

Georgia State University  
**ScholarWorks @ Georgia State University**

---

Sociology Dissertations

Department of Sociology

---

8-7-2018

# Community Supervision and Mental Health: The Psychological Well-Being and Expectations of Officers Supervising People with Serious Mental Illness

Nicholas Powell

Follow this and additional works at: [https://scholarworks.gsu.edu/sociology\\_diss](https://scholarworks.gsu.edu/sociology_diss)

---

## Recommended Citation

Powell, Nicholas, "Community Supervision and Mental Health: The Psychological Well-Being and Expectations of Officers Supervising People with Serious Mental Illness." Dissertation, Georgia State University, 2018.  
[https://scholarworks.gsu.edu/sociology\\_diss/105](https://scholarworks.gsu.edu/sociology_diss/105)

This Dissertation is brought to you for free and open access by the Department of Sociology at ScholarWorks @ Georgia State University. It has been accepted for inclusion in Sociology Dissertations by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact [scholarworks@gsu.edu](mailto:scholarworks@gsu.edu).

COMMUNITY SUPERVISION AND MENTAL HEALTH: THE PSYCHOLOGICAL WELL-  
BEING AND EXPECTATIONS OF OFFICERS SUPERVISING PEOPLE WITH SERIOUS  
MENTAL ILLNESS

by

NICHOLAS POWELL

Under the Direction of Mathew Gayman, PhD

ABSTRACT

People with serious mental illness (SMI) are significantly overrepresented in the criminal justice system and often experience worse outcomes in the form of being rearrested for new offenses and probation/parole violations. Addressing the needs of supervisees with SMI can create unique challenges for probation and parole officers (PPOs), which in turn, may increase job related stress and impact PPOs' mental health. However, few studies examine the stress and mental health consequences of supervising people with SMI, and how these consequences influence officers' attitudes toward clients. Using survey and administrative data from 793 PPOs, this study assesses whether the number of supervisees with SMI on PPOs' caseloads is

associated with increased depressive symptomatology and if work stress explains this relationship. This investigation also assesses whether role conflict and role overload contribute to work stress among PPOs supervising people with SMI. Finally, this study examines the influence of PPOs' well-being on their expectations for the success of supervisees, based on officers' perceptions on the likelihood of supervisees with SMI committing new offenses or technical violations. This research draws from Stress Process research to better understand how supervising people with SMI relates to work stress, role conflict and overload, and mental health. Drawing from research on the Cognitive Model of Depression, this study also examines whether the relationship between supervising people with SMI and officers' expectations of supervisee success is conditioned by officers' mental health.

INDEX WORDS: Community supervision, Probation/Parole officers, Mental health, Work stress, Role conflict, Role overload, Stress process, Cognitive model of depression

COMMUNITY SUPERVISION AND MENTAL HEALTH: THE PSYCHOLOGICAL WELL-  
BEING AND EXPECTATIONS OF OFFICERS SUPERVISING PEOPLE WITH SERIOUS  
MENTAL ILLNESS

by

NICHOLAS POWELL

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

in the College of Arts and Sciences

Georgia State University

2018

Copyright by  
Nicholas Powell  
2018

COMMUNITY SUPERVISION AND MENTAL HEALTH: THE PSYCHOLOGICAL WELL-  
BEING AND EXPECTATIONS OF OFFICERS SUPERVISING PEOPLE WITH SERIOUS  
MENTAL ILLNESS

by

NICHOLAS POWELL

Committee Chair: Mathew Gayman

Committee: Deirdre Oakley

Eric Wright

Electronic Version Approved:

Office of Graduate Studies

College of Arts and Sciences

Georgia State University

August 2018

## **DEDICATION**

Because of her incredible encouragement and support, I dedicate this dissertation to my wife and best friend, Ashley.

## **ACKNOWLEDGEMENTS**

I would like to thank Dr. Gayman for his patience and guidance on this project.



## TABLE OF CONTENTS

|  |             |
|--|-------------|
| <b>ACKNOWLEDGEMENTS .....</b>  | <b>V</b>    |
| <b>LIST OF TABLES .....</b>  | <b>VIII</b> |
| <b>LIST OF FIGURES.....</b>  | <b>IX</b>   |
| <b>LIST OF ABBREVIATIONS .....</b>                                     | <b>X</b>    |
| <b>1 INTRODUCTION .....</b>  | <b>1</b>    |
| <b>1.1 Research Questions and Hypotheses.....</b>                      | <b>5</b>    |
| <b>2 BACKGROUND.....</b>   | <b>7</b>    |
| <b>2.1 PPO Mental Health.....</b>                                      | <b>9</b>    |
| <b>2.2 Work Stress as Mediating Factor.....</b>                        | <b>11</b>   |
| <b>2.3 Sources of Work Stress.....</b>                                 | <b>14</b>   |
| <i>2.3.1 Role Conflict as Stressor .....</i>                           | <i>15</i>   |
| <i>2.3.2 Role Overload as Stressor.....</i>                            | <i>17</i>   |
| <b>2.4 PPOs' Expectations for Success of Supervisees with SMI.....</b> | <b>19</b>   |
| <b>3 RESEARCH DESIGN AND METHODS.....</b>                              | <b>21</b>   |
| <b>3.1 Sample and Data.....</b>  | <b>21</b>   |
| <b>3.2 Measures.....</b>   | <b>23</b>   |
| <b>3.3 Analysis Plan.....</b>  | <b>27</b>   |
| <b>4 RESULTS .....</b>   | <b>30</b>   |
| <b>4.1 Descriptives .....</b>  | <b>30</b>   |

|            |  |           |
|------------|--|-----------|
| <b>4.2</b> | <b>Correlations.....</b>                           | <b>31</b> |
| <b>4.3</b> | <b>Probation/Parole Officer Mental Health.....</b> | <b>35</b> |
| <b>4.4</b> | <b>Officer Work Stress .....</b>                   | <b>39</b> |
| <b>4.5</b> | <b>Expectations for Supervisee Success .....</b>   | <b>41</b> |
| <b>4.6</b> | <b>Work-Units.....</b>                             | <b>42</b> |
| <b>5</b>   | <b>DISCUSSION .....</b>                            | <b>44</b> |
| <b>5.1</b> | <b>Limits and Future Directions .....</b>          | <b>50</b> |
| <b>5.2</b> | <b>Conclusion .....</b>                            | <b>51</b> |
|            | <b>REFERENCES .....</b>                            | <b>53</b> |

**LIST OF TABLES**

|   |    |
|---|----|
| Table 1. Descriptive Statistics .....                               | 33 |
| Table 2. Correlation Matrix.....                                    | 34 |
| Table 3. PPO Depressive Symptoms Regressed on Study Variables.....  | 37 |
| Table 4. Work Stress Regressed on Study Variables.....              | 38 |
| Table 5. Expectations for Success Regressed on Study Variables..... | 43 |

**LIST OF FIGURES**

|  |   |
|--|---|
| Figure 1. PPO Mental Health .....                                      | 5 |
| Figure 2. Work Stress as Mediating Factor.....                         | 5 |
| Figure 3. Sources of Work Stress .....                                 | 6 |
| Figure 4. PPOs' Expectations for Success of Supervisees with SMI ..... | 6 |
| Figure 5. Depressive Symptoms as Moderating Factor .....               | 7 |

## **LIST OF ABBREVIATIONS**

Hierarchical Linear Modeling (HLM)

Institutional Review Board (IRB)

Ordinary Least Squares (OLS)

Probation/Parole Officer (PPO)

Serious Mental Illness (SMI)

## 1 INTRODUCTION

Among the nearly five million supervisees on probation and parole in the United States, people with serious mental illness (SMI)—schizophrenia, bipolar, major depression—are significantly overrepresented (Kaeble, Maruschak, & Bonczar, 2015; Lurigio, Epperson, Canada, & Babchuk, 2012; Crilly, Caine, Lamberti, Brown, & Friedman, 2009; Ditton, 1999; Wolff, Epperson, Shi, Huening, Schumann, & Sullivan, 2014). Broadly speaking, community supervision blends rehabilitative and law enforcement roles to reduce recidivism (Solomon, 2008; Papanozzi & Gendreau, 2005; Lutze, 2014). However, the efforts of probation and parole officers (PPOs) often fall short when assisting clients with SMI and related mental health needs. Indeed, having a mental illness increases supervisees' likelihood of being rearrested for committing new offenses as well as violating the terms of their sentence (Cloyes, Wong, Latimer, & Abarca, 2010; Ostermann & Matejkowski, 2014; Porporino & Motiuk, 1995; Skeem & Eno Loudon, 2006). Yet, few studies examine the consequences of supervising people with SMI on officers' mental health, and how these mental health consequences influence officers' expectations for client success.

