

**THE IMPACT EMPLOYEE GENDER, MENTAL HEALTH DIAGNOSIS, AND  
SUPERVISOR INVOLVEMENT HAS ON AN INDIVIDUAL'S ABILITY TO RETURN  
TO WORK**

by

Elizabeth R. Scott

TODD HALE, PhD, Faculty Mentor and Chair

BRIGIT OLSEN, PhD, Committee Member

ELENI PINNOW, PhD, Committee Member

LYNDA CABLE, PhD, School Reviewer

Elizabeth Riley, PhD, Dean of Psychology

Harold Abel School of Psychology

A Dissertation Presented in Partial Fulfillment

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## Abstract

The purpose of the study was to determine if the variables of workplace stakeholders of either supervisors or human resources, gender, or type of mental health condition may influence return to work from a mental health disability. The study is important as the human and financial cost of absence is high for both employers and employees. There are many workplace and social implications to mental health absences. The research questions were established to examine if the independent variables made a statistically significant difference in the dependent variable of time lost from work following a mental health disability. Is there a statistically significant difference in the dependent variable of the return to work duration of employees following a mental health absence when workplace stakeholders, gender, and mental health condition are taken into consideration? The research methodology used for the study was a quantitative, non-experimental, ex post-facto approach. Aggregate records with no identification were made available by a third-party disability management firm. The sample includes the archived records of working individuals in Canadian workplaces that had a mental health disability claim resulting in lost time and a return to work. The population was from private sector workplaces and within the working-age category of 18 to 65 years old. Short term disability claims have a start date of five days and a maximum of 182 days. A three-way ANOVA was used to analyze the data in SPSS. The study's findings indicate that supervisor involvement has a statistically significant difference, demonstrating lower days lost on a mental health claim. The type of mental health claim, gender, a combination of the independent variables were not found to be significant. This study provides evidence of the necessity to continue to research and explore ways to determine variables that may influence return to work from mental health conditions.

## **Dedication**

It has been a true privilege and honor to have the support and understanding of my family, friends, and colleagues throughout this journey. The values and beliefs instilled by my parents provide me determination, drive, and respect for education. My children and grandchildren are a constant source of joy. I am grateful for every moment we get to spend together and every experience we share. My brother and our extended family provides support, encouragement, laughter, and fabulous travel memories. I appreciate that my life has been full of so many memorable experiences that we shall all treasure forever. To my friends that are family you are super stars and every moment is valued. To my husband. It has been an amazing ride so far. It is wonderful to have found someone with which to share this journey. Finally, thanks to my colleagues many that feel like family. Where do I start, I appreciate, respect, thank, revere, and celebrate every day we get to work together. Problem solving, commitment, and positivity propel us forward. Thank you for your support and ongoing belief in our company vision.

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## CHAPTER 1. INTRODUCTION

Return to work, which is a metric of the duration of lost time following an absence due to mental health, is an emerging area of concern for workplaces (Dewa et al., 2016; Lau et al., 2019). The human and financial cost of workplace absences creates a strong rationale for this study. The purpose of the study is to determine if the variables of workplace stakeholders, gender, or type of mental health condition that may influence return to work. Chapter one will include information surrounding the background of the problem, overview of the topic, need for the study, purpose and significance of the study, research questions with definitions of terms, and the research design, including assumptions and limitations. The researcher is highly involved in the topic area and has practiced in the disability management and return to work profession for more than 25 years. Bandura's (1977) social cognitive theory, particularly self-efficacy, will be the study's theoretical underpinnings. The literature support for the topic, method, research design will be summarized. The literature gaps will be identified. The topic of mental health return to work has a significant allure to the broader workplace community and professionals in industrial and organizational psychology (Corbière et al., 2019). Research questions will be presented and the terms defined. Chapter one will clearly summarize the study and provide the sequence of future chapters.

### Background of the Problem

Return to work following a mental health disability is an important topic for employers and society. The human and financial cost of not being at work is significant (Dismuke & Egede, 2015; Etuknwa et al., 2019; Gaspar et al., 2018; Lau et al., 2019; Sallis & Birkin, 2014). Work

holds a high value in society, and individuals without a job often struggle in many dimensions of their lives (Bowling, 1995; Damij et al., 2015; Saunders & Nedelec, 2014). The research area of workplace disability management has been emerging and evolving for dozens of years (Dyck, 2020; Lefever et al., 2018).

Corporations view support for employees with mental health conditions as an emerging priority (Coduti et al., 2016; Considine et al., 2017). The significance of employers' financial impact ranges from absence payments, replacement workers, and training or retraining cost (Black et al., 2017; Mustard et al., 2017; Schneider et al., 2016; Volker et al., 2017; Wærsted et al., 2010). The research literature on return to work indicates that we know employee self-efficacy is an essential component in return to work, and we know the workplace needs to be involved in the process (Corbière et al., 2017, 2019; Lagerveld et al., 2017). However, it is not known if supervisor involvement in return to work planning enhances employee return to work success following a mental health disability (Kärkkäinen et al., 2018; Shaw et al., 2003). By identifying the most important variables in an early and safe return to work, workplaces will be able to incorporate these considerations into the return to work planning for mental health conditions (Boot et al., 2014).

Dewa et al. (2016) produced a systematic review of current studies that have examined return to work from mental health conditions. The three identified best practices include well-defined workplace policy, regular communication with the worker while off work, and a return to work coordinator (Dewa et al., 2016). The systematic review did identify the need for roles and responsibilities to be outlined during the return to work plan and the need for a supportive environment (Dewa et al., 2016). It was clear that a missing component is involvement by the supervisor to support the returning worker. Some studies state that the supervisor is the last to

know, lacking communication from the case manager or human resources (Brijnath et al., 2014; Dunstan et al., 2015; Dunstan & MacEachen, 2013; Jetha et al., 2016, 2018). There is currently a clear gap in the research surrounding the relationship of supervisor participation during the mental health return to work process.

The management of the duration of lost time from mental health conditions is an essential concern for corporations (Dewa et al., 2016; Mustard et al., 2017). Mental health conditions should not preclude attendance at work if the individual is able to perform their job within the company, yet this is often the outcome (Amick et al., 2017). The human and financial cost of disability attracts attention from workplaces, third party disability management firms, disability insurers, health care practitioners, and the affected employee (Claréus & Renström, 2019; Geisen et al., 2019; K. Nielsen et al., 2018; Porter et al., 2018). When an individual has a mental health condition, work, absence, and recovery are a delicate balance (Coduti et al., 2016; Kouvonen et al., 2016; Young & Choi, 2016). If the return to work is done correctly with the support of the workplace, there can be a positive impact on the employee and the workplace (K. Nielsen et al., 2018; Porter et al., 2018). If the return to work is done prior to recovery and stabilization of the mental health condition, or without a plan, there is a risk of recurrence and negative experiences (Cullen et al., 2018; Franche & Krause, 2002; Jetha et al., 2018; Nevala et al., 2015; Selander et al., 2015). Negative experiences can have a detrimental influence on future success (Bandura, 1988; Benight & Bandura, 2004).

There are many other variables to consider in the duration of absence and return to work from a mental health condition; only a subset of those will be addressed in the study. The variables that will be considered in this study include the dependent variable of the duration of time off and the independent variables of stakeholder, gender, and the type of mental health

condition. Bandura's social cognitive theory, specifically self-efficacy, will be used in the study (Bandura, 1977, 1988; Benight & Bandura, 2004). It is known that employee self-efficacy significantly influences return to work (Blank et al., 2008; Gaspar et al., 2018; Lagerveld et al., 2017; Volker et al., 2017). The variable of workplace stakeholder involvement ties to the self-efficacy theory. It has been stated that self-efficacy can be positively influenced by those an individual follows or respects (Black et al., 2017; Waynor et al., 2016). This quantitative research study will assist in advancing knowledge, theory, and conversation in the area of return to work following a mental health disability (Higgins et al., 2015; Schneider et al., 2016; Shankar et al., 2014; Skarpaas et al., 2019; Young et al., 2017). The next few paragraphs will provide a statement of the problem, a discussion of the background, and emerging studies in the return to work field.

### **Statement of the Problem**

The problem is that little is known on how to reduce the duration of lost time following a mental health disability. The disability management literature indicates self-efficacy can significantly impact return to work (Bandura, 1977; Benight & Bandura, 2004; Brouwer et al., 2015; Corbière et al., 2017; Dewa et al., 2016; Lagerveld et al., 2017; Waynor et al., 2016). The research pertaining to diagnosis other than mental health, such as musculoskeletal conditions, supports that if an individual believes they will return to work, they do (Black et al., 2017; Lagerveld et al., 2017; Volker et al., 2017; Waynor et al., 2016; Wilski & Tasiemski, 2016). In the management of early and safe return to work following a disability claim, self-concept, self-esteem, self-presentation, and self-efficacy, are all fundamental concepts (Bandura, 1977; Kassin, 2014; Volker et al., 2017). Workplace programs have been highlighted in the literature

(Cullen et al., 2018). Personal factors such as gender and type of mental health condition are important considerations (Etuknwa et al., 2019).

A summary of the research problem background, and the critical literature, uncovered thus far demonstrates a building of research in the area of return to work following disability (Andersen et al., 2014; Kausto et al., 2017; Momsen et al., 2016; Sapani, 2015; Saunders & Nedelec, 2014; Vargas-Prada et al., 2016). The existing studies can be put into three main categories; employee attitudes including self-efficacy (Bandura, 1977; Brouwer et al., 2015; Corbière et al., 2017; Momsen et al., 2016), workplace programs including stakeholder involvement (Bagger & Li, 2014; Corbière et al., 2019; Kärkkäinen et al., 2018; Kristman et al., 2017), and personal predictive factors (Eguchi et al., 2017; Ervasti et al., 2017; Etuknwa et al., 2019; Franche & Krause, 2002; Mikkelsen & Rosholm, 2018). The researchers each acknowledge that more work is required to determine best practices for mental health return to work (Andersen et al., 2014; Kausto et al., 2017; Kristman et al., 2017; Saunders et al., 2015; Vermeulen et al., 2011; Victor et al., 2016). The studies on disability management and return to work specific to mental health are slowly emerging (Dewa et al., 2016). The focus on the importance of mental health claims in workplaces is clear (Corbière et al., 2017; Johnston et al., 2015; Netterstrøm et al., 2015; Ståhl & Edvardsson Stiwne, 2014; Volker et al., 2017). The study's goal is to provide employers, employees, and case managers, with an understanding of factors that can contribute to successful mental health return to work outcomes. There is a gap in the existing literature as it pertains to factors that contribute to mental health return to work, particularly as it pertains to workplace party involvement.

As mental health has emerged as a concern for workplaces and their employees, the exploration of the topic of return to work has become essential. Workplaces have had effective

return to work process in place for musculoskeletal and other conditions for quite some time (Amick et al., 2017; Brouwer et al., 2015; Cullen et al., 2018; Halonen et al., 2016; Lane et al., 2018; Macpherson et al., 2018). It is vital to assist in the determination of strategies for mental health claims.

Bandura's theory of self-efficacy has been used in return to work studies in the past and is a good fit to assist in understanding the challenges of mental health return to work (Bandura, 1977,1988; Benight & Bandura, 2004; Brouwer et al., 2015; Lagerveld et al., 2017; Waynor et al., 2016). The theoretical implications provide an opportunity to extend Bandura's model of self-efficacy (Bandura, 1988). It is accepted in the research community that the employee's self-efficacy is vital to return to work (Bandura, 1977; Kassin, 2014; Lagerveld et al., 2017). The supervisor's support and involvement may enhance the employee's self-efficacy. The premise of this research is that having the supervisor involved in the return to work may strengthen self-efficacy and result in shorter time off (Bandura, 1988). It is known that self-efficacy is strengthened with verbal persuasion by someone the employee trust and regards as competent (Stajkovic & Luthans, 1998). The research study will isolate the positive cognitive impact of supervisor involvement in the return to work planning process during the employee's reintegration into the workplace. The application of self-efficacy to mental health return to work will broaden the application of the social cognitive theory (Bandura, 1977; Dewa et al., 2016).

The study has a specific purpose of enhancing the understanding of factors that may influence successful mental health disability return to work.

### **Purpose of the Study**

The purpose of the study is to determine if the involvement of the supervisor in return to work plan will result in a prompt return to work of workers that were off due to a mental health



condition. The return to work involvement will be considered successful if the duration of claims with supervisor involvement is lower than those that had human resources involvement in the return to work. The dependent variable is the mental health disability claim lost time duration from the date first off up until return to work date. The three independent variables that were analyzed for statistical significance are; stakeholder involvement, gender, and type of mental health condition. The stakeholders that were considered are the supervisor or human resources, the gender is men or women, and the mental health conditions were being contained to depression, anxiety, and others. Severe mental health conditions such as schizophrenia and post-traumatic stress disorder were excluded from the study. While a return to work is important for all mental health conditions, the treatment and etiology of severe conditions may prolong return to work (Valiente et al., 2019). Treatment protocols were not a consideration in this study.

Work has been cited as essential to health and economic survival (Damij et al., 2015). Therefore, the ability to successfully return to work is highly valued. Being off work can profoundly impact individuals and their families, both economically and socially (Bowling, 1995; Budd & Spencer, 2015; Kvam et al., 2015; Rydström et al., 2017; Saunders & Nedelec, 2014). Corporations require staff to perform the work, thus creating the ability to fulfill customer commitments and maintain business viability (Considine et al., 2017). Having highly trained and skilled workers off work negatively affects workplaces (Dewa et al., 2016).

There is some research emerging on the importance of understanding mental health and how to assist with return to work (Dewa et al., 2016). The researchers openly state more research is required to assist in the area of mental health return to work (Dewa et al., 2016; Kouvonen et al., 2016; Netterstrøm et al., 2015; Salkever et al., 2003; Sapani, 2015; Victor et al., 2016). The research tends to focus on diagnosis, treatment, employee attitudes, workplace programs, and

personal factors (Dewa et al., 2016; Gaspar et al., 2018; Vargas-Prada et al., 2016). There is a gap in exploring the supervisor's role or influence of self-efficacy on the ultimate return to work (Corbière et al., 2017; Dewa et al., 2016). Although some studies are starting to address this topic area, there is still much work to be done (Dewa et al., 2016; Lancman et al., 2017; K. Nielsen et al., 2018).

A limitation to consider in this line of inquiry is that there are no known controls on the type of supervisor involvement. If there is some evidence the supervisor can make a difference, it will be important to know how best to support employees in their return to work (Halonen et al., 2016; Johnston et al., 2015; A. Martin et al., 2016, 2018). It is not known if the training of supervisors has taken place in any of the workplaces involved in the study. Martin et al. (2018) discuss that if managers understood mental health, they could assist in creating a psychologically healthy environment. Successful supervisors should have the knowledge, skill, and ability surrounding mental health and how to empathetically support an employee with mental health concerns (Johnston et al., 2015; A. Martin et al., 2018). Supervisors may need training and support on methods to support their workers and enhance self-efficacy (Johnston et al., 2015; Kärkkäinen et al., 2018; A. Martin et al., 2018). The study will have significance in workplaces and for those involved in the disability management process.

### **Significance of the Study**

The study is significant for workplaces, employees with mental health absences, third party disability administrators, and practitioners in the field. In addition to this directly affected group that will use the knowledge to create a better return to work trajectory, others have an interest in this study. These would undoubtedly include within the workplace co-workers, union representatives, human resources, and other management participants (Dunstan et al., 2015;

Dunstan & MacEachen, 2013). It is understood that co-workers can have a positive role in a successful return to work following a mental health absence (Dunstan et al., 2015; Dunstan & MacEachen, 2013). They can equally have a negative impact on return to work (Dunstan et al., 2015; Dunstan & MacEachen, 2013). There needs to be an understanding that the returning employee will not create a burden in the workplace (Dunstan & MacEachen, 2013). Several researchers have found co-worker attitudes and support were central to a successful return to work (Buys et al., 2017; Cancelliere et al., 2016; Catalina-Romero et al., 2015; Etuknwa et al., 2019; Galizzi et al., 2016). Research studies highlight the fact that work is a social system, and the positive or negative roles of co-workers need to be considered in the return to work process (Jetha et al., 2016; Rydström et al., 2017). There is a high probability that if co-workers are involved in the return to work planning, they will be more receptive to the returning employee (Jetha et al., 2018). Co-workers can also play a part in supporting or enhancing the returning workers self-efficacy and sense of belonging (Choi et al., 2016; Coduti et al., 2016; Eguchi et al., 2017; Lancman et al., 2017).

Family and friends would also be interested in ensuring a successful return to work following a mental health absence (Prang et al., 2015; Rydström et al., 2017). The impact on families of prolonged or protracted absences is significant from a financial and emotional perspective (Bagger & Li, 2014; Dismuke & Egede, 2015; Prang et al., 2015). It has been demonstrated that social support can positively affect return to work (Catalina-Romero et al., 2015; Gragnano et al., 2018; Nigatu et al., 2017; Prang et al., 2015).

The study is valuable for the industrial and organizational psychologists who practice in workplaces. It will help to expand the understanding of variables that may influence return to work (Coduti et al., 2016, 2016; Vargas-Prada et al., 2016). The study is not focused on

treatment modalities or the physician health care community. However, a consideration in return to work is the unfortunate over-medicalization by the healthcare community (Bertilsson et al., 2018; Mazza et al., 2019). This practice within the medical community remains a concern in disability claims (Horppu et al., 2016; Mazza et al., 2019; van Beurden et al., 2015; Wilski & Tasiemski, 2016). This study's findings may create a comfort level for the health care practitioners, that workplaces have evidence-based programs in place when recommending a return to work (Bertilsson et al., 2018; Dekkers-Sánchez et al., 2013; Vossen et al., 2017). It is vital for all stakeholders to be working together to enhance the potential of a return to work (Corbière et al., 2019; Vossen et al., 2017).

The field of mental health disability and return to work continues to emerge. Colleagues that study in this area continue to seek answers. In the most recent literature, recommendations for future research continue to encourage further exploration of variables that may enhance early and safe return to work following a mental health absence (Amick et al., 2017; Dewa et al., 2016; Nigatu et al., 2017). Nielsen et al. (2018) recommended an additional focus on developing resources across work and non-work domains to create a successful and sustainable return to work from mental health conditions. The goal is to minimize the individual and societal costs of those dropping out of the labor market (Nielsen et al., 2018). Porter et al. (2018) discuss the importance of understanding roles and critical success factors in return to work. The importance of hope, attitudes, and a person-centered approach emphasizes the fit with social cognitive theory (Lammerts, Schaafsma, van Mechelen, et al., 2016; Porter et al., 2018). Lancman et al. (2017) provide an interesting conclusion surrounding the need to further explore the supervisor and co-worker social relationship. There has been some evidence that poor relationships at the workplace can impede return to work (Lancman et al., 2017). The topic of workplace issues has

also been studied and noted as a critical contributor to time off (Coduti et al., 2016; Rydström et al., 2017; Shaw et al., 2003). There is evidence that returning to work has a positive influence on a worker's mental state (Kendrick et al., 2017). A need exist to continue to determine the best practices for return to work and reintegration (Cancelliere et al., 2016; Dewa et al., 2016; Lammerts, Schaafsma, van Mechelen, et al., 2016). The research questions have been carefully designed and will be laid out in the below paragraph.

### **Research Questions**

The study had a total of seven research questions. The questions are established to examine if the independent variables make a significance difference in the dependent variable of time lost from work following a mental health disability. Is there a statistically significant difference in the dependent variable of the return to work duration of employees following a mental health absence when workplace stakeholders, gender, and mental health conditions are considered?

#### **Research Question 1**

When the variables of gender and mental health diagnosis are held constant, will there be a statistically significant difference in the average number of days lost due to the variable of stakeholder involvement?

#### **Research Question 2**

When the variables of stakeholder involvement and mental health diagnosis are held constant, will there be a statistically significant difference in the average number of days lost due to the variable of gender?

### **Research Question 3**

When the variables of gender and stakeholder are held constant, will there be a statistically significant difference in the average number of days lost due to the variable of mental health diagnosis?

### **Research Question 4**

When the variables of mental health diagnoses are held constant, will there be a statistically significant difference in the average number of days lost due to the two-way interaction of stakeholder and gender?

### **Research Question 5**

When the variables of gender are held constant, will there be a statistically significant difference in the average number of days lost due to the two-way interaction of stakeholder and mental health diagnosis?

### **Research Question 6**

When the variables of stakeholder involvement are held constant, will there be a statistically significant difference in the average number of days lost due to the two-way interaction of gender and mental health diagnosis?

### **Research Question 7**

Will there be a statistically significant difference in the average number of days lost due to the three-way interaction of stakeholder involvement, gender, and mental health diagnosis?

When exploring the research questions, it is essential to understand the terms used in the research (Leedy & Ormrod, 2016).

## **Definition of Terms**

The study's terms and constructs in this study include: return to work, workplace stakeholder, gender, and type of mental health diagnosis. The operational definition laid out the method each of the variables was set up for adequate measurement. These definitions assist the readers in understanding the procedure for measuring the dependent and independent variables.

### ***Construct 1 – Gender***

Gender was an independent variable. In this study, gender is an adjective that is used to describe the gender registered by the client employer during claims submission to the third-party administrator. The researcher was not able to verify the accuracy of the identified gender. The workplace completes the demographic information on the claims submission. It is anticipated that the client is using human resource records to indicate gender (Pryzgoda & Chrisler, 2000). Any selection of other was excluded from the data. The operational definition in measuring this independent variable, gender, was categorized in the following categories women or men. It is common for gender to be categorized in this manner (Nigatu et al., 2017). It is felt that others would not be a significant category, so it is excluded from the data set for this study (Alves, 2015; Koopmans et al., 2010). Previous research has shown gender as a significant variable in the duration of mental health absences (Koopmans et al., 2010; Salkever et al., 2003).

### ***Construct 2 - Return to Work***

Return to work within this study refers to return to the workplace following a mental health disability. The metric was the duration of lost time in calendar days from the first date off to the return to work date. The dependent variable of days off until return to work is the key to this study. It is important to recognize a disability management programs' goal is an early and safe return to work (Cancelliere et al., 2016; Johnston et al., 2015; Netterstrøm et al., 2015; Ståhl

& Edvardsson Stiwne, 2014; Volker et al., 2015). Only mental health absences over five calendar days and under 182 days prior to return to work were included. Therefore, only cases in the short term disability period were included in the study. The researcher had the disability start date and the date of return to work. Return to work could be full duties, modified duties, or modified hours. Only cases that had a return to work date were included in the data set. The operational definition is the number of calendar days off until return to work following a mental health absence. Operationally, return to work, within this study, was measured by the duration of time off work in calendar days prior to the return to the pre-illness workplace (Cancelliere et al., 2016; Gragnano et al., 2018; Johnston et al., 2015; Ståhl & Edvardsson Stiwne, 2014; Volker et al., 2015). Calendar days are an essential distinction; business days could lead to a significantly different result. The maximum amount of time off would be 17 weeks (182 days), given the data was only be short term disability plan data. In a continuous interval scale, calendar days from 0 days to 182 days (17 weeks) were recorded (Warner, 2012).

### ***Construct 3 – Stakeholders***

Stakeholder involvement is an independent variable in the study. The stakeholder was either the Supervisor or Human Resources. The participation of workplace stakeholder parties has been examined in musculoskeletal claims, but the current literature does not closely examine mental health claims (Amick et al., 2017). Supervisor involvement has been shown to assist in the enhancement of employee self-efficacy and resultant shorter durations in musculoskeletal claims (Bandura, 1977; Lagerveld et al., 2017; Stajkovic & Luthans, 1998). A supervisor was defined as the employee's direct supervisor that they report to on a regular basis in the performance of their work. The data had a supervisor or human resources, one or the other participant, but not both. Operationally, for the purpose of this study, the two workplace



stakeholders were supervisors or human resources. The roles were as per the definition deemed by the workplace. Return to work has been examined in musculoskeletal claims but very little exist for mental health claims (Amick et al., 2017; Durand et al., 2017; Johansson et al., 2016; Johnston et al., 2015; Lemieux et al., 2011). This independent variable was measured with a nominal scale as a supervisor as one or Human Resources as two (Warner, 2012).

#### ***Construct 4 – Type of Mental Health Condition***

The independent variable of the type of mental health condition was identified in the data set provided to the researcher. The three categories included; depression, anxiety, or other. These are categorized according to the industrial classification of disease that is broadly used worldwide (World Health Organization, 1993). Others may include a variety of conditions, adjustment disorders, or substance abuse. The data excluded psychotic or post-traumatic stress disorders, as these conditions are significantly different from a diagnostic, treatment, and return to work perspective (Kröger et al., 2015; Victor et al., 2018). The type of mental health condition was entered into the third-party administrator's database by the disability case manager based on the attending physician's statement submitted by the employees treating physicians. The operational definition of mental health conditions was categorized based on the World Health Organization International Classification of Diagnosis (ICD-10) codes. These included; 1) depression, 2) anxiety, or 3) other (World Health Organization, 1993). Operationally, for the purpose of this study, the independent variable of the type of mental health condition was categorized based on the World Health Organization ICD-10 codes. The nominal scale included; 1) depression, 2) anxiety, or 3) other (Warner, 2012; World Health Organization, 1993). The data was in the data set provided to the researcher by the third-party administrator. Research design will be discussed in the next section.

## Research Design

The study used a non-experimental ex-post facto quantitative study method (Leedy & Ormrod, 2016). The independent variables were part of a data set from the third-party administrator and were not be manipulated (Leedy & Ormrod, 2016). There is currently very little research to examine stakeholder involvement in return to work from mental health conditions (Kouvonen et al., 2016; Kristman et al., 2017; Nevala et al., 2015). A three-way ANOVA run in SPSS was used to analyze the data (George & Mallery, 2017).

The justification for researching this gap includes; extending the knowledge for workplaces and assisting the individual back to work. The study was quantitative, non-experimental, and include anonymous records from a third party administrator's claims database. The independent variables were established and were not be manipulated in any way (Leedy & Ormrod, 2016). The exact number of records was not be known until the data was pulled. It was anticipated that at least 3,000 records would be included in the sample. The third-party administrator provided 1,188 records. Stakeholder data only included supervisors or human resources. Records with more than one stakeholder were excluded from the data set. Gender only examined men or women removing others, as the sample size of other is anticipated to be relatively low. Diagnosis included depression, anxiety, or other. A G-Power calculation indicates that 158 records were a reasonable sample size (Faul et al., 2007). A random selection program was run in excel to identify the 158 records for inclusion in the data.

The core method in a quantitative, non-experimental design method is appropriate for the study of the available dataset (Leedy & Ormrod, 2016). There is no ability to manipulate the research variables, so this study lends well to a non-experimental design (Leedy & Ormrod,

2016). ANOVA 2x2x3 methodology is a good fit as there are three independent variables to examine.

The study examines the significance of supervisor involvement in return to work planning when an individual is returning to work from a mental health disability. The sampling method is a non-probability, convenient sample. A non-probability sample concerns a group that is unique or specific about participants (Trochim & Donnelly, 2008). In this study, the archival records from a third-party administrator's database were extracted and anonymously provided to the researcher. It is an expert sample as only records that indicate a mental health disability were considered for the sample (Trochim & Donnelly, 2008).

The following procedures were put in place to address any ethical concerns related to data privacy. The data came directly from the third-party administrator in a password protected excel file with no identifiers. There were no identification numbers or individual identifiers. The institutional review board (IRB) provided approval for the study, and they indicated they did not see any challenges with this research design. Certainly, a consideration is ensuring the third party that provided the data abided by confidentiality. They did not release the records with any identifiers. The third-party administrator used a small program to extract the data to excel with data extraction parameters. This data was reviewed and uploaded to SPSS, and a quantitative three-way ANOVA was performed. In any study, it is important to explore assumptions and limitations.

### **Assumptions and Limitations**

#### **Assumptions**

It is crucial to consider research assumptions as these are essential to enhance understanding of the foundation for the research. Assumptions are elements that would be

accepted as true or at least plausible by the reader (Leedy & Ormrod, 2016). The types of assumptions that were considered in the study include the ontological, epistemological, and axiological (Leedy & Ormrod, 2016).

### ***Ontological***

Ontological assumptions consider information with a view of a current nature and assume an inevitable reality of the world (Leedy & Ormrod, 2016). The first assumption to discuss is the value of work. There is supporting literature on the concept of work being a value in society (Bowling, 1995; Budd & Spencer, 2015; Waynor et al., 2016). Work is a crucial aspect of life. Growing up, obtaining an education, and pursuing a job or career is integral to society's values (Ali et al., 2013; Thompson & Dahling, 2019). If there is no job or occupation, the risk of poverty can have many severe consequences to health, including poor mental health (Ali et al., 2013; Thompson & Dahling, 2019). There is a tremendous effort in society to assist people toward work, and those that do not work have been known to struggle financially and emotionally (Nordahl & Wells, 2019; Thompson & Dahling, 2019). Often individuals tie their value to and are judged by their work status, occupation, and career (Miscenko & Day, 2016; Thompson & Dahling, 2019). An individual's personal identity can be tied to a job and career (Miscenko & Day, 2016). In discussing a return to work following a mental health disability, consideration is given to the value and the place of work in society (Bowling, 1995; Budd & Spencer, 2015).

It is assumed that supervisors hold a critical relationship with their team or the employees they supervise (Bagger & Li, 2014). The supervisor role in the workplace has been known as essential in ensuring the productivity and motivation of the team to perform the work (Johnston et al., 2015; Kristman et al., 2017). The study does make an assumption that the supervisor has

the competency to perform their role. The records distinguished between supervisor and human resources. It is possible in some work environments that human resources hold the role of return to work (Corbière et al., 2019). This is likely an interesting dynamic in the workplace surrounding the human resources practitioner and supervisor. In some organizations, human resources were the primary participant, and others, the supervisor, was the primary contact for the employee as they return to work (James et al., 2002; Jetha et al., 2018). It is possible that some workplaces use a collaborative approach but these are excluded from the dataset.

Each workplace has its own culture that could influence the results (Buys et al., 2017). Workplace culture can vary within every organization (Buys et al., 2017; Coduti et al., 2016). The acceptance and understanding of mental health within the work environment will also be diverse in workplaces (Martin et al., 2016). There are no controls within the study to account for workplace culture, union, co-worker, or other stakeholder's interference or support.

### ***Epistemological***

There are epistemological assumptions to consider. As the knowledge in the area of return to work continues to amass, the empirical evidence starts to get incorporated into systems and processes (Dewa et al., 2016). The epistemological assumptions are created by what is known (Leedy & Ormrod, 2016). The literature and knowledge in the area of return to work are substantial, and researchers continue to examine variables to understand best practices further (Blank et al., 2008; Brouwer et al., 2015; Cancelliere et al., 2016; Cullen et al., 2018; Dewa et al., 2016). Workplace systems and the design of return to work processes are slowly integrating the empirical evidence (Dewa et al., 2016).

## *Axiology*

The other consideration is from the axiology perspective. Axiology perspectives surround awareness of values and bias. Values, ethics, and bias are built over time (Bandura, 1977). The study is highly based on objectivism. An objective understanding and interpretation of return to work self-efficacy is a driver of success (Bandura, 1988). It needs to be considered that not everyone has the same values surrounding work and work products (Peiró et al., 2020; Posner & Munson, 1979). Implementation of any workplace process could have some inconsistency if individuals or the workplace do not value return to work (Suzana & Raluca, 2019). Not everyone shares the same values, background, upbringing, or workplace mores (Rydström et al., 2017; Zoupanou & Rydstedt, 2017). The values and ethics of a number of parties need to be considered, most importantly, the company leaders and the returning employee (Rydström et al., 2017; Zoupanou & Rydstedt, 2017). It is recognized that individuals bring a set of pre-established circumstances with them that rest in beliefs, values, norms, and assumptions (Kassin, 2014; Kassin et al., 2017; Peiró et al., 2020; Rydström et al., 2017; Suzana & Raluca, 2019). The values, ethics, and accuracy of the case managers, entering the data and dates into the system to enable the calculation of durations is presumed. It is understood that the case managers' fulfill the jobs they were hired to do (MacEachen et al., 2020). The third-party administrator has indicated there is a quality assurance program in place to ensure that case managers are entering data into the system correctly. Another vital stakeholder in the return to work process is the employee's physician. Society values a physician's opinion, and it is important to bear this in mind on any return to work program (Bertilsson et al., 2018). If the physician is delaying recovery by not discussing or supporting a return to work, this could have a negative impact on reemployment (Bertilsson et al., 2018). It is documented that over-medicalization of disability

has a negative impact on recovery and return to work (Bertilsson et al., 2018; Horppu et al., 2016). These axiology perspectives are important to acknowledge throughout the study.

Quantitative research provides a reliable, objective platform. However, awareness surrounding assumptions and potential biases is considered throughout the research (Saunders et al., 2015). The application of knowledge and theory is key to industrial and organizational practices in order to create improvements in workplaces. Theory is a key aspect that can help guide the researcher to consider human behavior and its interplay within an organization (Bandura, 1988). Theory can also be instrumental by providing a platform to base the study and avoid preconceived notions, stereotypes, and assumptions (Leedy & Ormrod, 2016; Sallis & Birkin, 2014). It forces the researcher to follow a path of exploration that is vested in factual science, not opinion. It also recognizes theorists that came before us and have explored in depth the premise behind human behaviors. Learning from those who have dedicated time and energy to this exploration, and ultimately progress in understanding human behavior provides a stepping stone for further advancing science (Kanfer et al., 2017).

The area of return to work following a disability is a highly studied topic. The underlying premise and assumptions were applied to the concepts in the study.

