., 2014). The researchers concluded that the improvements in depression and workplace productivity led to significant cost savings for the employer.

**Anxiety**

A significant majority of Americans suffer from anxiety. In 2005, anxiety was identified as being the most common mental illness in the United States (Kessler, Chiu, Demler, & Walters, 2005). Interestingly, research indicates that although a great number of individuals in the United States are experiencing symptoms of anxiety, only a small number of them (approximately one-third) will receive treatment (Anxiety and Depression Association of America, accessed June 30, 2015).

Mirroring the general population, the number of employees who suffer from anxiety also is significant. The Centers for Disease Control (CDC, 2003) reported on the results of the annual Survey of Occupational Injuries and Illnesses (SOII). The SOII is an annual survey that collects information about injuries and illnesses that cause employees to spend days away from work. The survey captures data from the private sector and does not include information gathered from the self-employed and from farms with fewer than 11 employees. These data indicated that anxiety, stress, and neurotic disorders were associated with a longer period of time in lost work days compared to all other types of illnesses and injuries (average of 25 days and 6 days respectively). Additionally, although

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employees who have anxiety are missing a significant amount of work, the survey

indicated that the prevalence of the disorder was low compared to other illnesses and

injuries (CDC, 2011). This may indicate that while anxiety is still a very prevalent mental

health issue, there are other mental health issues affecting even greater numbers of adults

in the workforce. Given the sheer volume of individuals who suffer from anxiety yet

remain untreated, EAPs are in a position to intervene and provide support and services

for those in the workforce.

## Therapist Perception of Change

Early studies in the field of psychotherapy outcome research used therapist

perception of patients' progress in therapy. Any improvement noted by the therapist was

made in relation to the patient's baseline at the time therapy commenced (Lambert,

2004). Additionally, previous research has noted the value of using therapist perception

of change and congruency between therapist perception and client perception of change.

Studies have considered whether therapists are accurate reporters of client satisfaction

and improvement (Conte, Ratto, Clutz, & Karasu, 1995). These measures of outcome

have been useful in researching outcomes and client satisfaction. Moreover, strong

correlations between therapist and client perceptions of change may indicate that

outcome data could be gathered from the therapists who are experts, clinically trained,

and are often more accessible than clients (Lambert, 2004).

Therapists' perceptions of change have been used as a measure of treatment

outcome in past research (Lambert, 2004). A dissertation by Crandal (2013) investigated

the effectiveness of a new measure, Therapist Perception of Treatment Outcome (TPTO).

Participants in this study were families who had a youth with antisocial behavior

problems. The families received multisystemic therapy while participating in the study and were evaluated by a therapist using the TPTO at mid-treatment and at termination. Crandal (2013) reported that statistical analysis reflected the usefulness of the TPTO measure. The researcher concluded "there is strong evidence for future use of the TPTO as well as support for further use of therapists as raters of psychological treatment" (p. 7).

Client report of satisfaction has been associated with therapists' perceptions of change in the literature. Research has revealed significant yet modest correlations between client report of success and satisfaction, and the therapist ratings of treatment-goal achievement (Edwards, Yarvis, Jueller, & Langsley, 1978). Significant yet weak associations have been found between client satisfaction and therapist-rated progress in treatment (Attkisson & Zwick, 1982; Beck & Jones, 1973; Edwards et al., 1978; Lambert & Hill, 1994). Some research, therefore, points to the usefulness of using therapists' perceptions of client change as an outcome measure.

Additionally, while therapist perception of client progress in treatment is now generally not considered to be an ideal measure of therapy outcome, past research has cited therapist perception of client progress as being a valid outcome measure that can be used to compare satisfaction scores (Lebow,1982). Therapist ratings of client progress is a measure of treatment outcome that can offer evaluators rich data that are easily accessible and can be a useful method in evaluating treatment progress (Crandal, 2013). Other research has found consistent results, indicating that clients and therapists have comparable perceptions of client distress, regardless of common factors such as client or therapist gender, ethnicity, or the match of therapist and client gender or ethnicity (Bryan, Dersch, Shumway, & Arredondo, 2004).

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Criticisms of using therapist perception of client change as an outcome measure include the idea that the ratings may be systematically biased. A biased rating by the therapist may be intentional or unintentional and can be influenced by a rater's self-interest in the outcome and may be reflective of characteristics of raters and their perceptions of the counseling sessions (Lambert, 2004). Other critics claim that the ratings can be fairly general making it difficult to tell what factors led to the rating. To account for the variance in raters, multiple observers can be helpful. The number of participants and the control of session numbers, presenting concern, and diagnosis can help account for the problem of variance between raters (Lambert, 2004).

In the field of EAP, there is limited research discussing the usefulness and validity of tools used to measure outcomes (Attridge et al., 2013). Attridge et al. (2013) reported that this makes it difficult to compare outcomes. The literature suggests that although there are criticisms about using therapists' perceptions of client change as an outcome measure, studies that have used this type of measure have found it to be useful in past research, and it can be a reliable tool. Additionally, given the limited body of research available in the realm of EAPs, findings generated by using therapists' views of client change as an outcome measure can offer beneficial information to the EAP community.

## Summary

Research on the efficacy of EAPs is an important topic to be investigated. Given the fact that the large majority of adults in the United States are employed and that EAPs are ever present in today's workforce, it is surprising that little research has been done to assess the effectiveness of EAPs in treating mental health issues. Companies are utilizing EAPs; however, there is little research specifically on EAP session models to inform

companies as to which session models are most effective for treating anxiety and depression.

A review of the literature revealed that EAP services are an effective means of containing costs for many employers, and employees who engage in EAP services have benefited from a reduction in health risks. According to the literature, EAPs reduce absenteeism, increase work productivity, reduce alcohol, and help to relieve mental health symptoms such as workplace distress. Csiernik (1995) noted that EAP research is driven by purposes that include worker productivity, cost savings, and the evaluation of efficacy of EAPs.

**Chapter Three: Methods**

Chapter three provides information on the participants in the study, power, sample size, measures used, procedures, and data analyses. The current study investigated the treatment outcomes of session-limited EAP models (as measured by TPC) on two of the most common diagnoses that are presented in an EAP setting (anxiety and depression). The study also investigated clients who completed their entire session model compared to those who did not. Research investigating the effectiveness of short-term therapy on different diagnoses in diverse settings has been well-represented in the literature. However, there is little research that explores outcomes of session-limited therapy models across commonly occurring diagnoses in an EAP setting.

**Participant Inclusion and Data Analyses**

**Participants**. This study used archival data from an EAP vendor who serves several thousand clients per year. The EAP offers services across the United States to clients from a range of industries. The sample for this study included data from 3816 clients who were seen at the EAP from January 2010 and January 2014.

Participants in this sample belonged to a variety of industries. Inclusion criteria included participants who were over the age of 18 and had a primary diagnosis that fell into the broad categories of anxiety or depression. Of this sample 2,156 were female, 1,154 were male, and 506 clients did not identify their gender. An a priori power analysis

(G* Power software, Faul, Erdfelder, Lang, & Buchner, 2007) for a non-parametric data set was conducted using three variables (TPC, Diagnosis, and Session Model) which resulted in a minimum of 184 participants needed to observe a medium effect size of .05. The number of participants in each of the Session Models is presented in Table 2. There were 1,815 participants who were categorized as depressed, and 2,001 who were categorized as anxious.