Although mental illness is not a reliable predictor of criminal behavior (Bonta, Law, & Hanson, 1998; Peterson, Skeem, Kennealy, Bray, & Zvonkovic, 2014), it represents unique needs for supervisees, such as mental health treatment and medications (Epperson, Canada, Thompson, & Lurigio, 2014; Wolff et al., 2014). When not receiving appropriate mental health services, supervisees with SMI are at increased risk of reoffending (Wolff, Bjerklie, & Maschi, 2005). Another complicating factor is that people with SMI often have accompanying needs (e.g., substance abuse problems, residential instability, lack of social support), which decrease their chances of successfully completing probation/parole (James & Glaze, 2006; Swartz &

Lurigio, 1999; Draine, Culhane, & Hadley, 2002; Silver, Mulvey, & Swanson, 2002; Skeem, Eno Louden, Manchak, Vidal, & Haddad, 2009).

To best serve this population, officers rely on more personable supervision techniques, which entail greater degrees of flexibility, relationship building, and problem solving (Babchuk, Lurigio, Canada, & Epperson, 2012; Epperson et al., 2014; Lurigio et al., 2012). For example, officers assisting clients with SMI focus heavily on crisis intervention, community integration, medication compliance, and service linkage rather than strictly enforcing probation/parole conditions (Epperson et al., 2014). Although the needs associated with mental illness create supervision challenges that significantly increase job difficulty for PPOs (Van Deinse, Cuddeback, Wilson, & Burgin, 2017), the implications for officers' psychological well-being remain unclear. In fact, much of prior research on community supervision and mental health focuses on the experiences and outcomes for supervisees with SMI (Babchuk et al., 2012; Epperson et al., 2014; Lurigio et al., 2012; Wolff et al., 2014) instead of the consequences for officers' well-being (Gayman, Powell, & Bradley, 2017).

Despite the paucity of research on PPOs mental health as it relates to working with persons with SMI, research in other 'people-oriented' fields (e.g., social workers, counselors) illustrates the potential for psychological problems among professionals assisting clients with SMI (Evans, Huxley, Gately, Webber, Mears, Pajak, Medina, Kendall, & Katona, 2006; Farrell & Turpin, 2003; Van Daalen, Willemsen, Sanders, & Van Veldhoven, 2009; Sweeney & Nichols, 2006; Paris & Hoge, 2010; Green, Miller, & Aarons, 2011). For example, practitioners report psychological distress while performing social work for clients with mental health needs (Evans et al., 2006). Moreover, the combination of increased emotional investment (Epperson et al., 2014) and greater job difficulty (Van Deinse et al., 2017) when working with persons with

SMI provides reason to suspect mental health consequences for officers supervising people with SMI.

Increased risk for depressive symptoms for officers may result from stress accumulated while attempting to balance competing and excessive demands of working with clients who have mental health needs. Given the inherently stressful nature of PPOs' work (Tabor, 1987; Simmons, Cochran, & Blount, 1997; Finn & Kuck, 2005; Lutze, 2014), identifying factors that contribute to the emergence of work stress while supervising people with mental health needs is necessary to understand whether the number of supervisees with SMI on one's caseload is associated with work stress and subsequent depressive symptoms. Drawing from Stress Process research, which states that prolonged exposure to social stressors increase risk for depressive symptoms (Pearlin, 1989; Thoits, 2010; White, 1997), this project builds on prior studies by investigating whether supervising people with SMI has negative mental health consequences for PPOs and whether this relationship is explained by work stress.

Related, role conflict and role overload may serve as target areas for prevention and intervention efforts. In fact, role conflict and overload have been linked to work stress among PPOs (Gayman & Bradley, 2013). Role conflict occurs when PPOs experience competing demands and role overload occurs when PPOs are tasked with excessive demands on the quality and quantity of their work (Sigler, 1988; White et al., 2005). When supervising persons with SMI, officers may encounter role conflict when attempting to simultaneously seek access to mental health-related services and monitor sentence compliance (Skeem, Eno Louden, Polaschek, & Camp, 2007). Furthermore, PPOs may experience role overload by performing additional roles in order to assist clients with SMI navigate mental health treatment and related services (Epperson et al., 2014). To this end, this study assesses whether role conflict and



overload explain the relationship between the number of supervisees with SMI on officers' caseloads and work stress.

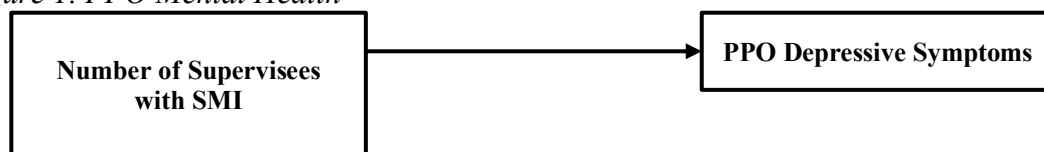
Additionally, psychological problems among PPOs have been linked to reductions in the quality of their interactions with supervisees (Salyers, Hood, Schwartz, Alexander, & Aalsma, 2015; Lewis, Lewis, & Garby, 2013), particularly when supervisees have additional mental health needs (White, Aalsma, Holloway, Adams, & Salyers, 2015). When psychologically distressed, officers may become more directive and less interested in understanding clients' circumstances (Salyers et al., 2015). Although research in other fields has demonstrated a significant association between depression and pessimistic bias (Strunk & Adler, 2009; Strunk, Lopez, & DeRubeis, 2006), the impact of depressive symptoms on officers' attitudes toward supervisees with SMI remains unknown. Drawing from research on the Cognitive Model of Depression, which states that people experiencing depressive symptoms form biased, often negative, expectations regarding future outcomes (Beck 1976), this study assesses whether officer mental health is related to PPOs' expectations for the success of clients with mental health needs, and whether officers' mental health moderates the association between the number of supervisees with SMI and officers' perceived expectations for supervisees' parole/probation success.

## 1.1 Research Questions and Hypotheses

**Question 1:** Are there mental health consequences associated with supervising people with mental health needs?

**Hypothesis 1:** PPOs supervising more clients with mental health needs will report greater depressive symptoms (see Figure 1).

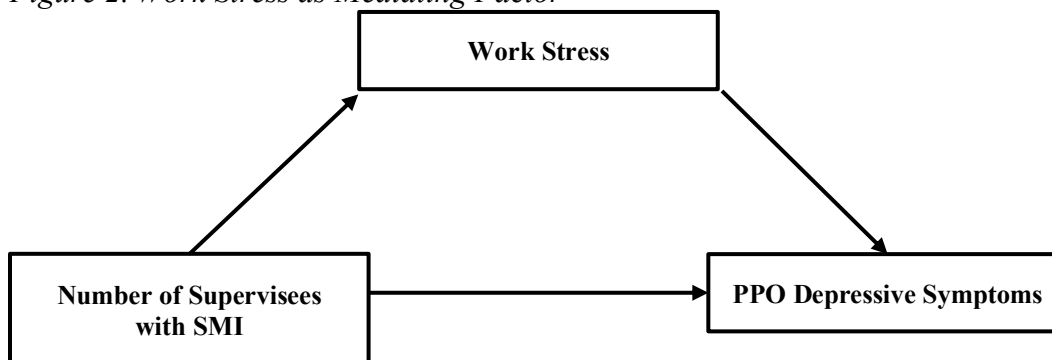
*Figure 1. PPO Mental Health*



**Question 2:** Does work stress explain the mental health consequences of supervising people with mental health needs?

**Hypothesis 2:** Work stress mediates the relationship between the number of supervisees with mental health needs on PPOs' caseloads and officers' depressive symptoms (see Figure 2).