### **Limitations**

A strength in the dissertation is the underlying knowledge level of the researcher. Given years of involvement in the corporate community, there is a desire to ensure communication of the results once complete. Scholars have an obligation to communicate results and ensure the research creates real-world change (Rossi et al., 2017). The potential to expand workplace knowledge is a definite strength of the study. The quantitative research design, the choice of self-efficacy theory, and articulation of the research questions and hypothesis will provide confidence

in the findings. In any study, it is also important to discuss limitations as they may influence the results. Limitations are elements a researcher cannot control; an acknowledgment of these limitations leads to better research (Leedy & Ormrod, 2016). There are three main limitations to consider in this study, including limited breadth of variables, unknown competency of the supervisor in the workplace, and current events' influence on future studies.

### ***Breadth of Variables***

The study only examined three variables, and there are many other variables to explore to round out the issues. Variables such as age, type of industry, benefit plan design, workplace culture, union involvement, case manager education, and other factors are not included in this study (Dewa et al., 2016; MacEachen et al., 2020). There are emerging studies on mental health that consider a wide range of variables (Blank et al., 2008; Dewa et al., 2016; Nevala et al., 2015). This study focuses on workplace stakeholders, gender, and type of mental health condition. It is recognized that other variables could also impact the lost time duration of lost time (Dewa et al., 2016; Nevala et al., 2015).

### ***Supervisor Competency***

The supervisor's competency level and their relationship skills are an important consideration in return to work planning (Jetha et al., 2018; Johnston et al., 2015; Kristman et al., 2017). Jetha et al. (2018) discuss the social system that exists in workplaces and the importance of supervisor support in a successful return to work. Durations can be influenced by stakeholder support or lack of support within the recovery and return to work period of a mental health disability (Nevala et al., 2015; Norder et al., 2017; Vargas-Prada et al., 2016). Having a policy and process in place to guide supervisors can assist in reducing inconsistencies in the application of return to work plans (Mustard et al., 2017; Skivington et al., 2016). The study is a review of



existing data, and the researcher did not have information pertaining to the competency of the workplace stakeholders or the client worksites.

### ***Current Events***

The issue of return to work has been amplified throughout COVID-19 (Ornell et al., 2020). The overlay of mental health concerns, in particular, anxiety associated with working in an enclosed environment in proximity to others, is becoming a concern (Ornell et al., 2020). Return to work following a COVID-19 related absence or isolation for any reason can add some unique mental health elements (Ornell et al., 2020; Tan et al., 2020). In the return to work field, researchers will need to add this concern to the list of items to explore in return to work planning. If the employee is returning to a work from home scenario, there are multiple mental health and social interaction considerations (MacEachen et al., 2020; Tan et al., 2020).

### **Delimitations**

Delimitations are limitations that relate to the choices made by the researcher. The potential delimitations associated with the study include the reliance on third-party administrator data input and their client company data entry. The researcher has confidence that the data is reported honestly and entered accurately by the case manager at the third-party administrator (Leedy & Ormrod, 2016). However, it must be recognized that there is no way to prove that the data is without errors. The researcher believed that all disability claims were real in accordance with a definition of disability that was included in the dataset. The third-party administrator indicated they have random quality assurance audits to prevent errors in the data. The third-party administrator also indicates they remove all denied or canceled claims. Another concern with the data is the grouping by the third-party administrator that is producing the data. The researcher was very clear about the data parameters to avoid any misunderstandings. The researcher closely

examined data for any potential issues prior to the analysis (George & Mallery, 2017; Leedy & Ormrod, 2016).

There are certain assumptions and limitations in the research study. Being aware of the assumptions and limitations is vital as it allows full reader clarity. It provides the ability to be transparent and demonstrates a full understanding of the topic area.

Chapter One provides information surrounding the background of the problem, an overview of the topic, the need for the study, purpose and significance of the study, research questions with definitions of terms, and the research design, including assumptions and limitations. The theoretical underpinning of the study was indicated with the use of Bandura's social cognitive theory, particularly self-efficacy (Bandura, 1977). The strong literature support for the topic, method, the research design was addressed. The literature gaps were identified. The significance of the broader community and professionals in industrial and organizational psychology was highlighted. Research questions were presented, and the terms were defined. The sequence of future chapters is shown below.

### **Organization of the Remainder of the Study**

The organization of the remainder of the study includes four additional chapters. Chapter Two will contain a literature review pertinent to the study constructs. The literature was discussed, compared, contrasted, and examined for strengths, limitations, and gaps. The topic of return to work has many key studies that can be grouped into three main areas of employee attitudes, including self-efficacy, workplace programs, including supervisor involvement, and personal predictive factors (Bandura, 1977; Cullen et al., 2018; Gaspar et al., 2018; Johnston et al., 2015; Koopmans et al., 2010). Chapter Three will outline the research methodology for the study. Chapter three will describe the step by step method and procedures of this quantitative,

non-experimental study. An overview of the source of the records review and the population for the study will be included in this section. The method and design in the collection, analysis, and findings will be presented. Chapter Four will provide the results of the statistical analysis results along with conclusions on acceptance or rejection of the study hypotheses. The research conclusions were based solely on statistical calculations. Chapter Five will present the conclusions and recommendations emerging from the study. Discussion surrounding implications and recommendations emerging from the study will be highlighted. In the summation of the dissertation, the responses to the research questions and connections, previous literature, and recommendations for future research will be provided.

## CHAPTER 2. LITERATURE REVIEW

The literature surrounding return to work following a mental health disability was logically and systematically presented, discussed, compared, contrasted, and examined as it pertains to the research problem. The strengths and limitations of the literature are highlighted. This chapter considers methods of searching, literature review of the theoretical basis, review of current literature, synthesis of findings, and a critique of the research methods and procedures used in the current literature sources. The topic of return to work has many vital studies that the researcher has grouped into three primary areas; employee attitudes, workplace programs, including supervisor involvement, and predictive factors. The studies will build on each other to crystalize the background and need for the study.

### Methods of Searching

The researcher was able to use several methods of searching for literature salient to the topic of return to work. Generally, the search would start by going to the Capella Library within the toolbar. The researcher would access summon, google scholar, or Capella databases EbsoCo, Proquest, PsychInfo, and PsychArticles. Search parameters would be set for full text, peer-reviewed journals, and the last five years would start the narrowing of articles. The search for return to work provides 470,845 results. The advanced search tab assists in narrowing the search parameter to include mental health. There are still 187,071 articles available. In scanning the articles once past page four, they become less meaningful and less of a match to the search term. Article titles provide enough of a snapshot to determine if they were useful for the study. The researcher ruled out any pertaining to medical treatment modalities, non-mental health, and not

related to the search topic. Articles that appeared to be pertinent would be opened, and abstracts read to determine if they relate to the topic. Once articles were found, the references for these articles were reviewed and sourced through Summon or Google Scholar. The researcher is also a member of ResearchGate, industry researcher groups, and a variety of LinkedIn groups.

Known authors specific to the topic area were contacted for full-text articles if they had new works that may not be in the databases. There was some research outside of these parameters pertaining to the seminal works on theory or specific topic areas such as the validation of return to work self-efficacy scales (Bandura, 1977, 1988; Benight & Bandura, 2004; Brouwer et al., 2015; Labriola et al., 2007; Lagerveld et al., 2017; Stajkovic & Luthans, 1998). In order to obtain the studies outside of the five-year search parameter, the five-year limit was removed. However, the advanced search parameters were set to include Bandura (Bandura, 1977, 1988). Removing the five-year parameter without the advanced search function results in 900,000 articles on the search term return to work. Specific to Bandura, adding the search term narrowed down the number of articles to 11,800 articles. The literature review and narrowing down the pertinent articles is an essential component of the study.

The terms most commonly used during the search include return to work, self-efficacy, disability, sick leave, short-term disability, workplace disability programs, workplace mental health, self-efficacy, disability management, sick leave, and supervisor involvement in disability. Self-efficacy is a highly studied theory, so it was combined with other search terms such as disability, return to work, and sick leave. The researcher would also look at the titles of articles and put them into Summon to see if other articles would emerge based on the ones that were located. The search terms that garnered the most articles was return to work and self-efficacy.

## Theoretical Orientation for the Study

The study was supported by Bandura's social cognitive theory (Bandura, 1977). Social cognitive theory has a sub theory called self-efficacy that equates to one's belief in their own ability. There are two main theoretical aspects of social cognitive theory that apply well to the study, self-efficacy and outcome expectations (Bandura, 1977). The expectation aspect is relevant, given an individual needs to perceive a positive outcome in order to proceed confidently (Bandura & Locke, 2003). The core belief is that individuals have the power to produce the desired effects if they believe they are able (Bandura, 1977). Self-efficacy beliefs regulate human functioning through cognitive, motivational, affective, and decisional processes (Bandura & Locke, 2003). Self-efficacy provides the power of belief in the ability to cope with life challenges and successfully survive through difficult situations (Bandura, 1989; Bandura & Schunk, 1981). There are three components to consider, including magnitude, strength, and generality (Nwanzu & Babalola, 2019). Magnitude refers to the degree of difficulty associated with the task, and strength represents the depth of an individual's belief about the magnitude (Nwanzu & Babalola, 2019). Generality refers to the level of belief across different situations (Nwanzu & Babalola, 2019). Maddux (2009) specifies that individuals with high self-efficacy have more resilience and belief in their capabilities when facing adversity. In comparison, those with low self-efficacy minimize their abilities and capabilities in different scenarios (Maddux, 2009). These are relevant concepts when it comes to the return to work process following a mental health disability absence.

It is accepted in the research community employee self-efficacy is essential to return to work (Bandura, 1977, 1988; Benight & Bandura, 2004; Labriola et al., 2007; Stajkovic & Luthans, 1998; Wilski & Tasiemski, 2016). The study into mental health return to work will

continue to expand the theory on the importance of considering the returning employee self-efficacy (Bandura, 1988). The research explored if having the supervisor involved in the return to work resulted in a shorter time off, and therefore a more successful return to work.

Research is abundant on the importance of self-efficacy pertaining to return to work following musculoskeletal conditions (Bandura, 1977; Brouwer et al., 2009; Lagerveld et al., 2017; Waynor et al., 2016; Wilski & Tasiemski, 2016). It is known that self-efficacy is strengthened with verbal persuasion by someone the individual trust and regards as competent (Stajkovic & Luthans, 1998). In the case of this study, the supervisor is presumed to be a competent individual (Stajkovic & Luthans, 1998).

There are several social cognitive theory elements to explore and understand to maximize the application of the theory. As a concept, self-efficacy, as a concept, speaks to an individual's expectations of their ability to perform a task (Bandura, 1988; Wood & Bandura, 1989). It has been demonstrated that self-efficacy can predict how long an individual can perform in the face of obstacles (Bandura, 1988, 1989). Bandura (1988) presents the three primary causal considerations in the application of social cognitive theory within the work environment, including behavior, personal, and environmental factors (Bandura, 1988). Social cognitive theory encompasses psychosocial function and considers causal effects (Wood & Bandura, 1989). Behaviors are more likely to occur if the individual has inherent values toward work and the competency to perform the work (Wood & Bandura, 1989). Competency goes beyond having the skill and stretches to the belief in personal competency to perform the task (Bandura, 1988, 1989). This relates to the study and the important step of a transitional return to work plan, with a specific task and appropriate skill development with positive feedback (Bandura, 1988). Competency is enhanced when the individual is provided an environment with the tools to learn,

model, practice, and receive feedback (Wood & Bandura, 1989). Attention to the work environment is essential in return to work planning.

Literature supports that coping and resilience skills play a broad role in a successful return to work outcomes (Blank et al., 2008). It is recognized that individuals who exhibit low self-efficacy may not be able to sustain efforts (Wood & Bandura, 1989). Jacobsen et al. (2020) discuss that metacognition and beliefs are relevant considerations in recovery and return to work. An individual's belief may or may not be an accurate assessment of their mental health condition and symptoms, confidence in ability, or skill (Jacobsen et al., 2020). Many elements can enhance personal ability to build self-efficacy, including recovery focus, physical activity, social community, coping, and resilience skills (M. B. D. Nielsen et al., 2011). Underlying personality, low self-esteem, pre-disability struggle with the job, or co-workers can all influence the employee attitude toward a return to work (Huijs et al., 2017; Lagerveld et al., 2017). Role models at work can positively influence self-efficacy (Bandura et al., 1999; Nielsen et al., 2011). Social networks and social identity in the workplace can positively affect return to work (Dunstan & MacEachen, 2013; M. B. D. Nielsen et al., 2011). It is known that being off work can weaken workplace relationships. Co-workers are more likely to assist with the return to work if good relationships exist in the workplace prior to the absence (M. B. D. Nielsen et al., 2011). Eguchi et al. (2017) state that more significant consideration of psychosocial factors in the workplace should be integrated into the return to work approach. It is essential to bear in mind the balance of perceived fairness matters both with the returning employee and the co-workers (Dunstan et al., 2015; Dunstan & MacEachen, 2013; Lancman et al., 2017). External influencers of family or friends can spill over into the building of self-efficacy (Dunstan et al., 2015; Prang et al., 2015). It is known that self-efficacy is contributed to and shaped by external experiences



and self-perception of those experiences (Bandura, 1977; Benight & Bandura, 2004; Stajkovic & Luthans, 1998). Porter et al. (2018) discuss the importance of hope and power to encourage the therapist to focus on building a can work attitude. A person-centered approach has been shown to be more effective in preparing individuals to return to work (Higgins et al., 2015; Porter et al., 2018). Mental health conditions have a complex interplay of cognitive, affective, and behavioral responses to illness and the workplace situation (Blank et al., 2008; M. B. D. Nielsen et al., 2011).

Supervisors have an essential role in morale and productivity in a workplace and can be positive coaches with returning employees (Bandura, 1988; Gragnano et al., 2018; Johnston et al., 2015). Self-efficacy and things that enhance or contribute to building self-efficacy are important concepts in the field of return to work (Brouwer et al., 2015; Choi et al., 2016; Stajkovic & Luthans, 1998). These are all essential pieces in reintegration into a work environment following a mental health disability (Brouwer et al., 2015; Choi et al., 2016; Stajkovic & Luthans, 1998).

Social cognitive theory asserts that motivation and self-regulation are governed by beliefs and personal self-efficacy (Wood & Bandura, 1989). An individual with a high self-efficacy is more likely to succeed (Bandura & Schunk, 1981). Bandura (1989,1991) recognized the absolute importance of self-efficacy, even in cases of underlying anxiety conditions (Bandura, 1989, 1991). The literature provides broad support for the application of social cognitive self-efficacy theory within the return to work profession (Brouwer et al., 2009; Labriola et al., 2007; Wilski & Tasiemski, 2016).

Social cognitive theory discusses the principles, concepts, and importance of self-efficacy and self-belief (Bandura, 1991). Wood and Bandura (1989) describe the four individual beliefs

surrounding self-efficacy, mastery, modeling, social persuasion, and dysfunction concerns. Many features make this theory a great fit in return to work. It is accepted that self-efficacy is enhanced with verbal persuasion by someone the employee trust and regards as competent, we can see the vital role a supervisor could play in return to work process with positive feedback toward the returning employee (Bandura, 1977; Jetha et al., 2018; Kärkkäinen et al., 2018; Shaw et al., 2003; Stajkovic & Luthans, 1998). Supervisors communicating closely with the employee could positively contribute to social persuasion (Kärkkäinen et al., 2018; Lagerveld et al., 2017). The supervisor's positive reinforcement and coaching during the return to the work process may assist in building self-efficacy and, ultimately, the success of the employee. Self-efficacy theory also asserts that goals are an important component in return to work for mental health conditions (Bandura & Locke, 2003; Dewa et al., 2016). The current capabilities become integrated into a return to work plan that also addresses concerns around dysfunction as part of the process (Bandura & Schunk, 1981; Schunk & DiBenedetto, 2020; Wood & Bandura, 1989). Being clear on what to do if uncertain about a task and building in what if's will enhance the planning.

Volker et al. (2015) discuss the positive influence of self-efficacy on return to work. In a multi-variance study, lower self-efficacy led to longer durations away from the workplace. The researchers explore the effect of prolonged time away from work and find the more extended the absence, the lower the belief of competency to return to work becomes (Volker et al., 2015). In the field of return to work, employee perceptions of ability are recognized as an enhancer or barrier. Hogg-Johnson and Cole (2003) were among the first researchers to apply the concept of self-efficacy theory in return to work. The researchers indicate that the most significant variable in return to work is believing you will (Hogg-Johnson, 2003). The importance of self-belief has been noted to have a statistically significant effect on positive return to work outcomes in many

studies since this initial work (Bandura, 1988; Lagerveld et al., 2017). Lagerveld et al. (2017) prepared a self-efficacy scale and examined other variables that could influence return to work, including symptoms of fatigue and depressive symptoms. Black et al. (2017) conclude that higher self-efficacy has consistent positive effects with a musculoskeletal return to work. The findings from the literature are important in distilling theory into practice. The principles obtained from the current literature surrounding self-efficacy contribute to the workplace and individual knowledge and help reduce the human and financial cost of lost time (Black et al., 2017). The researchers show that higher self-efficacy scores lead to an early and more sustainable return to work (Lagerveld et al., 2017; Volker et al., 2015). The prolific use of self-efficacy theory and the validity of the self-efficacy scales reinforce the belief that self-efficacy is a good fit for the study (Bandura, 1977). The study will contribute to the continual expansion of the social cognitive self-efficacy theory into mental health return to work and fits well with the organizational and industrial psychology workplace domain. The musculoskeletal conditions return to work literature is abundant and emphasizes the importance of self-efficacy (Bandura, 1977, 1989; Brouwer et al., 2009; Dewa et al., 2016; Lagerveld et al., 2017; Volker et al., 2015; Waynor et al., 2016; Wilski & Tasiemski, 2016). Self-efficacy, confidence to perform the task, conviction while performing a task, and interpretation of events prior to the absence, will all impact the employee's internal belief that they can perform the task (Bandura, 1977; Bandura & Locke, 2003; Dewa et al., 2016). The study sought to demonstrate that self-efficacy within social cognitive theory applies to supervisors and employees in return to work from a mental health disability (Bandura, 1977; Wood & Bandura, 1989).

It is important to caveat that there is an assumption that the individual wants to return to work when applying the approach of social cognitive theory with a focus on self-efficacy.

Research demonstrates that work is highly valued (Budd & Spencer, 2015; Saunders et al., 2015). It is necessary to recognize that individual personality concerns may be a limitation (Bandura, 1991). The abilities or the belief in abilities mobilize the motivation, action, and cognition required to get the job done (Bandura, 1988; Vossen et al., 2017). If work is not a value, self-efficacy for the task and return to work may not be plausible (Vossen et al., 2017).

A limitation in self-efficacy is the individual level of self-efficacy could vary, depending on the topic, task, or negative feedback (Bandura & Locke, 2003; Bandura & Schunk, 1981; Wood & Bandura, 1989). There can be a rapid change in confidence, depending on the activity and type of feedback (Schunk & DiBenedetto, 2020). Workplaces, including co-workers and supervisors, will need to provide positive reinforcement during work reintegration (Dunstan & MacEachen, 2013; Eguchi et al., 2017; Jetha et al., 2016). The ability of supervisors and co-workers to support workers in their return to work was a crucial element and influential in the application of self-efficacy social cognitive theory in the return to work phase (Bandura, 1988; Eguchi et al., 2017; Johnston et al., 2015; Vossen et al., 2017). It is accepted that supervisors are often promoted due to the technical skills they possess and need to be taught skills to motivate and create mastery in others (Bagger & Li, 2014; Bandura, 1988; Johnston et al., 2015). It was unknown if the supervisors in this study have appropriate skills to assist and motivate returning employees.

A potential gap of social cognitive self-efficacy theory is understanding the cross-cultural application (Schunk & DiBenedetto, 2020; Sheu et al., 2018). There is a limitation in the applicability of social cognitive theory to non-western cultures, as much of the research has been with western cultures (Bandura & Schunk, 1981; Luszczynska et al., 2005; Momsen et al., 2016). Non-western cultures have a higher focus on collectivism, where collective effort is more

associated with success (Schunk & DiBenedetto, 2020). As diversity in workplaces increases, this limitation was important to examine (Brimhall et al., 2017; Momsen et al., 2016). It is uncertain if self-efficacy will apply across all cultures. Fine (2015) indicates that perhaps one of the challenges with learning about cultural influences is we must first admit to differences. Understanding will help discover clarity around perhaps deep-seated notions (Fine, 2015). It was essential to recognize the limitation when using self-efficacy as a return to work application across multi-cultural situations (Momsen et al., 2016; Schunk & DiBenedetto, 2020).

The study will contribute and expand the application of social cognitive theory. It will expand on the application to encompass the supervisors' influence on self-efficacy and ultimately return to work. The study demonstrated that social cognitive theory with Bandura's self-efficacy theory applies to supervisors and employees in return to work with mental health disabilities (Bandura, 1977). It will help expand the thought and confirm that self-efficacy in return to work planning and process is essential.

### **Review of the Literature**

Recent literature was synthesized, presented systematically, and applied in relation to the study. The study topic pertains to variables that may affect a successful early and safe return to work following a mental health disability. The study's focus is return to work durations, workplace stakeholders, gender, and type of mental health condition, in a quantitative non-experimental review of data. The dependent variable is the duration of lost time on a mental health disability. The three independent variables are stakeholder, gender, and mental health diagnosis. A comprehensive review of recent literature occurred under three main topic areas of employee attitudes with specific attention to self-efficacy, workplace programs including stakeholder involvement, and predictive factors of prolonged mental health disability.

Return to work, particularly following a mental health absence, continues to be a concern in the employer community (Brouwer et al., 2009; Cancelliere et al., 2016; Nigatu et al., 2017; Volker et al., 2015; Waynor et al., 2016). The human and financial cost associated with absence from work due to mental health conditions creates a need to focus on strategies to facilitate an early and safe return to work (Björk Brämberg et al., 2018; Cameron et al., 2016; Lammerts, Schaafsma, van Mechelen, et al., 2016; Netterstrøm et al., 2015). The topic fits into the scope of industrial and organizational psychology and will add value to corporations as they try to sustain their workforce. Industrial and organizational psychology includes the application of psychological theory and research into the world of work (American Psychological Association, 2019). The exploration of variables that could influence return to work will contribute to the overall improvement in the return to work process. The literature has a gap in the exploration of workplace stakeholders and specifically the influence of the supervisor on employee self-efficacy in the return to work process following a mental health absence (Black et al., 2017; Dewa et al., 2016; Ekberg et al., 2015; Ervasti et al., 2017; Sheu et al., 2018). The researchers in the field acknowledge there are gaps and that more research is needed to determine methods to assist individuals with mental health absences to return to work successfully (Björk Brämberg et al., 2018; Cameron et al., 2016; Dewa et al., 2016; Ervasti et al., 2017).

### **Employee Attitudes**

Employee attitudes as it pertains to return to work is a significant predictor of a successful return to work, and many recent studies in the specialization explore self-efficacy enhancement to support work reintegration methods (Bandura, 1977; Labriola et al., 2007; Lagerveld et al., 2017; Volker et al., 2015; Wilski & Tasiemski, 2016; Wood & Bandura, 1989). Work itself holds many physical and cognitive benefits (Kendrick et al., 2017). Self-efficacy

refers to one's belief that one can succeed (Bandura, 1977). The research demonstrates that employee self-efficacy is perhaps one of the most critical elements in return to work following a mental health disability (Dewa et al., 2016; Gaspar et al., 2018). There are known influencers on an individual's self-efficacy in a dynamic workplace. Many elements can positively or negatively influence positive self-belief. The employee, supervisor, co-workers, human resources, unions, and other workplace parties all have a part in the return to work success (Brimhall et al., 2017; Corbière et al., 2015; James et al., 2002; Jetha et al., 2018; Wilski & Tasiemski, 2016). Ensuring workplace stakeholders are aware of the importance of self-belief and self-efficacy, social persuasion efforts can be integrated into the return to the work planning process to enhance employee self-efficacy (Wood & Bandura, 1989). Recent literature embraces self-efficacy in return to work for musculoskeletal conditions, and a secure link has been concluded (Bandura, 1988, 2004a; Bandura et al., 1999; Bandura & Schunk, 1981, 1981; Brouwer et al., 2009; Franche & Krause, 2002; Prang et al., 2015; Volker et al., 2015; Wood & Bandura, 1989). Self-efficacy provides the self-determination that pushes an individual to perform in the face of obstacles (Bandura, 1977; Bandura & Schunk, 1981; Black et al., 2017). Low self-efficacy will lead to a lack of sustainable efforts and, ultimately, potential failure at the task (Bandura, 1977; Bandura et al., 1999; Black et al., 2017). In designing return to work programs, the events, outcomes, or interpretation of the events need to be considered to influence self-efficacy (Lammerts, Schaafsma, van Mechelen, et al., 2016, 2016; Shaw et al., 2003). In the design of return to work plans, consideration should be given to capabilities, job demands, and barriers that may emerge from the events that preceded the absence. Workplace factors could impact self-efficacy and the perception of the ability to perform the job (Dewa et al., 2016; Wood & Bandura, 1989).

The study incorporates strong consideration of the three reciprocal interactions in social cognitive theory personal, environmental, and behavioral processes (Bandura, 1977). Schunk and DiBenedetto (2020) expand on the definitions of personal influences, including beliefs, values, perceptions, emotions, and underlying cognition. The environment encompasses the clues that reinforce the feelings of success for building self-efficacy (Schunk & DiBenedetto, 2020). The behavioral process is choosing to exert effort on a particular set of activities based on the belief that they can be accomplished (Schunk & DiBenedetto, 2020). There is also a school of thought that goal-setting theory may be integrated into social cognitive theory to enhance return to work efforts (Bell & Kozlowski, 2002; Sapani, 2015; Stajkovic & Luthans, 1998).

Lork and Holmgren (2018) discussed the trend toward considering a return to work self-efficacy. The researchers emphasize the necessity to consider work capacity, engagement in meaningful work, individual input, and participation (Lork & Holmgren, 2018). They acknowledge that return to work and self-efficacy studies have increased since the early 2000s and contribute to understanding the return to work expectations and beliefs (Amick et al., 2017; Dewa et al., 2016; Lork & Holmgren, 2018). Amick et al. (2017) articulate that supportive workplace parties, along with self-efficacy, make the most significant difference in returning to work beyond six months. Low self-efficacy was found to be present in those that had prolonged absences and, in fact, almost doubled the time lost and risk of recurrence (Lork & Holmgren, 2018). The researchers acknowledge the need for additional research surrounding the importance of understanding the return to work process, the interplay of self-efficacy, the supervisors, and the employee's experience, along with other variables (Lork & Holmgren, 2018).

Black et al. (2017), in a systematic literature review, found strong support for employee attitudes and self-efficacy in return to work for both physical and psychological claims. The



researcher was also able to demonstrate that an individual with lower self-efficacy was more likely to have a recurrence (Black et al., 2017). A vital consideration in return to work was support for the individual and methods to ensure they are feeling capable and competent in the return. Black et al. (2017) suggest areas for future research include exploring ways to increase self-efficacy, particularly early in the disability process. The study will assist in moving this inquiry forward by identifying the potential of stakeholder influence on time lost. There has been a fair amount of work on self-efficacy scales, predominantly focused on physical conditions (Black et al., 2017; Brouwer et al., 2015, 2015; Corbière et al., 2017; Lagerveld et al., 2017). The researchers felt the scales developed lack the depth required to consider perceived psychological obstacles (Corbière et al., 2017; Lagerveld et al., 2017; Norder et al., 2017). Black et al. (2017) specifically state that one of the challenges with self-efficacy in mental health disability is the lack of highly identified personal determinants.

Corbière et al. (2017) acknowledges the gap in personal determinates and worked to validate a more encompassing scale to measure self-efficacy, specific to mental health considerations. It is interesting to see the articles building on the evolving research in the field. The return to work expectation is acknowledged along with the conversation on specific interventions that may assist in increasing self-efficacy (Cancelliere et al., 2016; Dewa et al., 2016; Ekberg et al., 2015; Ervasti et al., 2017).

When considering employee attitudes, the impact of outcome expectations should be considered. If the individual feels the outcome is positive, specific actions will be more likely (Bandura, 1977; Bandura et al., 1999). This ties back to the importance of understanding the individual's intention surrounding return to work, strong self-efficacy will emerge if the return to work goal is congruent with the actions (Corbière et al., 2017; Volker et al., 2015). The design

and use of a jointly designed return to work plan can assist with the employee buy-in and positive regard for the return to work (Bejerholm & Areberg, 2014; Franche & Krause, 2002; Nevala et al., 2015). In designing the return to work plan, employee capabilities, and perception of control over any of the work demands that may be challenging should be precise (Luszczynska et al., 2005). The concept of self-regulation also comes into focus when considering a return to work from a mental health condition and ensuring there is a plan in place to select the right response in the face of challenge or aversion (Cameron et al., 2016; Luszczynska et al., 2005).

One of the vital best practice aspects is communication with the employee is the development of a return to work plan with stakeholder involvement (Dewa et al., 2016). There is an acknowledgment from the researchers that additional research is needed in the area of workplace programs to improve return to work guidelines (Dewa et al., 2016). There is also a necessity to ensure the return to work guidelines and programs are kept up to date with the most recent evidence (Dewa et al., 2016). A strong effort was made to present the study results to advance workplace understanding and craft programs.

The ability of workplace parties, including supervisors, to exert focus on building an individual's self-efficacy is vital (Bagger & Li, 2014; Johnston et al., 2015). The potential influence of supervisors involved in the return to work process to support employees in their return to work was an interesting element of the study (Jetha et al., 2018; Johnston et al., 2015; Kärkkäinen et al., 2018). Employee empowerment and active involvement in the recovery process positively impact outcomes (Bejerholm & Areberg, 2014; Cancelliere et al., 2016; Labriola et al., 2007; Lemieux et al., 2011; Shaw et al., 2003; Vargas-Prada et al., 2016). Researchers identified common factors associated with a positive return to work outcomes in a

systematic review, including health history, culture, work environment, family influences, and pain beliefs (Cancelliere et al., 2016).

Strömbäck et al. (2020) performed an analysis including supervisors that resulted in a health-promoting process model, where the core category is restoring confidence on common ground. The study includes a focus on positive re-orientation to the workplace, not the endpoint of return to regular duties. The researchers created three phases with emotional entrance, supportive guidance, and empowering change. The intervention with the supervisor includes methods to enhance workplace relationships, safety considerations, and attitude enhancement for workplace stakeholders (Strömbäck et al., 2020). This approach is not consistent with other studies that focus on the endpoint goal of return to work. However, it appears to have shown success in progressing the individual toward self-confidence (Strömbäck et al., 2020). It is important to examine articles outside of the common trend to determine if they can be integrated and repeated to improve the return to work process. Most recent articles on return to work focus on self-efficacy and having confidence toward the end goal of the return, not the aspect of reintegration alone (Björk Brämberg et al., 2018; Strömbäck et al., 2020; Volker et al., 2015).

Many researchers echo that return to work expectation self-efficacy could be affected by specific interventions and workplace supports (Cancelliere et al., 2016; Carriere et al., 2015; Ekberg et al., 2015; Ervasti et al., 2017). It has been determined that a higher baseline self-efficacy promotes a higher success in return to work (Cancelliere et al., 2016; Carriere et al., 2015; Ekberg et al., 2015; Ervasti et al., 2017). Regardless of the baseline, self-efficacy increases can occur and result in a faster return to work (Lagerveld et al., 2017). A focus on methods to improve self-efficacy would be valuable within the study of return to work from a mental health condition. Bandura (1977) suggests that mastery, vicarious learning, verbal persuasion, and

arousal management can be applied to improve self-efficacy. An opportunity to enhance work-related mastery can be integrated through a well-designed work reintegration plan. Mastery of the task through training, guided goals, and positive reinforcement assist in building self-efficacy (Björk et al., 2018; Cherian & Jacob, 2013; McGonagle et al., 2015; Saunders et al., 2015; Shaw et al., 2003). A gradual return to work plan will allow the building of mastery and help build self-efficacy. Vicarious learning could occur through case studies, group sharing, and brainstorming to focus on solutions and ways to accomplish tasks during return to work (Locke et al., 1984; Lork & Holmgren, 2018). Verbal persuasion and arousal management pertain to building interest and excitement toward achieving the work task (Lork & Holmgren, 2018). Some caution must be used in these approaches, as self-efficacy theory does not tend to consider unfavorable work environments (Lagerveld et al., 2017). If there is an underlying workplace issue, a resolution will be essential, or it could impact a successful return to work. Another element is ensuring an awareness surrounding the individual's competency and capability to perform the job (Lagerveld et al., 2017).

This leads us into the conversation about workplace parties. The role supervisors and other stakeholders play in return to work was examined within the study. The techniques to enhance self-efficacy will be discussed within this section.

### **Workplace Programs and Stakeholders**

Return to work by virtue of the design of work environments will include the participation of workplace stakeholders. A workplace stakeholder could be anyone that has influence or interaction within the workplace. One study's specific independent variables in the study are looking at data to determine if the supervisor or human resources involvement in the return to work plan will affect days lost. Some studies examine the potential positive influence of

workplace stakeholder involvement in musculoskeletal claims (Amick et al., 2017; Dewa et al., 2016; Galizzi et al., 2016; Jetha et al., 2018; Young & Choi, 2016). Supervisor involvement in the area of mental health conversations needs to extend to workplaces and their role in reducing the overall duration of time away from work.