Table 2
Number of Participants by EAP Model

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | EAP-3 | 260       | 6.8     | 6.8           | 6.8                |
|       | EAP-4 | 519       | 13.6    | 13.6          | 20.4               |
|       | EAP-5 | 1344      | 35.2    | 35.2          | 55.6               |
|       | EAP-6 | 1207      | 31.6    | 31.6          | 87.3               |
|       | EAP-7 | 158       | 4.1     | 4.1           | 91.4               |
|       | EAP-8 | 328       | 8.6     | 8.6           | 100.0              |
|       | Total | 3816      | 100.0   | 100.0         |                    |

Participants were excluded from the study if they did not have a primary DSM-IV diagnosis that fell into the broad range of an anxiety or depressive disorder. Rather than using each individual specific diagnosis of depression and anxiety, the subtypes of the two broad categories were used in the study. For example, if an individual was given a primary diagnosis of major depressive disorder without psychosis, that person would be placed in the depression diagnostic group. Likewise, if an individual was given a primary diagnosis of panic disorder by the therapist, then in the current study the individual was placed in the anxiety diagnostic group rather than being assigned the specific panic disorder diagnosis. All diagnoses other than the broad range diagnostic groups (anxiety

and depression) including learning disabilities, medically related mental health issues, personality disorders, and psychotic disorders were excluded from the current study. Persons who are under the age of 18 were excluded from the study.

Therapists in the study were licensed therapists, including: LCSW, LMFT, LPC, and PhD level. These therapists were contracted by the EAP to provide therapy to employees. For this archival dataset, therapists met with their clients in their private practice offices for a typical 45-minute therapy session. Therapists used their professional clinical judgment to decide how frequently they would meet with the employees. Most commonly, therapists met with clients anywhere from a weekly to a monthly basis. Therapists noted the client's diagnosis at the end of each session and documented their decision about client's progress on the TPC form. Only the final session attended for each participant was included in the study. Additionally, only participants with diagnoses of anxiety and depression were included. While anxiety and depression diagnoses often co-occur, only primary diagnoses were used in the analysis of the current study. Therefore, only one DSM-IV-TR diagnosis was utilized for the analysis. Chi-Square analyses and t-tests were conducted to compare differences in therapy outcomes between individuals in different session models and assigned to the two diagnostic categories.

**Data Analysis.** Data preparation consisted of cleaning the data and removing any extraneous variables and participants who exceeded their maximum number of sessions allowed. Six variables included were Gender, number of sessions allowed by an employee based on their session model, ("Allowed"), the number of sessions used by a client ("Used"), TPC rating ("TPC"), completed or did not complete session model ("Completed"), and the specific DSM-IV diagnosis ("Diagnosis"). Chi-Square analyses

and t-tests were conducted to compare differences in therapy outcomes between individuals in different session models and those assigned to the two diagnostic categories. Given the data are non-parametric, a chi-square statistical analyses was used to examine differences between the variables, and one question was analyzed using a t-test. There were five Research Questions investigated in this study.

*Research Question 1*. Are there differences in therapists' TPC responses (regressed, remained at baseline, improved, resolved issues) for clients (at the last session completed) who were in each of the six session models included in this study? To investigate this question, the variables TPC and session model were examined. A Chi-Square analysis was used to assess whether TPC ratings differed across each of the session models.

*Research Question 2*. For the two diagnostic categories (anxiety and depression), are there differences in therapist TPC ratings at the last session each client attended for each session model? This question included TPC, session models 3-8, and DSM-IV diagnoses of anxiety and depression. A Chi-Square analysis was conducted to explore the relationship between participants who had anxiety or depression, and participant outcomes across the session models the participants were assigned to.

Research Question 3. Is there a difference in therapist ratings of Resolved on the TPC for clients who completed and did not complete their entire session model? TPC ratings for participants who resolved their issues were assessed for participants who completed their entire session model and for those who did not complete their entire session model. A Chi-Square was used for this analysis to test the relationship between TPC ratings, and participants who complete or did not complete their entire session model.

Research Question 4. Is there a difference in the TPC ratings for anxiety and depression for clients who completed all sessions versus clients who complete less than the maximum number of sessions allowed regardless of the client's approved session model? TPC, number of completed (regardless of session model), and DSM-IV diagnosis of anxiety or depression were included in the analysis. A Chi-Square analysis was done to investigate the association between the TPC ratings of those diagnosed with depression or anxiety and the number of session each group completed.

Research Question 5. Is there a difference between the anxiety and depression groups on TPC ratings of Improvement/Resolved (combined), regardless of session model or completion of session model? To investigate this question, TPC ratings were examined for participants who had a primary diagnosis of anxiety or depression. A t-test of Independence was used to analyze this question.

## Procedure

An anonymous data base was utilized from a large EAP from January, 2010 to January, 2014. The IRB approval occurred on May 12, 2017 at the exempt level. The relevant data for the current study were de-identified by the EAP that collected the data and added to a spreadsheet that was provided to this researcher. The EAP holds a key code that can link identifiable information to the variables on the spreadsheet. This researcher does not have access to the key that can identify participants' private information. The original data received contained 22,466 observations including additional descriptors about employee treatment not requested (GAF score, Payment Status, Axis II diagnosis, and Work-Related Theme) for this study. These extraneous descriptors were removed. All duplicate data were removed along with participants who

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received more than the "allowable" number of sessions approved by their EAP model. The session date and billing date were removed as they were not variables of interest in this study. The final dataset consisted of 3,816 participants and 6 variables (Gender, Allowed, Used, TPC, Completed, Diagnosis). Missing data for Gender were coded as "99." No other variables contained missing data.

**Procedures Employed by the EAP.** At the end of each therapy session, therapists submitted a billing form to the EAP for payment of their services. On the billing form, therapists were required to list a TPC rating for their client. TPC ratings included (a) client regressed, (b) client remained at baseline, (c) client improved, (d) client resolved their issues. Questions on the billing form that were included in the study were demographic information (gender), diagnosis, and therapist rating (TPC).

**Measures**

**Therapist Perception of Change.** Treatment outcomes of session-limited EAP model sessions were measured by the TPC. At the initial session with a client and at each session thereafter, the therapist indicated the perception of change in the client's symptoms (client regressed, client stayed at baseline, client improved, or the client's issues were resolved). Within a given session model, if a therapist perceived that the client's issues were resolved, then the client was terminated from therapy at that time. In the current study, only the last attended session rating of TPC was included in the analysis. There is no available data on the reliability and validity of TPC, however there is some information available on therapists' perceptions of client progress and client change. For example, therapists' perception of client progress in treatment has been cited in past research as being a valid outcome measure that can be used to compare

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satisfaction scores (Lebow,1982). In addition, TPTO was found to be statistically useful in measuring treatment outcomes (Crandal, 2013).

**Diagnosis.** DSM-IV diagnosis was noted by the therapist after each session. For the purposes of the current study, diagnoses were grouped into two categories that the literature has indicated are amongst those that are most prevalent in the workplace: anxiety and depression. At a therapist's initial session with a client and at each session thereafter, the therapist submitted a billing form to the EAP. On the billing form, the therapist indicated the DSM-IV diagnosis for that client. As is the case in typical therapy sessions, therapists provide a primary diagnosis for their clients. The primary diagnosis for each client was included in the analysis. Additionally, even if the client resolved his or her issues, the therapist still provided a primary diagnosis for the visit.