*Figure 2. Work Stress as Mediating Factor*



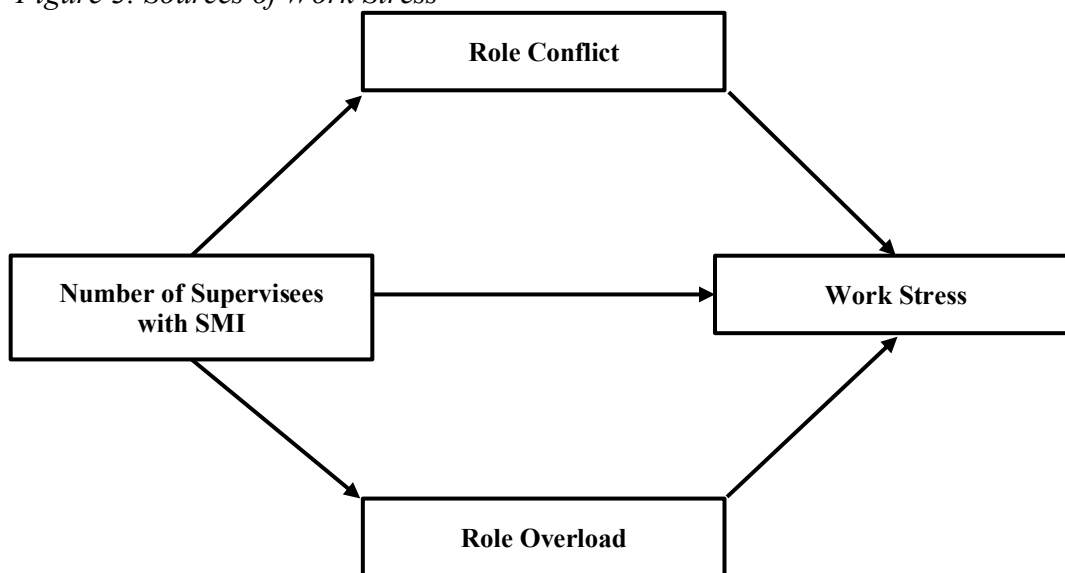
**Question 3:** Does role conflict explain work stress related to supervising people with SMI?

**Hypothesis 3:** Role conflict mediates the relationship between the number of supervisees with mental health needs on PPOs' caseloads and work stress (see Figure 3).

**Question 4:** Does role overload explain work stress related to supervising people with SMI?

**Hypothesis 4:** Role overload mediates the relationship between the number of supervisees with mental health needs on PPOs' caseloads and work stress (see Figure 3).

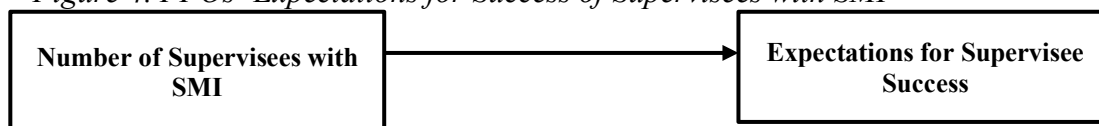
*Figure 3. Sources of Work Stress*



**Question 5:** Does supervising persons with mental illness affect officers' expectations for the success of supervisees with SMI?

**Hypothesis 5:** The number of supervisees with mental health needs on PPOs' caseloads is associated with lower expectations for supervisee success (see Figure 4).

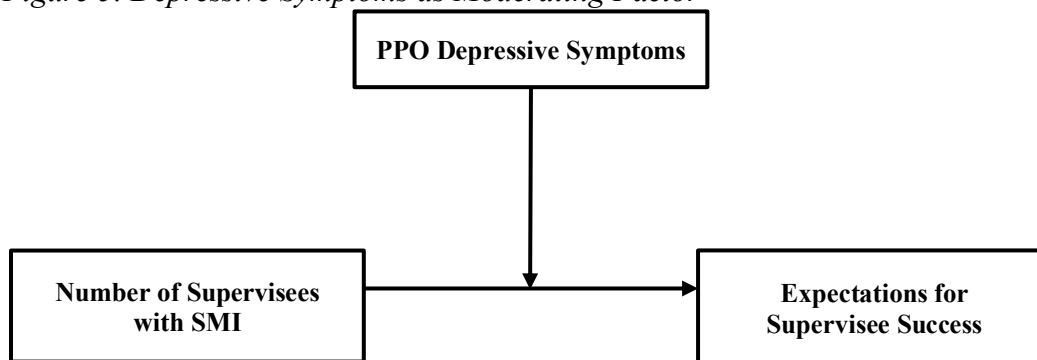
*Figure 4. PPOs' Expectations for Success of Supervisees with SMI*



**Question 6:** Are PPOs' expectations for the success of supervisees with SMI influenced by officer psychological well-being?

**Hypothesis 6:** Depressive symptoms moderate the relationship between the number of supervisees with mental health needs on PPOs' caseloads and PPOs' expectations for supervisee success (see Figure 5).

*Figure 5. Depressive Symptoms as Moderating Factor*



## 2 BACKGROUND

Prior research has examined the overrepresentation of serious mental illness (SMI) in the criminal justice system (Lurigio et al., 2012; Crilly et al., 2009; Ditton, 1999), the unique and accompanying criminogenic needs associated with mental illness (James & Glaze, 2006; Swartz & Lurigio, 1999; Draine et al., 2002; Silver et al., 2002), and how to address these needs to reduce recidivism (Babchuk et al., 2012; Epperson et al., 2014; Lurigio et al., 2012; Wolff et al., 2014). However, few studies have assessed whether supervising people with SMI has negative consequences for officers' psychological well-being (Gayman, Powell, & Bradley, 2017). In addition, little is known about the potential impact of officer mental health on their expectations of success toward their clients with mental health needs. By limiting the focus to supervisees' outcomes, our understanding of the relationship between supervisees with SMI and PPOs' mental health is incomplete.

Research in other 'helping' professions (e.g., social workers, counselors, etc.) reveals negative psychological consequences for people working with clients who have mental health

problems (Paris & Hoge, 2010; Newell & MacNeil, 2010; Van Daalen et al., 2009). This link may be due, in part, to increased work stress. Indeed, practitioners assisting clients with mental health needs experience high levels of stress (Sweeney & Nichols, 2006; Paris & Hoge, 2010; Green, Miller, & Aarons, 2011), which sometimes lead to depressive symptoms (Van Daalen et al., 2009; Farrell & Turpin, 2003). Although the stressful work environment of PPOs is well documented (Whitehead, 1985; Finn & Kuck, 2005; Gayman & Bradley, 2013; Lutze, 2014), whether the number of supervisees with SMI on PPOs' caseloads is associated with greater work stress and subsequent depressive symptoms remains unknown.

Officers are psychologically affected by supervisees' experiences (Lewis, Lewis, & Garby, 2013; Finn & Kuck, 2005), which influences their supervision styles (Steiner, Travis, Makarios, & Brickley, 2011; Salyers et al., 2015). For example, psychologically distressed officers can be less supportive, more likely to perpetuate stigmas associated with mental illness, and less competent in assisting clients with mental health needs (Salyers et al., 2015; White et al., 2015). Given that PPOs exercise a considerable amount of discretion when resolving probation and parole violations (Eno Louden, Skeem, Camp, & Christensen, 2008; Purkiss, Hemmens, & Burton, 2003; Schneider, 1996), it is plausible that the psychological well-being of PPOs is a critical element in the success of supervisees with SMI. Therefore, to provide effective assistance to supervisees with SMI while still maximizing public safety, community corrections agencies should account for PPO well-being when developing and implementing policies for the supervision of people with mental health needs. To this end, this study draws from Stress Process theory and research to examine whether the number of supervisees with SMI on PPOs' caseloads is associated with greater depressive symptoms and whether this link is explained by work stress, role conflict, and role overload.

Additionally, research in other human service fields reveals a link between practitioner expectations and client success. For example, psychotherapists' expectations were significantly related to improved clinical treatment outcomes for patients (Connor & Callahan, 2015).

Although the relationship between officer well-being and supervisee outcomes is beyond the scope of this investigation, this study draws from the Cognitive Model of Depression, which identifies pessimistic bias as a primary characteristic of depression (Haaga & Beck, 1995), to assess whether officer mental health is related to PPOs' expectations for the success of supervisees with mental health needs.