In a systematic review of employer best practices, four predominant themes emerge, including workplace programs, accommodation plans, workplace parties, and policies and procedures. Employer programs have contributed to a positive return to work outcomes (Björk et al., 2018; Cancelliere et al., 2016; Franche & Krause, 2002; Hoefsmit et al., 2016; Negrini et al., 2018). The literature indicates that employees feel that someone from the workplace staying in touch positively impacts their experience (Corbière et al., 2019; Durand et al., 2017; Kristman et al., 2017; Nevala et al., 2015). Of the employees that report a positive impact, 30% indicate supervisor contact was the most helpful (Björk et al., 2018; Brijnath et al., 2014; Ekberg et al., 2015). Line managers have a strong influence on health and well-being outcomes (Nielsen et al., 2011). Managers often assume responsibility for the return to work process, individualized approach, and effective communication. The challenge is that not all managers are well equipped to communicate effectively and may create roadblocks or even conflict (Johnston et al., 2015). Johnston et al. (2015) indicate that return to work plans should be well defined and include how the work and workplace will be organized. Workplaces need to ensure supervisors have the tools and training to assist in the return to work planning and possesses an understanding of self-efficacy including how to enhance employee confidence in the planning process (Dewa et al., 2016; Negrini et al., 2018; Nielsen et al., 2011).

Research on the value of a comprehensive workplace program includes a return to work program guide with critical roles and responsibilities outlined (Dewa et al., 2016; Franche &

Krause, 2002). It is useful to contemplate some of the anticipated roadblocks in the return to work process throughout the program implementation (Amick et al., 2017; Corbière et al., 2019; Durand et al., 2017; Negrini et al., 2018). Planning and anticipating challenges will help guide stakeholders through potential barriers (Amick et al., 2017; Corbière et al., 2019). It is essential to realize that long durations off work can relate to more than employee self-efficacy alone.

There are many layers of workplace factors and dynamics that can influence extended lost time (Dunstan & MacEachen, 2013; MacEachen et al., 2010, 2020). There is a dynamic culture that exists within workplaces driven by supervisors, management, unions, and co-workers that can have a positive or negative influence on mental health and return to work (Coduti et al., 2016; Considine et al., 2017; Kouvonen et al., 2016; A. Martin et al., 2016; Pomaki et al., 2012).

Underlying workplace issues must be addressed to ensure a successful return to work. The employee should also develop coping and resilience skills to anticipate environmental factors (Brijnath et al., 2014; Lagerveld et al., 2012). Transitional return to work plans that position the control in the hands of the employee is influential in positive return to work (Kristman et al., 2017). Joint commitment and supervisor relationships have a significant impact (Kristman et al., 2017). It is also vital to ensure the union representative and human resources management are familiar with the return to work program and the importance of supporting returning employees (Corbière et al., 2019; Dunstan & MacEachen, 2013; MacEachen et al., 2020).

Dewa et al. (2016) performed a systematic review of employer best practices. The three predominant themes include workplace programs, accommodation plans, and workplace policies and procedures (Dewa et al., 2016). The policy and procedures should have well-defined roles and responsibilities to ensure clarity (Dewa et al., 2016). Research demonstrates if an individual's supervisor and the workplace are actively involved in their recovery, it can help

build employee engagement and positively impact return to work trajectory (Cancelliere et al., 2016; Kristman et al., 2017; Lloyd et al., 2017).

Many researchers in the return to work field indicate that additional research is required to determine how collaborations in the workplace can work successfully in practice (Mustard et al., 2017; Skivington et al., 2016). Admittedly, guidance exists for the development of touted best-practice return to work programs that involve harmonious stakeholders (Corbière et al., 2019). However, these programs' practicality encompasses supportive roles for unions, management, and co-workers has not been put to the test (Mustard et al., 2017; Skivington et al., 2016).

Jansson and Gunnarsson (2018) performed a study on workplace experiences and strategies that demonstrate an impact on an individual's ability to return to work. Those who participated in the survey revealed experiences with individuals with intangible signs of mental health concerns that did not perform their duties at work caused frustration with co-workers and supervisors (Jansson & Gunnarsson, 2018). The participants felt some individuals turned on and off the mental health problem to suit their work conditions if they did not want to perform a task. Participants felt the condition was used as an excuse, resulting in co-workers' need to take the less desirable task or projects (Jansson & Gunnarsson, 2018). A process to resolve conflicts would be a substantial consideration in program design. The vast majority of workplaces had modified work potential and report they had to be in-tune and willing to diverge from the schedule when necessary (Jansson & Gunnarsson, 2018). Modified work includes organizing work duties differently, providing more regular breaks, accounting for fluctuations in ability, and tolerance of good and bad days (Jansson & Gunnarsson, 2018). This study's findings contribute

to the further development of workplace guidelines and programs and an understanding of workplace adversity during reintegration (Jansson & Gunnarsson, 2018).

Lork and Holmgren (2018) found that coordinated early return to work, including a positive attitude of workplace parties, was necessary and assisted with the employees' return. Communication, credibility, respect, and support were all key to a positive return to work outcomes (Lork & Holmgren, 2018). Employee involvement in the design of the return to work plan and decisions surrounding tasks and hours was also an important element in the process (Lork & Holmgren, 2018). The work environment and the interactions of the stakeholders, and the disability management process made a difference in return to work from musculoskeletal conditions (Corbière et al., 2019; Lork & Holmgren, 2018). Employee perspectives on factors that assist with their return to work include supervisor and co-worker support (Corbière et al., 2019; Jetha et al., 2018; Negrini et al., 2018). Conversely, lack of supervisor support can have a detrimental impact on return to work (Huijs et al., 2017; Lemieux et al., 2011).

Creating a planned return to work that includes accommodation of limitations can make a significant difference in the duration of absence and help progress the individual back into the work environment (McDowell & Fossey, 2015). Brijnath et al. (2014) examined workplace programs in the Australian workers' compensation system. The Australian workers' compensation system is relevant as they provide benefits for both physical and mental disorders. Workers felt that someone staying in touch with them from the workplace positively impacted their experience (Brijnath et al., 2014; Buys et al., 2017; Corbière et al., 2019; Durand et al., 2017; Kouvonen et al., 2016; Nevala et al., 2015). Several researchers have found co-worker attitudes and supervisor support were central to a successful return to work (Buys et al., 2017; Cancelliere et al., 2016; Catalina-Romero et al., 2015; Etuknwa et al., 2019; Galizzi et al., 2016).



Busse et al. (2011) discuss that despite the relatively frequent use of disability management programs, there is very little research into employee and supervisor attitudes toward disability management programs. Etuknwa et al. (2019), in a systematic review, examine and highlight the importance of support from front line managers. However, as a caution, there is a misconception that supervisors have the knowledge and skill required to support the employee and establish appropriate return to work plans (Etuknwa et al., 2019; Saunders et al., 2015). Social relationships, including those with supervisors, are among one of the variables that have a statistical significance in a successful return to work (Lancman et al., 2017). Organizational relationships may hinder or help when attempting a return to work (Lancman et al., 2017). The individual health state and even their underlying cognition is an important consideration. If there is insufficient capability, this could pose a risk to the return to work plan (Lancman et al., 2017). Geisen et al. (2019) discovered in a qualitative study that men appreciate the structure of a return to work programs more than women. There is evidence that employee's value knowing that a disability management and return to work program are in place. Employees feel a return to work program reduces lost time and enhances job satisfaction (Geisen et al., 2019).

Cullen et al. (2018) performed a systematic review and found work accommodation positively affected lowering lost time days in musculoskeletal cases. They also recognized that recovery and return to work are multi-faceted and need to include appropriate treatment, recovery, and a clear understanding of capabilities (Cullen et al., 2018). The study recognized that supervisor training is a component that needs to be explored to determine if it may contribute to successful return to work programming (Cullen et al., 2018). Cullen et al. (2018) found strong evidence that work accommodation offers could reduce the duration of the disability. One of the complexities with a disability and return to work is the high percentage of

cases that become complex and involve parties other than employers such as litigators (Cullen et al., 2018).

Joyce et al. (2016) studied the programs that workplaces are putting in place due to the significant human and business cost of mental health conditions. The researcher determined that workplaces are making attempts to address the issue of return to work following a mental health condition (Joyce et al., 2016). However, they are not acting with regard to evidence-based studies. Partially due to the lack of robust studies, some having small sample sizes, and firms publishing in gray literature lack research rigor or mired with specific variations that make consistent solutions challenging to detect (Joyce et al., 2016). The researcher's meta-review findings conclude that there is a need for additional research on the workplace process in mental health claims (Joyce et al., 2016).

Many stakeholders could influence employee attitudes, including workplace representatives (Corbière et al., 2019; Lammerts, Schaafsma, van Mechelen, et al., 2016). The Union may be involved in the return to work process outlined by the company policy and occasionally can find itself in the middle (Carriere et al., 2015; Cullen et al., 2018; Vossen et al., 2017). The Union has an obligation to represent the member, sometimes, regardless of the facts (Corbière et al., 2015,2019). Union perspectives surrounding a return to work tend to emphasize the importance of healing times prior to return to work, adequate design of a return to work plan, and having the right stakeholders present (Corbière et al., 2015,2019). The Union perspective announces that employers must focus on the work environment, be supportive, and provide comprehensive workplace training on mental health (Corbière et al., 2019). The article concludes that workplace culture may present a significant barrier to a successful return to work (Bastien & Corbière, 2019; Corbière et al., 2019).

Lee et al. (2019) state that while self-efficacy is a critical contributor to motivation and performance, self-efficacy by itself is not sufficient to motivate actions. The researchers have also looked at supervisors' impact on self-efficacy and found that excess supervision can reduce self-efficacy and impede results (Lee et al., 2019). They suggest there is a curvilinear relationship between self-efficacy and creativity when supervisor monitoring is too high (Lee et al., 2019). Evidence concludes that close monitoring, interruptions, pressure, lack of support, and control can have a detrimental effect on employee self-efficacy and creativity (Lee et al., 2019). Close monitoring refers to the extent to which the supervisor is watching over the employee to ensure they are following the specific structured task (Lee et al., 2019). This type of close supervision may make employees uncomfortable and reluctant to make decisions, limit their job autonomy, limit self-determination, and lower self-efficacy (Lee et al., 2019). It is known low job control, lack of trust, and low job autonomy can result in poor attitudes, minimal effort, and decreased creativity (Bandura & Locke, 2003; Bandura & Schunk, 1981; Lee et al., 2019; Locke et al., 1984; Wood & Bandura, 1989). This is an essential finding about return to work planning and monitoring (Lee et al., 2019; Sheu et al., 2018). It will be essential to engage the employee in return to work planning then mutually establish the check-in points as not to micro-manage the returning employee or inadvertently reduce their self-efficacy.

It is important to acknowledge a point of controversy. The individual and their disability are not the only variables that can impact return to work success (Awang et al., 2016; Gewurtz et al., 2019). All supervisors are not created equally (Bastien & Corbière, 2019; Geisen et al., 2019; Skivington et al., 2016). Supervisors will need support and training to ensure they have the skills to assist with the building of self-efficacy during return to work (Corbière et al., 2019; Dewa et al., 2016; Kärkkäinen et al., 2018). It is expected that supervisors have a broad range of

competencies and personal attributes in order to successfully coach an employee in their return to work (Johnston et al., 2015). Supervisors often express uncertainty about how to deal with employees with mental health issues (A. Martin et al., 2018). They feel unprepared to coach or understand the range of emotions those with mental health diagnoses may express (A. Martin et al., 2018).

It is essential to acknowledge that workplaces are a dynamic system. The individual and their disability is not the only variable that can impact return to work success (Awang et al., 2016; Gewurtz et al. There is building evidence that stakeholder involvement can make a positive difference in return to work. It is essential to study this further to guide and direct workplaces, particularly the supervisor participants. There is also a need to explore personal predictive factors such as gender and type of mental health condition.

### **Predictive Factors**

It is essential to recognize that there are elements outside of the workplace stakeholders that can influence return to work. Personal factors, employee attitudes, job characteristics, the type of mental health condition, social supports, and litigation may all influence return to work (Dewa et al., 2016; Ervasti et al., 2017; Joyce et al., 2016). While the literature identifies many potential health care treatment factors, the study is not focused on the actual treatment of mental health conditions, so these studies are excluded. The focus is on variables that may correlate with a return to work, specifically workplace stakeholder involvement, gender, and type of mental health condition.

### ***Personal Factors***

Spronken et al. (2020) found that age and gender have a statistical significance on the trajectory of return to work. The older an individual is, the longer the duration of a mental health

absence (Spronken et al., 2020). Several researchers determine women tend to be off work longer, prolonging the return to work (Awang et al., 2016; Macpherson et al., 2018; Nielssen et al., 2019; Spronken et al., 2020). Demographic aspects that have been noted to hinder the return to work include gender, age, and low education (Ervasti et al., 2017; Macpherson et al., 2018). Previous research examining factors associated with mental health claim absences reveals that age and gender was a factor (Prang et al., 2015). There was also evidence that self-perceived health was a predictor of the duration of absence from work (Collie et al., 2016).

Researchers have determined that women had a longer duration of time lost (de Vries et al., 2018). The type of mental health diagnosis did not create a significant variance in return to work (de Vries et al., 2018; Fishta et al., 2017; Joyce et al., 2016). Several researchers concluded there is a need for further research (de Vries et al., 2018; Fishta et al., 2017; Joyce et al., 2016).

Strömbäck et al. (2020) published an article that identified that men and women had the same reaction when dealing with multiple stressors outside of the diagnosis, and some of the stressors could be influencing the recovery from the condition. This qualitative research had a small sample size of 15 participants, which could explain the different variance in findings from other studies (Strömbäck et al., 2020). In addition to personal factors, employee expectations can add to the discussion on variables that affect return to work (Strömbäck et al., 2020).

### ***Expectations***

Factors that have been demonstrated to have a positive association with return to work include positive expectations surrounding a return to work, optimism, motivation, self-efficacy, feelings of control, and positive health perception (de Wit et al., 2018; Dekkers-Sánchez et al., 2013). Factors that have a negative association with return to work include low self-confidence, depression symptoms, feelings of isolation, perceptions of ill health, co-morbid conditions, fear,

catastrophizing, poor coping strategies, negative relationships, and avoidance behaviors (de Wit et al., 2018; Dekkers-Sánchez et al., 2013).

The seminal works in the disability management and return to work field confirm that time is a factor, the earlier the interventions and return to work planning, the shorter the duration (Bowling, 1995; Brouwer et al., 2009; Hogg-Johnson, 2003). If the individual is not back to work by six months, it becomes challenging to return as a disability mindset occurs, and the perceived effort of return to work becomes insurmountable (Vossen et al., 2017).

Self-efficacy has been a consistent indicator of a positive return to work (Labriola et al., 2007). Labriola et al. (2007) extend the thought on self-efficacy to low general self-efficacy as perhaps a consequence of being off on disability for prolonged periods. This is an essential consideration for workplaces trying to return employees to work and speaks to the importance of staying in touch and building confidence that the employee can perform the task included in the return to work plan (Holmgren & Mårdby, 2013; Hosseingholizadeh et al., 2019; Labriola et al., 2007; Victor et al., 2018). The researchers also found self-efficacy level was generally lower in lower socio-demographic groups, both men and women with lower education, income, and socioeconomic position were affected (Galizzi et al., 2016; Holmgren & Mårdby, 2013; Jetha et al., 2019; Real et al., 2016). Bandura (1989) clarifies the importance of individual perceptions of their abilities to organize and carry through with certain actions to achieve specific goals. The researchers concluded that absence contributes both directly and indirectly to corporate, individual, and societal costs, and more research is required to determine success factors for return to work (Holmgren & Mårdby, 2013; Muñoz-Murillo et al., 2018).

Several studies demonstrate work is healthy and therapeutic for those with mental health conditions (Björk Brämberg et al., 2019; Johansson et al., 2016; Muñoz-Murillo et al., 2018;

Spronken et al., 2020). Naturally, work comes with some stressors, but it has been shown that the benefits exceed the stressful effects of not working (Johansson et al., 2016; Spronken et al., 2020). Individuals that have been unemployed for more than 12 weeks demonstrated higher rates of depression and anxiety, including higher rates of suicide (Muñoz-Murillo et al., 2018). Return to work was demonstrated to improve the health and wellbeing of those who had been ill or on disability (Muñoz-Murillo et al., 2018).

In addition to considering the personal factors and beliefs that contribute to time off, the availability of social support for a disabled employee is an indicator of success (Awang et al., 2016; Muñoz-Murillo et al., 2018). The following section will provide information on the role of social support in return to work. Social support has been a key area of exploration as it pertains to the duration of recovery (Corbière et al., 2017; Ekberg et al., 2015).

### ***Social Support***

De Vries et al. (2018) explored key determinants surrounding mental health return to work and found social support is a positive determinant. Social support from coworkers and supervisors and positive expectations concerning sick-leave duration assisted with a positive return to work (de Vries et al., 2018; Kristman et al., 2017; Negrini et al., 2018). Workplace communication and support are vital to the success of return to work (Björk Brämberg et al., 2019; Strömbäck et al., 2020). Social support at work from the supervisor can assist in building confidence and self-efficacy surrounding the perceived ability to perform the job (Hosseingholizadeh et al., 2019; Shaw et al., 2003). Shaw et al. (2003) examined employee impressions of supervisor support following injuries. The researchers conclude social support of the employee ranks among the top expectations from the employee (Shaw et al., 2003). Poor

psychosocial environments can have a negative effect on return to work (Catalina-Romero et al., 2015; Kouvonen et al., 2016).

Family support was also crucial to recovery and return to work (Bagger & Li, 2014; Prang et al., 2015, 2016). Family dynamics and history of disability benefit payments within the family unit influence recovery and return to work (Bagger & Li, 2014; Prang et al., 2015). A lack of social support for recovery and return to work can be detrimental to successful reintegration (Gragnano et al., 2018; Hosseingholizadeh et al., 2019; Knapstad et al., 2014). Social isolation can sometimes occur, particularly after repeated absences, as the individual's lifestyle no longer matches their peer groups (Knapstad et al., 2014). Lack of social support is an important consideration in managing absences and, ultimately, the return to work (Gragnano et al., 2018; Hosseingholizadeh et al., 2019; Knapstad et al., 2014).

Job characteristics may also have a bearing on return to work and the duration of absence due to mental health conditions (Björk Brämberg et al., 2019; Fagerlind Ståhl et al., 2018; Rydström et al., 2017). The role an individual performs in the workplace and the duties of the job can impact the return to work trajectory (Demou et al., 2018; McDowell & Fossey, 2015). The following paragraphs will explore the influence of job characteristics further.

### ***Job Characteristics***

Job characteristics are a consideration in return to work. Work-related psychological risk factors could affect recovery, including high job demands, low job control, discord in work social relationships, perceived injustice, and low rewards (Björk Brämberg et al., 2019; Fagerlind Ståhl et al., 2018; Rydström et al., 2017; Strömbäck et al., 2020). Work challenges, work environment, organization size, occupational status, job control, and underlying workplace



culture can all influence the duration of time lost (Dewa et al., 2016; Galizzi et al., 2016; Hosseingholizadeh et al., 2019; Victor et al., 2018).

A study found evidence to suggest that working in wholesale, being a protective service or emergency worker, and having depression or post-traumatic stress were associated with longer durations of absence (Collie et al., 2016). Employees with jobs in the private sector had a faster return to work trajectory than the public sector (Spronken et al., 2020).

There is a recognition that other elements such as the disability plan design, including the level of pay and duration of pay, while off work, can have an impact on time lost (Dewa et al., 2016; Galizzi et al., 2016; Spronken et al., 2020; Victor et al., 2018). If the plan is designed to have 100% wage coverage, this can negatively impact the desire to return to work (Larsen et al., 2017; Spronken et al., 2020).

Despite these complexities, it has continued to be proven that workplace interventions and programs have grown in the successful reintegration of ill employees for both musculoskeletal and mental health conditions (Cullen et al., 2018). Intervention from the workplace has been demonstrated to contribute to positive outcomes (Cullen et al., 2018; Negrini et al., 2018; Nieuwenhuijsen et al., 2013). The authors did conclude that there is not enough scientific evidence to create solid mental health return to work policy or procedures, and more research is required (Cullen et al., 2018; Negrini et al., 2018; Nieuwenhuijsen et al., 2013).

### ***Mental Health Condition***

The type of disability can influence time lost duration (Dewa et al., 2016; Galizzi et al., 2016; Hosseingholizadeh et al., 2019; Victor et al., 2018). Those diagnosed with depression were slower to return to work than those with adjustment disorder or burnout (Huijs et al., 2017; Kausto et al., 2017; Spronken et al., 2020). The existence of concurrent or comorbid conditions

resulted in longer times off (Johansson et al., 2016). It has been demonstrated that people who have mental illness usually suffer from higher levels of disability and comorbidity than the general population (Holmgren & Mårdby, 2013; Muñoz-Murillo et al., 2018). The type of mental health condition has only been explored on a cursory level (Gray & Collie, 2018; Prang et al., 2015). There was very little research surrounding the type of mental health condition and variance on return to work.

A few studies indicated access to specialized physicians lowered the duration of time off work (Dalgaard et al., 2017; Nigatu et al., 2017; Schneider et al., 2016; Smith et al., 2020; Sylvain et al., 2016; Vermeulen et al., 2011). Recurrent conditions were statistically significant in the extension of the absence (Dewa et al., 2016; Netterstrøm et al., 2015). The literature also acknowledged the challenge of coming up with a proper understanding of limitations when returning from a mental health condition (Martin et al., 2018; Netterstrøm et al., 2015; Nielssen et al., 2019).

An element that can derail return to work, stall the development of self-efficacy, and create roadblocks to recovery is litigation (Cullen et al., 2018; M. H. T. Martin et al., 2015; Nielssen et al., 2019). It is important to explore the impact of litigation on return to work. The following will delve into litigation implications further.

### ***Litigation***

The complex nature of litigation and secondary gain poses a direct challenge for workplaces and researchers as the socio-legal aspects result in competing interests that is difficult to account for when trying to determine the predictors of return to work (Cullen et al., 2018; Nielssen et al., 2019). The presence of litigation has a detrimental effect on recovery (Nielssen et al., 2019). In a study of 397 pain program patients, where 73% were not involved in litigation,

and 20% reported involvement in litigation, and 7% reported ongoing litigation (Nielsen et al., 2019). The patients still involved in the litigation had the highest scores on depression scales and the highest rate of opioid use (Nielsen et al., 2019). The completion rates and symptom improvement were lower among those in current litigation (Nielsen et al., 2019). Current involvement in compensation litigation was associated with lower treatment completion and less symptom improvement (Nielsen et al., 2019). An earlier review of outcomes in chronic pain patients found compensation was associated with more significant experience of pain and reduced efficacy of both medical and psychological treatment (Nielsen et al., 2019). Additionally, surgical outcomes depending on the compensation status, found that 83% of the studies reported a worse outcome in patients seeking compensation (Nielsen et al., 2019).

Many variables can help predict the duration of absence and return to work. It is essential to understand that there are variables beyond the study's confines that may affect self-efficacy and influence the results (Awang et al., 2016; Cullen et al., 2018; Johansson et al., 2016, 2016; Larsen et al., 2017; Netterstrøm et al., 2015; Prang et al., 2016; Smith et al., 2020).

As it pertains to the study, the research supports gender, and workplace stakeholders may have significance (Bagger & Li, 2014; Hoefsmit et al., 2016; Koopmans et al., 2010; Kristman et al., 2017; A. Martin et al., 2016; Negrini et al., 2018). The type of mental health condition is inconclusive pertaining to the impact on durations (Holmgren & Mårdby, 2013; Prang et al., 2016; Vossen et al., 2017). Studies continue to emerge with an examination of new variables. It is a fascinating time to continue exploring variables that could positively influence return to work following a mental health disability absence.

## Findings

The research studies provide a strong overview and enhance understanding of the topic of return to work predictors (Dewa et al., 2016; Joyce et al., 2016). In synthesizing the research, several components stand out as known evidence (Corbière et al., 2017; Dewa et al., 2016; Joyce et al., 2016). Self-efficacy of the disabled and returning employees will make a difference in the speed and likelihood of a return to work (Corbière et al., 2017; Holmgren & Mårdby, 2013; Hosseingholizadeh et al., 2019; Lloyd et al., 2017). Based on the research, it is anticipated that self-efficacy, stakeholder involvement, and gender alone or in combination will predict a return to work (Bandura, 1977; Björk Brämberg et al., 2019; Brouwer et al., 2009; Coduti et al., 2016; de Wit et al., 2018; Dekkers-Sánchez et al., 2013; Dewa et al., 2016; Joyce et al., 2016; Nielsens et al., 2019; Real et al., 2016; Vossen et al., 2017; Wood & Bandura, 1989). Based on the literature, it is uncertain if the type of mental health condition will predict a return to work. There are many studies for conditions other than mental health that demonstrate self-efficacy, stakeholder involvement, and gender make a statistically significant difference (Bandura, 1977; Björk Brämberg et al., 2019; Dewa et al., 2016; Galizzi et al., 2016; Wærsted et al., 2010; Wood & Bandura, 1989). There is minimal research on mental health condition duration with the combination of the three study variables of stakeholder involvement, gender, and mental health condition (Dewa et al., 2016; Gray & Collie, 2018). Therefore, the study will serve to advance knowledge and act on other author's recommendations in the area.

While the study of mental health and return to work is slowly emerging, a few researchers have started to recognize the need to adapt the self-efficacy scales to include mental health elements (Corbière et al., 2019; Dewa et al., 2016). There is substantial documentation supporting the self-efficacy connection in conditions other than mental health (Corbière et al.,

2019; Dewa et al., 2016). There is no reason to believe that there will not also be a connection with mental health claims (Labriola et al., 2007). Researchers highlight the ability of supervisors to have a positive influence on the self-efficacy of returning employees (Galizzi et al., 2016; Hoefsmit et al., 2016; Lee et al., 2019; Spronken et al., 2020). Return to work efforts need to consider both the individual and the social environment (Lork & Holmgren, 2018).

Strengthening self-efficacy by targeting self-confidence, control, and work autonomy can assist with return to work success (Bandura, 1988; Bandura & Schunk, 1981). An interdisciplinary research study, with both quantitative and qualitative methods, explores the process of returning to work (Lork & Holmgren, 2018). The researchers summarize that many elements affect return to work and continued exploration of variables is an interesting challenge for future research (Lork & Holmgren, 2018).

Stakeholder involvement in return to work from conditions other than mental health has been noted as relevant (Cohen et al., 2012; Galizzi et al., 2016; Kärkkäinen et al., 2018; Lemieux et al., 2011; Negrini et al., 2018). Some initial qualitative studies have been done on the value and importance of supervisor involvement in return to work from mental health conditions (Dewa et al., 2016). To ensure supervisor effectiveness and competency training is an essential consideration (Gray & Collie, 2018; Johnston et al., 2015; McLaren et al., 2017). Training should include information on their role in the return to work process, mental health awareness, and communication skills (Gray & Collie, 2018; Johnston et al., 2015; McLaren et al., 2017).

The studies on gender and duration of time lost predominately agree that women take longer to return to work (Koopmans et al., 2010; Macpherson et al., 2018; Mattila-Holappa et al., 2017; Roelen et al., 2012). A qualitative article with a small sample size indicated gender was not a predictor of a timely return to work (Roelen et al., 2012). The studies do discuss the

existence of other factors that could influence this finding, such as type of occupation, family demands, secondary gain, lack of reverence from health care providers, and higher hesitation from the workplace (Holmgren & Mårdby, 2013; Koopmans et al., 2010; Spronken et al., 2020).

While there are very few articles that speak about mental health and return to work directly, there is a recognition that a disability mindset could result in delayed return to work (Vossen et al., 2017). The few studies that look at the mental health condition appear to have mixed opinions (Carriere et al., 2015; Endo et al., 2019; Ervasti et al., 2017; Roelen et al., 2012; Spronken et al., 2020). The studies specific to depression cases state they last longer without adequate treatment or work accommodation practices (Carriere et al., 2015; Ervasti et al., 2017; Sallis & Birkin, 2014). Workplace factors are not fully explored in the existing articles (Carriere et al., 2015; Ervasti et al., 2017; Sallis & Birkin, 2014). Spronken et al. (2020) examine the return to work trajectories and determine adjustment disorder has a faster return to work, but other conditions were not significant. In some studies, they elude to diagnosis, making a difference but indicate more research is required to determine which diagnosis and why (Roelen et al., 2012). Recurrent mental health conditions seem to have longer durations, and the type of condition does not seem to matter (Endo et al., 2019). There is a clear need for further research pertaining to the mental health condition (Dewa et al., 2016; Gaspar et al., 2018). Overall, researchers acknowledge and recommend more research in the area of mental health conditions. There is consensus on the topic's importance due to the human and financial cost associated with an employee not being at work (Dewa et al., 2016).

The current literature indicated there is a gap in knowledge as it pertains to factors that contribute to an early and safe return to work (Briand et al., 2007; Dewa et al., 2016; Mustard et al., 2017; Shankar et al., 2014). Particularly as it pertains to stakeholder involvement in the

return to work planning for mental health conditions (Dewa et al., 2016; Mustard et al., 2017). The topic of mental health is continuing to emerge, and research on return to work following a mental health absence is vital as employers struggle with absence and return to work (Bergström et al., 2017; Briand et al., 2007; Kassin, 2014; Skivington et al., 2016). Workplaces need to have information on the topic of return to work following a mental health condition (Catalina-Romero et al., 2015; Dewa et al., 2016). The financial impact for employers is high, and employees' human impact is dramatic (Björk Brämberg et al., 2018; Hoefsmit et al., 2016; Shankar et al., 2014). The literature has a great deal of information on return to work from a self-efficacy point of view (Bandura, 1977; Bell & Kozlowski, 2002; Black et al., 2017; Stajkovic & Luthans, 1998; Waynor et al., 2016). The use of Bandura's self-efficacy theory is common in return to work literature, and it is a good fit for this study (Bandura, 1977, 1988, 2004b; Bell & Kozlowski, 2002; Stajkovic & Luthans, 1998). There has been research into employee attitudes, the process in the workplace, and return to work (Bejerholm & Areberg, 2014; Catalina-Romero et al., 2015; Chambers et al., 2017; Coduti et al., 2016; Mustard et al., 2017; Spronken et al., 2020; Volker et al., 2017; Waynor et al., 2016; Young et al., 2017). Researchers in the area of mental health disability management and return to work indicate a strong need for additional research (Corbière et al., 2019; Dalgaard et al., 2017; Ladegaard et al., 2019; Negrini et al., 2018).

### **Critique of Previous Research Methods**

Previous research has used a variety of research methods. In critiquing the literature, there is a clear indication that more research is needed. The studies that were performed met the requirements of good scientific merit (Leedy & Ormrod, 2016). There are two predominant types of research, qualitative and quantitative (Leedy & Ormrod, 2016). Qualitative research deals more with impressions, opinions, perspectives, experiences, and feelings about a topic (Leedy &

Ormrod, 2016). Quantitative research provides the ability to objectively, systematically test hypotheses with strict data analysis protocols. There are three distinct dimensions to the scientific merit of the research (Leedy & Ormrod, 2016). These include: advancing the knowledge base on the topic, contribution to theory, and meeting the hallmarks of good research (Leedy & Ormrod, 2016). The research examined for the study overall meets the three requirements.

Several qualitative research studies are pertinent to the topic of return to work that uses interviews, impressions, and analysis of the themes (Leedy & Ormrod, 2016). The qualitative studies assist in gathering essential stakeholders' perspectives in return to work process (Cohen et al., 2012; Geisen et al., 2019; Skivington et al., 2016; Strömbäck et al., 2020). The qualitative research contributes to understanding the human perspective of managers, physicians, employees, and case managers in the return to work field (Corbière et al., 2019; Horppu et al., 2016; Lancman et al., 2017; Skivington et al., 2016; Wagner et al., 2017). There are many views to consider, and the conclusions are insightful, particularly as they pertain to the uncertainty and sometimes associations with mental health conditions (Buys et al., 2017; Geisen et al., 2019; MacEachen et al., 2020; Skivington et al., 2016; Wagner et al., 2017). Workplace parties are hesitant to say or do the wrong thing and do not want to risk the employee's health or recovery progress (Corbière et al., 2019; Lammerts, Schaafsma, van Mechelen, et al., 2016). There is much uncertainty around communication or best practices in mental health return to work (Coduti et al., 2016). Researchers conclude that more research is required (Amick et al., 2017; Corbière et al., 2019; Dewa et al., 2016). The qualitative studies add to the conversation surrounding return to work. While limited sample sizes may shadow the potentially broad application of findings, the techniques to ensure the sample size were representative protect the



research's efficacy (Cohen et al., 2012; Dewa et al., 2016; Lammerts, Schaafsma, van Mechelen, et al., 2016).

Several researchers conducted systematic reviews (Dewa et al., 2016; Joyce et al., 2016; Mikkelsen & Rosholm, 2018; Nieuwenhuijsen et al., 2013). The value of systematic reviews is that they condense research into one document and highlight the similarities of findings and knowledge gaps. Dewa et al. (2016) conducted a detailed systematic review and found three predominant themes from over 58 articles. These include workplace policy and procedure with clear roles and responsibilities, the existence of a disability plan, and accommodations for return to work (Dewa et al., 2016). There was also consensus on the importance of workplace training on mental health, particularly supervisor training (Dewa et al., 2016). The researcher used a very systematic process for the inclusion of articles and indicated that the starting point was 650 articles (Dewa et al., 2016). The systematic review assists in distilling the information for corporations and practitioners in order to build programs based on evidence-based best practices.

In another systematic review, it was found that contact with the workplace stood out consistently as important in the reviewed literature (Mikkelsen & Rosholm, 2018). Mikkelsen and Rosholm (2018) use meta-regressions to seek similarities in the studies. They start with 9,459 articles and end up with 32 articles for inclusion in the systematic review (Mikkelsen & Rosholm, 2018). The systematic review provided insight into workplace programs that make a difference, including moderate evidence for a graduated return to work (Mikkelsen & Rosholm, 2018). This synthesis provides more evidence on best practices and highlights some critical considerations in workplace policy design.