The category of depression included the following DSM-IV diagnoses: Major depressive disorder; dysthymic disorder; depressive disorder, NOS; cyclothymic disorder; major depressive episodes; bipolar disorder, NOS; bipolar I disorders; and bipolar II disorders.

The category of anxiety included the following DSM-IV diagnoses: Acute stress disorder; Panic attack; agoraphobia; panic disorder without agoraphobia; panic disorder with agoraphobia; agoraphobia without history of panic disorder; specific phobia; social phobia; obsessive-compulsive disorder; generalized anxiety disorder; anxiety disorder due to a general medical condition; and anxiety disorder, NOS.

Anxiety and depression being two of the most commonly treated diagnoses in EAP settings were therefore included in the study. As this is the first study of its kind, there is no precedent for which diagnoses should be included and which should be

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excluded. Therefore, it was decided to follow the DSM-IV-TR as a guideline for grouping anxiety and depressive diagnoses (while excluding psychosis) in the current study. It was certainly possible to study only very specific diagnoses, yet given this study is one of the very first of its kind, a more general strategy was used.

**Session Model**. Session model was determined by which model the employee was approved by the employer. Clients in the current study were allowed different numbers of sessions based on their session models. Some clients completed the maximum number of sessions available to them in their model, while others did not complete all of the sessions in their model. The most commonly offered session models at this EAP were: three, four, five, six, seven, and eight sessions and therefore, these were included in the analyses (See Table 2).

<div align="center">

**Summary**

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This chapter discussed the study participants, procedures, data collection and the data preparation processes. It also presented a description of the research questions, and variables, and analyses used. Research Questions 1 to 5 and the variables associated with those questions were outlined. The following chapter will discuss the data analyses and the findings for the five research questions.

**Chapter Four: Results**

The current study investigated the treatment outcomes of session-limited employee assistance program (EAP) models for two mental health diagnoses, depression and anxiety. EAPs are a benefit provided to employees by their employers and offer a range of services to employees and employers. In the current study, employees who received counseling from an EAP therapist were included in the analyses. Therapist Perception of Change (TPC) was used as a measure of client outcome. Further, session-limited therapy in EAP settings was examined by investigating outcomes for individuals who completed their entire session model versus those who did not. Chapter Four provides information on the data preparation and the analyses used to investigate the research questions.

The archival dataset is from a large EAP company located in the Western U.S. Participant information was gathered by the organization, de-identified, and provided to this researcher. The EAP holds a key code that can link identifiable information to the variables on the spreadsheet, although this key code is not accessible to this researcher. The data for this study consisted of 3,816 participants. Participants were employees who sought counseling services from contracted EAP therapists from January 2010 and January 2014. Employees were 18 years of age or older in order to receive services from the EAP. The first step in conducting a preliminary review of the data was to check for missing data. There were 506 participants who did not respond to the question about

gender. These individuals were included in the final data set, and a code "99" was listed for their gender. A review of the data found no other missing data.

Five research questions were developed to examine treatment outcomes of session-limited EAP models. The outcome variable in this study is TPC. At the end of each session, the therapist rated the client as one of the following: client regressed, client remained at baseline, client improved, or client resolved the issue.

Research Question 1: Are there differences in therapists' TPC responses (regressed, remained at baseline, improved, resolved issues) for clients (at the last session completed) who were in each of the six session models included in this study? The TPC variable was coded as $-1$ = regressed, $0$ = remained at baseline, $1$ = improved, $2$ = resolved issues.

Research Question 2: For the two diagnostic categories (anxiety and depression), are there differences in therapist TPC ratings at the last session each client attended for each session model?

Research Question 3: Is there a difference in therapist ratings of Resolved on the TPC for client who completed and did not complete their entire session model? For this research question, the TPC rating "resolved" for the group who completed their entire session model, and the group who did not complete their entire session model are compared.

Research Question 4: Is there a difference in the TPC ratings for anxiety and depression for clients who completed all sessions versus clients who complete less than the maximum number of sessions allowed regardless of the client's approved session model? For this research question, TPC for the number of participants who completed versus those who did not complete their entire session model and who had either an

anxiety or depression diagnosis will be explored. Participants in the diagnostic groups (anxiety vs. depression) and the completed versus did not complete groups are explored and not compared across EAP Session Models (as is the case in Research Question 3). Therefore, this research question is only examining TPC, Completed vs. Not Completed, and Anxiety vs. Depression diagnoses.

Research Question 5: Is there a difference between the anxiety and depression groups on TPC ratings of Improvement/Resolved (combined), regardless of session model or completion of session model? That is, when comparing participants who have anxiety versus depression diagnoses, is there any difference in TPC (not considering session model).

For the current study, 6 variables were utilized: These variables include: (a) **Gender**, (b) number of sessions **Allowed** by an employee based on model; (c) the number of sessions **Used** by a client; (d) **Therapist Perception of Change** rating; (e) whether the employee completed or did not complete their session model (**Completed**) and (f) the broad diagnostic category that the DSM diagnosis fell under (anxiety or depression) which was labeled as **Diagnosis**.

*Preliminary Data Review*

When reviewing the data, it was noted that some of the entries were duplicates and they were removed. The variable Gender was not completed by 506 participants. However, Gender was not a major variable in the data set; therefore, no participants were removed due to missing a Gender response. Missing values for Gender were coded as "99." The first step was to examine the data for accuracy. The final data set consisted of the six variables listed above. No other missing data were found (see Table 3).

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In reviewing the data set, it was noted that some employees assigned to an EAP

session model completed more sessions than they were allotted. To address this issue, all

participants who completed more sessions than their session model allowed were

removed from the data set. It was decided that no client who went past their session limit

in any of the session models would be included in the study. A total of 312 (8%)

participants were not included in the analysis because they completed more sessions than

their session limit. The final sample size for the study was 3816.

Table 3
Number of Responses for each Variable

|  | N | |
|---|---|---|
|  | Valid | Missing |
| Gender | 3310 | 506 |
| EAP Model 3-8 | 3816 | 0 |
| Sessions Used | 3816 | 0 |
| Completed | 3816 | 0 |
| TPC | 3816 | 0 |
| Anxiety or Depression | 3816 | 0 |

Table 4
Frequencies for EAP Session Models

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | EAP-3 | 260 | 6.8 | 6.8 | 6.8 |
|  | EAP-4 | 519 | 13.6 | 13.6 | 20.4 |
|  | EAP-5 | 1344 | 35.2 | 35.2 | 55.6 |
|  | EAP-6 | 1207 | 31.6 | 31.6 | 87.3 |
|  | EAP-7 | 158 | 4.1 | 4.1 | 91.4 |
|  | EAP-8 | 328 | 8.6 | 8.6 | 100.0 |
|  | Total | 3816 | 100.0 | 100.0 |  |

The number of employees who participated in each session model was examined.

Descriptive statistics indicated that EAP Models 5 and 6 had the most participants with

over 1300 participants in EAP session Model 5, and over 1200 in session Model 6. EAP

Session Models 3 and 7 had the fewest participants, with 260 and 158 participants

respectively (see Table 4).

Table 5 shows the frequency of sessions used by participants. The table shows

how many sessions were used per session model. Sessions 3, 4, and 5 had the greatest

number of participants.