## **2.1 PPO Mental Health**

Psychological well-being is important for any profession, but the responsibilities of public safety and rehabilitation make the implications especially significant for probation and parole practitioners. Compared to other mental health problems in the U.S., depression is among the most common, disabling, and costly (Kessler, McGonagle, Shao, Nelson, Hughes, Eshleman, Wittchen, & Kendler, 1994; Kessler, Chiu, Demler, Merikangas, & Walters, 2005). Occupational research has linked depression to absenteeism and diminished job performance (Charbonneau, Bruning, Titus-Howard, Ellerbeck, Whittle, Hall, Campbell, Lewis, & Munro, 2005; Kessler, White, Birnbaum, Qiu, Kidolezi, Mallett, & Swindle, 2008; Lerner, Adler, Rogers, Chang, Lapitsky, McLaughlin, & Reed, 2010; Leopold, 2001; Stewart et al., 2003). In fact, PPOs often refer to the need for a 'mental health day' as a reason for missing work (Finn & Kuck, 2005). However, limited empirical research has been conducted on the mental health of PPOs. More specifically, few investigations have examined the association between supervisees with SMI and officer well-being (Gayman, Powell, & Bradley, 2017). This project hypothesizes that the

number of supervisees with mental health needs on PPOs' caseloads is associated with greater depressive symptoms.

Generally speaking, research on law enforcement officers, first responders, and other helping professions collectively demonstrates a heightened risk for psychological problems (Beutler, Nussbaum, & Meredith, 1988; Fisher, 2003; Gilmartin, 2002; Lipsky & Burk, 2009). More relevant to this study, however, practitioners in 'people-oriented' fields (e.g., social workers, counselors) often experience depressive symptoms when assisting clients with mental health needs. For example, a study of community mental health workers reveals a significant positive association between the frequency of interactions with patients and worker depressive symptoms (Van Daalen et al., 2009).

In addition to evidence from other people-oriented fields, research demonstrates that establishing and maintaining relationships with supervisees with SMI exposes PPOs to psychological harm (Lewis, Lewis, & Garby, 2013). PPOs describe the need to be extra supportive when assisting clients with SMI (Epperson et al., 2014; Wolff et al., 2014) and, when being supportive, officers emotionally invest in their clients by building rapport, exercising empathy, and displaying compassion (Umamaheswar, 2012; Blasko et al., 2015). However, there are mental health consequences to such emotionally demanding work (Madsen, Rugulies, & Diderichsen, 2014). This leads some scholars to argue that it is only a matter of time before one becomes psychologically affected by providing these types of services to clients (Figley, 1995; Herman, 1992; Lipsky & Burk, 2009; McCann & Pearlmann, 1990; Newell & MacNeil, 2010). PPOs are no exception. Indeed, officers experience a variety of psychological distress when specific events (e.g., recidivism, violence, suicide) occur on their caseloads (Lewis, Lewis, &

Garby, 2013). This is not surprising considering that PPOs report feelings of responsibility for supervisees' actions (Finn & Kuck, 2005).

The likelihood of experiencing depressive symptoms may also be intensified for PPOs supervising people with SMI when confronted with the social reality that justice-involved persons with mental health needs are often dealing with extremely difficult life circumstances (Draine et al., 2002; Epperson et al., 2014; White, Chafetz, Collins-Bride, & Nickens, 2006). For example, when dealing with substance abuse and/or homelessness, people with SMI not only experience higher rates of arrest but also a greater propensity for being victimized (White et al., 2006). Thus, given the increased risk of recidivism and other poor outcomes for persons with SMI (Cloyes et al., 2010; Draine et al., 2002; Ostermann & Matejkowski, 2014; Porporino & Motiuk, 1995; Skeem & Eno Louden, 2006; White et al., 2006), PPOs supervising more people with SMI may be at greater risk for poor mental health. However, it remains unclear whether supervising persons with SMI affect PPOs' well-being.

This project aims to fill this gap. Given the prevalence of mental health difficulties in other helping professions when assisting clients with mental health needs, the psychological impact of building positive relationships with supervisees, and the potential for distressing life circumstances among persons with SMI, it is plausible that the number of people with mental health needs on PPOs' caseloads is associated with greater depressive symptoms for officers.

## **2.2 Work Stress as Mediating Factor**

Compared to other criminal justice professions (e.g., police officers, institutional correctional officers), research on work stress for probation and parole practitioners is sparse. Yet, scholars have provided compelling evidence for the stressful work environment of community supervision officers (Finn & Kuck, 2005; Lindquist & Whitehead, 1986; Patterson,



1992; Pitts, 2007; Thomas, 1988; Gayman & Bradley, 2013; Whitehead, 1985; Simmons, Cochran, & Blount, 1997; Collins et al., 2009; Lee & Johnson, 2009; Lutze, 2014). Although considerable attention has been given to bureaucratic and organizational stressors (e.g., unrealistic deadlines, paperwork, lack of manager support) (Finn & Kuck, 2005; Lutze, 2014; Slate, Johnson, & Wells, 2000), few studies have examined the mental health consequences for officers working with persons with SMI. Additionally, few studies have examined the role of job stress in the relationship between officer mental health and working with supervisees with SMI. Drawing from Stress Process research, this project hypothesizes that work stress mediates the relationship between the number of supervisees with mental health needs on PPOs' caseloads and depressive symptoms.

Community supervision is an innately stressful career (Whitehead, 1985; Simmons et al., 1997; Finn & Kuck, 2005; Lutze, 2014). Indeed, PPOs exhibit greater levels of stress than the general population (Tabor, 1987; Slate, Wells, & Johnson, 2003). Practitioners in other professions who become psychologically stressed while assisting persons with SMI are at a heightened risk for mental health problems. For example, mental health workers in a community-based facility reported depressive symptoms resulting from psychological anguish accumulated on the job (Van Daalen, 2009). However, whether work stress mediates the relationship between working with supervisees with mental health needs and PPO depressive symptoms is unknown.

According to Stress Process research, prolonged exposure to stress has negative consequences for one's mental health (Pearlin, 1989; Thoits, 2010; White, 1997). In fact, occupational research consistently reveals a link between work stress and mental health problems (Crane & Hill, 2009; Eckenrode & Gore, 1990; Ganster & Schaubroeck, 1991; Menaghan, 2010; Gayman & Bradley, 2013). However, the lack of research on PPO mental health makes it

difficult to determine whether (and to what extent) PPOs are at risk for mental health problems as a result of work stress stemming from supervising persons with SMI. Again, looking to research in other justice-related fields is useful. In general, criminal justice practitioners experience high levels of work stress and subsequent mental health problems while performing job duties (Anson & Bloom, 1988; Gershon, Barocas, Canton, Li, & Vlahov, 2009; Ghaddar, Mateo, & Sanchez, 2008; Schaufeli & Peeters, 2000; Patterson, 1992). More specifically, criminal justice professionals tasked with responsibilities similar to PPOs, such as police officers performing law enforcement duties in the community and institutional correctional officers who maintain frequent contact with justice-involved persons, often struggle with work stress followed by mental health problems. For example, police officers undergoing high levels of work stress are significantly more susceptible to depression (Gershon, et al., 2009) and there is a significant inverse relationship between job stress and mental health among institutional correctional officers (Ghaddar et al., 2008).

For community-based corrections, the potential for psychological harm from PPOs' stressful careers has recently been identified. Drawing from the Stress Process framework, researchers employing data from the same sample used in the current investigation have demonstrated a direct relationship between work stress and depressive symptoms among community supervision officers (Gayman & Bradley, 2013). This is not surprising considering that PPOs experiencing stress from the job, took 'mental health days' to avoid work (Finn & Kuck, 2005). Although these studies are important first steps, further research is needed to identify specific sources of stress which lead to job-related mental health problems for PPOs. To this end, this project expands knowledge in this area by examining whether supervising people

with mental health needs is a source of stress for PPOs and whether this stress increases depressive symptoms.

### **2.3 Sources of Work Stress**

To the extent that work stress mediates the relationship between the number of people with mental health needs on PPOs' caseloads and officer mental health, it is also important to assess sources of work stress. The innately stressful work environment makes it difficult to determine whether PPOs' work stress stems from supervising clients with SMI. For intervention and prevention efforts, therefore, it is necessary to consider other influential factors for the relationship between supervising people with SMI and officers' psychological well-being.