One of the drawbacks of systematic reviews is that the researcher may have preconceived intentions and may discount newer concepts as they are not adequately repeated in the literature

(Thoma & Eaves, 2016). The nature of systematic reviews is to examine the literature and produce a summary of the existing literature on a specific topic (Thoma & Eaves, 2016). It is accepted that one off research studies may not be captured in the ultimate conclusions until they are repeated by other researchers (Thoma & Eaves, 2016).

The quantitative studies add to the topic of return to work following a disability. Some studies are directly related to self-efficacy, stakeholders, gender, and mental health condition (Corbière et al., 2019; Fagerlind Ståhl et al., 2018; Koopmans et al., 2010; Lagerveld et al., 2017). The reviewed quantitative studies have suitable sample sizes, interesting research questions and contribute to the body of emerging research knowledge (Brijnath et al., 2014; Cohen et al., 2012; Strömbäck et al., 2020). There have been experimental, quasi-experimental, and non-experimental studies performed (Dewa et al., 2016; Fagerlind Ståhl et al., 2018; Lammerts, Schaafsma, van Mechelen, et al., 2016; Mustard et al., 2017). There are many steps in quantitative research, including articulation of the issue, a thorough literature review, theorist influence, questions and hypothesis, specific data analysis methodology, interpretations of results and conclusions, limitations stated, and recommendations for future research (Leedy & Ormrod, 2016; Quaigrain & Issa, 2018). The quantitative non-experimental study is specific to return to work following a mental health condition, and the literature review focuses on research pertinent to this area.

### ***Experimental***

Björk Brämberg et al. (2018) conduct a randomized control study that included 22 primary care centers. In this experimental study, a test group of physicians and rehabilitation coordinators received training on how to make early contact with the workplace (Björk Brämberg et al., 2018). At the patient level, they used only employed individuals with ICD-10

diagnostic categories of F43 – acute stress reaction (Björk Brämberg et al., 2018). The patient outcomes at three, six, and twelve months were measured. The article concludes that having a rehabilitation coordinator interacting with the workplace may be helpful in return to work (Björk Brämberg et al., 2018). Unfortunately, the authors did not elaborate on their statistical analysis methods. This study starts to recognize that workplace involvement could lead to a return to work. It is an essential advancement in the study of mental health in the workplace.

Larsen et al. (2017), in an experimental study, to determine if a private-public partnership with case management intervention assisted with a return to work. The study included 12 control municipalities and six interventions municipalities (Larsen et al., 2017). A cox proportional hazard ratio analysis was used to determine significance (Larsen et al., 2017). This study is unique, as no significance was found with the intervention of case managers (Larsen et al., 2017). This study is unique as it contradicts other research studies (Dewa et al., 2016). A limitation of this study is the benefits plan design. The claimants could receive full government benefits for up to 52 weeks, with no consequence when denying return to work offers (Larsen et al., 2017). As the research progresses, there is a good focus on the multiple variables that could enhance mental health claims management success.

Halonen et al. (2016) performed a quasi-experimental study on the legislative impact on return to work. The study comparison was of two groups of individuals, those with partial or full benefits and those without benefits under the scheme (Halonen et al., 2016). The return to work rate was higher for the group with partial benefits only (Halonen et al., 2016). The statistical analysis was hierarchical logistic regressions (Halonen et al., 2016). A population of 3,669 was split equally between those with partial or full benefits (Halonen et al., 2016). The

researchers report that they were able to conduct the study without manipulation of the variables (Halonen et al., 2016).

De Weerd et al. (2016) performed a randomized control trial to examine the effectiveness of convergent dialogue meetings with the employer. The research includes 60 employees on sick leave, split into an intervention or control group (de Weerd et al., 2016). The researchers discover that durations were 12 days shorter in the convergent dialogue intervention group (de Weerd et al., 2016). The statistical results were not fully shown in the article, but they did mention using linear regression analysis (de Weerd et al., 2016). This is an important workplace study to emphasize the value of communication with absent employees (de Weerd et al., 2016). Maintaining the workplace connection is identified as a critical variable throughout the research, and the in-depth look at the type of dialogue helps fine-tune this concept (de Weerd et al., 2016).

In a quasi-experimental study, an intervention group and a non-intervention group. The intervention group receives supervisor leadership training, communication, and employee support (Tafvelin et al., 2019). In the intervention group, the employee perception of supervisor support was stated to improve the work climate (Tafvelin et al., 2019). The study highlights the need for sufficient supervisor leadership training to ensure adequate support for employees (Tafvelin et al., 2019). It is essential to look at the methods to enhance supervisor abilities when it comes to the facilitation of return to work following a mental health disability. This research provides evidence that supervisor training can result in positive employee experiences.

### ***Quasi-Experimental***

In a quasi-experimental study, patient characteristics for return to work were explored with a cross-sectional study (Victor et al., 2018). There were 86 patients in a regular outpatient

clinic and 270 in return to work outpatient clinic (Victor et al., 2018). The data were analyzed with ANOVA, chi-squared, and logistic regression (Victor et al., 2016). The researchers examine several variables and conclude that higher workability predicts a more successful return to work (Victor et al., 2016). The sample size for this study was high enough to allow for conclusions. The research methods were precise and suited to the study. Contribution to the conversation surrounding return to work was evident and pertinent in the emphasis of workability as a key variable (Victor et al., 2018).

Volker et al. (2015) solidly addressed the topic of return to work self-efficacy. In a quantitative longitudinal study with a group of sick-listed workers, the researchers examined the impact of self-efficacy on return to work (Volker et al., 2015). The researchers also examine other variables that may influence a successful return to work (Volker et al., 2015). The study was well laid out and contributed to the growing knowledge on return to work self-efficacy, particularly as it pertains to mental health disabilities (Volker et al., 2015). The researchers had the opportunity to conduct a survey and solicit information from the subjects that agreed to participate in the study (Volker et al., 2015). They specifically investigated if self-efficacy was a predictor of return to work (Volker et al., 2015). Participants worked for small to medium-sized employers with sick leave benefits (Volker et al., 2015). They were on sick leave for longer than four weeks but less than two years due to a mental health condition (Volker et al., 2015). The dependent variable in this article is the duration of days until full return to work (Volker et al., 2015). In addition to the primary independent variable, the following were examined; health-related factors, personal factors, and job-related factors (Volker et al., 2015).

The researchers used a self-efficacy questionnaire to obtain the required information from the study participants (Volker et al., 2015). A sample size of 493 sick-listed employees was used

for the study, participation was voluntary, and consents were obtained (Volker et al., 2015). The findings were derived from a cox proportional hazards regression analysis (Volker et al., 2015). Bandura's (1977) self-efficacy theory was used in this study to further support its use in this area. Lagerveld et al. (2010) self-efficacy survey instrument was used to determine the level of self-efficacy. Overall, the article substantially contributes to the emerging literature surrounding self-efficacy and its role in return to work outcomes (Volker et al., 2015). The article articulated the existing research, identified the variables, discussed the sample, performed the analysis, and summarized the findings in an unambiguous manner (Volker et al., 2015). The finding demonstrated that a higher level of self-efficacy had a statistically significant difference in return to work following a mental health disability (Volker et al., 2015).

### ***Non-Experimental***

In a non-experimental study, the data from a register of sick-listed individuals was examined with a cox proportion analysis to determine variables that enhanced return to work (Leijon et al., 2015). The only records were those with 100% sick leave benefits between specific time frames (Leijon et al., 2015). The inclusion and exclusion criteria were well defined. The dependent variable was the probability of return to work. The independent variables include country of birth, type of disability, age, gender, educational level, dependents, type of employment, employment sector, employment history, occupation, and income band (Leijon et al., 2015). Women with mental health conditions have a lower probability of return to work (Leijon et al., 2015). The researchers did not find any other significant variables. Gender has been discussed as a variable in several studies, and the majority seem to indicate women have a longer duration on mental health claims (Alves, 2015; Koopmans et al., 2010; Leijon et al.,

2015). This is an important consideration, so strategies can be adapted when managing return to work from a mental health claim.

McLaren et al. (2017) use regression analysis to examine data from the California Employment Development Department. The effectiveness of employer return to work programs was found to result in a 1.4 times faster return to work (McLaren et al., 2017). The researcher's state modifying work also provides the most significant reduction in lost time (McLaren et al., 2017). The independent variables of return to work programs, modified equipment, and men with permanent disabilities affected the dependent variable of time lost to return to work (McLaren et al., 2017). The dependent variable of lost time is highly pertinent to the study and supports the use of gender as one of the variables. Interestingly, the article states that men with permanent disabilities have an effect on lost time (McLaren et al., 2017). Understanding the variables in return to work will help with the intensity of intervention in different groups.

Many studies on return to work use a non-experimental approach with existing data from a variety of sources. The sources may include insurers, third-party administrators, employers, workers' compensation agencies, or government agencies. The studies use regression analysis, chi-square, or ANOVA for analysis. All of these studies examine the return to work predictors ranging from demographic factors, disability category, and workplace factors (Demou et al., 2018; Real et al., 2016; Sakakibara et al., 2019; Spronken et al., 2020; Volker et al., 2015, 2017). The area of disability and particularly mental health disability is highly important due to the financial and human cost of absences from work (Andersen et al., 2014; Brijnath et al., 2014; Nieuwenhuijsen et al., 2013; Volker et al., 2015).

A review of the existing literature assists in identifying the information that is known and gaps in the current research. There are vital areas for focus that will contribute to the

advancement of evidence in the field of return to work. The studies used good scientific merit and help in the expansion of knowledge and points of view on the topic.

### **Summary**

Chapter two considered methods of searching, literature review of the theoretical basis, review of current literature, synthesis of findings, and a critique of the research methods and procedures used in the current literature sources. The literature surrounding return to work following a mental health disability was logically and systematically presented. There was an interesting discussion of the articles and their contributions to the topic and the research problem. In comparing, contrasting, and examining the articles as they pertain to the research problem, strengths and limitations were highlighted. The topic of return to work has multiple studies that the researcher reviewed in three primary areas; employee attitudes, workplace programs including supervisor involvement, and predictive factors (Dewa et al., 2016). The studies built on each other to provide background support for the need of the study pertaining to variables that may influence return to work from a mental health condition (Dewa et al., 2016).

Chapter three will outline the research methodology for the study. The target population and the sample will be revealed. The procedures, protection of participants, and data analysis will be highlighted. An overview of the source of the records review will be provided. The next chapter will also demonstrate the method that of selection for the study population. The method and intended design in collection, analysis, and findings will be presented.



## **CHAPTER 3. METHODOLOGY**

### **Purpose of the Study**

The purpose of this quantitative non-experimental ex post-facto study was to determine if the dependent variable of the duration of time off on a mental health condition is affected by the independent variables of stakeholder involvement, gender, or type of mental health condition. The topic of return to work following a mental health absence is of interest to employers and the broader community (Coduti et al., 2016; Dewa et al., 2016; Mustard et al., 2017). The human and financial cost of prolonged mental health absence is dramatic (Blank et al., 2008; Hoefsmitt et al., 2016). Chapter three will include the purpose of the study, the research questions and hypothesis, research design, target population and sample, data collection and analysis, and ethical considerations. The return to work was considered successful if the duration of claims with supervisor involvement is lower than those who did not have supervisor involvement in the return to work. The three independent variables that were analyzed for statistical significance are; stakeholder involvement is contained to the supervisor or human resources. Gender is contained to men or women. Mental health condition is contained to depression, anxiety, or other. The archive data will emerge from a third-party administrators existing dataset, with no identifiers. The data analysis will be performed in SPSS with a three-way ANOVA (George & Mallery, 2017).

### **Research Questions and Hypotheses**

The following section will summarize the research questions and hypotheses used within the study. There is a total of seven research questions accompanied by their null and alternative

hypothesis. Each question is structured to test the dependent variable and the independent variables.

### **Research Questions**

The study had a total of seven research questions. The questions are established to examine if the independent variables made a statistically significant difference on the dependent variable of time lost from work following a mental health disability. Is there a statistically significant difference in the dependent variable of the return to work duration of employees following a mental health absence when workplace stakeholders, gender, and mental health conditions are taken into consideration?

#### **Research Question 1**

When the variables of gender and mental health diagnosis are held constant, will there be a statistically significant difference in the average number of days lost due to the variable of stakeholder involvement?

$H_0$  When the variable of mental health diagnosis and gender are held constant, there will be no statistically significant difference in the average number of days lost due to the variable of stakeholder involvement.

$H_A$  When the variable of mental health diagnosis and gender are held constant, there will be a statistically significant difference in the average number of days lost due to the variable of stakeholder involvement.

#### **Research Question 2**

When the variables of stakeholder involvement and mental health diagnosis are held constant, will there be a statistically significant difference in the average number of days lost due to the variable of gender?

$H_0$  When the variable of stakeholder involvement and mental health diagnosis is held constant, there will be no statistically significant difference in the average number of days lost due to the variable of gender.

$H_A$  When the variable of stakeholder involvement and mental health diagnosis is held constant, there will be a statistically significant difference in the average number of days lost due to the variable of gender.

### **Research Question 3**

When the variables of gender and stakeholder are held constant, will there be a statistically significant difference in the average number of days lost due to the variable of mental health diagnosis?

$H_0$  When the variable of gender and stakeholder involvement are held constant, there will be no statistically significant difference in the average number of days lost due to the variable of mental health diagnosis.

$H_A$  When the variable of gender and stakeholder involvement are held constant, there will be a statistically significant difference in the average number of days lost due to the variable of mental health diagnosis.

### **Research Question 4**

When the variables of mental health diagnoses are held constant, will there be a statistically significant difference in the average number of days lost due to the two-way interaction of stakeholder and gender?

$H_0$  When the variable of mental health diagnosis is held constant, there will be no statistically significant difference in the average number of days lost due to the variable of stakeholder involvement and gender.

$H_A$  When the variable of mental health diagnosis is held constant, there will be a statistically significant difference in the average number of days lost due to the variable of stakeholder involvement and gender.

### **Research Question 5**

When the variables of gender are held constant, will there be a statistically significant difference in the average number of days lost due to the two-way interaction of stakeholder and mental health diagnosis?

$H_0$  When the variable of gender is held constant, there will be no statistically significant difference in the average number of days lost due to the variable of stakeholder and mental health diagnosis.

$H_A$  When the variable of gender is held constant, there will be a statistically significant difference in the average number of days lost due to the variable of stakeholder and mental health diagnosis.

### **Research Question 6**

When the variables of stakeholder involvement are held constant, will there be a statistically significant difference in the average number of days lost due to the two-way interaction of gender and mental health diagnosis?

$H_0$  When the variable of stakeholder involvement is held constant, there will be no statistically significant difference in the average number of days lost due to the variable of gender and mental health diagnosis.

$H_A$  When the variable of stakeholder involvement is held constant, there will be a statistically significant difference in the average number of days lost due to the variable of gender and mental health diagnosis.

## Research Question 7

Will there be a statistically significant difference in the average number of days lost due to the three-way interaction of stakeholder involvement, gender, and mental health diagnosis?

$H_0$  There will be no statistically significant difference in the average number of days lost due to the three-way interaction of stakeholder involvement, gender, and mental health diagnosis.

$H_A$  There will be a statistically significant difference in the average number of days lost due to the three-way interaction of stakeholder involvement, gender, and mental health diagnosis.

## Research Design

The study used a quantitative, non-experimental, ex post-facto design method. In research design an ex post facto approach examines qualities of groups that already exist (Leedy & Ormrod, 2016). The definition can also be stated as after the fact research, as the dataset already exists and there is no random assignment, manipulation, or intervention with the subjects (Leedy & Ormrod, 2016; Warner, 2008). The group is generally selected as they pose a specific set of characteristics, and there is an interest in the variables that could impact a dependent variable ((Leedy & Ormrod, 2016; Warner, 2008). The study gathered information on the impact of supervisor involvement on the duration of mental health disability duration and return to work. The theory of interest is Bandura's self-efficacy theory (Bandura, 1977, 1988). Use of Bandura exist in the return to work literature (Black et al., 2017; Brouwer et al., 2015; Wood & Bandura, 1989). It has been demonstrated that employee self-efficacy can positively impact return to work (Brouwer et al., 2015; Dewa et al., 2016; Lagerveld et al., 2017).

The archival data was provided without identifiers by a third-party administrator. The non-experimental research does not include any ability to manipulate the research variables, so

this study lends well to the design (Leedy & Ormrod, 2016). The data was extracted from real cases in real work settings (Warner, 2008). Studies in the return to work literature successfully use a non-experimental approach (Dekkers-Sánchez et al., 2013; Dewa et al., 2016; Huijs et al. The analysis methodology of three-way ANOVA is an appropriate fit, as there are three independent variables to examine (George & Mallery, 2017). The independent variables include; stakeholder, gender, and type of mental health condition.

The sampling design of non-probability was used for the quantitative study. The study will examine the impact of the three variables on the dependent variable of the duration of absence up to the return to work from a mental health disability. The sampling method was a non-probability, convenience sample (Trochim & Donnelly, 2008). A non-probability sample concerns a group that is unique or there is something specific about participants (Trochim & Donnelly, 2008). The study is a non-probability sample as existing archival mental health disability records were extracted anonymously from the third-party administrator's database.

Potential ethical conflicts or concerns are addressed by having no identifiers on the records. The data came directly from the third-party administrator in a password protected excel file with no identifiers. There were no identification numbers or individual identifiers to reveal personal or company identities. The Capella University Institutional Review Board has approved the research study. Consideration for the research is ensuring the third-party providing the data abides by confidentiality and does not release the records with any identifiers. The third-party administrator had a small computer program to extract the data into excel based on the parameters of the data request. The third-party has sent a password-protected list of 1,188. The data review confirmed that the information has no identifiers, appears to be within the parameters of the request, and holds sufficient records. A G-Power calculation identifies that 158

records are required for a viable sample (Faul et al., 2007). An excel random generator will identify 158 records. In reviewing the data, it appears to have a fair distribution. It is representative of the larger sample with approximately equal supervisor and human resources, men and women, and depression, anxiety, and others. The data was uploaded to SPSS, and a quantitative three-way ANOVA was performed (George & Mallery, 2017).

The data represents an expert sample with archive records of employees that have been on short term disability and returned to work. The records indicated a mental health disability, had a gender of men or women and had workplace stakeholder involvement of a supervisor or human resources. The following provides more detail on the dependent variable and the three independent variables.

### ***Duration of Disability***

The duration of the mental health disability from the date of going off work until the date of return to work is the dependent variable. Only short term disability claims were included in the data set. Claims included mental health diagnosis and a minimum of five days off, and a maximum of 182 days off. There was a return to work date for inclusion in the dataset. The duration of disability has been used in other studies surrounding return to work in examination of variables that could influence the time lost (Blank et al., 2008; Dewa et al., 2016; Ekberg et al., 2015; M. B. D. Nielsen et al., 2011). The impact of self-efficacy on disability durations has been examined in a multitude of studies (Black et al., 2017; Cullen et al., 2018; Dewa et al., 2016; Lagerveld et al., 2017; Wood & Bandura, 1989). It is postulated that higher self-efficacy leads to lower durations in disability claims (Lagerveld et al., 2017; Sakakibara et al., 2019; Young et al., 2017).

### ***Stakeholders***

The independent variable of stakeholder involvement in the return to work planning is contained to the supervisor or human resources. Records that had both, none, or an alternate participant were excluded from the data set. Workplace stakeholders have been demonstrated to make a difference in return to work from musculoskeletal claims (Bagger & Li, 2014; Corbière et al., 2019; Hoefsmit et al., 2016; Lammerts, Schaafsma, Bonefaas-Groenewoud, et al., 2016). The supervisor is in a role that could assist in the building of self-efficacy of employees and conversely diminish self-efficacy if the return to work process is not managed carefully (Bandura, 1988; Bertilsson et al., 2018; Busse et al., 2011, 2011; Corbière et al., 2019; Dwertmann & Boehm, 2016).

### ***Gender***

The independent variable of gender is women or men only. The other category has been excluded from the dataset, as there were not sufficient records with this selection. Gender has been identified in some studies as a variable in the duration of mental health absences (Koopmans et al., 2010; Young et al., 2017). The literature indicates that women tend to have longer durations in mental health claims (Dewa et al., 2016; Koopmans et al., 2010). It is also supported in the literature that women in the broader population have a higher risk of mental health concerns (Alves, 2015; Koopmans et al., 2010; Pryzgodna & Chrisler, 2000).

### ***Mental Health Condition***

The independent variable of mental health condition included records in three specific diagnostic categories of depression, anxiety, or other. These are consistent with the categorization by the World Health Organization International Classification of Disease (World Health Organization, 1993). The categories of depression and anxiety are consistently the two



largest categories of mental health claims (Dewa et al., 2016; Ekberg et al., 2015; Mazza et al., 2019). Other, will include all other mental health conditions with the exception of psychotic illness. The next section will provide more information surrounding the target population and the sample.

### **Target Population and Sample**

The target population and sample will be described in this section. The sample consists of records from individuals that have returned to work following a mental health disability. The population reflects an ordinary working population from Canadian private sector workplaces with short term disability coverage.

#### **Population**

The population includes the archived records of working individuals in Canadian workplaces with a mental health disability claim resulting in lost time and return to work. Canada has ten Provinces and three Territories. There were no records from the Territories in the sample. The records emerged from disability claims data of a third-party administrator that manages short term disability claims for multiple employers, which they call clients. Clients are from private sector companies and are representative of the organizations that exist in Canadian communities. The disability claims come from the client's employees. The subset of information being examined included claims with a mental health diagnosis of depression, anxiety, or other. The client and employee signed informed consent, authorizing aggregate data to use for research. The population included any type of private sector workplace, encompassing the working-age category of 18 to 65 years old. A return to work will exist following a short-term disability claim. Short term disability claims have a start date of five days and a maximum duration of 182 days. Only records with a return to work date on or before 182 days will be included in the data

analysis. There is a necessity to strictly define a population being used in a quantitative study, so the reader can get a sense of the characteristics associated with the aggregate data (Leedy & Ormrod, 2016; Rutberg & Bouikidis, 2018; Warner, 2008). There is a necessity to strictly define a population being used in a quantitative study, so the reader can get a sense of the characteristics associated with the aggregate data (Leedy & Ormrod, 2016; Rutberg & Bouikidis, 2018; Warner, 2008).

### **Sample**

The sample population included employees of any type of private-sector workplace. The third-party administrator indicated that the workplaces did not hold any specific or notable differentiating characteristics. There were no public sector workplaces in the sample. The employees in the sample encompassed working-age adults between 18 to 65 years old. The sample population reflects the same attributes of others within working age. The sample size reflects the communities in which the third-party administrator clients operate and is quite ethnically diverse. There is no identification of ethnic background in the study data. The sample would have a race and ethnicity similar to the general population in Canadian workplaces. Canada has a very diverse population with cultures from all countries (Balestra & Fleischer, 2018; Morency, 2017; Statistics Canada, 2017). Approximately 20% of Canadians belong to a visible minority group (Morency, 2017). Over the past five years, the most frequent immigration has been from India, Asia, the Caribbean, Africa, the Philippines, and Northern Europe (Morency, 2017). The level of education or socio-economic status is not known. However, the participants reportedly represent a cross-section of society. The sample would be reflective of the general population distribution.

Short term disability claims have a start date of five days and a maximum duration of 182 days. Only records with a return to work date on or before 182 days were included in the data analysis. The short term disability plans within the study had a design that covered the first 182 days off illness. Beyond 182 days, there may or may not be a long term disability plan available in cases where there has not been a recovery. Claims that had not returned to work prior to 182 were excluded from the data by the third-party administrator.

The data contains only mental health diagnoses under depression, anxiety, or other category. The data clearly indicated stakeholder involvement of either supervisor or human resources, the gender of women or men, type of disability of depression, anxiety or other, and the days lost. In workplaces, there are many stakeholders involved in the disability and return to work process (Corbière et al., 2019; Vossen et al., 2017). The two stakeholders that were examined in this study was contained to supervisors and human resources. A supervisor is defined as the person the employees direct report to during their workday (Negrini et al., 2018; Shaw et al., 2003). Supervisors generally have direct involvement when an employee return to work (Lemieux et al., 2011; Negrini et al., 2018). Human resources have a role in employee absence and often participates in the return to work process (Bastien & Corbière, 2019; Joyce et al., 2016; McDowell & Fossey, 2015). The data clearly indicated if it was the supervisor or human resources involved in the return to work.

### **Power Analysis**

Having an adequate sample size is essential to good quantitative research (Leedy & Ormrod, 2016). If a sample size is insufficient, it could result in Type II errors (Faul et al., 2007; George & Mallery, 2017). If the sample size were too small, it would fail to demonstrate the independent variables' potential statistical significance on the dependent variables (George &

Mallery, 2017; Leedy & Ormrod, 2016). The data set has 1,188 records. There is no reason to perform an analysis with more than a representative sample size (Faul et al., 2007; Leedy & Ormrod, 2016).

A G-Power calculation indicated that a minimum sample size of 158 is sufficient for the study (Faul et al., 2007). The level of significance is important as it defines the possibility of rejecting the null hypothesis when it could be true (Leedy & Ormrod, 2016). In order to control for the potential of incorrect rejection, the level of significance will be set realistically at .05 (George & Mallery, 2017). In other studies on the topic of return to work, a .05 significance level was commonly used (Chambers et al., 2017; Gray & Collie, 2018; Sampere et al., 2012). The following section will discuss the procedures for the study.

### **Procedures**

The following section will provide information on the participant selection, protection of the participants, data collection, and analysis. In this ex post-facto examination of existing records, the selection process overlaps somewhat with ensuring the security and anonymous nature of the records. The data analysis steps will discuss the approach to analyze the data.

#### **Participant Selection**

The data was archive records provided by a third-party administrator. The study participants were the employees, of clients, of the third-party administrator. Each participant signed a consent when they went on disability that their records could be used for evidence-based research. The client contracts also include consent to use the aggregate data for research purposes. There was no interaction with the workplaces, the third-party administrator, or the client's employee's.

The records only include those who had a return to work following a mental health short-term disability, had the supervisor or human resources' involvement, and identified with the gender of women or men. The participants were workers within the working-age of 18 to 65 years old. The type of private sector companies the participants worked for was not controlled. The participant records could be from any private sector industry sector

The research does not involve direct contact with the employee or workplace participants. Clients wholly own the information that will be in use, and the third-party administrator houses the data in a secure Tier 4 IT facility. Tier four facilities are the highest level of security available in the IT services industry (Arno et al., 2012). Specifically, the following data was pulled into an excel file for the research activities. Aggregate data pertaining to records that have a mental health diagnosis, stakeholder involvement, gender, and days off on disability. There are no names, social insurance numbers, or other identifiers that would reveal the individual's identity. The data includes only the following demographic information; stakeholder involvement, gender, type of diagnosis, for use in this study. The data includes depression and anxiety as identified in the Industrial Classification of Disease (ICD) - 10 disability codes within chapter five, pertaining to mental health conditions and sub-codes of F00-F99 (World Health Organization, 1993). Other mental health conditions will include diagnoses other than depression and anxiety. The diagnosis could include adjustment disorder, acute reaction, or other psychological disorders. There could be various conditions included in other, and their similarity will be the classification of the impairment that precludes normal cognition, emotion, and behavioral functioning (World Health Organization, 1993). The data will expressly exclude the psychosis sub code F20-29 (World Health Organization, 1993). Psychosis conditions are not within the same realm as conditions caused by psychological symptoms (Navarro-Mateu et al.,

2017). Return to work practices and the process would not have the same impact as it could in non-psychosis related conditions (Benight & Bandura, 2004; Navarro-Mateu et al., 2017).

The data specifies the stakeholders involved with the return to work plan. It is understood the categories that have been captured include; supervisor or human resources. The sample is homogenous, as everyone in the study has had a mental health disability (Leedy & Ormrod, 2016). The data excluded any records with participants noted as other than supervisory or human resources. If another researcher was to have the same archival data, the research could be replicated (Trochim & Donnelly, 2008). The participant's records in the study are well protected.

### **Protection of Participants**

In research, there are ethical considerations, particularly with experimental and quasi-experimental studies. There is much less risk in non-experimental studies. Any work involving human subjects needs to be assessed for risk (Kirch, 2008; Leedy & Ormrod, 2016). The research design must recognize and minimize the risk if present and respect the principles of beneficence, justice, and respect for persons (Kirch, 2008; Lavrakas, 2008; Zucker, 2013). The study recognizes and adheres to the three main ethical principles of the Belmont Report (Zucker, 2013). Respect for persons is met, all subjects are adults, and no individual identifiers were in the transmission. The beneficence principle addresses harm and protects subjects in a research study from harm (Zucker, 2013). The harm provision indicates that one person shall not be harmed to benefit others. No tests or actions are being applied in the non-experimental study (Kirch, 2008; Zucker, 2013). The study is a review of existing data, and there will be no contact with subjects or workplaces regardless of the data. The final principle is one of justice, and there is only a very low application of this principle to the study (Zucker, 2013). Several steps were taken to address this principle. All records with a mental health diagnosis of depression, anxiety, and other, the

gender of women or men, and stakeholder of supervisor or human resources were sent to the researcher without identifiers. The approved study meets all of the ethical standards and considerations (Zucker, 2013). The approved non-experimental study has very minimal risk to participants.

The data records from the third-party administrator's database were securely sent to the researcher without any identifiers. The third-party administrator has consent in client contracts and on each claim form, indicating data will be used to advance evidence-based best practice. There is no direct contact with employees or workplaces given the study design. An excel file was populated for the research activities: aggregate records with a mental health diagnosis, stakeholder involvement, gender, and days off on disability. No names, social security numbers, or other identifiers reveal the identity of the individual. The type of diagnosis was confined to that required for this dissertation. The data included a disability code consistent with the ICD-10 codes pertaining to mental health conditions and sub-codes of F00-F99. The data will specifically exclude sub code F20-29 of severe psychiatric conditions (World Health Organization, 1993). The records only specify the supervisor or human resources stakeholders. The dependent variable measured the duration of absence, the data included the start date and end date of the disability.

The third-party administrator providing the data abided by confidentiality and did not release the records with any identifiers. The researcher provided the parameters for data extraction, and a program extracted the data into a password protected excel file. The data was verified, coded, and input into IBM SPSS (George & Mallery, 2017). A three-way ANOVA was used to analyze the data and to determine if statistical significance exists (George & Mallery, 2017). The researcher saved the outcomes and backup with passwords. The storage and

protection of data was dealt with appropriately, and all records will be deleted and destroyed once the study is complete. There are no ethical conflicts or concerns.

### **Data Collection**

The study is an ex post-facto records review and used client employee data gathered by a third-party administrator (Leedy & Ormrod, 2016). The origin of the data is the clients of the third-party administrator. The clients of the third-party administrator sign a contract that includes the ability to use their aggregate data for research purposes. The raw data is stored in the third-party administrator's database. As they receive information on the claim, it is entered into the database. The clients are located in Canada, and all records are located in a Tier 4 data facility located in Canada. Tier four data facilities are the most secure facility available for the storage of data (Arno et al., 2012). There is other data available, but it will not be included in the data provided for this study.

When an individual files a disability claim, they sign a consent that includes release to the third-party and consent to use the data on an aggregate basis. The case managers at the third-party administrator enter data into the individual claim files as they are managing the claim. There is a process in place at the third-party administrator to ensure the quality of data input.

There are no questionnaires, scales, or interviews. The instrument used to analyze the data is IBM SPSS software (George & Mallery, 2017). Quantitative non-experimental research designs can use large sets of data from third parties (Leedy & Ormrod, 2016). The importance of the data capturing method, the lack of identifiers, and potential ethical issues that may arise with third-party involvement are well understood and regarded within the study (Leedy & Ormrod, 2016).



When a client company submits a disability claim for an individual, the process includes the client submitting demographic information from their human resource system into the third-party administrator portal and claim system. This prompts the third-party to reach out to the claimant to verify the information and ensure they have the form to obtain the medical. This form, known as the attending physician statement (APS), includes consent allowing for the use of aggregate data for research purposes. The client contract also includes permission to use aggregate data for research purposes. When the attending physician's statement is received, the primary diagnosis is entered into the system by identifying the right ICD-10 code from a database's drop-down list. The sub-diagnosis is also entered via a drop-down list, again specific to the ICD-10 codes (World Health Organization, 1993). This information is entered into the third-parties system by the case manager. The accuracy of data input is verified through a monthly quality assurance audit of claim records at the third party.

The third-party collects additional medical information during the claim. Importantly for this study, when it comes to return to work, the case manager checks off a field in the database indicating who is participated in the return to work process. This includes a checkbox for the supervisor, human resources, an internal return to work coordinator, or multiple participants. It is understood that this checkbox is only used for the participants' direct involvement in the return to work process and plan. A formal return to work plan was put in place that was either designed by the supervisor or human resources. Those that had no involvement by workplace stakeholders or other workplace stakeholders included in the process were excluded from the study. The database also includes many fields of information that were not be used for this study.

The third-party put the archival records into an Excel flat file that was transferred via a password-protected key. The data is without any personal identifiers. The only claims in the

dataset are those that have mental health conditions and have returned to work. The initial records started with about 28,000 files and were sorted to remove the non-mental health claims. Approximately 10% of the entire data set at the third-party administrator are claims for mental health conditions. The data excludes any diagnosis for psychotic conditions. It further excludes any gender marked as other. It is evident that the number of records in the other category would be low and not relevant for this study. The data only includes data for the supervisor or human resource stakeholders involved in the return to work process. The exact number of records provided is 1,188 records. A G-Power calculation to determine the right sample size produced 158 (Faul et al., 2007). A program was run in excel to randomly pick the correct number of records. The excel data file was entered into IBM SPSS for analysis (George & Mallery, 2017). A three-way ANOVA was run to obtain results and was analyzed (George & Mallery, 2017). The following section will describe the data analysis process.