Table 5
Number of Sessions Used by Participants in EAP Session Models 3-8

| | | EAP Model | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | EAP-3 | EAP-4 | EAP-5 | EAP-6 | EAP-7 | EAP-8 | |
| | | Count | Count | Count | Count | Count | Count | Total |
| Sessions | 1 | 45 | 77 | 202 | 135 | 16 | 35 | 510 |
| Used | 2 | 50 | 83 | 206 | 163 | 20 | 44 | 566 |
| | 3 | 165 | 93 | 208 | 180 | 18 | 36 | 700 |
| | 4 | 0 | 266 | 238 | 173 | 23 | 33 | 733 |
| | 5 | 0 | 0 | 490 | 197 | 15 | 41 | 743 |
| | 6 | 0 | 0 | 0 | 359 | 17 | 32 | 408 |
| | 7 | 0 | 0 | 0 | 0 | 49 | 37 | 86 |
| | 8 | 0 | 0 | 0 | 0 | 0 | 70 | 70 |

TPC identified clients' progress (regressed, remained at base rate, improved, or

resolved their issues) in treatment. Descriptive statistics revealed that 3.8% (146) of all

clients were rated as regressed, 20.6% (787) were rated as remained at base rate, 66.6%

(2,542) were rated as improved, and 8.9% (341) were rated as having resolved their

problems (see Table 6).

Table 6
Frequency and Percentages for the Therapist Perception of Change

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | regressed | 146 | 3.8 | 3.8 | 3.8 |
|  | baseline | 787 | 20.6 | 20.6 | 24.4 |
|  | improved | 2542 | 66.6 | 66.6 | 91.1 |
|  | resolved | 341 | 8.9 | 8.9 | 100.0 |
|  | Total | 3816 | 100.0 | 100.0 |  |

Additionally, the gender of participants was examined to assess for skewness in the data. The proportion of males and females in each session model was consistent across EAP session models. Females were overrepresented in the data, including both categories of completing and not completing sessions within models, and this pattern was similar across all session models. Also similar were the percentages of males and females across all TPC ratings (regressed, baseline, improved, and resolved). In other words, the percentage of male and female TPC ratings were similar across all categories. (see Table 7). Given the similarity in ratings gender was not further explored and all data analyses included the entire sample.

Table 7
TPC by Gender

|  |  | Therapist Perception of Change Categories |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  |  | regressed |  | baseline |  | improved |  | resolved |  |
|  |  | Count | Row N % | Count | Row N % | Count | Row N % | Count | Row N % |
| Gender | Female | 80 | 3.7% | 444 | 20.6% | 1456 | 67.5% | 176 | 8.2% |
|  | Male | 44 | 3.8% | 248 | 21.5% | 754 | 65.3% | 108 | 9.4% |

The percentage of participants that completed each session model also was explored. Participants who completed their entire session model were compared to those who did not complete their session model. Descriptive statistics revealed that 63.3% (2417) of participants did not complete all the sessions that were allotted to them, while

36.7% (1399) of the participants did complete all of the sessions that were available to them (see Table 8).

Table 8
Participants who Completed and Did Not Complete their Session Model

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | did not complete | 2417 | 63.3 | 63.3 | 63.3 |
|  | completed | 1399 | 36.7 | 36.7 | 100.0 |
|  | Total | 3816 | 100.0 | 100.0 |  |

Table 9 shows the frequency and percentage of participants who completed and did not complete their entire session model across all session models. The table reveals that of the 1399 participants who completed their entire session model, 165 participants in EAP Session Model 3 completed their entire session model. While EAP Session Model 5 had the most participants (n = 1344) and the largest number of participants who completed all of their sessions (n = 490), it also had one the smallest percentages of participants completing all 5 sessions at 36%. With respect to the percentage of participants who completed each model, Session Model 3 was the highest with 63%. In fact, as might be expected, as more sessions were offered, fewer clients completed their session model (i.e., completion percentage by session model was Session Model 3 (63%), 4 (51%), 5 (36%), 6 (30%), 7 (31), and 8 (21%), see Table 9.

Table 9
Sessions Completed by EAP Model Crosstabulation

| Completed | | | EAP Model | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | EAP-3 | EAP-4 | EAP-5 | EAP-6 | EAP-7 | EAP-8 | Total |
| Did not complete | Count | | 95 | 253 | 854 | 848 | 109 | 258 | 2417 |
| | Expected Count | | 164.7 | 328.7 | 851.3 | 764.5 | 100.1 | 207.8 | 2417.0 |
| | Standardized Residual | | -5.4 | -4.2 | .1 | 3.0 | .9 | 3.5 | |
| Completed | Count | | 165 | 266 | 490 | 359 | 49 | 70 | 1399 |
| | Expected Count | | 95.3 | 190.3 | 492.7 | 442.5 | 57.9 | 120.2 | 1399.0 |
| | Standardized Residual | | 7.1 | 5.5 | -.1 | -4.0 | -1.2 | -4.6 | |
| Total | Count | | 260 | 519 | 1344 | 1207 | 158 | 328 | 3816 |
| | Expected Count | | 260.0 | 519.0 | 1344.0 | 1207.0 | 158.0 | 328.0 | 3816.0 |

**Investigation of Research Questions**

*Research Question One*

Are there differences in therapists' TPC responses (regressed, remained at baseline, improved, resolved issues) for clients (at the last session completed who were in each of the six session models included in this study? TPC was used as the outcome variable, while all participants in session models 3-8 were included in the analysis. Descriptive statistics revealed that the largest percentage of participants with regressed ratings on the TPC was in EAP Model 7 (5.1%), while the largest percentage of participants with a rating of resolved on the TPC was in Model 6 (10.7%). The most populated TPC rating across all session models was the "improved" rating (with percentages ranging from 58.2% for Model 7, to 69.2% in Model 8 (see Table 10). Percentages for the four TPC categories were fairly stable across all Session Models and

the small percentage differences could have been related to the different sample sizes for the Session Models.

A Chi-Square Test was used to test the association between TPC and EAP session models. The test was run and 0 cells had expected counts less than 5. A relationship was found between EAP session models and TPC, $X^2$(15, N = 3816) = 32.735, p = .005. Cramer's V statistic (.1 = weak, .2 = moderate, .3 = strong, Cohen, 1988) was conducted to test the strength of the association between EAP session model and TPC; the association was found to be weak (Cramer's V = .053). This suggests that there is some association between the Session Model that participants were assigned to and their therapy outcome (as measured by TPC), with most participants rated as improved regardless of their session model, and with the most desirable outcomes (resolved) falling in EAP Session Model 6.