While seeking to blend accountability functions with rehabilitative efforts, role conflict and role overload consistently emerge as significant sources of work stress for community supervision officers (Whitehead, 1985; Whitehead, 1987; Sigler, 1988; Lindner & Koehler, 1992; Whisler, 1994; Lindner & Bonn, 1996; Allard, Wortley, & Stewart, 2003; White et al., 2005). Not surprisingly, PPOs in the sample employed in the current investigation describe high levels of role conflict and role overload in their work environments (Gayman & Bradley, 2013). However, the relationship between supervisees with mental health needs and PPO job stress remains unclear. Therefore, the association between the number of supervisees with SMI on PPOs' caseloads and increased work stress may depend on whether role conflict and role overload result from supervising people with SMI. To this end, this project will explore how job-related stressors, specifically role conflict and role overload, predict work stress and subsequent depressive symptoms among officers assisting clients with mental health needs.

### ***2.3.1 Role Conflict as Stressor***

Role conflict occurs when there are competing expectations for roles being performed by officers (Sigler, 1988). Organizational research and studies in other criminal justice fields (e.g., institutional correctional staff and other community-based law enforcement) frequently illustrate the propensity for role conflict to cause work stress (Blair, Black, & Long, 1981; Hepburn & Allonetti, 1980; Poole & Regoli, 1980; Dignam, Barrera, & West, 1986; Hageman, 1982; Kroes, Hurrell, & Margolis, 1974; Terry, 1981; Violante, 1983). Hence, it is not surprising that role conflict is a common stressor for PPOs (Sigler, 1988; Allard et al., 2003). Conflicting expectations are inherently present in community supervision work. For example, PPOs experience pressure from government agencies to prioritize law enforcement functions; yet, they personally perceive the most important aspect of their jobs as rehabilitation (Deering, 2010). These contradictions are especially evident when supervisees have mental health needs. PPOs supervising people with SMI have to merge care with correctional control by seeking avenues for mental health-related services while simultaneously monitoring sentence compliance (Skeem et al., 2007). However, whether role conflict stemming from supervising people with SMI results in work stress for PPOs remains unclear.

Influencing factors on both ends of the law enforcement—rehabilitation continuum intensify the competing demands for PPOs while supervising people with mental health needs. First, people with SMI are often perceived as a greater risk to public safety. There is a widely accepted assumption among the general population that persons with SMI are prone to violence and therefore dangerous (Angermeyer & Matschinger, 1995; Corrigan & Cooper, 2005; Markowitz, 2011). PPOs are not immune to this bias. Despite evidence indicating substance abuse problems as better predictors of crime than issues surrounding mental illness, a vignette

study of officers demonstrated that practitioners are more likely to assess risk based on mental health factors rather than substance abuse (Eno Louden & Skeem, 2013).

Second, effectively supervising people with SMI requires a more supportive approach, which entails a greater degree of flexibility, ‘relationship building’, and problem solving (Babchuk et al., 2012; Epperson et al., 2014:480; Lurigio et al., 2012; Wolff et al., 2014). For example, PPOs use compassion and empathy to increase rapport when supervising people with mental health needs (Epperson et al., 2014). Additionally, assisting people with SMI requires PPOs to be more solution-oriented (Babchuk et al., 2012; Epperson et al., 2014; Lurigio et al., 2012). Given the unique and additional challenges facing supervisees with SMI, PPOs must commit to problem solving with clients to provide the best chance for successfully completing probation or parole (Wolff et al., 2014).

As a result of these competing demands, PPOs supervising people with SMI find themselves in a paradoxical situation. They are expected to provide a more flexible and personable style of supervision to a population that is perceived as a heightened risk to public safety. The foundation of evidence-based practices (EBP) rests on officers’ ability to address risk and needs (Fry, 2008); yet, this ability is skewed when mental health needs are involved (Eno Louden & Skeem, 2013). Given that PPOs’ attitudes toward risk assessment have a significant influence on their use of discretion (Fitzgibbon, Hamilton, & Richardson, 2010), officers in this contradictory situation may be extremely conflicted regarding supervision decisions. These competing demands may contribute to role conflict and, in turn, increase work stress for PPOs supervising people with SMI. To date, however, no studies have assessed the relationship between supervisees with mental health needs, role conflict, and officers’ psychological well-being. This project fills this void by investigating whether role conflict mediates the relationship

between the number of supervisees with mental health needs on PPOs' caseloads and work stress.

### ***2.3.2 Role Overload as Stressor***

PPOs experience role overload when there are excessive demands on the quality and quantity of their work (White et al., 2005). Although the concern for role overload is not as prevalent in the literature as the concern for role conflict, it is still consistently reported as a source of stress for PPOs (Gayman & Bradley, 2013; Lindner & Koehler, 1992; Lindner & Bonn, 1996; Whisler, 1994; White et al., 2005). In other professions, research has repeatedly linked role overload with psychological distress and poor mental health (Armon, 2009; Byrne & Espnes, 2008; Ganster & Schaubroeck, 1991; Shirom, 2009; Shultz, Wang, & Olson, 2010). Furthermore, a recent study employing the same PPO data as this project revealed a significant, independent correlation between role overload and work stress (Gayman & Bradley, 2013). However, no studies to date have examined the relationship between role overload, supervisees' mental health needs, and officer stress. Therefore, this project will build on prior research by investigating whether the link between work stress and the number of supervisees with SMI on officers' caseloads is explained by role overload.

I hypothesize that supervising people with mental health needs contributes to role overload for PPOs in two ways. First, assisting people with SMI requires practitioners to perform additional roles (Furman & Jackson, 2002; Rosenblatt & Atkisson, 1993). Barriers to treatment may prompt PPOs to serve an additional 'gatekeeper' role by actively linking their clients to mental health treatment and other related services (Wasserman et al., 2008; Holloway et al., 2013; Lewis, Lewis, & Garby, 2013; Lutze, 2014; Epperson et al., 2014; White et al., 2015). For instance, supervisees' inability to afford mental health treatment and related medications is a

common challenge for officers (Van Deirse et al., 2017). Unfortunately, there is a lack of coordination between the criminal justice system and community mental health providers (Draine et al., 2002; Markowitz, 2011). To mend this rift, PPOs often deliver a variety of ‘direct services’ (e.g., medication compliance, crisis intervention, community integration and service provision) for supervisees with SMI that they would otherwise not implement (Epperson et al., 2014). By playing the ‘gatekeeper’ role and providing ‘direct services’ as attempts to help clients navigate obstacles to treatment access and successful probation/parole completion, officers take on additional roles and related work, which can lead to role overload.

Second, supervising people with SMI may be associated with increased administrative tasks for PPOs. As previously discussed, although mental illness is not a reliable predictor of criminal behavior (Bonta et al., 1998; Peterson et al., 2014), people with SMI are more likely to violate the terms of their probation or parole (Cloyes et al., 2010; Ostermann & Matejkowski, 2014; Porporino & Motiuk, 1995; Skeem & Eno Loudon, 2006). Resolving violations expands PPOs’ workloads through additional paperwork and legal proceedings (DeMichele, 2007; DeMichele & Payne, 2007; Latessa & Smith, 2015; Lutze, 2014). For example, technical violations sometimes result in supervisees returning to court for a revocation hearing. Officers must attend these hearings to collaborate with judges and attorneys to determine how to address the violation in a manner that best protects the community, while also increasing the supervisee’s chances of success (Latessa & Smith, 2015). Furthermore, if the probationer or parolee is not already incarcerated for the new violation, the officer may be asked by the court to complete additional paperwork (i.e., a warrant) for the supervisee’s arrest (Latessa & Smith, 2015). Considering that individuals are usually returned to supervision after their violations are

addressed, this additional administrative work increases the demands on PPOs' as they will likely resume supervision of the case (Latessa & Smith, 2015).

When supervising people with mental health needs, performing additional roles coupled with increased administrative tasks intensifies the demands on the quality and quantity of PPOs' work. These additional (sometimes excessive) demands may contribute to role overload and, in turn, increase work stress for PPOs. However, no studies to date have assessed the relationship between supervisees with SMI, role overload, and officer well-being. This project attempts to fill this gap by investigating whether role overload mediates the relationship between the number of supervisees with mental health needs on PPOs' caseloads and work stress.