### **Data Analysis**

A three-way ANOVA was used for data analysis. This data analysis method suits the study research design as it can assess the variables while controlling for the other variables (Warner, 2008). ANOVA has been used in other studies related to the topic of return to work (Black et al., 2017; Dewa et al., 2016). The ANOVA compared the means between the groups to determine if there is a statistical significance (George & Mallery, 2017). The ANOVA is a preferred test for comparing the means between groups when compared to just using t-test, ANOVA reduces the chance of error (Leedy & Ormrod, 2016; Warner, 2008). IBM SPSS was used for the data analysis of the data (George & Mallery, 2017). The dependent variable is the duration of lost time until return to work. The independent variables include stakeholder, gender,

and type of mental health condition. The hypothesis testing was set at a statistical significance of .05.

The data was provided in an excel sheet from the third-party administrator. It contained 1,188 mental health disability records. The absences were longer than five days and less than six months (182 days). The data set includes; stakeholder involvement, gender, and mental health diagnosis. The stakeholder involvement has been collected by the third party case manager when managing the claim. A box that is checked when the direct supervisor or human resources is involved in the return to work planning. This is a mandatory field in the database if a return to work plan is being prepared. The gender was entered into the claims reporting portal by the client's human resources department. The gender only looks at women or men, others were excluded from the data set. Human resources would have this information on the employment record of the individual claiming disability. The mental health diagnoses that were examined are depression, anxiety, and other. These are consistently the three largest diagnostic categories in the claims data. This is a mandatory field in the third-party administrator's database. It is entered into the database by the third party administrator's case manager based on the attending physician's statement provided by the claimant's treating physician.

The data was provided to the researcher by the third-party administrator. It was delivered in an excel sheet. The stakeholder data is either; supervisor or human resources. The data was sorted, and any records with multiple participants or no participants will be eliminated. The next step was to sort for gender. If gender was missing or is other, the record was eliminated. Only men or women were used for gender. The mental health condition states the diagnosis. The data contained the diagnosis of; depression, anxiety, or others. Records that were not depression or anxiety were categorized as other. The maximum duration of the short-term disability plan is 182

days. Records with a duration beyond 182 days were removed from the data during the first review.

The data was provided by the third-party administrator with numbers to represent each individual contained in the independent variable. The supervisor equates to 1 human resources 2. The same was done for gender, with men representing 1 and women 2. The diagnostic data is then represented with depression as 1, anxiety as 2, and other as 0. The data were reviewed for any outliers, and ten records were removed as they exceeded 182 days of lost time. The remainder of the data did not have any evident missing or erroneous information. An excel, random selection program identified the 158 records for analysis.

The data was uploaded to IBM SPSS for analysis (George & Mallery, 2017). A three-way ANOVA was run, and the analysis was reviewed for statistical significance. The seven hypotheses were tested, and conclusions are drawn.

The purpose of the study is to determine the factors that contribute to lower lost time up to a successful return to work. The study is specific to individuals with a mental health condition that resulted in time off work over five days and under 182 days. The analysis determined that workplace stakeholders' involvement in return to work plans contributed to the success of employees returning to work. The return to work will be considered successful if there is a low duration of time lost on the claims. Descriptive statistics were used to describe the sample (Trochim & Donnelly, 2008; Warner, 2008). The intention is not to infer anything with descriptive statistics. Descriptive statistics provide the reader with information about the group or sample used in the research study.

The assumptions that are important for an ANOVA are; the dependent variable is measured on a continuous level, the independent variable has five or more participants and can

be assumed to represent reasonable categories, there are no significant outliers, and the dependent variable should be approximately normally distributed (Warner, 2008). The Statistical Package for Social Sciences software (SPSS) produced by IBM Corporation was used to perform the three-way factorial ANOVA (George & Mallery, 2017). A Three-Way Factorial ANOVA will determine whether there is a statistical significance in the independent and dependent variables (George & Mallery, 2017).

The assumptions include; the dependent variable is on a quantitative scale, independent variables are categorical, homogeneity of variance, normal distribution, no outliers, and independent observation (Warner, 2008). Assumption one looks at the dependent variable, which is measured on a continuous level. The dependent variable is measured on a continuous level of days lost up to the return to work date. The assumption would be correct in the case of this data. The dependent variable is lost time up until the return to work. The measure is in calendar days. The employee would have to be off at least five days to be included in the data. The data maximum is 26 weeks or 182 days.

Assumption two, the three independent variables are categorical and independent groups. The three independent variables are; stakeholder involvement, gender, and type of mental health condition are categorical and independent groups. Assumption three concerns the homogeneity of variances for each combination of the groups of the three independent variables. SPSS using Levene's test for homogeneity of variances was used to demonstrate this homogeneity of variances. Assumption four, the dependent variable, should be approximately normally distributed for each combination of the groups of the three independent variables. Assumption five, there are no significant outliers. Outliers are data points within the data that do not follow usual patterns. The concern with outliers is that they can have a negative effect on the ANOVA,

reducing the accuracy of results (Warner, 2008). It is easy to see outliers in the SPSS Statistics data when running the ANOVA. In this research study, it is critical to examine the dataset for potential outliers because extreme values that do not fit with the majority of the dataset can have a substantial effect on any conclusions drawn (George & Mallery, 2017). SPSS boxplots and frequency tables were used to identify any outliers (George & Mallery, 2017).

The data was delivered to the researcher in an Excel flat file with a password. It was transferred on a secure key. The computer the data resides on also has a password to control access to the data. The data was transferred to IBM SPSS (George & Mallery, 2017). The dataset was analyzed, and any outcomes were saved in password-protected documents. There are no individual identifiers in the data.

### **Instruments**

No instruments are being used in this study. However, it is essential to look at the hallmarks of good research and integrate validity and reliability into the discussion. Internal and external validity in the realm of research is vastly important. Paying attention to validity helps to ensure reliability and replication (Leedy & Ormrod, 2016). Validity and reliability measures include unobtrusive measures, real-life settings, representative samples, replication, design, and data efficacy (Trochim & Donnelly, 2008). The study examined the duration of lost time, return to work stakeholder involvement, gender, and mental health condition. These variables have been used in previous research surrounding disability management (Black et al., 2017; Corbière et al., 2019; Dewa et al., 2016; Koopmans et al., 2010; Lagerveld et al., 2010).

Internal validity looks at the extent to which the study allowed the researcher to draw accurate data conclusions and speak to the study's adequate design to conclude accurately (Leedy & Ormrod, 2016). The study was done with data available through a third-party administrator.

The third-party has provided information on how the data was collected and entered into the claims management system. The disability claim commences when an individual from the third-party administrator's client company submits a claim. The claim is submitted when an employee of the client is off for longer than five days. The demographic data is in the claim submission, and this includes gender, which is one of the independent variables in the study. The demographic data is contained in the employment record of the employee. The employee is provided with a disability package, which includes a form for their treating physician. The physician states the diagnosis on this form and send it to the third-party. Once the medical diagnosis is received from the employee's physician, it is entered into the database by the third-party administrator disability case manager. The return to work date and the participants in the return to work program is entered by the case manager during the return to work phase. The third-party administrator indicates a quality assurance program is in place to ensure the efficacy of the data entry. The diagnosis and the stakeholder involvement are both independent variables in the study. Duration of time off is measured from the date of absence to the date of return to work. Calendar days lost is the dependent variable. The calendar days lost are generated by the system based on the two dates entered by the case manager.

External validity pertains to the research's applicability beyond the study and into real-life (Leedy & Ormrod, 2016). Some of the essential components to external validity include real-life settings, representative samples, and the ability to replicate in a different context (Brouwer et al., 2015; Leedy & Ormrod, 2016). The data would be considered a representative sample of Canadian workplaces and their employees. The third-party administrator indicated they have multiple clients throughout private sector workplaces. Claims were submitted as they occurred

from workplaces that are clients of the third-party administrator. It would be anticipated that the data could be replicated at any point in time by the third-party administrator.

In examining the potential pitfalls to validity and reliability, a pertinent threat to the dissertation would be group homogeneity (Leedy & Ormrod, 2016). All of the subjects are from a third-party provider database, and all participants work for Canadian private enterprises. Given, the group is all private sector, would the study have changed if the employees worked for public sector employers? Would the results have been different if time off was less than five days or over 182 days? If a different third-party administrator was to manage the claims, would the duration results have been different? It is understandable why there have to be strong parameters on the dataset, but it is good to acknowledge the possibility that the results could vary with alternate group composition. The concerns were noted as limitations in the study.

Another threat to validity is the origin of the dataset. The researcher does not have full control of the dataset until it arrives. If errors are made in the data entry, then the data may have flaws. The audits in place at the third-party are meant to minimize this risk.

In using IBM SPSS, a valid and reliable tool, other researchers would be able to replicate the analysis and obtain the same results (George & Mallery, 2017). The replication of results can help demonstrate validity. Given the same dataset, the results produced by IBM SPSS would be the same (George & Mallery, 2017).

Bandura's self-efficacy theory is used throughout the study (Bandura, 1977). Previous researchers demonstrate that higher self-efficacy leads to an early and more sustainable return to work (Black et al., 2017; Lagerveld et al., 2017). The self-efficacy tools have been developed and tested for their validity and reliability in the field of disability management (Black et al., 2017; Lagerveld et al., 2017; Stajkovic & Luthans, 1998). It has been demonstrated that when an



employee has a high self-efficacy rating, return to work is generally earlier (Black et al., 2017; Lagerveld et al., 2017; Volker et al., 2015). Further, it has been demonstrated that building employee self-efficacy into the process can make a profound difference in the return to work success from musculoskeletal cases (Lagerveld et al., 2017; Volker et al., 2015). The common use of self-efficacy theory and the validity of the self-efficacy scales reinforce the belief that self-efficacy is a good fit for the dissertation (Bandura, 1977, 1988; Black et al., 2017; Lagerveld et al., 2017; Wood & Bandura, 1989). Ethical considerations will be discussed in the next section.

### **Ethical Considerations**

Ethical standards pertaining to the protection of human subjects are considered throughout the study (Zucker, 2013). It is essential to consider ethical standards any time work involves human subjects, and it is essential to assess for risk (Zucker, 2013). The goal is always to minimize the risk if present. The study has very minimal risk. All records were extracted from the third-party administrator's database without identifiers. Every claim form has informed consent that the data may be used in an aggregated manner to advance evidence-based best practice. Every client contract has embedded a release to use aggregate data to advance evidence-based best practice. There is no more risk than would be encountered in their daily life (Zucker, 2013).

The research population is not at greater than minimal risk. Zucker (2013) expresses that risk needs to be reduced whenever possible. The study respected the Belmont principles of beneficence, justice, and respect for persons. There are no name or other identifiers in the data (Zucker, 2013). There is no experimental component to the data analysis. The data emerged from a claims database and be produced with no known individual identifiers. The analysis was

performed using the IBM SPSS software; a three-way ANOVA analysis produced the results (George & Mallery, 2017).

The three main principles of the Belmont Report are all covered and adhered to in the study. As it pertains to respect for persons, all subjects are adults, and no individual data was examined. Data in the aggregate did not include names (Zucker, 2013).

The study examined the duration of time off for mental health disabilities. The target population is claimants that have experienced a mental health claim and returned to work. The data did not include the name of the individual or any other identifier. Data was first be sorted to ensure a mental health diagnosis. The data includes an indication of whether there was the participation of supervisors in a return to work plan.

The beneficence principle addresses harm and protects subjects in a study from harm. Specifically, it indicates one person shall not be harmed to benefit others (Zucker, 2013). In the proposed study, no test or action is being applied to an individual. It is a review of existing data. There was no intervention on subjects regardless of the data. There is no way to determine the identity of the individual. The study addressed this principle.

The final principle is one of justice. There is only a very low application of this principle to the study (Zucker, 2013). All records were used to obtain a sample size. G-Power was used to determine the required number of records, and records were randomly identified using excel random selection tool (Faul et al., 2007). All records are stored securely with password protection. The computer will be destructed by a destruction firm designed for this purpose.

The findings will be reported academically, results published, and call issued for additional research on specific issues identified through this study. IRB reviewed and approved the study. The results will be reported to the academic, research, and workplace communities to

achieve the highest impact. If it is found that the existence of supervisor participation makes a difference, this is a significant finding. Communication of the findings could prompt programs that could have a positive impact on mental health claim outcomes.

### **Summary**

Chapter Three summarizes the purpose of the quantitative non-experimental study. The study determined if the dependent variable of the duration of time off due to a mental health condition is affected by the independent variables of stakeholder involvement, gender, or type of mental health condition. Chapter Three includes the purpose of the study, the research questions and hypothesis, research design, target population and sample, data collection and analysis, and ethical considerations. Return to work was considered successful if the duration of claims with supervisor involvement is lower than those who did not have supervisor involvement in the return to work. The three independent variables that were analyzed for statistical significance are; stakeholder involvement contained to the supervisor or human resources. Gender is contained to men or women. Mental health conditions are contained to depression, anxiety, or others. The data is an existing dataset with no identifiers from a third-party administrator, and the analysis was performed with a three-way ANOVA. Chapter Four will describe the sample, hypothesis testing, and summary of the hypothesis testing.

## **CHAPTER 4. RESULTS**

### **Background**

This non-experimental quantitative archive records review seeks to determine the statistical significance of stakeholder involvement, gender, and mental health condition on the dependent variable of return to work. The duration of time off on a mental health disability is measured by time off in calendar days. Data for the study was provided by a third-party administrator of short term disability claims. Chapter Four will discuss the sample, analyze the results, test the hypothesis, and highlight the pertinence of the data analysis results.

### **Description of the Sample**

The sample included archival records for 158 individuals that returned to work from a mental health condition. The data provided by the third-party disability management firm initially had 1,188 records. A G-Power calculation identifies 158 records are required for a statistically significant evaluation (Faul et al., 2007). Excel was used to generate the random sample of  $n = 158$  records. In research, there is a necessity to strictly define a population being used in a quantitative study so that the reader can get a sense of the characteristics associated with the aggregate data (Leedy & Ormrod, 2016; Rutberg & Bouikidis, 2018; Warner, 2008). The population could be from any type of private-sector workplace located in Canada, be within working-age of 18 to 65 years old, and a return to work did exist following a mental health short-term disability claim. Short term disability claims have a start date of at least five days and a maximum duration of 182 days.

The 1,188 records in the data contain only stakeholders of supervisor or human resources, the gender of men or women, mental health diagnosis, depression, anxiety, or other categories. Ten records within the dataset had dates outside of 182 days. The third-party indicated these could be due to a number of reasons. The case manager could have forgotten to close the file, the design of the disability plan for the specific client may exceed 182 days, or the client requested services outside the 182 day period. The ten records were removed from the data set. Only records with a return to work date on or before 182 days are included in the data analysis.

The  $n = 158$  records sample's composition is  $n = 82$  cases with supervisor involvement in the return to work and  $n = 76$  cases with human resources involvement. There were  $n = 75$  men and  $n = 83$  women in the sample. There were  $n = 54$  other,  $n = 63$  depression, and  $n = 41$  anxiety mental health diagnosis in the sample.

**Table 1.** *Distribution of Records*

<b>Between-Subjects Factors</b>			
		Value	Label
Gender	1	Men	75
	2	Women	83
Mental Health Condition	0	Other	54
	1	Depression	63
	2	Anxiety	41
RTW Involvement	1	Supervisor	82
	2	Human Resources	76

It is important when conducting a three-way ANOVA that the population is approximately equally distributed (Warner, 2008). This condition does exist for each of the dependent variables.

**Table 2.** *Description of Statistical Data*

Dependent Variable: Duration						
Gender	Mental Health Condition	RTW Involvement	Mean	Std. Deviation	N	
Men	Other	Supervisor	61.78	34.210	18	
		Human Resources	95.29	40.347	7	
		Total	71.16	38.363	25	
	Depression	Supervisor	68.57	38.503	21	
		Human Resources	107.92	37.684	12	
		Total	82.88	42.239	33	
	Anxiety	Supervisor	50.33	20.057	6	
		Human Resources	104.09	40.796	11	
		Total	85.12	43.210	17	
	Total	Supervisor	63.42	34.768	45	
		Human Resources	103.57	38.391	30	
		Total	79.48	41.090	75	
	Women	Other	Supervisor	73.16	27.911	19
			Human Resources	108.30	37.464	10
			Total	85.28	35.227	29
Depression		Supervisor	77.06	30.569	17	
		Human Resources	113.92	32.006	13	
		Total	93.03	35.842	30	
Anxiety		Supervisor	45.00	.	1	
		Human Resources	110.96	29.221	23	
		Total	108.21	31.591	24	
Total		Supervisor	74.19	28.861	37	
		Human Resources	111.22	31.231	46	
		Total	94.71	35.268	83	
Total		Other	Supervisor	67.62	31.232	37
			Human Resources	102.94	37.994	17
			Total	78.74	37.047	54
	Depression	Supervisor	72.37	34.981	38	
		Human Resources	111.04	34.241	25	
		Total	87.71	39.343	63	
	Anxiety	Supervisor	49.57	18.420	7	
		Human Resources	108.74	32.927	34	
		Total	98.63	38.123	41	

	RTW Involvement	Mean	Std. Deviation	N
Total	Supervisor	68.28	32.495	82
	Human Resources	108.20	34.195	76
	Total	87.48	38.777	158

In order to test the hypothesis, a three-way ANOVA was conducted. The following section will discuss the assumptions and test the hypothesis. Conclusions surrounding statistical significance will be drawn.

### Hypothesis Testing

There are seven research questions with a hypothesis and null hypothesis, and they will be discussed one by one in the following section. A three-way ANOVA was conducted to determine if a statistical significance exists. A statistical significance was said to exist if the value is less than  $p < .05$ . There are certain assumptions made about the data that will be reviewed in the next section.

### Assumptions

The assumptions that are important for an ANOVA are the dependent variable is measured on a continuous level, the independent variable has five or more participants and can be assumed to represent reasonable categories, there are no significant outliers, and the dependent variable should be approximately normally distributed (Warner, 2012). The Statistical Package for Social Sciences software (SPSS) produced by IBM Corporation was used to perform the three-way factorial ANOVA (George & Mallery, 2017). The assumptions that were used in the study include; the dependent variable is on a quantitative scale. Independent variables are categorical. There is a homogeneity of variance, normal distribution, no outliers, and independent observation (Warner, 2012).

### ***Dependent Variable***

Assumption one examines the dependent variable, of days lost up to the return to work date. The days lost are measured on a continuous level. This assumption is true in the case of the data utilized for the ANOVA. The dependent variable is lost time in calendar days up until the return to work date. The employee was off at least five days on a mental health short term disability claim to be included in the data. The days lost maximum is 26 weeks, or 182 days. Other records were excluded from the dataset.

### ***Independent Variables***

Assumption two, the three independent variables are categorical and independent groups. The three independent variables are workplace stakeholder return to work involvement, gender, and type of mental health condition. These are all categorical and independent groups. The stakeholder is only a supervisor or human resources, records with other participants were excluded from the dataset. Gender is men or women, other were excluded from the dataset. Mental health condition is depression, anxiety, or other. Multiple diagnoses or the diagnostic category associated with psychosis were eliminated from the data.

### ***Homogeneity of Variance***

Assumption three concerns the homogeneity of variances for each combination of the groups, of the three independent variables. IBM SPSS Levene's test for homogeneity of variances demonstrates this assumption to be correct based on  $F = .494 (1,146), p = .892$  (George & Mallery, 2017).



**Table 3.** *Levene's Test of Homogeneity*

Levene's Test of Equality of Error Variances <sup>b</sup>					
		Levene			
		Statistic	df1	df2	Sig.
Duration	Based on Mean	.494	10	146	.892
	Based on Median	.418	10	146	.936
	Based on Median and with adjusted df	.418	10	133.208	.936
	Based on trimmed mean	.467	10	146	.909

*Note.* Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: Duration

b. Design: Intercept + Gender + MentalHealthCondition + RTWInvolvement + Gender \*

MentalHealthCondition + Gender \* RTWInvolvement + MentalHealthCondition \* RTWInvolvement + Gender

\* MentalHealthCondition \* RTWInvolvement

### ***Normal Distribution***

Assumption four, the dependent variable of days lost, should be approximately normally distributed for use in testing the three independent variables. In order to check the distribution, a histogram was run.

#### **Skew**

The histogram depicting the duration of days off does not demonstrate a skew (Warner, 2013). The term skew refers to how the distribution of the histogram and how it may deviate from a normal distribution (Warner, 2013). The distribution of the histogram has a distribution (Warner, 2013).

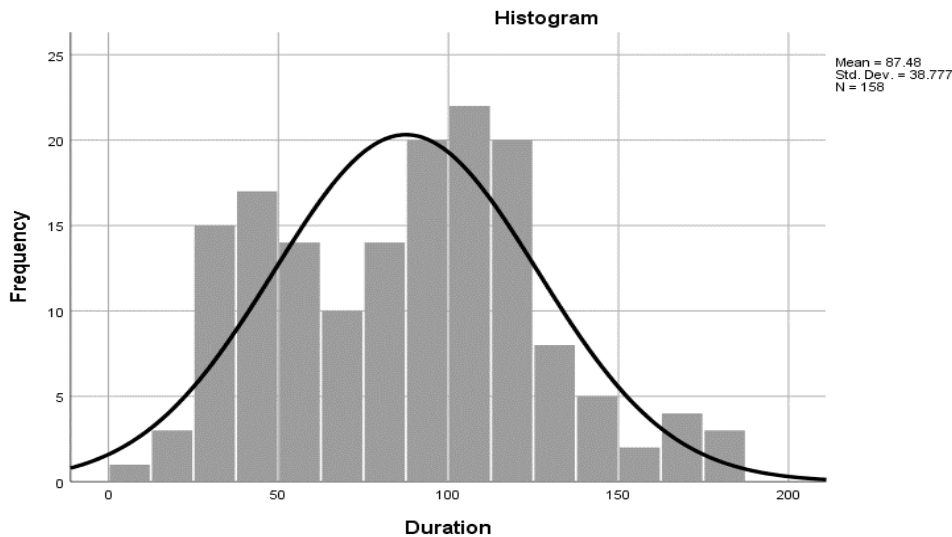
#### **Kurtosis**

Kurtosis looks at the curve of the distribution (Warner, 2013). If the curve is flatter, it would be called Platykeric, and if it were steeper, it would be called Leptokuric (Warner, 2013). The kurtosis of the duration of days lost histograms is approximately normal.

## Outliers

Assumption five, there are no significant outliers. Outliers are data points within the data that do not follow usual patterns. The concern with outliers is that they can have a negative effect on the ANOVA, reducing the accuracy of results (Warner, 2012). It is easy to see outliers in the SPSS data when running and reviewing the histogram. Figure 1 demonstrates no significant outliers in the data. In this research study, it is critical to examine the dataset for potential outliers because extreme values that do not fit with the majority of the dataset can have a substantial effect on any conclusions drawn (George & Mallery, 2017). SPSS boxplots and frequency tables will also be shown to further explore the data (George & Mallery, 2017).

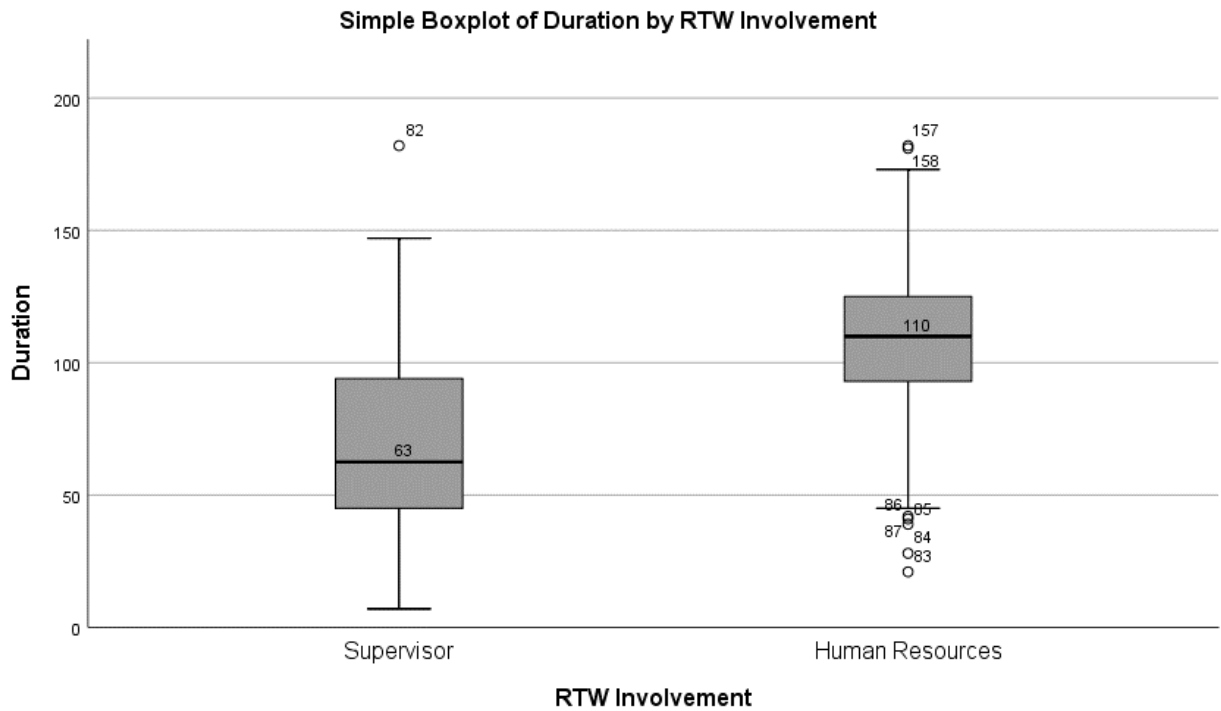
**Figure 1.** Normal Distribution Histogram



Boxplots were run in SPSS for each of the three independent variables. Stakeholder, gender, and type of mental health condition. The stakeholder box plot demonstrates a lower overall mean of 63 for days lost with the supervisor involvement. The majority of the days lost per claim were within the boxplot area, with the exception of one case at 82 days lost. The

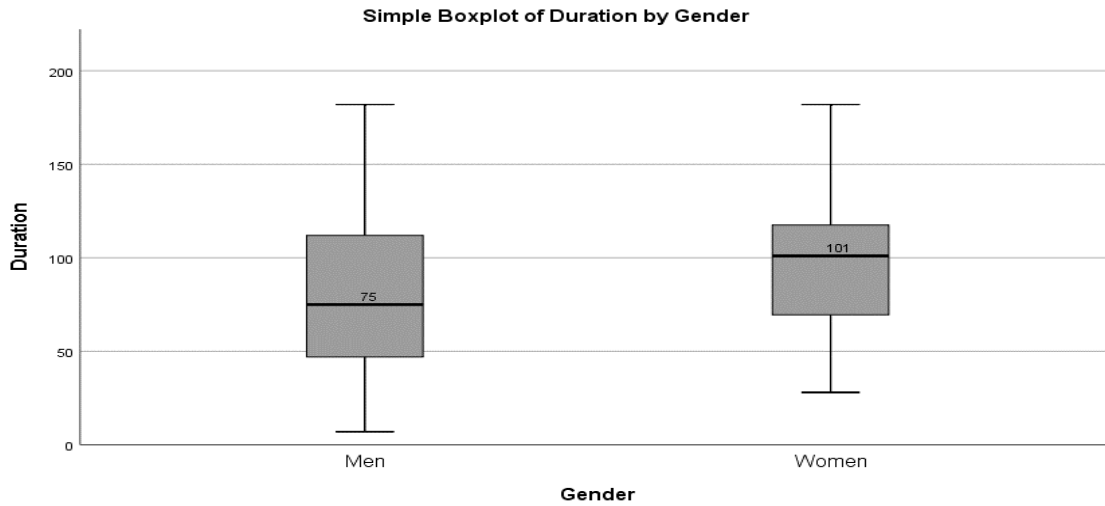
human resources box plot had an overall higher mean of 110 days lost. There were also some outliers in the data for human resources with two cases of 157 and 158. There were also some low outliers in the human resources data set with five cases of 83, 84, 85, 86, and 87, which remain higher than the supervisor mean of 62.650.

**Figure 2.** *Boxplot Duration by Stakeholder Return to Work Involvement*



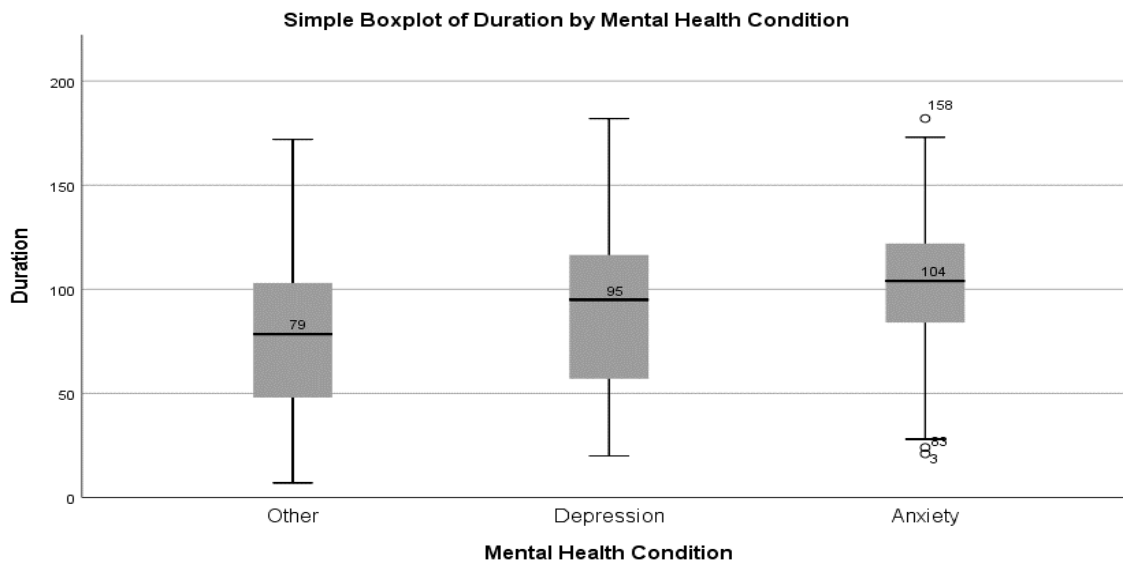
The boxplot for the duration of days lost by gender did not demonstrate significant outliers within the dataset. Men had a mean of 75 days. Women had a mean of 101 days. There were no outliers in the data. The difference in the means is not considered significant.

**Figure 3. Boxplot of Duration by Gender**



The boxplot for the duration of days lost by mental health conditions did not demonstrate significant outliers. Anxiety had one outlier at 158 days lost, depression had no outliers, and anxiety had 83 as lower durations than the boxplot's span. The type of mental health condition was not considered a statistically significant determinant of lost time duration.

**Figure 4. Boxplot of Duration by Mental Health Condition**



## Research Questions

The questions are established to examine if the independent variables will have a significant difference in the dependent variable of time lost from work following a mental health disability. Is there a statistically significant difference in the dependent variable of the return to work duration of employees following a mental health absence when workplace stakeholders, gender, and mental health conditions are considered?

An ANOVA was performed in order to answer research question number one. When the variables of gender and mental health diagnosis are held constant, will there be a statistically significant difference in the average number of days lost due to the variable of stakeholder return to work involvement? The dependent variable of days lost until return to work was measured against stakeholder return to work involvement while holding mental health diagnosis and gender constant. The ANOVA did find a statistical significance  $F(1,146) = 32.033, p = .000$ . Therefore, the null hypothesis should be rejected, and the alternative hypothesis not rejected. Stakeholder involvement does have a statistical significance in the duration of return to work from a mental health condition.

In order to test this significance, the means for return to work involvement was reviewed. The mean for supervisor involvement  $n = 82$  is 62.650 days, with a standard deviation of 6.510. The mean for human resources involvement  $n = 76$  is 106.745 days, with a standard deviation of 4.124. Therefore, having the supervisor involved is statistically significant in the duration of lost time from a mental health disability.

**Table 4. Return to Work Involvement**

Dependent Variable: Duration				
RTW Involvement	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Supervisor	62.650	6.610	49.586	75.714
Human Resources	106.745	4.124	98.596	114.895

The sum of squares can be examined for each of the effects.  $N = SS_A / SS_{Total}$ .  $N = 36480.772 / 236071.443 = .154 * 100 = 15.4\%$ . Approximately 15.4% of the total variability in return to work duration is predicted by stakeholder return to work involvement.

In order to answer research question two, an ANOVA was performed. When the variables of stakeholder involvement and mental health diagnosis are held constant, will there be a statistically significant difference in the average number of days lost due to the variable of gender? The dependent variable of days lost until return to work was measured against gender while holding mental health diagnosis and stakeholder constant. The ANOVA did not find a statistical significance  $F(1,146) = .748, p = .389$ . Therefore, the null hypothesis should not be rejected.

**Table 5. Gender**

Dependent Variable: Duration				
Gender	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Men	81.329	4.309	72.813	89.845
Women	88.066	6.491	75.238	100.894

The sum of squares can be examined for each of the effects.  $N = SS_A / SS_{Total}$ .  $N = 851.479 / 236071.443 = .0036 * 100 = .36\%$ . Approximately .36% of the total variability in return to work duration is predicted by gender. Men had a mean of 81.329 and women 88.066.