Table 10
EAP Session Model by TPC Crosstabulation

| Model | | Regressed (%) | | Baseline (%) | | Improved (%) | | Resolved (%) | |
|-------|--|---------------|--|--------------|--|--------------|--|--------------|--|
| | | | | | | **TPC** | | | |
| EAP-3 | Count | 9 | 3.5% | 52 | 20% | 174 | 67% | 25 | 9.6% |
| | Expected Count | 9.9 | | 53.6 | | 173.2 | | 23.2 | |
| | Standardized Residual | -.3 | | -.2 | | .1 | | .4 | |
| EAP-4 | Count | 13 | 2.5% | 124 | 23.9% | 340 | 65.5% | 42 | 8.1% |
| | Expected Count | 19.9 | | 107.0 | | 345.7 | | 46.4 | |
| | Standardized Residual | -1.5 | | 1.6 | | -.3 | | -.6 | |
| EAP-5 | Count | 66 | 4.9% | 290 | 21.6% | 880 | 65.5% | 108 | 8.0% |
| | Expected Count | 51.4 | | 277.2 | | 895.3 | | 120.1 | |
| | Standardized Residual | 2.0 | | .8 | | -.5 | | -1.1 | |
| EAP-6 | Count | 38 | 3.1% | 211 | 17.5% | 829 | 68.7% | 129 | 10.7% |
| | Expected Count | 46.2 | | 248.9 | | 804.0 | | 107.9 | |
| | Standardized Residual | -1.2 | | -2.4 | | .9 | | 2.0 | |
| EAP-7 | Count | 8 | 5.1% | 45 | 28.5% | 92 | 58.2% | 13 | 8.2% |
| | Expected Count | 6.0 | | 32.6 | | 105.3 | | 14.1 | |
| | Standardized Residual | .8 | | 2.2 | | -1.3 | | -.3 | |
| EAP-8 | Count | 12 | 3.7% | 65 | 19.8% | 227 | 69.2% | 24 | 7.3% |
| | Expected Count | 12.5 | | 67.6 | | 218.5 | | 29.3 | |
| | Standardized Residual | -.2 | | -.3 | | .6 | | -1.0 | |
| Total | Count | 146 | | 787 | | 2542 | | 341 | |
| | Expected Count | 146.0 | | 787.0 | | 2542.0 | | 341.0 | |

*Research Question Two*

The second research question posed in this study asked: For the two diagnostic categories (anxiety and depression), are there differences in therapist TPC ratings at the last session each client attended for each session model? To address this research question, TPC ratings for participants in EAP Session Models 3 - 8, and participants who

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had an anxiety or depression diagnosis were included. A Chi-Square test was conducted

to investigate the relationship between TPC, EAP Session Models, and Diagnosis

(Anxiety and Depression). The analysis showed that 4 cells (8.3%) had expected counts

of less than 5. While this is a violation of an assumption of Chi-Square (that all expected

cell counts be 5 or greater), the analysis can handle a violation of cell count if no more

than 20% of the expected counts are less than 5, and all individual expected counts are 1

or greater (Yates, Moore, & McCabe, 1999). These conditions were met, and therefore

the results of this analysis are considered to be valid.

A relationship was found between Diagnosis (Anxiety and Depression), EAP

Session Model, and TPC ratings, $X^2$(33, N = 3816) = 87.049, p < .001. However, the

relationship was weak (Cramer's V = 0.087). A relationship was found for participants

who had an anxiety diagnosis. The, greatest percentage of participants who resolved their

issues were in Session Model 6 (10.1%). For participants who had a depression diagnosis,

Session Models 3 (11.4%) and 6 (11.3%) had the largest percentage of participants who

resolved their issues. Overall, more participants were in the "improved" TPC category

than any other category. Participants who had a diagnosis of anxiety and were in Session

Model 3 had the greatest percentage of TPC improved ratings, and also had higher

compared to all other Session Models who had a depression. Additionally, for

participants who had an anxiety diagnosis 69% (n = 1264) of them improved, while 63%

(n = 1278) of participants who had a depression diagnosis improved (see Table 11).

Table 11

Anxiety/Depression & Model by TPC Crosstabulation

| Anxiety/Depression & Model | | | TPC | | | | |
|---|---|---|---|---|---|---|---|
| | | | Regressed | Baseline | Improved | Resolved | Total |
| | Anxiety-3 | Count | 3 | 13 | 95 | 9 | 120 |
| | | Expected Count | 4.6 | 24.7 | 79.9 | 10.7 | 120.0 |
| | | Standardized Residual | -.7 | -2.4 | 1.7 | -.5 | |
| | Anxiety-4 | Count | 8 | 57 | 145 | 19 | 229 |
| | | Expected Count | 8.8 | 47.2 | 152.5 | 20.5 | 229.0 |
| | | Standardized Residual | -.3 | 1.4 | -.6 | -.3 | |
| | Anxiety-5 | Count | 29 | 143 | 407 | 51 | 630 |
| | | Expected Count | 24.1 | 129.9 | 419.7 | 56.3 | 630.0 |
| | | Standardized Residual | 1.0 | 1.1 | -.6 | -.7 | |
| | Anxiety-6 | Count | 13 | 78 | 486 | 65 | 642 |
| | | Expected Count | 24.6 | 132.4 | 427.7 | 57.4 | 642.0 |
| | | Standardized Residual | -2.3 | -4.7 | 2.8 | 1.0 | |
| | Anxiety-7 | Count | 2 | 14 | 32 | 5 | 53 |
| | | Expected Count | 2.0 | 10.9 | 35.3 | 4.7 | 53.0 |
| | | Standardized Residual | .0 | .9 | -.6 | .1 | |
| | Anxiety-8 | Count | 4 | 26 | 99 | 12 | 141 |
| | | Expected Count | 5.4 | 29.1 | 93.9 | 12.6 | 141.0 |
| | | Standardized Residual | -.6 | -.6 | .5 | -.2 | |
| | Depression-3 | Count | 6 | 39 | 79 | 16 | 140 |
| | | Expected Count | 5.4 | 28.9 | 93.3 | 12.5 | 140.0 |
| | | Standardized Residual | .3 | 1.9 | -1.5 | 1.0 | |
| | Depression-4 | Count | 5 | 67 | 195 | 23 | 290 |
| | | Expected Count | 11.1 | 59.8 | 193.2 | 25.9 | 290.0 |
| | | Standardized Residual | -1.8 | .9 | .1 | -.6 | |
| | Depression-5 | Count | 37 | 147 | 473 | 57 | 714 |
| | | Expected Count | 27.3 | 147.3 | 475.6 | 63.8 | 714.0 |
| | | Standardized Residual | 1.9 | .0 | -.1 | -.9 | |
| | Depression-6 | Count | 25 | 133 | 343 | 64 | 565 |
| | | Expected Count | 21.6 | 116.5 | 376.4 | 50.5 | 565.0 |
| | | Standardized Residual | .7 | 1.5 | -1.7 | 1.9 | |
| | Depression-7 | Count | 6 | 31 | 60 | 8 | 105 |
| | | Expected Count | 4.0 | 21.7 | 69.9 | 9.4 | 105.0 |
| | | Standardized Residual | 1.0 | 2.0 | -1.2 | -.5 | |
| | Depression-8 | Count | 8 | 39 | 128 | 12 | 187 |
| | | Expected Count | 7.2 | 38.6 | 124.6 | 16.7 | 187.0 |
| | | Standardized Residual | .3 | .1 | .3 | -1.2 | |
| Total | | Count | 146 | 787 | 2542 | 341 | 3816 |
| | | Expected Count | 146.0 | 787.0 | 2542.0 | 341.0 | 3816.0 |

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*Research Question Three*

The third research question asked: Is there a difference in therapist ratings of Resolved on the TPC for clients who completed and did not complete their entire session model? To investigate this research question, participants who resolved their issues were divided between those who completed their entire session model, and those who did not.