#### **2.4 PPOs' Expectations for Success of Supervisees with SMI**

Although organizations have a general obligation to protect employees from job-related harm (see Klein & Alexander, 2011; Tehrani, 2011), the psychological well-being of PPOs deserves special attention from community correctional agencies. Indeed, in addition to the potential for psychological harm to the officer, enduring psychological distress may be detrimental to the quality of supervision they provide to clients. For example, PPOs experiencing psychological problems are less supportive, more prone to perpetuating stigmas, and less competent in assisting people with mental health needs (Salyers et al., 2015; White et al., 2015). This investigation will examine the association between officers' well-being and their attitudes toward clients with SMI. Drawing from research on the Cognitive Model of Depression, I hypothesize that officers reporting more depressive symptoms will be less likely to expect supervisee's success in completing the terms of parole/probation. In addition, I hypothesize that depressive symptoms will moderate the relationship between the number of supervisees with mental health needs on PPOs' caseloads and PPOs' expectations for supervisee success.



Specifically, the inverse association between the number of supervisees with mental health needs and officer expectations for supervisee success will be stronger for PPOs reporting more depressive symptoms.

In general, officers' perceptions are altered by their work with clients. For example, PPOs experiencing stressful and even traumatic events related to their caseloads (e.g., violence, recidivism, threats, suicide attempts) are at significantly higher risk for losing trust, developing a 'distorted world view', and experiencing depression (Lewis, Lewis, & Garby, 2013). A 'distorted worldview' causes a loss of awareness regarding what is considered 'normal', which may result in officers becoming more suspicious of people as criminals (Lewis, Lewis, & Garby, 2013). Most relevant to this project, however, depression among PPOs may present as pessimistic attitudes towards their work (Lewis, Lewis, & Garby, 2013). Thus, in addition to assessing the direct association between depressive symptoms and officers' expectations for supervisees' success, this project examines whether the positive association between the number of supervisees with SMI on an officer's caseload and a pessimistic view about the success of supervisees is influenced by PPO mental health.

The Cognitive Model of Depression identifies pessimistic bias as a primary characteristic of depression (Haaga & Beck, 1995). People experiencing depressive symptoms may form biased expectations of future negative outcomes (Beck 1976). Recent research from a variety of settings has provided support for this model (Korn, Sharot, Walter, Heekeren, & Dolan, 2014; Strunk & Adler, 2009; Strunk, Lopez, & DeRubeis, 2006). For instance, study participants exhibiting high levels of depressive symptoms displayed significantly greater pessimistic bias across three separate judgment tasks (predicting future events, predicting opinions of other people, and predicting performance on an IQ test) than those with low levels of depressive

symptoms (Strunk & Adler, 2009). In fact, subscribers of the Cognitive Model of Depression argue that one must first resolve the process of forming such negative conclusions before treating depression (Beck 1976; Hollon & Garber, 1980; Strunk & Adler, 2009). However, whether this model applies to probation and parole officers' attitudes towards their clients remains unanswered. This project provides a first step in addressing this question by investigating whether depressive symptoms moderate the relationship between the number of supervisees with mental health needs on PPOs' caseloads and PPOs' expectations for supervisees' success.

### **3 RESEARCH DESIGN AND METHODS**

#### **3.1 Sample and Data**

This project employs data from a 2009 study (see Gayman & Bradley, 2013; Gayman, Powell, & Bradley, 2017; Van Deirse et al., 2017), which distributed a statewide survey to all probation and parole officers (PPOs) working for the North Carolina Department of Corrections (DOC). Given that North Carolina officers supervise both probation and parole cases, there is no distinction between the two in this study. All PPOs were invited to participate (n=1371) and 893 completed the survey, which represents 65.1 percent of North Carolina PPOs. For the purposes of this investigation, only officers who indicated having one or more people with mental health needs on their caseloads were included (n=830). Note that, at the time of the survey, there were no specialized officers supervising caseloads consisting only of people with SMI. After excluding officers with no supervisees with mental health needs on their caseloads (n=63), an additional 34 respondents whose demographic data (job tenure, race, and gender) were not available were excluded from analysis. From the remaining 796 cases, there were no missing cases on the following study variables: work stress, role conflict, role overload, and work-unit (n=796). However, there were three participants with missing data on two of the study variables,

which included one case missing information on depressive symptoms, and two missing cases on expectations for supervisee success. After utilizing listwise deletion to remove all cases with missing values on any study variables, the final analytic sample consists of 793 respondents (officers).

These data are well suited for this project because the original study administered standardized measures of mental health, work stress, role conflict, and role overload across a large sample of PPOs with a high degree of variability in their length of job tenure. Additionally, the survey includes information on officers' expectations for the success of supervisees with mental health needs, information uniquely pertinent to answer one of this project's main research questions.

PPOs received the questionnaire in the form of a web survey delivered through their State work email accounts. In an attempt to maximize response rates, participants were prompted by a series of reminder emails to complete the survey. To eliminate the possibility of duplicate responses, the emails contained respondent-specific links that were rendered invalid once the survey was completed.

All study procedures for this project were conducted in accordance with the university's Institutional Review Board (IRB). The original investigation was reviewed by the IRB at the University of North Carolina at Chapel Hill, which determined that the study did not constitute human subjects research as defined under federal regulations [45 CFR 46.102 (d or f) and 21 CFR 56.102(c) (e)(1)] and therefore did not require IRB approval (see also Gayman & Bradley, 2013; Gayman, Powell, & Bradley, 2017; Van Deinse et al., 2017). The current investigation, employing data from the original study, was reviewed by the IRB at Georgia State University

and confirmed as exempt from federal regulations as defined in 45 CFR 46 and meets all ethical standards (IRB Number: H18200).

### 3.2 Measures

*Supervisees with Mental Health Needs:* Serving as the main independent variable, supervisees with mental health needs was measured by asking officers how many people on their caseloads were diagnosed or suspected of having psychological problems (i.e., schizophrenia, bipolar disorder, major depression) and in need of mental health services. Only PPOs that reported at least one supervisee with psychological problems on their caseload were included in the analytic sample.

*Depressive Symptoms:* Serving as a dependent and moderating variable, depressive symptoms were measured using the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The measure was composed of 12 questions regarding depressive symptomatology: (1) You were bothered by things that usually do not bother you (2) You did not feel like eating (3) You felt that you could not shake off the blues (4) You had trouble keeping your mind on what you were doing (5) You felt depressed (6) You felt that everything you did was an effort (7) Your sleep was restless (8) You were happy (9) You talked less than usual (10) You enjoyed life (11) You felt sad (12) You could not 'get going'. Responses ranged from 1=Not at all to 4=Almost all the time and were averaged across the 12 items to create a mean depressive symptoms score. Higher values represent greater depressive symptoms. A Cronbach's Alpha score was calculated to assess reliability ( $\alpha=.91$ ). Cronbach's alpha assesses the degree of internal consistency reliability among construct items (Warner, 2013).

*Work Stress:* Serving as a dependent and mediating variable, work stress was measured using a condensed version of Wheaton's chronic stress scale (1991, 1994). The measure was

composed of five questions regarding work stress: (1) My supervisor is always watching what I do at work (2) I want to change jobs but do not feel I can (3) My job often leaves me feeling both mentally and physically tired (4) I don't get paid enough for the job I have (5) My work is boring and repetitive. Responses ranged from 1=Strongly Disagree to 4=Strongly Agree and were averaged across the 5 items to create a mean work stress score. Higher values represent greater work stress. A Cronbach's Alpha score was calculated to assess reliability ( $\alpha=.63$ ).

*Role Conflict:* Serving as a mediating variable, role conflict was adapted from previously used organizational climate measures (Glisson, 1994; Glisson & Hemmelgarn, 1998) The measure was composed of eight questions regarding role conflict: (1) Interests of the offenders are often replaced by bureaucratic concerns (e.g. paperwork) (2) I am unable to satisfy the conflicting demands of people over me (3) Rules and regulations often get in the way of getting things done (4) Inconsistencies exist among the rules and regulations that I am required to follow (5) I often end up doing things one way that ought to be done a different way (6) I have to do things on my job that are against my better judgment (7) I am unable to satisfy the conflicting demands of my supervisors (8) I often have to bend a rule or policy in order to carry out an assignment. Responses ranged from 1=Strongly Disagree to 4=Strongly Agree and were averaged across the 8 items to create a mean role conflict score. Higher values represent greater role conflict. A Cronbach's Alpha score was calculated to assess reliability ( $\alpha=.87$ ).