In order to answer research question three, an ANOVA was performed. When the variables of gender and stakeholder are held constant, will there be a statistically significant difference in the average number of days lost due to the variable of mental health diagnosis? The dependent variable of days lost until return to work was measured against mental health diagnosis while holding gender and stakeholder constant. The ANOVA did not find a statistical significance  $F(2,146) = 1.197, p = .305$ . Therefore, the null hypothesis should not be rejected. Other had a mean of 84.630, depression 91.867, and anxiety 77.595.

**Table 6. Mental Health Condition**

Mental Health Condition	Dependent Variable: Duration			
	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Other	84.630	4.999	74.751	94.509
Depression	91.867	4.357	83.257	100.478
Anxiety	77.595	9.623	58.576	96.614

The sum of squares can be examined for each of the effects.  $N = SS_A / SS_{Total} N = 2725.416 / 236071.443 = .1154 * 100 = 1.154\%$ . Mental health conditions predict approximately 1.154% of the total variability in the return to work duration.

In order to answer research question four, an ANOVA was performed. When the variables of mental health diagnoses are held constant, will there be a statistically significant difference in the average number of days lost due to the two-way interaction of stakeholder and gender? The dependent variable of days lost until return to work was measured against gender and stakeholder involvement while holding mental health diagnosis constant. The two-way interaction ANOVA did not find a statistical significance  $F(1,146) = .059, p = .808$ . Therefore, the null hypothesis should not be rejected.

**Table 7. Gender and Return to Work Involvement**

Dependent Variable: Duration					
Gender	RTW Involvement	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Men	Supervisor	60.228	5.843	48.679	71.776
	Human Resources	102.431	6.334	89.912	114.950
Women	Supervisor	65.072	11.859	41.634	88.510
	Human Resources	111.060	5.281	100.623	121.497

$N = SS_A / SS_{Total}$ .  $N = 363.19 / 236071.443 = .001538 * 100 = .154\%$ . Approximately .028% of the total variability in return to work duration is predicted by gender and stakeholder return to work involvement.

In order to answer research question five, an ANOVA was performed. When the variables of gender are held constant, will there be a statistically significant difference in the average number of days lost due to the two-way interaction of stakeholder and mental health diagnosis? The dependent variable of days lost until return to work was measured against stakeholder and mental health diagnosis while holding gender constant. The two-way interaction ANOVA did not find a statistical significance  $F(2,146) = .702$ ,  $p = .497$ . Therefore, the null hypothesis should not be rejected.



**Table 8. Mental Health Condition and Return to Work Involvement**

Dependent Variable: Duration					
Mental Health Condition	RTW Involvement	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Other	Supervisor	67.468	5.550	56.499	78.436
	Human Resources	101.793	8.315	85.359	118.227
Depression	Supervisor	72.815	5.505	61.935	83.695
	Human Resources	110.920	6.755	97.570	124.270
Anxiety	Supervisor	47.667	18.225	11.647	83.686
	Human Resources	107.524	6.186	95.299	119.749

$N = SS_A / SS_{Total}$ .  $N = 167.162 / 236071.443 = .000284 * 100 = .028\%$ . Approximately 2.8% of the total variability in return to work duration is predicted by mental health condition and stakeholder return to work involvement.

In order to answer research question six, an ANOVA was performed. When the variables of stakeholder involvement are held constant, will there be a statistically significant difference in the average number of days lost due to the two-way interaction of gender and mental health diagnosis? The dependent variable of days lost until return to work was measured against gender and mental health diagnosis while holding stakeholder constant. The two-way ANOVA did not find a statistical significance  $F(2,146) = .159, p = .853$ . Therefore, the null hypothesis should not be rejected.

**Table 9. Gender and Mental Health Condition**

Dependent Variable: Duration					
Gender	Mental Health Condition	95% Confidence Interval			
		Mean	Std. Error	Lower Bound	Upper Bound
Men	Other	78.532	7.516	63.678	93.386
	Depression	88.244	6.106	76.176	100.312
	Anxiety	77.212	8.564	60.288	94.137
Women	Other	90.729	6.592	77.701	103.757
	Depression	95.491	6.217	83.204	107.777
	Anxiety	77.978	17.236	43.913	112.043

$N = SS_A / SS_{Total}$ .  $N = 1598.257 / 236071.443 = .00677 * 100 = .68\%$ . Approximately .15% of the total variability in return to work duration is predicted by gender and mental health condition combined.

In order to answer research question seven, a three-way ANOVA was performed. Will there be a statistically significant difference in the average number of days lost due to the three-way interaction of stakeholder involvement, gender, and mental health diagnosis? The dependent variable of the average number of days lost due to the three-way interaction of stakeholder involvement, gender, and mental health diagnosis. The ANOVA did not find a statistical significance  $F(2,146) = .062, p = .940$ . Therefore, the null hypothesis should not be rejected.

**Table 10. Gender, Mental Health Condition, and Return to Work Involvement**

Dependent Variable: Duration						
	Mental Health Condition	RTW Involvement	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Men	Other	Supervisor	61.778	7.954	46.058	77.498
		Human Resources	95.286	12.755	70.077	120.494
	Depression	Supervisor	68.571	7.364	54.017	83.125
		Human Resources	107.917	9.742	88.663	127.170
	Anxiety	Supervisor	50.333	13.777	23.105	77.561
		Human Resources	104.091	10.175	83.982	124.200
Women	Other	Supervisor	73.158	7.742	57.857	88.459
		Human Resources	108.300	10.672	87.209	129.391
	Depression	Supervisor	77.059	8.185	60.883	93.235
		Human Resources	113.923	9.360	95.425	132.421
	Anxiety	Supervisor	45.000	33.747	-21.695	111.695
		Human Resources	110.957	7.037	97.050	124.863

$N = SS_A / SS_{Total}$ .  $N = 142.031 / 236071.443 = .0006016 * 100 = .060\%$ . Approximately .0615% of the total variability in return to work duration is predicted by gender, mental health and return to work involvement.

**Table 11. Three-Way ANOVA**

Tests of Between-Subjects Effects						
Dependent Variable: Duration						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	69801.154 <sup>a</sup>	11	6345.559	5.572	.000	.296
Intercept	538364.500	1	538364.500	472.732	.000	.764
Gender	851.479	1	851.479	.748	.389	.005
MentalHealthCondition	2725.416	2	1362.708	1.197	.305	.016
RTWInvolvement	36480.772	1	36480.772	32.033	.000	.180
Gender * MentalHealthCondition	363.190	2	181.595	.159	.853	.002
Gender * RTWInvolvement	67.162	1	67.162	.059	.808	.000
MentalHealthCondition * RTWInvolvement	1598.257	2	799.129	.702	.497	.010
Gender * MentalHealthCondition * RTWInvolvement	142.031	2	71.016	.062	.940	.001
Error	166270.289	146	1138.838			
Total	1445234.000	158				
Corrected Total	236071.443	157				

Note. a. R Squared = .296 (Adjusted R Squared = .243)

### Summary of the Hypothesis Testing

The previous section presented a thorough review of the ANOVA results. There was only one statistically significant independent variable. Return to work duration was affected by supervisor involvement in the return to work process compared to human resources involvement. The hypothesis was rejected, and the null hypothesis was accepted. The remainder of the variables did not have statistical significance, and the hypothesis was not rejected. In order for a post hoc test to be required, F is to be significant.  $F(2,146) = .062, p = .940$ . Therefore, a post hoc test was not performed (Warner, 2008). The next section provides a summary of chapter four and an introduction to chapter five.

## Summary

Chapter four presented a description of the quantitative non-experimental archive records sample used for the analysis. A summary of the ANOVA results and hypothesis testing was presented. The seven research questions, hypothesis, and null hypothesis were listed, and assumptions were tested. There was only one null hypothesis accepted. Supervisor involvement in return to work was statistically significant. Chapter five will offer an additional interpretation of what the results mean and the implications and recommendations emerging from the study.

## **CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS**

Chapter five will provide a summary of the study, including the results. There will be a discussion of the results and how the study addressed the research questions. The findings will be positioned in the context of what they mean for industrial psychologists, workplaces, and the field of return to work. Research evolution and literature developments during the writing of the study will be presented unique, unprecedented times for mental health (Corbière et al., 2019; Ornell et al., 2020). The study results will be discussed in the context of Bandura's self-efficacy theory and the existing research in the field and recommend potential future research topics (Bandura, 1977; Dewa et al., 2016; A. Martin et al., 2018; Wood & Bandura, 1989).

### **Summary of the Results**

The purpose of the study was to investigate the influence of the independent variables of stakeholder return to work involvement, gender, and mental health condition on the dependent variable of the duration of lost time from a mental health disability. The study objective was to provide information to industrial psychologists, workplaces, and disability case managers on the variables that could be important in the return to work process. Bandura's self-efficacy theory was used to emphasize the importance of building self-efficacy in the return to work process. Previous research had demonstrated that self-efficacy was essential to a positive return to work outcomes (Bandura, 1977; Brouwer et al., 2015; Corbière et al., 2017; Hensing et al., 2013; Waynor et al., 2016; Wilski & Tasiemski, 2016).

The study addressed the lack of information regarding the variables that may influence the duration of lost time from work following a mental health disability, particularly in the return

to work process. Previous researchers indicated more research was required in this area of investigation (Amick et al., 2017; Corbière et al., 2019; Dewa et al., 2016; Martin et al., 2018). While the topic of return to work has been highly studied, especially in non-mental health claims (Amick et al., 2017; Volker et al., 2015). Supervisor involvement has been discussed in qualitative articles, and the importance of supervisor involvement continues to emerge in the literature (Dwertmann & Boehm, 2016; Jetha et al., 2018; Johnston et al., 2015; Nastasia et al., 2020; Negrini et al., 2018; Nigatu et al., 2017).

The topic of mental health and return to work has further elevated in importance under the current pandemic as mental health concerns have been multiplying (Ornell et al., 2020; Tan et al., 2020). The importance of mental health in the workplace and methods to assist with return to work is a key discussion in workplaces (Ornell et al., 2020; Tan et al., 2020). The importance of mental health return to work will continue to build in importance for industrial psychologists (Nastasia et al., 2020; Ornell et al., 2020; Shaw et al., 2020; Tan et al., 2020).

The dependent variable in the study is lost calendar days on a mental health short term disability claim. The independent variables are stakeholder involvement in the return to work process, gender, and type of mental health condition. The research was conducted with a three-way ANOVA in order to answer seven research questions. Bandura's self-efficacy theory was used to support the study (Bandura, 1977; Wood & Bandura, 1989). The data for the study were non-identified records from a third-party administrator's disability claims database.

The study results indicated that supervisor involvement had a statistically significant difference, demonstrated by lower days lost on a mental health claim. The type of mental health claim was not significant. Gender was not found to be significant. A combination of the

independent variables was not found to be significant. There are interesting findings, and will be discussed in more detail in the next section.

### **Discussion of the Results**

The results of the study will be discussed in this section. The discussion will review all seven research questions and offer an interpretation of the three-way ANOVA input on why these outcomes may have been found. Only one of the independent variables was statistically significant in the study. Supervisors' participation in the return to work process demonstrated a statistically significant lower duration of time lost on a mental health disability claim than human resources involvement. The gender and type of mental health condition did not render a statistically significant result individually or combined with other variables. The seven questions will be reviewed and discussed in order.

#### **Research Question 1**

Research question one that demonstrated a statistically significant difference looked at stakeholder involvement. When the variables of gender and mental health diagnosis are held constant, will there be a statistically significant difference in the average number of days lost due to the variable of stakeholder involvement? This finding was anticipated given the ability of the supervisor to directly interact with the employee and enhance their self-efficacy during the return to work process (Bandura, 1977; Lagerveld et al., 2017; Wilski & Tasiemski, 2016). It has been demonstrated in past research that employee self-efficacy is an essential aspect in return to work (Black et al., 2017; Brouwer et al., 2015; Lagerveld et al., 2017). It has also been stated that organizational procedures and processes that function to enhance self-efficacy could have a positive impact (Amick et al., 2017). The supervisor is well-positioned to work with the employee to enhance their self-efficacy and promote the return to work (Dwertmann & Boehm,



2016; Jetha et al., 2018; Negrini et al., 2018). The other stakeholder in the study was the human resources designate in the workplace. While this role may be valuable in the return to work process, they do not work directly or alongside the individual and may lack a full understanding of the job demands (Bastien & Corbière, 2019; Corbière et al., 2019; Durand et al., 2017; James et al., 2002; Nastasia et al., 2020). This is an important finding for the transition of individuals back to work following a mental health disability.

## **Research Question 2**

Research question two examined gender. When the variables of stakeholder involvement and mental health diagnosis were held constant, was there a statistically significant difference in the average number of days lost due to the variable of gender? There was no statistical significance found. This is an interesting finding as previous research studies had found that women had longer durations than men, particularly for mental health conditions (Alves, 2015; Busfield, 1997; Dewa et al., 2016; Koopmans et al., 2010). The studies did not examine stakeholder participation, which could be creating the difference in this study. Having stakeholder involvement could mediate the effect of gender. Given the cut-off for inclusion in the study was 182 days, it is possible that some of the women were still off work, and only those with less severe cases had a return to work in the short-term disability period. Leijon et al. (2015) found a lower probability of return to work with women with mental health conditions. It could also be pondered that some of the articles discussing gender being a significant variable are five years or older (Alves, 2015; Busfield, 1997; Koopmans et al., 2010). It is possible that treatment modalities have become better in that timeframe with considerations for gender variances (Lagerveld et al., 2012; Victor et al., 2016). The topic of gender should be studied further to determine the reason for this finding.

### **Research Question 3**

Research question three examined mental health diagnosis. When the variables of gender and stakeholder were held constant, is there a statistically significant difference in the average number of days lost due to the variable of mental health diagnosis? The topic of the type of diagnosis was not highly studied (Dewa et al., 2016). A few emerging articles are indicating that it is not the diagnosis itself that is influencing return to work (Björk Brämberg et al., 2018, 2019; Björk et al., 2018; Brijnath et al., 2014; Dewa et al., 2016). A few qualitative articles did indicate that depression may have a longer duration, but the quantitative articles have not yet articulated this finding (Bertilsson et al., 2018; Brijnath et al., 2014). The existence of workplace issues or burnout appears to be a consideration (Aronsson et al., 2017; Fagerlind Ståhl et al., 2018; Kärkkäinen et al., 2018; Karlson et al., 2014). Workplace issues and burnout are not currently considered disabilities under the world health organization's classification of disease (World Health Organization, 1993). Therefore, these factors would not have been included in the study. The type of mental health diagnosis does not appear to be statistically significant when measured with lost time duration.

### **Research Question 4**

Research question four examined the interaction of gender and stakeholder return to work involvement. When the variables of mental health diagnoses are held constant, was there a statistically significant difference in the average number of days lost due to the two-way interaction of stakeholder and gender? There was no statistical significance found in the two-way interaction. It was evident that the means for the stakeholders remained different, but the interaction combined with gender did not show a difference for men versus women. As stated above, it was expected to see the significance in gender, but this study's circumstances are

different from other studies (Busfield, 1997; Koopmans et al., 2010). Some articles indicated that women were more likely to claim a mental health disability without considering the lost time durations (Busfield, 1997). The researchers discussed that women take longer to return to work (Awang et al., 2016; Macpherson et al., 2018; Spronken et al., 2020). Individuals with depression were slower to return to work than those with adjustment disorder or burnout (Huijs et al., 2017; Kausto et al., 2017; Spronken et al., 2020). A few other articles found no difference in gender (Gaspar et al., 2018; Koopmans et al., 2010). It will be necessary to examine the topic of gender in more detail.

### **Research Question 5**

Research question five examined the interaction of return to work stakeholder involvement and the mental health diagnosis. When the variables of gender are held constant, will there be a statistically significant difference in the average number of days lost due to the two-way interaction of stakeholder and mental health diagnosis? The findings did not indicate a statistically significant difference with the two variables of return to work stakeholder involvement and mental health diagnosis are examined together. Supervisor involvement continued to show a shorter duration. However, in combination with the diagnosis, there was no statistical significance. Days lost were not influenced by the combination of the supervisor and the diagnosis. The literature on mental health continues to emerge, and mental health condition interacting with the stakeholder has not been studied closely (Dewa et al., 2016).

### **Research Question 6**

Research question six examined gender and mental health diagnosis. When stakeholder involvement variables are held constant, is there a statistically significant difference in the average number of days lost due to the two-way interaction of gender and mental health

diagnosis? There was no statistical significance when gender and mental health diagnoses were examined in combination. This is a curious finding as there are articles that indicate gender is a significant predictor and others that indicate it is not, particularly when combined with the diagnosis. Some literature indicates that women have longer durations of time off on mental health conditions and other studies do not (Alves, 2015; Busfield, 1997; Koopmans et al., 2010). The topic of mental health and gender requires further exploration.

### **Research Question 7**

Research question seven examined the three-way interaction of stakeholder return to work involvement, gender, and mental health diagnosis. There was no statistically significant difference in the average number of days lost due to the three-way interaction of stakeholder involvement, gender, and mental health diagnosis? The stakeholder by itself continues to show a difference in the mean days off. However, in combination, the three variables do not show a statistically significant influence on the duration of lost time from a mental health condition. It is unique to examine this combination of variables, and more work needs to be done to determine what combination of variables may have significance. The literature continues to emerge on indicators of return to work from mental health conditions (Cullen et al., 2018; Dewa et al., 2016; Gaspar et al., 2018).

The results indicated only one statistical significance finding. The supervisor's return to work involvement was significant when compared to human resources. While the results are not as expected, it is important to have explored this topic. The study was unique in its inquiry and combination of variables. The study also highlights the need for additional research in the area of mental health return to work.

## Conclusions Based on the Results

The research concludes that having supervisors involved in the return to work process demonstrated a statistically significant difference in the duration of lost time from a mental health condition. The two stakeholders that were included in the study were supervisors and human resources. It would be valuable to expand this inquiry to other stakeholders, including the return to work coordinators or certified disability management practitioners. There are a few studies on these stakeholders, although the conclusions are not consistent across studies (Corbière et al., 2019; Cullen et al., 2018; Lammerts, Schaafsma, van Mechelen, et al., 2016; Nevala et al., 2015). The use of Bandura's theory in the study assisted in expanding the theory to the supervisor's role in building self-efficacy in the employee that is returning to work from a mental health condition (Bandura, 1977; Black et al., 2017; Brouwer et al., 2015; Lagerveld et al., 2017; Volker et al., 2015). Supervisors are well-positioned to have a direct influence on their team members. In the management hierarchy, supervisors are the closest to the employee (Ahmady et al., 2016; Skrastins & Vig, 2019). It will be important to ensure that supervisors are appropriately trained and coached on positive reinforcement (Johnston et al., 2015; Nastasia et al., 2020).

The findings that other variables of gender and mental health condition did not have a statistical significance either individually or in combination will require more research. Gender finding is inconsistent with other studies (Busfield, 1997; Hensing et al., 2013; Koopmans et al., 2010). The type of mental health condition is not highly studied, and there are inconsistent findings in the emerging studies (Gray & Collie, 2018; Lloyd et al., 2017; Victor et al., 2016). As the topic of mental health continues to emerge as an important topic, the type of condition will need to be studied in more detail. The current pandemic situation will have profound rippling

effects on mental health and will become an integral part of future studies (Ornell et al., 2020; Shaw et al., 2020; Tan et al., 2020). Overall the study has emphasized the importance of more research in the area of mental health return to work. It is also important to consider limitations to the study.

### **Limitations**

A strength in the study is the maturity of the profession of disability management and the desire of workplaces to explore methods to improve the return to work durations as it pertains to mental health (Coduti et al., 2016; Dewa et al., 2016; Gaspar et al., 2018; Wisenthal et al., 2018). Assisting people back to work is a continuing global discussion (Dewa et al., 2016; Modini et al., 2016; Wagner et al., 2018). The most recent pandemic has created even more of a focus on the importance of work and mental health (Ornell et al., 2020; Shaw et al., 2020; Tan et al., 2020).

The potential to expand workplace knowledge is a concrete strength of the study. The quantitative research design, the choice of self-efficacy theory, and articulation of the research questions and hypothesis provide confidence in the findings (Leedy & Ormrod, 2016; Warner, 2008; Wood & Bandura, 1989). In any study, it is also important to discuss limitations as they may influence the results. Limitations are elements a researcher cannot control.

Acknowledgment of these limitations leads to better research (Leedy & Ormrod, 2016). There are a few limitations to consider in this study, including limited breadth, unknown competency of the supervisor in the workplace, the influence of current events on future studies, lack of cross-cultural testing in Bandura's theory, and reliance on a third-party administrator's dataset.

### ***Breadth of Variables***

This study only considered three variables, workplace stakeholders, gender, and mental health condition. While these are important variables, there are many other variables to explore

in investigating issues that may influence successful early and safe return to work. Variables such as age, type of industry, benefit plan design, workplace culture, union involvement, supervisor education, and other factors are not included in this study (Dewa et al., 2016; MacEachen et al., 2020). There are emerging studies on mental health that begin to consider a wider range of variables (Corbière et al., 2019; Dewa et al., 2016; MacEachen et al., 2020; Nevala et al., 2015; Spronken et al., 2020). As the interest in the impact of mental health conditions grows, the importance of studies in this area will also continue to grow (Budd & Spencer, 2015; Kvam et al., 2015; Peiró et al., 2020).

### ***Supervisor Competency***

This study demonstrated that supervisor involvement in the return to work process made a statistically significant difference in lost time duration. It will be vital to ensure that the supervisor's involvement is appropriate. The supervisor's competency level and their relationship skills are an essential consideration in return to work planning (Jetha et al., 2018; Johnston et al., 2015, 2015; Kristman et al., 2017). Jetha et al. (2018) discuss the social system that exists in workplaces and the importance of supervisor support in a successful return to work. Durations can be influenced by stakeholder support or lack of support within the recovery and return to work period of a mental health disability (Nevala et al., 2015; Norder et al., 2017; Vargas-Prada et al., 2016). Having a policy and process in place to guide supervisors can assist in reducing inconsistencies in the application of return to work plans (Geisen et al., 2019; Mustard et al., 2017; Skivington et al., 2016). The study is a review of existing data, and the researcher does not have information pertaining to the competency of the workplace stakeholders or the culture in the client worksites.

### ***Current Events***

The issue of return to work has been amplified throughout the COVID-19 pandemic (Ornell et al., 2020; Shaw et al., 2020; Tan et al., 2020). The overlay of mental health concerns, in particular, anxiety associated with working in an enclosed environment in proximity to others, is becoming a concern (Ornell et al., 2020). Return to work following a COVID-19 related mental health absence or isolation for any reason can add some unique challenges to mental health stability (Ornell et al., 2020; Tan et al., 2020). In the return to the work field, researchers will need to add this concern to the list of items to explore in return to work planning. If the employee will be returning to a work from home scenario, there are multiple mental health and social interaction considerations (Jetha et al., 2018; MacEachen et al., 2020; Tan et al., 2020).

### ***Bandura's Theory***

Bandura's self-efficacy theory is a significant contribution when it comes to return to work (Bandura, 1977, 1988; Black et al., 2017; Volker et al., 2015). Some limitations of social cognitive self-efficacy theory include gaps in the cross-cultural application of self-efficacy as a motivator (Schunk & DiBenedetto, 2020; Sheu et al., 2018). There is a limitation in the applicability of social cognitive theory to non-western cultures, as much of the research has been with western cultures. Non-western cultures have a higher focus on collectivism, where collective effort is more associated with success (Schunk & DiBenedetto, 2020). It is uncertain if self-efficacy will apply in all cultures (Luszczynska et al., 2005; Momsen et al., 2016). Fine (2015) indicated that perhaps one of the challenges with learning about cultural influences is we must admit to differences. Understanding will help discover clarity around perhaps deep-seated notions (Fine, 2015). As diversity in workplaces increases, this limitation will be important to examine (Brimhall et al., 2017). Another limitation in self-efficacy is the individual level of self-



efficacy could vary, depending on the topic, task, or negative feedback (Bandura, 1977, 1991; Wood & Bandura, 1989). There can be a rapid change in confidence, depending on the activity (Schunk & DiBenedetto, 2020; Schunk & Usher, 2019).

### ***Group Composition***

The study group was all private sector, and the study may have had different results if the employees worked for public sector employers. It has been stated that public sector durations exceed private sector durations (Higgins et al., 2015; Lammerts, Schaafsma, van Mechelen, et al., 2016; Larsen et al., 2017; Public Health Agency of Canada, 2006). All participants were from Canadian workplaces. It is possible that disability durations are different in other countries (Wagner et al., 2018). Alternate programs for sick-listed or disabled employees, including plan design, has been demonstrated to have an effect on durations (Brijnath et al., 2014; Buys et al., 2017; Galizzi et al., 2016; Huijs et al., 2017; M. H. T. Martin et al., 2015; Wagner et al., 2018). It is understandable why there have to be strong parameters on the participants, but we have to acknowledge the possibility that the results may vary with alternate group composition.

### ***Delimitations***

Delimitations are limitations that relate to the choices made by the researcher (Leedy & Ormrod, 2016). The potential delimitations associated with the study include the reliance on third-party administrator data input and their client company data entry. A potential limitation associated with the study includes reliance on the third-party administrator's data input and the client company data entry (Warner, 2012). There is a risk that data is not reported honestly or entered accurately (Warner, 2012). Intentional or not, there can be some lack of proof given in the client or employee's information self-reported. In the definition of disability claims submitted, we must presume that the disability is real if included in the dataset. The other issue

may be inconsistent entries in the data, and there is a risk that the third-party administrator's staff data entry is incorrect or inconsistent. The third-party administrator assures the researcher they have random audits to prevent errors in the data. Another concern with the data is the grouping by the third-party administrator that produced the data. There could be a misunderstanding of some of the descriptions. The researcher was very clear about the data parameters.

The researcher trust that the data was reported honestly and entered accurately into the database (Leedy & Ormrod, 2016). However, it must be recognized that there is no way to prove that the data is without errors. The researcher in the context of the study believes that all disability claims are real according to a definition of disability included in the dataset. The third-party administrator assures the researcher they have random quality assurance audits to prevent errors in the data. The third-party administrator also indicates they remove all denied or canceled claims. Another concern with the data is the grouping by the third-party administrator that is producing the data. As an example, the term supervisor could be misinterpreted as a manager. In an organizations' hierarchy, the reflection would be a manager, then a supervisor, then an employee (Skrastins & Vig, 2019). It is possible that the impact of the manager would not be as great as the impact of the supervisor. While this is a limitation, the study did demonstrate that the supervisor's involvement was statistically significant. When the data was received, it was closely examined for any potential issues prior to the analysis (George & Mallery, 2017; Leedy & Ormrod, 2016).

There are certain assumptions and limitations in the research study. Being aware of the assumptions and limitations is vital as it allows the reader full clarity. It provides the ability to be transparent and demonstrates a full understanding of the topic area.

## **Implications for Practice**

There is substantial literature support for the topic, method, and the research design (Amick et al., 2017; Björk et al., 2018; Dewa et al., 2016; A. Martin et al., 2018). The significance of the broader community and professionals in industrial and organizational psychology was highlighted throughout the study. The study will be positively communicated in the hope that workplaces and those involved in the return to work process can use the results to design programs that include the supervisor. Supervisor training and coaching will become an essential focus in workplace programs, with particular emphasis on how to build self-efficacy in the returning employee. This is not the first study to identify the supervisor as an important participant in return to work (Durand et al., 2017; Jetha et al., 2018; Johnston et al., 2015; Kristman et al., 2017; Nastasia et al., 2020; Negrini et al., 2018).

The additional implications arising from the variables that did not show statistical significance indicate more research is required to distill the variables that could make a difference in the return to work outcomes (Dewa et al., 2016; Gaspar et al., 2018). Many previous researchers have concluded the need for additional research in the mental health return to work topic area (Amick et al., 2017; Cullen et al., 2018; Dewa et al., 2016; Gaspar et al., 2018; Wagner et al., 2018).

## **Recommendations for Further Research**

This study examined the dependent variable of lost days and three independent variables of stakeholder involvement, gender, and mental health condition. There are many items that are still to be examined when it comes to mental health return to work. The topic of return to work following a mental health disability continues to emerge as a concern for employers and employees (Blank et al., 2008, 2008; Spronken et al., 2020). It has clearly been demonstrated

that self-efficacy is a positive driver of early and safe return to work (Bandura, 1988; Lagerveld et al., 2012, 2017; Wood & Bandura, 1989). This was further demonstrated in this study. Given the statistical significance of having the supervisor involved in the return to work process, a recommendation for further research is examining how workplace supervisors can ensure they are helping to build self-efficacy (Bandura, 1988). There is a need to investigate ways to equip supervisors for their role in return to work following a mental health disability. Training tools for supervisors and designing the best possible workplace programs need to be further explored (Amick et al., 2017; Nastasia et al., 2020).

This study examined stakeholder involvement, gender, and mental health condition. Another important line of inquiry is to more closely examine multiple variables that could have an influence on successful return to work. The research that was explored during this study revealed many other variables to be considered (Dewa et al., 2016; Kristman et al., 2017; Nevala et al., 2015; Spronken et al., 2020). Return to work is a multilayered, complicated topic, and a deeper examination of variables would be useful.

Gender was not statistically significant within the study. There are previous studies that did demonstrate gender as a statistically significant variable (Dewa et al., 2016; Gaspar et al., 2018; Koopmans et al., 2010). Gender, when used in combination with other variables, may have a significance. It is important to explore the gender variable in more detail.

The type of mental health condition was not statistically significant in this study. The conditions of depression, anxiety, and other were used in this study. While this finding supports the use of similar strategies across all mental health conditions, it is important to replicate this finding in additional studies to confirm that supervisor involvement will be statistically significant regardless of the diagnosis.

## Conclusion

The study's goal was to identify if stakeholder involvement, gender, or type of mental health condition had a statistical significance on the dependent variable of return to work duration following a mental health condition. Bandura's self-efficacy theory was used throughout the study (Bandura, 1977; Lagerveld et al., 2017; Wood & Bandura, 1989). Previous research had highlighted the positive use of self-efficacy theory in return to work studies (Lagerveld et al., 2017). The existing research was lacking and continues to emerge on methods to reduce the duration of lost time from mental health conditions (Dewa et al., 2016). Dewa et al. (2016), in a systematic review of existing research on mental health in the workplace, mentioned the need for additional research.

The study only found one variable that of supervisor involvement had a statistical significance. While this is not what was predicted, it does provide vital information for workplace participants as the study of mental health return to work continues to emerge. There is a need for additional research in this area, particularly with the current pandemic events. The researcher will continue to explore variables and communicate with colleagues. This study and the completion of the degree at Capella provide a pathway for additional participation and communication in quantitative return to work research.

## References

- Ahmady, G. A., Mehrpour, M., & Nikooravesh, A. (2016). Organizational structure. *Procedia - Social and Behavioral Sciences*, 230, 455–462.  
<https://doi.org/10.1016/j.sbspro.2016.09.057>
- Ali, S. R., Fall, K., & Hoffman, T. (2013). Life without work: Understanding social class changes and unemployment through theoretical integration. *Journal of Career Assessment*, 21(1), 111–126. <https://doi.org/10.1177/1069072712454820>
- Alves, T. M. (2015). Joan Busfield (1996), Men, Women, and Madness: Understanding gender and mental disorder. New York: New York University Press. *Configurações*, 15, 89–93.  
<https://doi.org/10.4000/configuracoes.2649>
- American Psychological Association (2019). *Publication manual of the American Psychology Association (Seventh edition)*. American Psychological Association.
- Amick, B. C., Lee, H., Hogg-Johnson, S., Katz, J. N., Brouwer, S., Franche, R.-L., & Bültmann, U. (2017). How do organizational policies and practices affect return to work and work role functioning following a musculoskeletal injury? *Journal of Occupational Rehabilitation*, 27(3), 393–404. <https://doi.org/10.1007/s10926-016-9668-8>
- Andersen, M. F., Nielsen, K., & Brinkmann, S. (2014). How do workers with common mental disorders experience a multidisciplinary return-to-work intervention? A qualitative study. *Journal of Occupational Rehabilitation*, 24(4), 709–724. <https://doi.org/10.1007/s10926-014-9498-5>
- Arno, R., Friedl, A., Gross, P., & Schuerger, R. J. (2012). Reliability of data centers by tier classification. *IEEE Transactions on Industry Applications*, 48(2), 777–783.  
<https://doi.org/10.1109/TIA.2011.2180872>

- Aronsson, G., Theorell, T., Grape, T., Hammarström, A., Hogstedt, C., Marteinsdottir, I., Skoog, I., Träskman-Bendz, L., & Hall, C. (2017). A systematic review including meta-analysis of work environment and burnout symptoms. *BMC Public Health*, *17*(1), 264. <https://doi.org/10.1186/s12889-017-4153-7>
- Awang, H., Shahabudin, S. M., & Mansor, N. (2016). Return-to-work program for injured workers: Factors of successful return to employment. *Asia Pacific Journal of Public Health*, *28*(8), 694–702. <https://doi.org/10.1177/1010539516640354>
- Bagger, J., & Li, A. (2014). How does supervisory family support influence employees' attitudes and behaviors? A social exchange perspective. *Journal of Management*, *40*(4), 1123–1150. <https://doi.org/10.1177/0149206311413922>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A. (1988). Organisational applications of social cognitive theory. *Australian Journal of Management*, *13*(2), 275–302. <https://doi.org/10.1177/031289628801300210>
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, *44*(9), 1175–1184. <https://doi.org/10.1037/0003-066X.44.9.1175>
- Bandura, A. (1991). Human agency: The rhetoric and the reality. *American Psychologist*, *46*(2), 157–162. <https://doi.org/10.1037/0003-066X.46.2.157>
- Bandura, A. (2004a). Health promotion by social cognitive means. *Health Education & Behavior*, *31*(2), 143–164. <https://doi.org/10.1177/1090198104263660>
- Bandura, A. (2004b). Swimming against the mainstream: The early years from chilly tributary to transformative mainstream. *Behaviour Research and Therapy*, *42*(6), 613–630. <https://doi.org/10.1016/j.brat.2004.02.001>

- Bandura, A., Freeman, W. H., & Lightsey, R. (1999). Self-efficacy: The exercise of control. *Journal of Cognitive Psychotherapy, 13*(2), 158–166. <https://doi.org/10.1891/0889-8391.13.2.158>
- Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology, 88*(1), 87–99. <https://doi.org/10.1037/0021-9010.88.1.87>
- Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology, 41*(3), 586–598. <https://doi.org/10.1037/0022-3514.41.3.586>
- Bastien, M. F., & Corbière, M. (2019). Return-to-work following depression: What work accommodations do employers and human resources directors put in place? *Journal of Occupational Rehabilitation, 29*(2), 423–432. <https://doi.org/10.1007/s10926-018-9801-y>
- Bejerholm, U., & Areberg, C. (2014). Factors related to the return to work potential in persons with severe mental illness. *Scandinavian Journal of Occupational Therapy, 21*(4), 277–286. <https://doi.org/10.3109/11038128.2014.889745>
- Bell, B. S., & Kozlowski, W. J. (2002). Goal orientation and ability: Interactive effects on self-efficacy, performance, and knowledge. *Journal of Applied Psychology, 87*(3), 497–505. <https://doi.org/10.1037/0021-9010.87.3.497>
- Benight, C. C., & Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: The role of perceived self-efficacy. *Behaviour Research and Therapy, 42*(10), 1129–1148. <https://doi.org/10.1016/j.brat.2003.08.008>
- Bergström, G., Lohela-Karlsson, M., Kwak, L., Bodin, L., Jensen, I., Torgén, M., & Nybergh, L. (2017). Preventing sickness absenteeism among employees with common mental disorders or stress-related symptoms at work: Design of a cluster randomized controlled



trial of a problem-solving based intervention versus care-as-usual conducted at the Occupational Health Services. *BMC Public Health*, 17(1), 436.