A review of the descriptive statistics indicated that most participants in the study fell in the group that did not complete their entire session model (n = 2,417) compared to participants who did complete their entire session model (n = 1399). For the participants who were rated as resolved on the TPC, more of them completed their Session Model (54.3%, n = 185) compared to participants rated as resolved who did not complete their entire session model (45.7%, n = 156). A Chi-Square test was used to investigate whether there was a relationship between completing a session model and a TPC rating of Resolved. The test was run and 0 cells had expected counts of less than 5. The Chi-Square results found a relationship between clients who completed all sessions in their EAP Session Model (Completed), and those rated as Resolved, $X^2$(3), N = 3816) = 112.511, p < .001. However, a Cramer's V test found the association between the variables was weak (Cramer's V = .172). These results suggest that participants who completed their entire session model had a slightly greater chance of being rated as resolved (see Table 12).

Table 12

Session Model Completion and TPC Crosstabulation

| | | | TPC | | | | |
|---|---|---|---|---|---|---|---|
| | | | Regressed | Baseline | Improved | Resolved | Total |
| Completed | Did not complete | Count | 83 (3.4%) | 605 (25%) | 1573 (65%) | 156 (6.4%) | 2417 |
| | | Expected Count | 92.5 | 498.5 | 1610.1 | 216.0 | 2417.0 |
| | | Standardized Residual | -1.0 | 4.8 | -.9 | -4.1 | |
| | Completed | Count | 63 (4.5%) | 182 (13%) | 969 (69%) | 185 (13.2%) | 1399 |
| | | Expected Count | 53.5 | 288.5 | 931.9 | 125.0 | 1399.0 |
| | | Standardized Residual | 1.3 | -6.3 | 1.2 | 5.4 | |
| Total | | Count | 146 | 787 | 2542 | 341 | 3816 |
| | | Expected Count | 146.0 | 787.0 | 2542.0 | 341.0 | 3816.0 |

*Research Question Four*

Research Question Four asked: Is there a difference in the TPC ratings for anxiety and depression for clients who completed all sessions versus clients who complete less than the maximum number of sessions allowed regardless of the client's approved session model? Descriptive statistics revealed there were 1,815 persons with anxiety and 2,001 persons in the depression category included in the study. For both the anxiety and depression groups, a larger percentage of the participants did not complete their entire session model (63.3%) than participants who did complete their entire session model (36.7%). Slightly more participants with depression completed their session model (38.4%) than did the participants with anxiety (34.7%). When reviewing TPC ratings and session model completion for participants who had anxiety or depression diagnoses,

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descriptive statistics revealed that the majority of TPC ratings fell into the "improved" category for those who completed their entire session model, and for those who did not (see Tables 13 and 14).

A Chi-Square test was used to determine if there was a relationship between the TPC ratings for participants who had anxiety or depression diagnoses, and completion (complete or did not complete) of their session model. To investigate this research question, participants who had a diagnosis of anxiety or depression were divided into two groups (those who completed their entire session model, and those who did not), and TPC ratings were reviewed for each group. The test was run and 0 cells had expected counts less than 5. The results of the Chi-Square test found a relationship between the TPC ratings and clients with anxiety or depression who completed or did not complete all the sessions, $X^2(9)$, N = 3816) = 142.931, p < .001. However, the association was weak (Cramer's V = .114). The results suggest that the majority of participants who had either a diagnosis of anxiety or depression improved regardless of whether they completed their session model or not. In each group, participants who completed their entire session model had higher rates of resolving their issue compared to participants who did not complete their entire session model. Participants who had a diagnosis of depression and completed their session model (14.2%) were more likely to resolve their issue compared to participants who had a diagnosis of anxiety and completed their entire session model (12%).

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Table 13

Anxiety/Depression & Completion by TPC Crosstabulation

| | | | TPC | |
| | | | regressed | baseline |
|---|---|---|---|---|
| Anx/Dep & Completion | anxiety-did not complete | Count | 31 (2.6%) | 250 (21.1%) |
| | | Expected Count | 45.3 | 244.2 |
| | | Standardized Residual | -2.1 | .4 |
| | anxiety-complete | Count | 28 (4.4%) | 81 (12.8%) |
| | | Expected Count | 24.1 | 130.1 |
| | | Standardized Residual | .8 | -4.3 |
| | depression-did not compete | Count | 52 (4.2%) | 355 (28.8%) |
| | | Expected Count | 47.2 | 254.3 |
| | | Standardized Residual | .7 | 6.3 |
| | depression-complete | Count | 35 (4.6%) | 101 (13.5%) |
| | | Expected Count | 29.4 | 158.4 |
| | | Standardized Residual | 1.0 | -4.6 |
| Total | | Count | 146 | 787 |
| | | Expected Count | 146.0 | 787.0 |

Table 14
Anxiety/Depression & Completion by TPC Crosstabulation (continued)

| | | | TPC | |
| --- | --- | --- | --- | --- |
| | | | improved | resolved Total |
| Anx/Dep & Completion | anxiety-did not complete | Count | 818 (69.1%) | 85  (7.17%) 1184 |
| | | Expected Count | 788.7 | 105.8 1184.0 |
| | | Standardized Residual | 1.0 | -2.0 |
| | anxiety-complete | Count | 446 (70.7%) | 76  (12%) 631 |
| | | Expected Count | 420.3 | 56.4 631.0 |
| | | Standardized Residual | 1.3 | 2.6 |
| | depression-did not compete | Count | 755 (61.2%) | 71 (5.8%) 1233 |
| | | Expected Count | 821.4 | 110.2 1233.0 |
| | | Standardized Residual | -2.3 | -3.7 |
| | depression-complete | Count | 523 (68.1%) | 109 (14.2%) 768 |
| | | Expected Count | 511.6 | 68.6 768.0 |
| | | Standardized Residual | .5 | 4.9 |
| Total | | Count | 2542 | 341 3816 |
| | | Expected Count | 2542.0 | 341.0 3816.0 |

*Research Question Five*

The final research question asked: Is there a difference between the anxiety and depression groups on TPC ratings of Improvement/Resolved (combined), regardless of session model or completion of session model? This question was asked to better understand whether improvement rates are better for anxiety or depression. To explore this research question, the TPC ratings "improved" and "resolved" were collapsed into

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one dummy variable (coded as 1), and TPC ratings "regressed" and remained at baseline"
were collapsed into one dummy variable (coded as 0). This generated a rate for Improved
by determining the mean for each variable. A t-test comparing mean improvement
between anxiety and depression-related diagnoses regardless of EAP Session Model was
calculated. Leven's test for Equality of Variance suggests that equal variances should not
be assumed (F = 67.082, p < .001). Clients seeking EAP services for a depression-related
disorder had a lower rate of improvement (M = .73, SD = .445) than did those with an
anxiety-related disorder (M = .79, SD = .411), [Leven's test, t(3812.732) = 4.078,
p < .001)]. Additionally, improvement rates varied across session models. The data were
further explored to investigate differences across Session Models (see Table 15). The
results show that overall, participants did improve after receiving EAP therapy. The
improvement rates for patients who had an anxiety diagnosis were higher compared to
participants who had depression. The two highest Improvement rates were for Session
Model 3 (86.7%) and Model 6 (85.8%) for participants who had anxiety. For participants
who had a depression diagnosis, improvement rate percentages for Session Models were
similar across all Session Models (3-8), with Session Models 3 (67.9%), 4 (75.2%), 5
(74.2%), 6 (72%), 7 (64.8%) and 8 (74.9%).