*Role Overload:* Serving as a mediating variable, role overload was adapted from previously used organizational climate measures (Glisson, 1994; Glisson & Hemmelgarn, 1998). The measure was composed of 7 questions regarding role overload: (1) No matter how much I do, there is always more to do (2) The amount of work I have to do interferes with how well it gets done (3) There are not enough people in my department to get the work done (4) The

amount of work I have to do keeps me from doing a good job (5) I constantly feel under heavy pressure (6) I have to work a lot of overtime (7) Once I start an assignment, I am not given enough time to complete it. Responses ranged from 1=Strongly Disagree to 4=Strongly Agree and were averaged across the 7 items to create a mean role overload score. Higher values represent greater role overload. A Cronbach's Alpha score was calculated to assess reliability ( $\alpha=.82$ ).

*Expectations for Supervisee Success:* Serving as a dependent variable for the final research question, PPOs were asked two questions regarding their expectations that supervisees will fail: (1) Based on your experience, among the X number of offenders on your caseload with mental health problems, what percentage will commit technical violations within the first year? (2) Based on your experience, among the X number of offenders on your caseload with mental health problems, what percentage will commit new violations within the first year? Responses to both questions were originally coded as 1=Nearly all of my offenders with mental health problems will commit technical/new violations (80-100%) 2=Most of my offenders with mental health problems will commit technical/new violations (60-79%); 3=About half of my offenders with mental health problems will commit technical/new violations (40-59%); 4=Some of my offenders with mental health problems will commit technical/new violations (20-39%); 5=Only a few of my offenders with mental health problems will commit technical violations (less than 20%). The responses were averaged across the two questions to provide a mean 'Expectations for Supervisee Success' score, ranging from 1 to 5. Higher values represent greater expectations for success among supervisees with mental health needs on PPOs' caseloads. Since this is a newly constructed scale measure and has not previously demonstrated as reliable, a Cronbach's Alpha score was calculated to assess reliability ( $\alpha=.89$ ).

*Work-Unit:* Serving as a contextual variable, work-unit refers to the district in which an officer supervises clients. The information was obtained by linking employee administrative data to the survey data via a randomly assigned case number to maintain respondent anonymity. This variable is a nominal level of measurement and the response categories were labeled as A-Q to represent the district of the officer's work-unit. This variable was only used during the multilevel portion of analyses to assess whether the individual-level of PPO depressive symptoms stemming from the number of supervisees with SMI on officers' caseloads remains after controlling for an officer's work-unit.

*Job Tenure:* Serving as a control variable, job tenure measures respondents' total experience working in corrections. The survey question reads, "In total, how many years of experience do you have working in corrections?" This variable is a ratio level of measurement ranging from 0-50 years. This measure was chosen opposed to age because previous studies on PPO well-being demonstrate seniority is a better predictor of officers' perceptions than age (Thomas, 1988).

*Race:* Serving as a control variable, information was obtained by linking employee administrative data to the survey data. This variable is a nominal level of measurement, with responses coded as 1=White and 0=Black.

*Gender:* Serving as a control variable, information was obtained by linking employee administrative data to the survey data. This variable is a nominal level of measurement, with responses coded as 1=Women and 0=Men.

### 3.3 Analysis Plan

This section provides a description of all analyses conducted for this project. The statistical analyses consist of univariate (descriptive), bivariate (correlation and simple regression), and multivariate (multiple regression and hierarchical linear modeling) techniques.

*Descriptives (Table 1):* Descriptive statistics provide information about the sample of observations used in this study (Warner, 2013). For this project, descriptive tables were conducted for supervisees with mental health needs, depressive symptoms, work stress, role conflict, role overload, expectations for supervisee success, and job tenure. Additionally, this project conducted frequency and percentages for race and gender.

*Correlation (Table 2):* Correlation refers to any statistical association between two variables. This statistical test, known as Pearson's  $r$ , assesses both strength and direction of a linear relationship between two continuous variables (Warner, 2013). This project contains a correlation matrix for all continuous predictor variables, outcome variables, and control variables (supervisees with mental health needs, depressive symptoms, work stress, role conflict, role overload, expectations for supervisee success, and job tenure). This analysis allows one to assess whether the key study variables are associated at the bivariate level.

*Regression (Tables 3, 4, 5):* Single regression assesses the ability of an independent variable to predict scores of a dependent variable and multiple ordinary least squares (OLS) regression allows one to assess the independent association between a given predictor variable and the outcome, while controlling for the influence of other variables (Allison, 1995; Field, 2013; Warner, 2013). To test the previously stated hypotheses (also described below), this project includes a series of three regression models with depressive symptoms, work stress, and expectations for supervisee success serving as the three outcome variables.



Table 3 assesses whether the number of supervisees with SMI on one's caseload predicts depressive symptoms and whether this relationship is mediated by PPO work stress (hypotheses 1 and 2). Mediation occurs when there is a significant reduction in the strength of the relationship between an independent variable and the dependent variable by introducing an additional predictor variable (Field, 2013). The first model assesses whether there is a statistically significant association between the number of supervisees with SMI on officers' caseloads and PPO depressive symptoms. The second model examines the same relationship while accounting for all control variables; job tenure, race, and gender. The third model assesses whether there is a statistically significant reduction in the strength of the relationship between supervisees with mental health needs and PPO depressive symptoms after introducing the potential mediating variable – work stress.

After determining the association between the number of supervisees with SMI and PPO mental health, this study investigates predictors of PPO work stress. Table 4 provides a series of regressions with work stress as the dependent variable. The first model assesses whether there is a statistically significant association between the number of supervisees with mental health needs on PPOs' caseloads and PPO work stress. The second model examines the same relationship while accounting for all control variables; job tenure, race, gender. The third model assesses whether there is a statistically significant reduction in the strength of the relationship between supervisees with mental health needs and PPO work stress after introducing one of the potentially mediating variables – role conflict. The fourth model assesses whether there is a statistically significant reduction in the strength of the relationship between supervisees with mental health needs and PPO work stress after introducing a the other potentially mediating variable – role overload. The fifth and final model assesses whether there is still a statistically

significant association between supervisees with mental health needs and PPO work stress after introducing both hypothesized mediating variables – role conflict and role overload.

For all mediation analysis, this project will examine the size of the indirect effect by utilizing a Sobel test (Sobel, 1982). Sobel tests provide significance tests for the indirect effects of a statistical model (Field, 2013). Mediation occurs when the relationship between an independent variable and a dependent variable can be explained (or significantly reduced) by a third, mediating, variable (Field, 2013). This effect is essentially a reduction in the strength of the original relationship by introducing the mediator.

Finally, to shed light on the consequences of psychological distress among PPOs supervising people with mental health needs, the third regression series assesses whether the number of supervisees with SMI on one's caseload predicts officers' expectations for the success of these supervisees and whether this relationship is moderated by PPOs' depressive symptoms (hypotheses 5 and 6). Moderation occurs when the relationship between an independent variable and the dependent variable varies in direction and/or magnitude at different levels (or points) of another predictor variable (Field, 2013; Luke, 2004). Table 5 examines a series of regressions with expectations for supervisee success as the dependent variable. The first model assesses whether there is a statistically significant association between the number of supervisees with mental health needs on PPOs' caseloads and PPOs' expectations for the success of these supervisees. The second model examines the same relationship while accounting for all control variables; job tenure, race, and gender. The third model introduces an interaction term (in addition to the corresponding first-ordered terms) consisting of the number of supervisees with SMI on an officer's caseload and PPO depressive symptoms. The interaction terms tests whether

the relationship between the number of supervisees with a SMI on an officer's caseload and officer expectations for supervisee success differs at different levels of depressive symptoms.

*Multilevel Modeling:* Although this study frames the key predictor and mediating variables at the individual level, it is reasonable to question whether these factors are (also) working at the organizational level. In order to assess whether these factors operate at the individual level and/or organizational level, officers are nested within work-units. The work-unit to which an officer belongs is a level up from the officer-level variable in the multilevel model. In addition to analyzing depressive symptoms stemming from supervising people with SMI at the individual level, this investigation examines depressive symptoms among PPOs at the organizational level by utilizing hierarchical linear modeling (HLM) to assess variability across work-units. This analysis will be used to determine if the individual-level of PPO depressive symptoms arising from the number of supervisees with SMI on officers' caseloads remains after controlling for PPOs' work-units.