<https://doi.org/10.1186/s12889-017-4329-1>

Bertilsson, M., Maeland, S., Löve, J., Ahlborg, G., Werner, E. L., & Hensing, G. (2018). The capacity to work puzzle: A qualitative study of physicians' assessments for patients with common mental disorders. *BMC Family Practice*, 19(1), 133.

<https://doi.org/10.1186/s12875-018-0815-5>

Björk Brämberg, E., Holmgren, K., Bültmann, U., Gyllensten, H., Hagberg, J., Sandman, L., & Bergström, G. (2018). Increasing return-to-work among people on sick leave due to common mental disorders: Design of a cluster-randomized controlled trial of a problem-solving intervention versus care-as-usual conducted in the Swedish primary health care system (PROSA). *BMC Public Health*, 18(1), 889. <https://doi.org/10.1186/s12889-018-5816-8>

Björk Brämberg, E., Sandman, L., Hellman, T., & Kwak, L. (2019). Facilitators, barriers and ethical values related to the coordination of return-to-work among employees on sick leave due to common mental disorders: A protocol for a qualitative study (the CORE-project). *BMJ Open*, 9(9), e032463. <https://doi.org/10.1136/bmjopen-2019-032463>

Björk, L., Glise, K., Pousette, A., Bertilsson, M., & Holmgren, K. (2018). Involving the employer to enhance return to work among patients with stress-related mental disorders – study protocol of a cluster randomized controlled trial in Swedish primary health care. *BMC Public Health*, 18(1), 838. <https://doi.org/10.1186/s12889-018-5714-0>

- Black, O., Sim, M. R., Collie, A., & Smith, P. (2017). A return-to-work self-efficacy scale for workers with psychological or musculoskeletal work-related injuries. *Quality & Quantity*, 51(1), 413–424. <https://doi.org/10.1007/s11135-016-0312-7>
- Blank, L., Peters, J., Pickvance, S., Wilford, J., & MacDonald, E. (2008). A Systematic Review of the Factors which Predict Return to Work for People Suffering Episodes of Poor Mental Health. *Journal of Occupational Rehabilitation*, 18(1), 27–34. <https://doi.org/10.1007/s10926-008-9121-8>
- Boot, C. R. L., Hogg-Johnson, S., Bültmann, U., Amick, B. C., & van der Beek, A. J. (2014). Differences in predictors for return to work following musculoskeletal injury between workers with and without somatic comorbidities. *International Archives of Occupational and Environmental Health*, 87(8), 871–879. <https://doi.org/10.1007/s00420-014-0928-7>
- Bowling, A. (1995). What things are important in people's lives? A survey of the public's judgements to inform scales of health related quality of life. *Social Science & Medicine*, 41(10), 1447–1462. [https://doi.org/10.1016/0277-9536\(95\)00113-L](https://doi.org/10.1016/0277-9536(95)00113-L)
- Briand, C., Durand, M. J., St-Arnaud, L., & Corbière, M. (2007). Work and mental health: Learning from return-to-work rehabilitation programs designed for workers with musculoskeletal disorders. *International Journal of Law and Psychiatry*, 30(4–5), 444–457. <https://doi.org/10.1016/j.ijlp.2007.06.014>
- Brijnath, B., Mazza, D., Singh, N., Kosny, A., Ruseckaite, R., & Collie, A. (2014). Mental health claims management and return to work: Qualitative insights from Melbourne, Australia. *Journal of Occupational Rehabilitation*, 24(4), 766–776. <https://doi.org/10.1007/s10926-014-9506-9>

- Brimhall, K. C., Mor Barak, M. E., Hurlburt, M., McArdle, J. J., Palinkas, L., & Henwood, B. (2017). Increasing workplace inclusion: The promise of leader-member exchange. *Human Service Organizations: Management, Leadership & Governance*, 41(3), 222–239. <https://doi.org/10.1080/23303131.2016.1251522>
- Brouwer, S., Amick, B. C., Lee, H., Franche, R. L., & Hogg-Johnson, S. (2015). The predictive validity of the return-to-work self-efficacy scale for return-to-work outcomes in claimants with musculoskeletal disorders. *Journal of Occupational Rehabilitation*, 25(4), 725–732. <https://doi.org/10.1007/s10926-015-9580-7>
- Brouwer, S., Krol, B., Reneman, M. F., Bültmann, U., Franche, R. L., van der Klink, J. J. L., & Groothoff, J. W. (2009). Behavioral determinants as predictors of return to work after long-term sickness absence: An application of the theory of planned behavior. *Journal of Occupational Rehabilitation*, 19(2), 166–174. <https://doi.org/10.1007/s10926-009-9172-5>
- Budd, J. W., & Spencer, D. A. (2015). Worker well-being and the importance of work: Bridging the gap. *European Journal of Industrial Relations*, 21(2), 181–196. <https://doi.org/10.1177/0959680114535312>
- Busfield, J. (1997). *Men, women and madness: Understanding gender and mental disorder* (2. Dr.). Macmillan.
- Busse, J. W., Dolinschi, R., Clarke, A., Scott, L., Hogg-Johnson, S., Amick III, B. C., Rivilis, I., & Cole, D. (2011). Attitudes towards disability management: A survey of employees returning to work and their supervisors. *Work*, 40(2), 143–151. <https://doi.org/10.3233/WOR-2011-1215>

- Buyts, N., Wagner, S., Randall, C., Harder, H., Geisen, T., Yu, I., Hassler, B., Howe, C., & Fraess-Phillips, A. (2017). Disability management and organizational culture in Australia and Canada. *Work*, 57(3), 409–419. <https://doi.org/10.3233/WOR-172568>
- Cameron, J., Sadlo, G., Hart, A., & Walker, C. (2016). Return-to-work support for employees with mental health problems: Identifying and responding to key challenges of sick leave. *British Journal of Occupational Therapy*, 79(5), 275–283. <https://doi.org/10.1177/0308022615627176>
- Cancelliere, C., Donovan, J., Stochkendahl, M. J., Biscardi, M., Ammendolia, C., Myburgh, C., & Cassidy, J. D. (2016). Factors affecting return to work after injury or illness: Best evidence synthesis of systematic reviews. *Chiropractic & Manual Therapies*, 24(1), 32. <https://doi.org/10.1186/s12998-016-0113-z>
- Carriere, J. S., Thibault, P., & Sullivan, M. J. L. (2015). The mediating role of recovery expectancies on the relation between depression and return-to-work. *Journal of Occupational Rehabilitation*, 25(2), 348–356. <https://doi.org/10.1007/s10926-014-9543-4>
- Catalina-Romero, C., Sainz, J. C., Pastrana-Jiménez, J. I., García-Diéguez, N., Irizar-Muñoz, I., Aleixandre-Chiva, J. L., Gonzalez-Quintela, A., & Calvo-Bonacho, E. (2015). The impact of poor psychosocial work environment on non-work-related sickness absence. *Social Science & Medicine*, 138, 210–216. <https://doi.org/10.1016/j.socscimed.2015.06.009>
- Chambers, A., Smith, P. M., Sim, M. R., & LaMontagne, A. D. (2017). Comparison of two measures of work functioning in a population of claimants with physical and psychological injuries. *Quality & Quantity*, 51(1), 425–434. <https://doi.org/10.1007/s11135-016-0313-6>

- Cherian, J., & Jacob, J. (2013). Impact of self efficacy on motivation and performance of employees. *International Journal of Business and Management*, 8(14), p80.  
<https://doi.org/10.5539/ijbm.v8n14p80>
- Choi, H. J., Lee, S., No, S. R., & Kim, E. I. (2016). Effects of compassion on employees' self-regulation. *Social Behavior and Personality: An International Journal*, 44(7), 1173–1190. <https://doi.org/10.2224/sbp.2016.44.7.1173>
- Claréus, B., & Renström, E. (2019). Patients return-to-work expectancy relates to their beliefs about their physician opinion regarding return to work volition and ability. *Journal of Pain Research, Volume 12*, 353–362. <https://doi.org/10.2147/JPR.S179061>
- Coduti, W. A., Anderson, C., Lui, K., Lui, J., Rosenthal, D. A., Hursh, N., & Ra, Y.-A. (2016). Psychologically healthy workplaces, disability management and employee mental health. *Journal of Vocational Rehabilitation*, 45(3), 327–336. <https://doi.org/10.3233/JVR-160833>
- Cohen, D., Allen, J., Rhydderch, M., & Aylward, M. (2012). The return to work discussion: A qualitative study of the line manager conversation about return to work and the development of an educational programme. *Journal of Rehabilitation Medicine*, 44(8), 677–683. <https://doi.org/10.2340/16501977-0996>
- Collie, A., Lane, T. J., Hassani-Mahmoei, B., Thompson, J., & McLeod, C. (2016). Does time off work after injury vary by jurisdiction? A comparative study of eight Australian workers' compensation systems. *BMJ Open*, 6(5), e010910.  
<https://doi.org/10.1136/bmjopen-2015-010910>
- Considine, R., Tynan, R., James, C., Wiggers, J., Lewin, T., Inder, K., Perkins, D., Handley, T., & Kelly, B. (2017). The contribution of individual, social and work characteristics to

- employee mental health in a coal mining industry population. *PLOS ONE*, 12(1), e0168445. <https://doi.org/10.1371/journal.pone.0168445>
- Corbière, M., Mazaniello-Chézol, M., Bastien, M. F., Wathieu, E., Bouchard, R., Panaccio, A., Guay, S., & Lecomte, T. (2019). Stakeholders' role and actions in the return-to-work process of workers on sick-leave due to common mental disorders: A scoping review. *Journal of Occupational Rehabilitation*. <https://doi.org/10.1007/s10926-019-09861-2>
- Corbière, M., Negrini, A., Durand, M. J., St-Arnaud, L., Briand, C., Fassier, J.-B., Loisel, P., & Lachance, J.-P. (2017). Development of the return-to-work obstacles and self-efficacy scale (ROSES) and validation with workers suffering from a common mental disorder or musculoskeletal disorder. *Journal of Occupational Rehabilitation*, 27(3), 329–341. <https://doi.org/10.1007/s10926-016-9661-2>
- Corbière, M., Renard, M., St-Arnaud, L., Coutu, M. F., Negrini, A., Sauvé, G., & Lecomte, T. (2015). Union perceptions of factors related to the return to work of employees with depression. *Journal of Occupational Rehabilitation*, 25(2), 335–347. <https://doi.org/10.1007/s10926-014-9542-5>
- Cullen, K. L., Irvin, E., Collie, A., Clay, F., Gensby, U., Jennings, P. A., Hogg-Johnson, S., Kristman, V., Laberge, M., McKenzie, D., Newnam, S., Palagyi, A., Ruseckaite, R., Sheppard, D. M., Shourie, S., Steenstra, I., Van Eerd, D., & Amick, B. C. (2018). Effectiveness of workplace interventions in return-to-work for musculoskeletal, pain-related and mental health conditions: An update of the evidence and messages for practitioners. *Journal of Occupational Rehabilitation*, 28(1), 1–15. <https://doi.org/10.1007/s10926-016-9690-x>

- Dalgaard, V. L., Aschbacher, K., Andersen, J. H., Glasscock, D. J., Willert, M. V., Carstensen, O., & Biering, K. (2017). Return to work after work-related stress: A randomized controlled trial of a work-focused cognitive behavioral intervention. *Scandinavian Journal of Work, Environment & Health*, 43(5), 436–446.  
<https://doi.org/10.5271/sjweh.3655>
- Damij, N., Levnajić, Z., Rejec Skrt, V., & Suklan, J. (2015). What motivates us for work? Intricate web of factors beyond money and prestige. *PLOS ONE*, 10(7), e0132641.  
<https://doi.org/10.1371/journal.pone.0132641>
- de Vries, H., Fishta, A., Weikert, B., Rodriguez Sanchez, A., & Wegewitz, U. (2018). Determinants of sickness absence and return to work among employees with common mental disorders: A scoping review. *Journal of Occupational Rehabilitation*, 28(3), 393–417. <https://doi.org/10.1007/s10926-017-9730-1>
- de Weerd, B. J., van Dijk, M. K., van der Linden, J. N., Roelen, C. A. M., & Verbraak, M. J. P. M. (2016). The effectiveness of a convergence dialogue meeting with the employer in promoting return to work as part of the cognitive-behavioural treatment of common mental disorders: A randomized controlled trial. *Work*, 54(3), 647–655.  
<https://doi.org/10.3233/WOR-162307>
- de Wit, M., Wind, H., Hulshof, C. T. J., & Frings-Dresen, M. H. W. (2018). Person-related factors associated with work participation in employees with health problems: A systematic review. *International Archives of Occupational and Environmental Health*, 91(5), 497–512. <https://doi.org/10.1007/s00420-018-1308-5>
- Dekkers-Sánchez, P. M., Wind, H., Sluiter, J. K., & Frings-Dresen, M. H. W. (2013). What factors are most relevant to the assessment of work ability of employees on long-term

- sick leave? The physicians' perspective. *International Archives of Occupational and Environmental Health*, 86(5), 509–518. <https://doi.org/10.1007/s00420-012-0783-3>
- Demou, E., Smith, S., Bhaskar, A., Mackay, D. F., Brown, J., Hunt, K., Vargas-Prada, S., & Macdonald, E. B. (2018). Evaluating sickness absence duration by musculoskeletal and mental health issues: A retrospective cohort study of Scottish healthcare workers. *BMJ Open*, 8(1), e018085. <https://doi.org/10.1136/bmjopen-2017-018085>
- Department of Health, Education, and Welfare & National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (2014). The Belmont Report. Ethical principles and guidelines for the protection of human subjects of research. *The Journal of the American College of Dentists*, 81(3), 4–13.
- Dewa, C. S., Trojanowski, L., Joosen, M. C. W., & Bonato, S. (2016). Employer best practice guidelines for the return to work of workers on mental disorder–related disability leave: A systematic review. *The Canadian Journal of Psychiatry*, 61(3), 176–185. <https://doi.org/10.1177/0706743716632515>
- Dismuke, C. E., & Egede, L. E. (2015). The impact of cognitive, social and physical limitations on income in community dwelling adults with chronic medical and mental disorders. *Global Journal of Health Science*, 7(5), p183. <https://doi.org/10.5539/gjhs.v7n5p183>
- Dunstan, D. A., & MacEachen, E. (2013). Bearing the brunt: Co-workers' experiences of work reintegration processes. *Journal of Occupational Rehabilitation*, 23(1), 44–54. <https://doi.org/10.1007/s10926-012-9380-2>
- Dunstan, D. A., Mortelmans, K., Tjulin, Å., & MacEachen, E. (2015). The role of co-workers in the return-to-work process. *International Journal of Disability Management*, 10, e2. <https://doi.org/10.1017/idm.2015.2>



- Durand, M. J., Nastasia, I., Coutu, M. F., & Bernier, M. (2017). Practices of return-to-work coordinators working in large organizations. *Journal of Occupational Rehabilitation*, 27(1), 137–147. <https://doi.org/10.1007/s10926-016-9640-7>
- Dwertmann, D. J. G., & Boehm, S. A. (2016). Status matters: The asymmetric effects of supervisor–subordinate disability incongruence and climate for inclusion. *Academy of Management Journal*, 59(1), 44–64. <https://doi.org/10.5465/amj.2014.0093>
- Dyck, D. (2020). Integrated disability management program: A business case. *Journal : The Official Publication of the Ontario Occupational Health Nurses Association; Toronto*, 39(1), 18–24.
- Eguchi, H., Wada, K., Higuchi, Y., & Smith, D. R. (2017). Psychosocial factors and colleagues' perceptions of return-to-work opportunities for workers with a psychiatric disorder: A Japanese population-based study. *Environmental Health and Preventive Medicine*, 22(1), 23. <https://doi.org/10.1186/s12199-017-0630-y>
- Ekberg, K., Wåhlin, C., Persson, J., Bernfort, L., & Öberg, B. (2015). Early and late return to work after sick leave: Predictors in a cohort of sick-listed individuals with common mental disorders. *Journal of Occupational Rehabilitation*, 25(3), 627–637. <https://doi.org/10.1007/s10926-015-9570-9>
- Endo, M., Haruyama, Y., Mitsui, K., Muto, G., Nishiura, C., Kuwahara, K., Wada, H., & Tanigawa, T. (2019). Durations of first and second periods of depression-induced sick leave among Japanese employees: The Japan sickness absence and return to work (J-SAR) study. *Industrial Health*, 57(1), 22–28. <https://doi.org/10.2486/indhealth.2018-0023>

- Ervasti, J., Joensuu, M., Pentti, J., Oksanen, T., Ahola, K., Vahtera, J., Kivimäki, M., & Virtanen, M. (2017). Prognostic factors for return to work after depression-related work disability: A systematic review and meta-analysis. *Journal of Psychiatric Research, 95*, 28–36. <https://doi.org/10.1016/j.jpsychires.2017.07.024>
- Etuknwa, A., Daniels, K., & Eib, C. (2019). Sustainable return to work: A systematic review focusing on personal and social factors. *Journal of Occupational Rehabilitation, 29*(4), 679–700. <https://doi.org/10.1007/s10926-019-09832-7>
- Fagerlind Ståhl, A. C., Ståhl, C., & Smith, P. (2018). Longitudinal association between psychological demands and burnout for employees experiencing a high versus a low degree of job resources. *BMC Public Health, 18*(1), 915. <https://doi.org/10.1186/s12889-018-5778-x>
- Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G\*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Fine. (2015). Teaching multicultural leadership using a social constructionist approach. *Journal of Leadership Education, 14*(2). <https://doi.org/10.12806/V14/I2/AB1>
- Fishta, A., de Vries, H., Weikert, B., & Wegewitz, U. (2017). Sickness absence and return-to-work determinants among employees with a common mental disorder. *European Journal of Public Health, 27*(suppl\_3). <https://doi.org/10.1093/eurpub/ckx186.241>
- Franche, R. L., & Krause, N. (2002). Readiness for return to work following injury or illness: Conceptualizing the interpersonal impact of health care, workplace, and insurance factors. *Journal of Occupational Rehabilitation, 12*(4), 233–256. <https://doi.org/10.1023/A:1020270407044>

- Galizzi, M., Leombruni, R., Pacelli, L., & Bena, A. (2016). Injured workers and their return to work: Beyond individual disability and economic incentives. *Evidence-Based HRM: A Global Forum for Empirical Scholarship*, 4(1), 2–29. <https://doi.org/10.1108/EBHRM-02-2015-0002>
- Gaspar, F. W., Zaidel, C. S., & Dewa, C. S. (2018). Rates and predictors of recurrent work disability due to common mental health disorders in the United States. *PLOS ONE*, 13(10), e0205170. <https://doi.org/10.1371/journal.pone.0205170>
- Geisen, T., Hassler, B., Wagner, S., Buys, N., Randall, C., Harder, H., Fraess-Phillips, A., Yu, I. T., Howe, C., & Scott, L. (2019). Raising awareness and appreciation: Employee perspectives on disability management in Swiss companies. *International Journal of Disability Management*, 14, e1. <https://doi.org/10.1017/idm.2019.1>
- George, D., & Mallery, P. (2017). *IBM SPSS statistics 23 step by step: A simple guide and reference* (Fourteenth edition). Pearson Education.
- Gewurtz, R. E., Premji, S., & Holness, D. L. (2019). The experiences of workers who do not successfully return to work following a work-related injury. *Work*, 61(4), 537–549. <https://doi.org/10.3233/WOR-182824>
- Gragnano, A., Negrini, A., Miglioretti, M., & Corbière, M. (2018). Common psychosocial factors predicting return to work after common mental disorders, cardiovascular diseases, and cancers: A review of reviews supporting a cross-disease approach. *Journal of Occupational Rehabilitation*, 28(2), 215–231. <https://doi.org/10.1007/s10926-017-9714-1>
- Gray, S. E., & Collie, A. (2018). Comparing time off work after work-related mental health conditions across Australian workers' compensation systems: A retrospective cohort

study. *Psychiatry, Psychology and Law*, 25(5), 675–692.

<https://doi.org/10.1080/13218719.2018.1473176>

Halonen, J. I., Solovieva, S., Pentti, J., Kivimäki, M., Vahtera, J., & Viikari-Juntura, E. (2016). Effectiveness of legislative changes obligating notification of prolonged sickness absence and assessment of remaining work ability on return to work and work participation: A natural experiment in Finland. *Occupational and Environmental Medicine*, 73(1), 42–50.

<https://doi.org/10.1136/oemed-2015-103131>

Hensing, G., Bertilsson, M., Ahlborg, G., Waern, M., & Vaez, M. (2013). Self-assessed mental health problems and work capacity as determinants of return to work: A prospective general population-based study of individuals with all-cause sickness absence. *BMC Psychiatry*, 13(1), 259.

<https://doi.org/10.1186/1471-244X-13-259>

Higgins, A., O'Halloran, P., & Porter, S. (2015). The management of long-term sickness absence in large public sector healthcare organisations: A realist evaluation using mixed methods. *Journal of Occupational Rehabilitation*, 25(3), 451–470.

<https://doi.org/10.1007/s10926-014-9553-2>

Hoefsmit, N., Houkes, I., Boumans, N., Noben, C., Winkens, B., & Nijhuis, F. J. N. (2016). The effectiveness of an intervention to enhance cooperation between sick-listed employees and their supervisors (COSS). *Journal of Occupational Rehabilitation*, 26(2), 229–236.

<https://doi.org/10.1007/s10926-015-9606-1>

Hogg-Johnson, S. (2003). Early prognostic factors for duration on temporary total benefits in the first year among workers with compensated occupational soft tissue injuries.

*Occupational and Environmental Medicine*, 60(4), 244–253.

<https://doi.org/10.1136/oem.60.4.244>

- Holmgren, K. E. M., & Mårdby, A. C. (2013). The association between self-efficacy and sick-leave among men and women: A cross-sectional study of the general working population in Sweden. *Epidemiology, Biostatistics and Public Health, Authors' Manuscripts*.  
<https://doi.org/10.2427/9006>
- Horppu, R., Martimo, K. P., Viikari-Juntura, E., Lallukka, T., & MacEachen, E. (2016). Occupational physicians' reasoning about recommending early return to work with work modifications. *PLOS ONE*, *11*(7), e0158588.  
<https://doi.org/10.1371/journal.pone.0158588>
- Hosseingholizadeh, N., Sadeghi, R., Eftkhar Ardebili, H., Rahimi Foroushani, A., & Hossein Taghdisi, M. (2019). The correlation of self-efficacy and social support with social participation: A cross sectional study among the elderly. *Journal of Medicine and Life*, *12*(3), 239–246. <https://doi.org/10.25122/jml-2019-0010>
- Huijs, J. J. J. M., Koppes, L. L. J., Taris, T. W., & Blonk, R. W. B. (2017). Work characteristics and return to work in long-term sick-listed employees with depressive symptoms. *Journal of Occupational Rehabilitation*, *27*(4), 612–622. <https://doi.org/10.1007/s10926-017-9696-z>
- Jacobsen, H. B., Glette, M., Hara, K. W., & Stiles, T. C. (2020). Metacognitive Beliefs as predictors of return to work after intensive return-to-work rehabilitation in patients with chronic pain, chronic fatigue and common psychological disorders: Results from a prospective trial. *Frontiers in Psychology*, *11*, 70.  
<https://doi.org/10.3389/fpsyg.2020.00070>

- James, P., Cunningham, I., & Dibben, P. (2002). Absence management and the issues of job retention and return to work. *Human Resource Management Journal*, 12(2), 82–94. <https://doi.org/10.1111/j.1748-8583.2002.tb00065.x>
- Jansson, I., & Gunnarsson, A. B. (2018). Employers' views of the impact of mental health problems on the ability to work. *Work*, 59(4), 585–598. <https://doi.org/10.3233/WOR-182700>
- Jetha, A., LaMontagne, A. D., Lilley, R., Hogg-Johnson, S., Sim, M., & Smith, P. (2018). Workplace social system and sustained return-to-work: A study of supervisor and co-worker supportiveness and injury reaction. *Journal of Occupational Rehabilitation*, 28(3), 486–494. <https://doi.org/10.1007/s10926-017-9724-z>
- Jetha, A., Pransky, G., Fish, J., & Hettinger, L. J. (2016). Return-to-work within a complex and dynamic organizational work disability system. *Journal of Occupational Rehabilitation*, 26(3), 276–285. <https://doi.org/10.1007/s10926-015-9613-2>
- Jetha, A., Yanar, B., Lay, A. M., & Mustard, C. (2019). Work disability management communication bottlenecks within large and complex public service organizations: A sociotechnical systems study. *Journal of Occupational Rehabilitation*, 29(4), 754–763. <https://doi.org/10.1007/s10926-019-09836-3>
- Johansson, A. C., Öhrvik, J., & Söderlund, A. (2016). Associations among pain, disability and psychosocial factors and the predictive value of expectations on returning to work in patients who undergo lumbar disc surgery. *European Spine Journal*, 25(1), 296–303. <https://doi.org/10.1007/s00586-015-3820-6>

- Johnston, V., Way, K., Long, M. H., Wyatt, M., Gibson, L., & Shaw, W. S. (2015). Supervisor competencies for supporting return to work: A mixed-methods study. *Journal of Occupational Rehabilitation, 25*(1), 3–17. <https://doi.org/10.1007/s10926-014-9511-z>
- Joyce, S., Modini, M., Christensen, H., Mykletun, A., Bryant, R., Mitchell, P. B., & Harvey, S. B. (2016). Workplace interventions for common mental disorders: A systematic meta-review. *Psychological Medicine, 46*(4), 683–697. <https://doi.org/10.1017/S0033291715002408>
- Kanfer, R., Frese, M., & Johnson, R. E. (2017). Motivation related to work: A century of progress. *Journal of Applied Psychology, 102*(3), 338–355. <https://doi.org/10.1037/apl0000133>
- Kärkkäinen, R., Kinni, R. L., Saaranen, T., & Räsänen, K. (2018). Supervisors managing sickness absence and supporting return to work of employees with burnout: A membership categorization analysis. *Cogent Psychology, 5*(1). <https://doi.org/10.1080/23311908.2018.1551472>
- Karlson, B., Jönsson, P., & Österberg, K. (2014). Long-term stability of return to work after a workplace-oriented intervention for patients on sick leave for burnout. *BMC Public Health, 14*(1), 821. <https://doi.org/10.1186/1471-2458-14-821>
- Kassin, S. M. (2014). False confessions: Causes, consequences, and implications for reform. *Policy Insights from the Behavioral and Brain Sciences, 1*(1), 112–121. <https://doi.org/10.1177/2372732214548678>
- Kassin, S. M., Fein, S., Markus, H. R., & Brehm, S. S. (2017). *Social psychology* (Tenth Edition). Cengage Learning.