Table 15

Improvement Rates for Anxiety and Depression by EAP Session Model

| | | Anxiety or Depression | |
| | | Anxiety | Depression |
| | | Improvement | Improvement |
| | | Rate | Rate |
|---|---|---|---|
| EAP Model | EAP-3 | 86.7% | 67.9% |
| | EAP-4 | 71.6% | 75.2% |
| | EAP-5 | 72.7% | 74.2% |
| | EAP-6 | 85.8% | 72.0% |
| | EAP-7 | 69.8% | 64.8% |
| | EAP-8 | 78.7% | 74.9% |

**Summary**

The results of the analyses for the research questions posed in the current study revealed TPC ratings are variable across the different EAP Session Models. Additionally, while exploring TPC across Session Models, most participants were categorized as Improved on TPC regardless of session model. EAP Session Model 6 had the greatest percentage of participants rated as Resolved. When evaluating TPC across completed session models, the analysis revealed a significant yet weak association between TPC resolved ratings, and session model completion (completed or did not complete session model). Most participants in the study did not complete their entire session model. However, when reviewing the "resolved" TPC rating, participants who completed their entire session model had higher rates of resolving their issue compared to participants who did not complete their entire session model. In addition, participants who had a diagnosis of depression and completed their session model were more likely to resolve

their issue compared to participants who had a diagnosis of anxiety and completed their entire session model.

There was a relationship found between diagnosis, EAP Session Model, and TPC, which indicated that across all session models and both diagnoses, most participants were rated as Improved, and Session Model 3 for anxiety had the greatest number of participants having a TPC rating of Improved. When looking at the entire sample, the majority of participants in the study were categorized as improved, and most participants did not complete their entire session model. The results overall indicated that TPC ratings of participants who had a diagnosis of depression or anxiety were Improved at their last attended session. Additionally, three was an association found for participants with a depression diagnosis to have lower improvement rates across EAP Session Models compared to participants who were in the anxiety diagnosis category (Table 14). However, more participants with a diagnosis of depression received TPC rating of resolved than did participants who had anxiety. The results varied as to which session model was most effective.

**Chapter Five: Discussion**

The prevalence of organizations utilizing and investing in EAP services for their employees has grown steadily since the development of the early EAP in the 1980s (Lawrence, Boxer, & Tarakeshwar, 2002; Richmond, Shepherd, Pampel, Wood, & Reimann, 2014). Currently, EAP companies purchase EAP session models with little empirical research to indicate which model is best or even which models are beneficial for client mental health outcomes, and whether employees' mental health symptoms are improving (Richmond, Pampel, Wood, & Nunes, 2017). Given that EAPs are so prevalent in today's workplace, it is prudent that research on the effectiveness of their services be examined. The current study explored treatment outcomes for participants who had anxiety and depression in a session-limited EAP setting. Outcomes for the completion of session models were also explored. This study suggests that employees who have anxiety or depression and who participate in EAP therapy improve their symptoms as rated by the therapist. This study also found that those who completed their session model had higher rates of resolving their issue as perceived by their therapist than those who did not complete their session model. This chapter discusses the implications of outcomes for session-limited models and completion of session models, for anxiety and depression in an EAP setting. Additionally, the limitations and recommendations for future research are discussed.

**Specific Findings and Implications**

This study contributed to the research on the effectiveness of EAPs by investigating the relationships between treatment outcomes (TPC ratings) for the specific diagnoses of anxiety and depression, gender, sessions allowed and used by participants, and whether session models were completed by participants. While there is a body of research investigating the benefits of productivity, utilization rates, and absenteeism, in EAP settings, there is no research on therapy outcomes for session limited models in an EAP setting that specifically explores anxiety and depression, and none that examines anxiety and depression treatment outcomes using TPC across session-limited therapy models and completion rates. In this study, statistical support was found for all five research questions, although associations were weak for Questions One through four.

**Session Models and Session Completion.** Results of Chi-Square analysis revealed EAP session Models 5 and 6 were most utilized. While most participants did not complete their entire session model, Session Model 3 had the largest percentage of participants to complete their entire session model, with a trend for session model completion to decrease as EAP Session Models increased. The implications of these results suggest that the majority of the participants in the study improved with fewer sessions. In applying these findings to the EAP setting, employers who purchase EAP models are more informed as to which session model may be most cost effective and beneficial to their employees who have diagnoses of anxiety or depression. For example, based on the results of the current study companies in industries that are known to have employees with high incidences of anxiety or depression may decide they benefit more from purchasing an EAP session model with fewer sessions rather than more sessions.

In the current study, participants who did complete their entire session model had a greater chance being rated at Resolved on the TPC compared to those who did not complete their session model. The implications here are that in EAP settings, employers and EAP providers can provide more education to employees about how they may best resolve their presenting issue. EAP providers and employers can inform employees who experience anxiety or depression that while they are still more likely than not to improve their symptoms by attending EAP therapy (even without completing their entire session model), employees may be more likely to resolve their issue if they complete their session model. Past research has shown that EAP services have resulted in reduction of symptoms for employees, and cost savings for companies in regards to reduced absenteeism, and increased work productivity (Akabas & Kurzman, 2005; Kurzman, 2013; Pollack et al., 2010). The results of the current study could therefore provide additional information and some confidence to employers and employees as to the benefits of brief treatment and completing the sessions allotted.

Further, the results of the current study found that therapists rated most participants as improved regardless of which session model they were assigned to. In the current study, most participants did not complete their entire session model, yet most TPC ratings fell into the improved category. This is consistent with past literature that found that therapy clients can withdrawal early from treatment for a variety of reasons and it is not necessarily an indication that clients have not improved. Additionally, literature has found that positive effects for patients occur even when they have terminated from therapy early or have dropped out of therapy (Barkham, 1989; Hunt & Andrews, 1992; Ogrodniczkuk, Joyce, & Piper, 2005).  Research has indicated that

change can occur in as little as one session and as many as 18 sessions (Hansen, Lambert, & Drexel, 2002; Hindo & González-Prendes, 2011). In the current study, most participants did not complete their session model, however the majority of participants were rated as improved. The literature is mixed here, some indicating patients who had early improvement in panic disorder symptoms were also more likely to complete all 11 sessions (Lutz et al., 2014). Instead, researchers have concluded that there is not one session length that works for every person, instead session length should be determined on a case-by-case basis (Falkenstrom et al., 2016). Other research has indicated the opposite, that early response to treatment is more closely related to fewer sessions received (Haas et al., 2002; Lutz et al., 2014). In the current study, it is not known why participants did not complete their entire session model, and this would be an area that future research could explore.

**Gender.** Statistical analysis revealed that females were overrepresented in the data. The overrepresentation of females in the current study is consistent with past literature that found that in EAP outcome research, women have generally been overrepresented in EAP caseloads (Spetch, Howland, & Lowman, 2011). In addition, prior EAP research has reported that employees who do use EAP services are more likely to be female, have higher educational attainment, work at smaller companies, work at companies where the management is seen as trustworthy by its employees, and are more likely to work in a helping profession such as medical or health care providers or counselors (Attridge et al., 2009).