- Kausto, J., Pentti, J., Oksanen, T., Virta, L. J., Virtanen, M., Kivimaki, M., & Vahtera, J. (2017). Length of sickness absence and sustained return-to-work in mental disorders and musculoskeletal diseases: A cohort study of public sector employees. *Scandinavian Journal of Work, Environment & Health*, 43(4), 358–366.  
<https://doi.org/10.5271/sjweh.3643>
- Kendrick, D., Dhiman, P., Kellezi, B., Coupland, C., Whitehead, J., Beckett, K., Christie, N., Slaney, J., Barnes, J., Joseph, S., & Morriss, R. (2017). Psychological morbidity and return to work after injury: Multicentre cohort study. *British Journal of General Practice*, 67(661), e555–e564. <https://doi.org/10.3399/bjgp17X691673>
- Kirch, W. (Ed.). (2008). Belmont Report. In *Encyclopedia of Public Health* (pp. 60–60). Springer Netherlands. [https://doi.org/10.1007/978-1-4020-5614-7\\_233](https://doi.org/10.1007/978-1-4020-5614-7_233)
- Knapstad, M., Holmgren, K., Hensing, G., & Øverland, S. (2014). Previous sickness absence and current low perceived social support at work among employees in the general population: A historical cohort study. *BMJ Open*, 4(10), e005963. <https://doi.org/10.1136/bmjopen-2014-005963>
- Koopmans, P. C., Roelen, C. A., Bültmann, U., Hoedeman, R., van der Klink, J. J., & Groothoff, J. W. (2010). Gender and age differences in the recurrence of sickness absence due to common mental disorders: A longitudinal study. *BMC Public Health*, 10(1), 426.  
<https://doi.org/10.1186/1471-2458-10-426>
- Kouvonen, A., Mänty, M., Lallukka, T., Lahelma, E., & Rahkonen, O. (2016). Changes in psychosocial and physical working conditions and common mental disorders. *The European Journal of Public Health*, 26(3), 458–463.  
<https://doi.org/10.1093/eurpub/ckw019>



- Kristman, V. L., Shaw, W. S., Reguly, P., Williams-Whitt, K., Soklaridis, S., & Loisel, P. (2017). Supervisor and organizational factors associated with supervisor support of job accommodations for low back injured workers. *Journal of Occupational Rehabilitation*, 27(1), 115–127. <https://doi.org/10.1007/s10926-016-9638-1>
- Kröger, C., Bode, K., Wunsch, E. M., Kliem, S., Grochowski, A., & Finger, F. (2015). Work-related treatment for major depressive disorder and incapacity to work: Preliminary findings of a controlled, matched study. *Journal of Occupational Health Psychology*, 20(2), 248–258. <https://doi.org/10.1037/a0038341>
- Kvam, L., Vik, K., & Eide, A. H. (2015). Importance of participation in major life areas matters for return to work. *Journal of Occupational Rehabilitation*, 25(2), 368–377. <https://doi.org/10.1007/s10926-014-9545-2>
- Labriola, M., Lund, T., Christensen, K. B., Albertsen, K., Bültmann, U., Jensen, J. N., & Villadsen, E. (2007). Does self-efficacy predict return-to-work after sickness absence? A prospective study among 930 employees with sickness absence for three weeks or more. *Work (Reading, Mass.)*, 29(3), 233–238.
- Ladegaard, Y., Skakon, J., Elrond, A. F., & Netterstrøm, B. (2019). How do line managers experience and handle the return to work of employees on sick leave due to work-related stress? A one-year follow-up study. *Disability and Rehabilitation*, 41(1), 44–52. <https://doi.org/10.1080/09638288.2017.1370733>
- Lagerveld, S. E., Blonk, R. W. B., Brenninkmeijer, V., & Schaufeli, W. B. (2010). Return to work among employees with mental health problems: Development and validation of a self-efficacy questionnaire. *Work & Stress*, 24(4), 359–375. <https://doi.org/10.1080/02678373.2010.532644>

- Lagerveld, S. E., Blonk, R. W. B., Brenninkmeijer, V., Wijngaards-de Meij, L., & Schaufeli, W. B. (2012). Work-focused treatment of common mental disorders and return to work: A comparative outcome study. *Journal of Occupational Health Psychology, 17*(2), 220–234. <https://doi.org/10.1037/a0027049>
- Lagerveld, S. E., Brenninkmeijer, V., Blonk, R. W. B., Twisk, J., & Schaufeli, W. B. (2017). Predictive value of work-related self-efficacy change on RTW for employees with common mental disorders. *Occupational and Environmental Medicine, 74*(5), 381–383. <https://doi.org/10.1136/oemed-2016-104039>
- Lammerts, L., Schaafsma, F. G., Bonefaas-Groenewoud, K., van Mechelen, W., & Anema, J. (2016). Effectiveness of a return-to-work program for workers without an employment contract, sick-listed due to common mental disorders. *Scandinavian Journal of Work, Environment & Health, 42*(6), 469–480. <https://doi.org/10.5271/sjweh.3588>
- Lammerts, L., Schaafsma, F. G., van Mechelen, W., & Anema, J. R. (2016). Execution of a participatory supportive return to work program within the Dutch social security sector: A qualitative evaluation of stakeholders' perceptions. *BMC Public Health, 16*(1), 323. <https://doi.org/10.1186/s12889-016-2997-x>
- Lancman, S., Barros, J. O., Silva, M. D., Pereira, A. R., & Jardim, T. A. (2017). Interrelationship between organizational and relational aspects and the return-to-work process: A case study with nursing professionals at a teaching hospital in Brazil. *Journal of Occupational Rehabilitation, 27*(1), 49–58. <https://doi.org/10.1007/s10926-016-9631-8>
- Lane, T. J., Lilley, R., Hogg-Johnson, S., LaMontagne, A. D., Sim, M. R., & Smith, P. M. (2018). A prospective cohort study of the impact of return-to-work coordinators in

- getting injured workers back on the job. *Journal of Occupational Rehabilitation*, 28(2), 298–306. <https://doi.org/10.1007/s10926-017-9719-9>
- Larsen, M. R., Aust, B., & Høgelund, J. (2017). Improving the effectiveness of sickness benefit case management through a public-private partnership? A difference-in-difference analysis in eighteen Danish municipalities. *BMC Public Health*, 17(1), 329. <https://doi.org/10.1186/s12889-017-4236-5>
- Lau, B., Shiryayeva, O., Ruud, T., & Victor, M. (2019). What are they returning to? Psychosocial work environment as a predictor of returning to work among employees in treatment for common mental disorders: A prospective observational pre–post study. *PLOS ONE*, 14(4), e0215354. <https://doi.org/10.1371/journal.pone.0215354>
- Lavrakas, P. (2008). *Encyclopedia of survey research methods*. Sage Publications, Inc. <https://doi.org/10.4135/9781412963947>
- Lee, J., Yun, S., Lee, S., & Lee, J. H. (2019). The curvilinear relationship between self-efficacy and creativity: The moderating role of supervisor close monitoring. *Journal of Business and Psychology*, 34(3), 377–388. <https://doi.org/10.1007/s10869-018-9546-9>
- Leedy, P. D., & Ormrod, J. E. (2016). *Practical research: Planning and design* (Eleventh edition). Pearson.
- Lefever, M., Decuman, S., Perl, F., Braeckman, L., & Van de Velde, D. (2018). The efficacy and efficiency of Disability Management in job-retention and job-reintegration. A systematic review. *Work*, 59(4), 501–534. <https://doi.org/10.3233/WOR-182709>
- Leijon, O., Josephson, M., & Österlund, N. (2015). Sick-listing adherence: A register study of 1.4 million episodes of sickness benefit 2010–2013 in Sweden. *BMC Public Health*, 15(1), 380. <https://doi.org/10.1186/s12889-015-1741-2>

- Lemieux, P., Durand, M. J., & Hong, Q. N. (2011). Supervisors' perception of the factors influencing the return to work of workers with common mental disorders. *Journal of Occupational Rehabilitation*, 21(3), 293–303. <https://doi.org/10.1007/s10926-011-9316-2>
- Lloyd, J., Bond, F. W., & Flaxman, P. E. (2017). Work-related self-efficacy as a moderator of the impact of a worksite stress management training intervention: Intrinsic work motivation as a higher order condition of effect. *Journal of Occupational Health Psychology*, 22(1), 115–127. <https://doi.org/10.1037/ocp0000026>
- Locke, E. A., Frederick, E., Lee, C., & Bobko, P. (1984). Effect of self-efficacy, goals, and task strategies on task performance. *Journal of Applied Psychology*, 69(2), 241–251. <https://doi.org/10.1037/0021-9010.69.2.241>
- Lork, K., & Holmgren, K. (2018). The experience of return to work self-efficacy among people on sick leave. *Work*, 59(4), 479–490. <https://doi.org/10.3233/WOR-182697>
- Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The general self-efficacy scale: Multicultural validation studies. *The Journal of Psychology*, 139(5), 439–457. <https://doi.org/10.3200/JRLP.139.5.439-457>
- MacEachen, E., Kosny, A., Ferrier, S., & Chambers, L. (2010). The “toxic dose” of system problems: Why some injured workers don't return to work as expected. *Journal of Occupational Rehabilitation*, 20(3), 349–366. <https://doi.org/10.1007/s10926-010-9229-5>
- MacEachen, E., McDonald, E., Neiterman, E., McKnight, E., Malachowski, C., Crouch, M., Varatharajan, S., Dali, N., & Giau, E. (2020). Return to work for mental ill-health: A scoping review exploring the impact and role of return-to-work coordinators. *Journal of Occupational Rehabilitation*. <https://doi.org/10.1007/s10926-020-09873-3>

- Macpherson, R. A., Lane, T. J., Collie, A., & McLeod, C. B. (2018). Age, sex, and the changing disability burden of compensated work-related musculoskeletal disorders in Canada and Australia. *BMC Public Health, 18*(1), 758. <https://doi.org/10.1186/s12889-018-5590-7>
- Maddux, J. E. (2009). Self-Efficacy: The power of believing you can. In S. J. Lopez & C. R. Snyder (Eds.), *The Oxford Handbook of Positive Psychology* (pp. 334–344). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780195187243.013.0031>
- Martin, A., Karanika-Murray, M., Biron, C., & Sanderson, K. (2016). The psychosocial work environment, employee mental health and organizational interventions: Improving research and practice by taking a multilevel approach: Employee mental health: A multilevel approach. *Stress and Health, 32*(3), 201–215. <https://doi.org/10.1002/smi.2593>
- Martin, A., Woods, M., & Dawkins, S. (2018). How managers experience situations involving employee mental ill-health. *International Journal of Workplace Health Management, 11*(6), 442–463. <https://doi.org/10.1108/IJWHM-09-2017-0069>
- Martin, M. H. T., Moefelt, L., Nielsen, M. B. D., & Rugulies, R. (2015). Barriers and facilitators for implementation of a return-to-work intervention for sickness absence beneficiaries with mental health problems: Results from three Danish municipalities. *Scandinavian Journal of Public Health, 43*(4), 423–431. <https://doi.org/10.1177/1403494814568484>
- Mattila-Holappa, P., Ervasti, J., Joensuu, M., Ahola, K., Pentti, J., Oksanen, T., Vahtera, J., Kivimäki, M., & Virtanen, M. (2017). Do predictors of return to work and recurrence of work disability due to mental disorders vary by age? A cohort study. *Scandinavian Journal of Public Health, 45*(2), 178–184. <https://doi.org/10.1177/1403494816686467>
- Mazza, D., Chakraborty, S. P., Brijnath, B., Nowak, H., Howell, C., Brott, T., Atchison, M., Gras, D., Kenardy, J., Buchanan, R., & Tawia, S. (2019). Diagnosing and managing

- work-related mental health conditions in general practice: New Australian clinical practice guidelines. *Medical Journal of Australia*, 211(2), 76–81.  
<https://doi.org/10.5694/mja2.50240>
- McDowell, C., & Fossey, E. (2015). Workplace accommodations for people with mental illness: A scoping review. *Journal of Occupational Rehabilitation*, 25(1), 197–206.  
<https://doi.org/10.1007/s10926-014-9512-y>
- McGonagle, A. K., Fisher, G. G., Barnes-Farrell, J. L., & Grosch, J. W. (2015). Individual and work factors related to perceived work ability and labor force outcomes. *Journal of Applied Psychology*, 100(2), 376–398. <https://doi.org/10.1037/a0037974>
- McLaren, C. F., Reville, R. T., & Seabury, S. A. (2017). How effective are employer return to work programs? *International Review of Law and Economics*, 52, 58–73.  
<https://doi.org/10.1016/j.irl.2017.08.003>
- Mikkelsen, M. B., & Rosholm, M. (2018). Systematic review and meta-analysis of interventions aimed at enhancing return to work for sick-listed workers with common mental disorders, stress-related disorders, somatoform disorders and personality disorders. *Occupational and Environmental Medicine*, 75(9), 675–686. <https://doi.org/10.1136/oemed-2018-105073>
- Miscenko, D., & Day, D. V. (2016). Identity and identification at work. *Organizational Psychology Review*, 6(3), 215–247. <https://doi.org/10.1177/2041386615584009>
- Modini, M., Joyce, S., Mykletun, A., Christensen, H., Bryant, R. A., Mitchell, P. B., & Harvey, S. B. (2016). The mental health benefits of employment: Results of a systematic meta-review. *Australasian Psychiatry*, 24(4), 331–336.  
<https://doi.org/10.1177/1039856215618523>

- Momsen, A. M. H., Rosbjerg, R., Stapelfeldt, C. M., Lund, T., Jensen, C., Johansen, T., Nielsen, C. V., & Labriola, M. (2016). Cross-cultural adaptation and validation of the Danish version of the 19-item return-to-work self-efficacy (RTWSE-19) questionnaire. *Scandinavian Journal of Work, Environment & Health*, 42(4), 338–345.  
<https://doi.org/10.5271/sjweh.3568>
- Muñoz-Murillo, A., Esteban, E., Ávila, C., Fheodoroff, K., Haro, J., Leonardi, M., & Olaya, B. (2018). Furthering the evidence of the effectiveness of employment strategies for people with mental disorders in Europe: A systematic review. *International Journal of Environmental Research and Public Health*, 15(5), 838.  
<https://doi.org/10.3390/ijerph15050838>
- Mustard, C. A., Skivington, K., Lay, M., Lifshen, M., Etches, J., & Chambers, A. (2017). Implementation of a disability management policy in a large healthcare employer: A quasi-experimental, mixed-methods evaluation. *BMJ Open*, 7(6), e014734.  
<https://doi.org/10.1136/bmjopen-2016-014734>
- Nastasia, I., Coutu, M. F., Rives, R., Dubé, J., Gaspard, S., & Quilicot, A. (2020). Role and responsibilities of supervisors in the sustainable return to work of workers following a work-related musculoskeletal disorder. *Journal of Occupational Rehabilitation*.  
<https://doi.org/10.1007/s10926-020-09896-w>
- Navarro-Mateu, F., Alonso, J., Lim, C. C. W., Saha, S., Aguilar-Gaxiola, S., Al-Hamzawi, A., Andrade, L. H., Bromet, E. J., Bruffaerts, R., Chatterji, S., Degenhardt, L., de Girolamo, G., de Jonge, P., Fayyad, J., Florescu, S., Gureje, O., Haro, J. M., Hu, C., Karam, E. G., ... World Mental Health Survey Collaborators. (2017). The association between psychotic experiences and disability: Results from the WHO World Mental Health

Surveys. *Acta Psychiatrica Scandinavica*, 136(1), 74–84.

<https://doi.org/10.1111/acps.12749>

Negrini, A., Corbière, M., Lecomte, T., Coutu, M. F., Nieuwenhuijsen, K., St-Arnaud, L.,

Durand, M.-J., Gragnano, A., & Berbiche, D. (2018). How can supervisors contribute to the return to work of employees who have experienced depression. *Journal of*

*Occupational Rehabilitation*, 28(2), 279–288. <https://doi.org/10.1007/s10926-017-9715-0>

Netterstrøm, B., Eller, N. H., & Borritz, M. (2015). Prognostic factors of returning to work after sick leave due to work-related common mental disorders: A one- and three-year follow-up study. *BioMed Research International*, 2015, 1–7.

<https://doi.org/10.1155/2015/596572>

Nevala, N., Pehkonen, I., Koskela, I., Ruusuvauro, J., & Anttila, H. (2015). Workplace

accommodation among persons with disabilities: A systematic review of its effectiveness and barriers or facilitators. *Journal of Occupational Rehabilitation*, 25(2), 432–448.

<https://doi.org/10.1007/s10926-014-9548-z>

Nielsen, K., Yarker, J., Munir, F., & Bültmann, U. (2018). IGLOO: An integrated framework for sustainable return to work in workers with common mental disorders. *Work & Stress*, 32(4), 400–417. <https://doi.org/10.1080/02678373.2018.1438536>

Nielsen, M. B. D., Madsen, I. E. H., Bultmann, U., Christensen, U., Diderichsen, F., & Rugulies, R. (2011). Predictors of return to work in employees sick-listed with mental health problems: Findings from a longitudinal study. *The European Journal of Public Health*, 21(6), 806–811. <https://doi.org/10.1093/eurpub/ckq171>



- Nielssen, O., Staples, L., Titov, N., Gandy, M., Fogliati, R., & Dear, B. (2019). Involvement in compensation litigation and outcome from an online pain management program. *Rehabilitation Psychology, 64*(3), 263–268. <https://doi.org/10.1037/rep0000262>
- Nieuwenhuijsen, K., Noordik, E., van Dijk, F. J. H., & van der Klink, J. J. (2013). Return to work perceptions and actual return to work in workers with common mental disorders. *Journal of Occupational Rehabilitation, 23*(2), 290–299. <https://doi.org/10.1007/s10926-012-9389-6>
- Nigatu, Y. T., Liu, Y., Uppal, M., McKinney, S., Gillis, K., Rao, S., & Wang, J. (2017). Prognostic factors for return to work of employees with common mental disorders: A meta-analysis of cohort studies. *Social Psychiatry and Psychiatric Epidemiology, 52*(10), 1205–1215. <https://doi.org/10.1007/s00127-017-1402-0>
- Nordahl, H., & Wells, A. (2019). Predictors of work ability in individuals with a common mental disorder: Is there an effect of metacognitive beliefs among poor physical health and emotional distress? *Behaviour Change, 36*(4), 252–262. <https://doi.org/10.1017/bec.2019.15>
- Norder, G., Roelen, C. A. M., van der Klink, J. J. L., Bültmann, U., Sluiter, J. K., & Nieuwenhuijsen, K. (2017). External validation and update of a prediction rule for the duration of sickness absence due to common mental disorders. *Journal of Occupational Rehabilitation, 27*(2), 202–209. <https://doi.org/10.1007/s10926-016-9646-1>
- Nwanzu, C. L., & Babalola, S. S. (2019). Examining psychological capital of optimism, self-efficacy and self-monitoring as predictors of attitude towards organizational change. *International Journal of Engineering Business Management, 11*, 184797901982714. <https://doi.org/10.1177/1847979019827149>

- Ornell, F., Schuch, J. B., Sordi, A. O., & Kessler, F. H. P. (2020). "Pandemic fear" and COVID-19: Mental health burden and strategies. *Brazilian Journal of Psychiatry*, 42(3), 232–235. <https://doi.org/10.1590/1516-4446-2020-0008>
- Peiró, J. M., Bayona, J. A., Caballer, A., & Di Fabio, A. (2020). Importance of work characteristics affects job performance: The mediating role of individual dispositions on the work design-performance relationships. *Personality and Individual Differences*, 157, 109808. <https://doi.org/10.1016/j.paid.2019.109808>
- Pomaki, G., Franche, R. L., Murray, E., Khushrushahi, N., & Lampinen, T. M. (2012). Workplace-based work disability prevention interventions for workers with common mental health conditions: A review of the literature. *Journal of Occupational Rehabilitation*, 22(2), 182–195. <https://doi.org/10.1007/s10926-011-9338-9>
- Porter, S., Lexén, A., Johanson, S., & Bejerholm, U. (2018). Critical factors for the return-to-work process among people with affective disorders: Voices from two vocational approaches. *Work*, 60(2), 221–234. <https://doi.org/10.3233/WOR-182737>
- Posner, B. Z., & Munson, J. M. (1979). The importance of values in understanding organizational behavior. *Human Resource Management (Pre-1986); New York*, 18(3), 9–14.
- Prang, K.-H., Bohensky, M., Smith, P., & Collie, A. (2016). Return to work outcomes for workers with mental health conditions: A retrospective cohort study. *Injury*, 47(1), 257–265. <https://doi.org/10.1016/j.injury.2015.09.011>
- Prang, K.-H., Newnam, S., & Berecki-Gisolf, J. (2015). The impact of family and work-related social support on musculoskeletal injury outcomes: A systematic review. *Journal of Occupational Rehabilitation*, 25(1), 207–219. <https://doi.org/10.1007/s10926-014-9523-8>

- Pryzgoda, J., & Chrisler, J. C. (2000). Definitions of gender and sex: The subtleties of meaning. *Sex Roles; New York*, 43(7/8), 553–569.
- Public Health Agency of Canada (Ed.). (2006). *The human face of mental health and mental illness in Canada, 2006*. Public Health Agency of Canada.
- Quaigrain, R. A., & Issa, M. H. (2018). Development and validation of disability management indicators for the construction industry. *Journal of Engineering, Design and Technology*, 16(1), 81–100. <https://doi.org/10.1108/JEDT-04-2017-0032>
- Real, E., Jover, L., Verdaguer, R., Griera, A., Segalàs, C., Alonso, P., Contreras, F., Arteman, A., & Menchón, J. M. (2016). Factors associated with long-term sickness absence due to mental disorders: A cohort study of 7.112 patients during the Spanish economic crisis. *PLOS ONE*, 11(1), e0146382. <https://doi.org/10.1371/journal.pone.0146382>
- Roelen, C. A. M., Norder, G., Koopmans, P. C., van Rhenen, W., van der Klink, J. J. L., & Bültmann, U. (2012). Employees sick-listed with mental disorders: Who returns to work and when? *Journal of Occupational Rehabilitation*, 22(3), 409–417. <https://doi.org/10.1007/s10926-012-9363-3>
- Rossi, F., Rosli, A., & Yip, N. (2017). Academic engagement as knowledge co-production and implications for impact: Evidence from Knowledge Transfer Partnerships. *Journal of Business Research*, 80, 1–9. <https://doi.org/10.1016/j.jbusres.2017.06.019>
- Rutberg & Bouikidis, S. C. D. (2018). *Focusing on the fundamentals: A simplistic differentiation between qualitative and quantitative research - ProQuest*. <http://search.proquest.com/docview/2028125771?pq-origsite=360link>
- Rydström, I., Dalheim Englund, L., Dellve, L., & Ahlstrom, L. (2017). Importance of social capital at the workplace for return to work among women with a history of long-term sick

- leave: A cohort study. *BMC Nursing*, 16(1), 38. <https://doi.org/10.1186/s12912-017-0234-2>
- Sakakibara, S., Sado, M., Ninomiya, A., Arai, M., Takahashi, S., Ishihara, C., Miura, Y., Tabuchi, H., Shirahase, J., & Mimura, M. (2019). Predictive factors of the duration of sick leave due to mental disorders. *International Journal of Mental Health Systems*, 13(1), 19. <https://doi.org/10.1186/s13033-019-0279-6>
- Salkever, D. S., Shinogle, J. A., & Goldman, H. (2003). Return to work and claim duration for workers with long-term mental disabilities: Impacts of mental health coverage, fringe benefits, and disability management. *Mental Health Services Research*, 5(3), 173–186. <https://doi.org/10.1023/A:1024495402862>
- Sallis, A., & Birkin, R. (2014). Experiences of work and sickness absence in employees with depression: An interpretative phenomenological analysis. *Journal of Occupational Rehabilitation*, 24(3), 469–483. <https://doi.org/10.1007/s10926-013-9481-6>
- Sampere, M., Gimeno, D., Serra, C., Plana, M., López, J. C., Martínez, J. M., Delclos, G. L., & Benavides, F. G. (2012). Return to work expectations of workers on long-term non-work-related sick leave. *Journal of Occupational Rehabilitation*, 22(1), 15–26. <https://doi.org/10.1007/s10926-011-9313-5>
- Sapani, J. (2015). Recommendations for a “Recovery” orientated apprenticeships scheme in mental health: A literature review. *The Journal of Mental Health Training, Education and Practice*, 10(3), 180–188. <https://doi.org/10.1108/JMHTEP-04-2014-0007>
- Saunders, S. L., MacEachen, E., & Nedelec, B. (2015). Understanding and building upon effort to return to work for people with long-term disability and job loss. *Work*, 52(1), 103–114. <https://doi.org/10.3233/WOR-141977>

- Saunders, S. L., & Nedelec, B. (2014). What work means to people with work disability: A scoping review. *Journal of Occupational Rehabilitation, 24*(1), 100–110.  
<https://doi.org/10.1007/s10926-013-9436-y>
- Schneider, U., Linder, R., & Verheyen, F. (2016). Long-term sick leave and the impact of a graded return-to-work program: Evidence from Germany. *The European Journal of Health Economics, 17*(5), 629–643. <https://doi.org/10.1007/s10198-015-0707-8>
- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. *Contemporary Educational Psychology, 60*, 101832.  
<https://doi.org/10.1016/j.cedpsych.2019.101832>
- Schunk, D. H., & Usher, E. L. (2019). Social cognitive theory and motivation. In R. M. Ryan (Ed.), *The Oxford Handbook of Human Motivation* (pp. 9–26). Oxford University Press.  
<https://doi.org/10.1093/oxfordhb/9780190666453.013.2>
- Selander, J., Tjulin, Å., Müssener, U., & Ekberg, K. (2015). Contact with the workplace during long-term sickness absence and worker expectations of return to work. *International Journal of Disability Management, 10*, e3. <https://doi.org/10.1017/idm.2015.3>
- Shankar, J., Liu, L., Nicholas, D., Warren, S., Lai, D., Tan, S., Zulla, R., Couture, J., & Sears, A. (2014). Employers' perspectives on hiring and accommodating workers with mental illness. *SAGE Open, 4*(3), 215824401454788.  
<https://doi.org/10.1177/2158244014547880>
- Shaw, W. S., Main, C. J., Findley, P. A., Collie, A., Kristman, V. L., & Gross, D. P. (2020). Opening the workplace after COVID-19: What lessons can be learned from return-to-work research? *Journal of Occupational Rehabilitation, 30*(3), 299–302.  
<https://doi.org/10.1007/s10926-020-09908-9>

- Shaw, W. S., Robertson, M. M., Pransky, G., & McLellan, R. K. (2003). Employee perspectives on the role of supervisors to prevent workplace disability after injuries. *Journal of Occupational Rehabilitation, 13*(3), 129–142. <https://doi.org/10.1023/A:1024997000505>
- Sheu, H.-B., Lent, R. W., Miller, M. J., Penn, L. T., Cusick, M. E., & Truong, N. N. (2018). Sources of self-efficacy and outcome expectations in science, technology, engineering, and mathematics domains: A meta-analysis. *Journal of Vocational Behavior, 109*, 118–136. <https://doi.org/10.1016/j.jvb.2018.10.003>
- Skarpaas, L. S., Haverlaen, L. A., Småstuen, M. C., Shaw, W. S., & Aas, R. W. (2019). The association between having a coordinator and return to work: The rapid-return-to-work cohort study. *BMJ Open, 9*(2), e024597. <https://doi.org/10.1136/bmjopen-2018-024597>
- Skivington, K., Lifshen, M., & Mustard, C. (2016). Implementing a collaborative return-to-work program: Lessons from a qualitative study in a large Canadian healthcare organization. *Work, 55*(3), 613–624. <https://doi.org/10.3233/WOR-162437>
- Skrastins, J., & Vig, V. (2019). How organizational hierarchy affects information production. *The Review of Financial Studies, 32*(2), 564–604. <https://doi.org/10.1093/rfs/hhy071>
- Smith, P., LaMontagne, A. D., Lilley, R., Hogg-Johnson, S., & Sim, M. (2020). Are there differences in the return to work process for work-related psychological and musculoskeletal injuries? A longitudinal path analysis. *Social Psychiatry and Psychiatric Epidemiology, 55*(8), 1041–1051. <https://doi.org/10.1007/s00127-020-01839-3>
- Spronken, M., Brouwers, E. P. M., Vermunt, J. K., Arends, I., Oerlemans, W. G. M., van der Klink, J. J. L., & Joosen, M. C. W. (2020). Identifying return to work trajectories among employees on sick leave due to mental health problems using latent class transition analysis. *BMJ Open, 10*(2), e032016. <https://doi.org/10.1136/bmjopen-2019-032016>

- Ståhl, C., & Edvardsson Stiwne, E. (2014). Narratives of sick leave, return to work and job mobility for people with common mental disorders in Sweden. *Journal of Occupational Rehabilitation*, 24(3), 543–554. <https://doi.org/10.1007/s10926-013-9480-7>
- Stajkovic, A. D., & Luthans, F. (1998). Social cognitive theory and self-efficacy: Going beyond traditional motivational and behavioral approaches. *Organizational Dynamics*, 26(4), 62–74. [https://doi.org/10.1016/S0090-2616\(98\)90006-7](https://doi.org/10.1016/S0090-2616(98)90006-7)
- Strömbäck, M., Fjellman-Wiklund, A., Keisu, S., Sturesson, M., & Eskilsson, T. (2020). Restoring confidence in return to work: A qualitative study of the experiences of persons with exhaustion disorder after a dialogue-based workplace intervention. *PLOS ONE*, 15(7), e0234897. <https://doi.org/10.1371/journal.pone.0234897>
- Suzana, D., & Raluca, C. L. L. (2019). The importance of organizational values and the capabilities of managers for the performance of an enterprise. *Annals-Economy Series*, 4, 30–38.
- Sylvain, C., Durand, M. J., Maillette, P., & Lamothe, L. (2016). How do general practitioners contribute to preventing long-term work disability of their patients suffering from depressive disorders? A qualitative study. *BMC Family Practice*, 17(1), 71. <https://doi.org/10.1186/s12875-016-0459-2>
- Tafvelin, S., Stenling, A., Lundmark, R., & Westerberg, K. (2019). Aligning job redesign with leadership training to improve supervisor support: A quasi-experimental study of the integration of HR practices. *European Journal of Work and Organizational Psychology*, 28(1), 74–84. <https://doi.org/10.1080/1359432X.2018.1541887>
- Tan, W., Hao, F., McIntyre, R. S., Jiang, L., Jiang, X., Zhang, L., Zhao, X., Zou, Y., Hu, Y., Luo, X., Zhang, Z., Lai, A., Ho, R., Tran, B., Ho, C., & Tam, W. (2020). Is returning to

- work during the COVID-19 pandemic stressful? A study on immediate mental health status and psychoneuroimmunity prevention measures of Chinese workforce. *Brain, Behavior, and Immunity*, 87, 84–92. <https://doi.org/10.1016/j.bbi.2020.04.055>
- Thoma, A., & Eaves, F. F. (2016). What is wrong with systematic reviews and meta-analyses: If you want the right answer, ask the right question! *Aesthetic Surgery Journal*, 36(10), 1198–1201. <https://doi.org/10.1093/asj/sjw172>
- Thompson, M. N., & Dahling, J. J. (2019). Employment and poverty: Why work matters in understanding poverty. *American Psychologist*, 74(6), 673–684. <https://doi.org/10.1037/amp0000468>
- Trochim, W. M. K., & Donnelly, J. P. (2008). *Research methods knowledge base* (3. ed). Cengage Learning.
- Valiente, C., Espinosa, R., Trucharte, A., Nieto, J., & Martínez-Prado, L. (2019). The challenge of well-being and quality of life: A meta-analysis of psychological interventions in schizophrenia. *Schizophrenia Research*, 208, 16–24. <https://doi.org/10.1016/j.schres.2019.01.040>
- van Beurden, K. M., van der Klink, J. J. L., Brouwers, E. P. M., Joosen, M. C. W., Mathijssen, J. J. P., Terluin, B., & van Weeghel, J. (2015). Effect of an intervention to enhance guideline adherence of occupational physicians on return-to-work self-efficacy in workers sick-listed with common mental disorders. *BMC Public Health*, 15(1), 796. <https://doi.org/10.1186/s12889-015-2125-3>
- Vargas-Prada, S., Demou, E., Lalloo, D., Avila-Palencia, I., Sanati, K. A., Sampere, M., Freer, K., Serra, C., & Macdonald, E. B. (2016). Effectiveness of very early workplace interventions to reduce sickness absence: A systematic review of the literature and meta-



analysis. *Scandinavian Journal of Work, Environment & Health*, 42(4), 261–272.

<https://doi.org/10.5271/sjweh.3576>

Vermeulen, S. J., Anema, J. R., Schellart, A. J. M., Knol, D. L., van Mechelen, W., & van der Beek, A. J. (2011). A participatory return-to-work intervention for temporary agency workers and unemployed workers sick-listed due to musculoskeletal disorders: Results of a randomized controlled trial. *Journal of Occupational Rehabilitation*, 21(3), 313–324.

<https://doi.org/10.1007/s10926-011-9291-7>

Victor, M., Lau, B., & Ruud, T. (2016). Patient characteristics in a return to work programme for common mental disorders: A cross-sectional study. *BMC Public Health*, 16(1), 745.

<https://doi.org/10.1186/s12889-016-3431-0>

Victor, M., Lau, B., & Ruud, T. (2018). Predictors of return to work 6 months after the end of treatment in patients with common mental disorders: A cohort study. *Journal of Occupational Rehabilitation*, 28(3), 548–558. <https://doi.org/10.1007/s10926-017-9747-5>

Volker, D., Zijlstra-Vlasveld, M. C., Brouwers, E. P. M., & van der Feltz-Cornelis, C. M. (2017). Process evaluation of a blended web-based intervention on return to work for sick-listed employees with common mental health problems in the occupational health setting.

*Journal of Occupational Rehabilitation*, 27(2), 186–194. <https://doi.org/10.1007/s10926-016-9643-4>

Volker, D., Zijlstra-Vlasveld, M. C., Brouwers, E. P. M., van Lomwel, A. G. C., & van der Feltz-Cornelis, C. M. (2015). Return-to-work self-efficacy and actual return to work among long-term sick-listed employees. *Journal of Occupational Rehabilitation*, 25(2), 423–431. <https://doi.org/10.1007/s10926-014-9552-3>

- Vossen, E., Van Gestel, N., Van der Heijden, B. I. J. M., & Rouwette, E. A. J. A. (2017). “Dis-able bodied” or “dis-able minded”: Stakeholders’ return-to-work experiences compared between physical and mental health conditions. *Disability and Rehabilitation*, 39(10), 969–977. <https://doi.org/10.3109/09638288.2016.1172675>
- Wærsted, M., Hanvold, T. N., & Veiersted, K. B. (2010). Computer work and musculoskeletal disorders of the neck and upper extremity: A systematic review. *BMC Musculoskeletal Disorders*, 11(1), 79. <https://doi.org/10.1186/1471-2474-11-79>
- Wagner, S., Buys, N., Yu, I., Geisen, T., Harder, H., Randall, C., Fraess-Phillips, A., Hassler, B., Scott, L., Lo, K., Tang, D., & Howe, C. (2018). International employee perspectives on disability management. *Disability and Rehabilitation*, 40(9), 1049–1058. <https://doi.org/10.1080/09638288.2017.1284907>
- Wagner, S., Harder, H., Scott, L., Buys, N., Yu, I., Geisen, T., Randall, C., Lo, K., Tang, D., Fraess-Phillips, A., Hassler, B., & Howe, C. (2017). Canadian employee perspectives on disability management. *International Journal of Disability Management*, 12, e3. <https://doi.org/10.1017/idm.2017.3>
- Warner, R. M. (2008). *Applied statistics: From bivariate through multivariate techniques*. SAGE Publications.
- Warner, R. M. (2012). *Applied statistics: From bivariate through multivariate techniques*. Sage Publications.
- Waynor, W. R., Gill, K. J., & Gao, N. (2016). The role of work related self-efficacy in supported employment for people living with serious mental illnesses. *Psychiatric Rehabilitation Journal*, 39(1), 62–67. <https://doi.org/10.1037/prj0000156>

- Wilski, M., & Tasiemski, T. (2016). Illness perception, treatment beliefs, self-esteem, and self-efficacy as correlates of self-management in multiple sclerosis. *Acta Neurologica Scandinavica*, 133(5), 338–345. <https://doi.org/10.1111/ane.12465>
- Wisenthal, A., Krupa, T., Kirsh, B. H., & Lysaght, R. (2018). Cognitive work hardening for return to work following depression: An intervention study: Le réentraînement cognitif au travail pour favoriser le retour au travail à la suite d'une dépression : étude d'intervention. *Canadian Journal of Occupational Therapy*, 85(1), 21–32. <https://doi.org/10.1177/0008417417733275>
- Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review*, 14(3), 361–384. <https://doi.org/10.5465/amr.1989.4279067>
- World Health Organization (Ed.). (1993). *The ICD-10 classification of mental and behavioural disorders: Diagnostic criteria for research*. World Health Organization.
- Young, A. E., Besen, E., & Willetts, J. (2017). The relationship between work-disability duration and claimant's expected time to return to work as recorded by workers' compensation claims managers. *Journal of Occupational Rehabilitation*, 27(2), 284–295. <https://doi.org/10.1007/s10926-016-9656-z>
- Young, A. E., & Choi, Y. (2016). Work-related factors considered by sickness-absent employees when estimating timeframes for returning to work. *PLOS ONE*, 11(10), e0163674. <https://doi.org/10.1371/journal.pone.0163674>
- Zoupanou, Z., & Rydstedt, L. W. (2017). Do work beliefs moderate the relationship between work interruptions, wellbeing and psychosomatic symptoms? *Europe's Journal of Psychology*, 13(2), 214–230. <https://doi.org/10.5964/ejop.v13i2.1169>

Zucker, D. (2013). The Belmont Report. In S. Kotz, C. B. Read, N. Balakrishnan, B. Vidakovic, & N. L. Johnson (Eds.), *Encyclopedia of Statistical Sciences* (p. ess7160). John Wiley & Sons, Inc. <https://doi.org/10.1002/0471667196.ess7160>

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