**Therapist Perspective of Change, and Diagnosis.** For both depression and anxiety groups, more participants were rated in the improved TPC category than any

other TPC rating. This was consistent regardless of their session model. These results suggest that EAP interventions are effective, and that length of session model may not be as important as other variables such as whether an employee chooses to engage in treatment. This may also be reflective of past research that has found that therapists tend to over-rate their competence when compared to expert ratings of their therapeutic skill (Brosan, Reynolds, & Moore, 2008). In other works, it is impossible to rule out therapist bias in the selection of a TPC category. For participants who had anxiety and who had TPC ratings of resolving their issue, the largest percentage of participants were in Session Model 6. For participants who had depression and TPC ratings of resolved, the greatest percentage of participants were in Session Model 3 with Session Model 6 closely following. For both anxiety and depression participants, most did not complete their entire session model and a slightly greater percentage of the depression group completed their session model compared to participants with anxiety. However, for both anxiety and depression groups, participants who completed their entire session model had higher rates of resolving their issue based on therapist ratings compared to participants who did not complete their entire session model. Interestingly, 14.2% of participants who had a diagnosis of depression and completed their session model also resolved their issue, while 12% of participants who had a diagnosis of anxiety and completed their entire session model resolved their issue.

When improvement rate was assessed (improved and resolved TPC ratings), participants who had depression had a lower rate of improvement than did those who had anxiety. Overall, the results of the analyses consistently indicate that the majority of participants who engaged in the EAP treatment were rated by their therapists as

Improved. These results are consistent with past research that finds that therapy is effective for anxiety and depression over a range of sessions completed (Hindo & González-Prendes, 2011; Maljanen et al., 2012). It is possible that this result may be due to the use of TPC as an outcome variable. Research has reported there may be bias in providers using TPC as an outcome rating, and that therapists may have their own motivations for rating their clients as improved (Lambert, 2004). In the case of this study, therapists were required to rate TPC on the receipt for billing. There was no requirement that clients improve their symptoms in order for therapists to be paid; nevertheless, therapists may have felt influenced to show progress in their work with clients which could have biased their impressions of their TPC ratings.

**Implications for EAP Providers, Utilizers, and Purchasers**

The results of the current study could be used to inform providers of EAP services, and purchasers and utilizers of EAP services. The results indicate that therapists rated their participants as improved regardless of which session model they were assigned. It also found that most participants who resolved their issue also completed their entire session model, however even when participants did not complete their entire session model, they improved. This was true for participants who had a diagnosis of anxiety and those who had a diagnosis of depression. EAP service providers can use these results with some confidence when picking an EAP Model since several different models seem to be fairly effective. Although in this study there is no clear understanding of which model is best, the results indicate that brief treatment can have a significant impact on treatment outcomes.

The implications for purchasers of EAP session models is that these companies can see that the majority of participants in the current study who had anxiety and depression had symptoms that improved based on their therapist's ratings. The results suggest that anxiety and depression can be effectively treated in EAP and in brief treatment settings. While EAPs provide treatment for a variety of diagnoses, purchasers can be more informed about purchasing session models for their employees who may have anxiety and depression issues. This is significant because a large proportion of the workforce struggle with anxiety and depression. Past research reported that approximately 80% of state employees screened positive for depression (Richmond et al., 2014), and in 2005 anxiety was identified as being the most common mental illness in the United States (Kessler, Chiu, Demler, & Walters, 2005).

As for the implications for EAP clients, those who have symptoms related to anxiety or depression could have additional confidence that their symptoms may improve in as few as three sessions and as many as eight sessions. Results of the current study showed that participants who completed their entire session model regardless of which Session Model they were assigned were rated as improved by their therapist. Literature has shown that employees who utilize EAPs show improvements in mental distress (Richmond et al., 2014). Overall, based on the current study EAP clients are likely to benefit from simply engaging in EAP treatment.

## Limitations

There are several limitations to the current study. First, the sampling procedure is a limitation to the current study. By nature of using archival data, it was not possible to randomly assign clients to groups. Using participants from a large sample allows the

researcher to compare clients on the variables of diagnoses, number of sessions completed, and entire session model completed or entire session model not completed. Large samples do not eliminate the control gained by random assignment, yet it can provide additional confidence in research results.

Another limitation to the current study involves omission bias. The archival data collected for this study did not include several variables including ethnicity, age, and level of distress. Therefore, it is not possible to know if there are therapy outcome differences based on these or other variables. Another limitation is that depression and anxiety categories included a wide number of different diagnoses. It is therefore, not possible to distinguish whether specific diagnoses responded more positively to treatment.

As in many outcome research studies, it is difficult to account for dropout. It may be the case that some clients dropped out early, while others completed all sessions available to them. Although this study is able to track whether a client did not complete his or her session model, the reason for a client dropping out (not including those whose problems were resolved) are unknown. Past research has discussed that individuals who stop attending therapy may do so because they are dissatisfied with the treatment, however clients also drop out when they are feeling an improvement in their symptoms (Lutz et al., 2014). Reasons for leaving therapy is a beneficial variable to study in the future, especially given the large number of clients who did not complete their session model. Other variables such as client engagement in the therapy process could be another important area to explore. Information about how the client connected with the therapist is not known. It is also possible that some therapists were more effective than others, or

that some therapists believed that some models were better than others. This information also cannot be assessed from these data and may have provided additional depth in considering these results.

Using archival data is a limitation of this study. There are benefits to using archival data in research. Archival data is typically lower in cost, is a faster method, and allows for comparisons over time compared to other forms of data collection. Archival data can offer a rich source of information, especially if there is a large sample. Some of the difficulties with archival data are that the researcher is limited to the questions that were asked by the collection source and by the measures that were administered. In the current study, the researcher had no control over how data were collected. For example, each individual therapist reported information on the variables being investigated. Because each therapist reported his or her own client information, it is unclear how consistent and accurate was the reporting. The potential bias by therapists in rating their clients' improvement may be a limitation. Therapists are paid by the EAP regardless of whether their clients improve or not. However, there is a chance that therapists may inaccurately label clients as improved as a result of wanting to be seen as effective. The bias of "looking good" was potentially attenuated by the credentials of the therapists who were all assessed by the EAP as qualified and experienced.

## Future Research

The results of this study revealed several implications for future research. Future research should utilize standardized and well-validated measures to assess therapy outcomes. Additionally, future research should work to make the results more generalizable by collecting diverse information on the participants included in the study.

It would be important to collect information on demographics such as gender (that should be more inclusive than simply male and female categories), age, and ethnicity. Collecting information on the industry where the employee works would provide rich information that could help to identify trends for diagnoses in different industries. Additionally, future research would benefit from looking at specific diagnoses for a more fine-tuned understanding of what types of problems will benefit from what types of treatment.

### Conclusion

EAP companies are a growing industry that serves a large portion of the U.S. population. Companies purchase EAP services for their employees with little understanding of which session-model would be most cost-effective and beneficial to their employers. There is little research on EAP session models and the specific diagnoses of anxiety and depression, and no other studies have examined session model completion using TPC as an outcome measure. The current exploratory study suggests that the majority of participants who have anxiety and depression do improve even with three to eight sessions as rated by their therapist. Those who were rated as having resolved their problem area were more likely to have completed their session model, however most participants did not complete their entire session model. The most utilized Session Model was Session Model 5, although it is not clear why this model is more popular for those who purchase EAP services. The percentage of those clients who were rated as Resolved by their therapist were in Session Model 6 although it was reassuring that most participants improved regardless of session model.

This study was an exploration of TPC outcome ratings, EAP session-models, completion of session models, and anxiety and depression diagnoses. Future research

should expand on the current study by using more validated outcome measures that include both the therapist and the client, collect more demographic information to help make results more generalizable, and include a wider number of problem areas that are more specific than those selected for this study.

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