## 4 RESULTS

### 4.1 Descriptives

Table 1 provides descriptive statistics on the sample and study variables. The average number of supervisees on PPOs' caseloads that were reported as having mental health needs was 13.89 (range=1-110, s.d.=14.15). The mean score for depressive symptoms was 1.83 (range=1-4, s.d.=.58). On average, respondents reported a work stress score of 2.70 (range=1-4, s.d.=.51). The mean for role conflict was 2.59 (range=1.13-4.0, s.d.=.51) and the average score for role overload was 3.05 (range=1.43=, s.d.=.53). Based on the assigned values, these responses most closely reflect 'Agree.' The average score for expectations for supervisee success was 2.81 (range=1-5, s.d.=1.18), which most closely reflects the response 'About half of my offenders

with mental health problems will commit technical/new violations (40-59%).’ 53.2 percent (n=422) of the respondents were Women and 65.1 percent were White (n=516). Finally, the average years of job tenure was 10.79 (range=0-32, s.d.=6.99).

## 4.2 Correlations

Table 2 consists of a correlation matrix for all continuous study variables. Increased levels of depressive symptoms among officers is associated with having a higher number of supervisees with mental health needs on one’s caseload ( $r=.107, p=.002$ ) and overall work stress ( $r = .555, p=.000$ ). Additionally, greater PPO work stress is associated with higher numbers of supervisees with mental health needs on officers’ caseloads ( $r=.075, p=.035$ ), role conflict ( $r=.567, p=.000$ ), and role overload ( $r=.542, p=.000$ ). This table also demonstrates that the number of supervisees with mental health needs ( $r =-.161, p=.000$ ) and depressive symptoms among officers ( $r =-.183, p=.000$ ) are both significantly associated with lower expectations for the success of supervisees.

These findings provide initial evidence for all six hypotheses in this study. The relationship between supervisees with mental health needs and depressive symptoms support hypothesis 1, which states that the number of supervisees with mental health needs on PPOs’ caseloads is associated with greater depressive symptoms. Furthermore, the bivariate associations between supervisees with mental health needs, depressive symptoms, and work stress support the second hypothesis, which states that work stress mediates the relationship between the number of supervisees with mental health needs on PPOs’ caseloads and depressive symptoms. The bivariate associations between supervisees with mental health needs, work stress, role conflict, and role overload provide support for hypotheses 3 and 4 stating that role conflict and overload mediate the relationship between the number of supervisees with mental health

needs on PPOs' caseloads and work stress. In addition, the relationship between supervisees with mental health needs and PPOs' expectations for supervisee success demonstrates initial support for hypothesis 5, which states that the number of supervisees with mental health needs on PPOs' caseloads is associated with lower expectations for supervisee success. Finally, the bivariate associations between supervisees with mental health needs, PPOs expectations for supervisee success, and PPO depressive symptoms is related to hypothesis 6, which states that depressive symptoms moderate the relationship between the number of supervisees with mental health needs on PPOs' caseloads and PPOs' expectations for supervisee success.

Table 1. Descriptive Statistics

| Variable  | % (N) | Mean (S.D.)   |
|---|-------|---------------|
| <i># of Supervisees with Serious Mental Illness (SMI)<sup>1</sup></i> |       | 13.89 (14.15) |
| <i>Depressive Symptoms<sup>2</sup></i>                                |       | 1.83 (.58)    |
| <i>Work Stress<sup>3</sup></i>  |       | 2.70 (.51)    |
| <i>Role Conflict<sup>4</sup></i>                                      |       | 2.59 (.51)    |
| <i>Role Overload<sup>5</sup></i>                                      |       | 3.05 (.53)    |
| <i>Expectations for Supervisee Success<sup>6</sup></i>                |       | 2.81 (1.18)   |
| <i>Gender</i>   |       |               |
|   | Women | 53.2 (422)    |
|   | Men   | 46.8 (371)    |
| <i>Race</i>   |       |               |
|   | White | 65.1 (516)    |
|   | Black | 34.9 (277)    |
| <i>Job Tenure<sup>7</sup></i>   |       | 10.79 (6.987) |

*Notes.* N=793. <sup>1</sup>Range = 1-110; Represents the number of people on an officer's caseload that have been diagnosed or the officer suspects having psychological problems; Only includes officers that reported 1 or more clients on their caseload with mental health problems. <sup>2</sup>Range = 1-4; Adapted from CES-D (Radloff, 1997). <sup>3</sup>Range = 1-4; Condensed version of Wheaton's (1991, 1994) chronic stress scale. <sup>4</sup>Range = 1.13-4.00; <sup>5</sup>Range = 1.43-4.00; <sup>4,5</sup>Adapted from Glisson (1994) and Glisson & Hemmelgarn (1998) organizational climate measures. <sup>6</sup>Range = 1-5 with higher values representing greater PPO expectations for supervisee success; <sup>7</sup>Range = 0-32 (years in corrections).

Table 2. Correlation Matrix

|  | (1)      | (2)      | (3)     | (4)     | (5)     | (6)  | (7) |
|--|----------|----------|---------|---------|---------|------|-----|
| (1) Depressive Symptoms                                | -        |          |         |         |         |      |     |
| (2) # of Supervisees with Serious Mental Illness (SMI) | .107**   | -        |         |         |         |      |     |
| (3) Work Stress  | .555***  | .075*    | -       |         |         |      |     |
| (4) Role Conflict                                      | .509***  | .119***  | .567*** | -       |         |      |     |
| (5) Role Overload                                      | .443***  | .179***  | .543*** | .592*** | -       |      |     |
| (6) Expectations for Supervisee Success                | -.183*** | -.161*** | .184*** | .167*** | .222*** | -    |     |
| (7) Job Tenure   | .090*    | -.043    | .083*   | .103*   | .091**  | .005 | -   |

N=793.

\*p &lt; .05, p &lt; \*\*.01, p &lt; \*\*\*.001

### 4.3 Probation/Parole Officer Mental Health

Table 3 displays the regression of PPOs' mental health on the key study variables for hypotheses 1 and 2 (standardized OLS regression coefficients shown). Results in Model 1 indicate that more supervisees with mental health needs on an officer's caseload are associated with greater depressive symptoms among PPOs ( $\beta=.107$ ,  $s.e.=.001$ ,  $p=.002$ ). One standard deviation increase in the number of supervisees with mental health needs is associated with a .107 standard deviation increase in PPOs' depressive symptoms. Also shown in Model 2, the increased risk for depressive symptoms associated with having more supervisees with mental health needs on an officer's caseload ( $\beta=.112$ ,  $p=.002$ ) is independent of all control variables—gender, race, and job tenure. Therefore, Models 1 and 2 support hypothesis 1, which states that the number of supervisees with mental health needs on an officer's caseload is associated with greater depressive symptoms.

Next, Model 3 tests whether the association between the number of supervisees with SMI and officers' mental health is mediated by work stress. Specifically, this model assesses whether there is a significant reduction in the relationship between the number of supervisees with mental health needs and depressive symptoms after controlling for work stress. Work stress is significantly associated with increased risk for depressive symptoms among PPOs ( $\beta=.547$ ,  $p=.000$ ). Comparing Models 2 and 3, results indicate that work stress explains approximately 38 percent of the relationship between the number of supervisees with mental health needs and officers' mental health ( $1-[\beta_2/\beta_3]=.38$ ). To assess whether this is a statistically significant reduction in the coefficient for the number of supervisees with mental health needs, formal mediation analysis was conducted using a Sobel test (Sobel 1982). The Sobel test confirmed that the link between the number of supervisees with mental health needs and PPO depressive



symptoms is significantly mediated by work stress (Sobel test  $z = 2.96, p = .003$ ). As a result, Model 3 supports hypothesis 2, which states that work stress mediates the association between the number of supervisees with mental health needs on an officer's caseload and depressive symptoms. Thus, one way that supervising persons with mental health needs increases risk for depressive symptoms among PPOs is through increased work stress.

In addition to mediating the relationship between the number of supervisees with mental health needs and PPO depressive symptoms, a substantial proportion of the variability explained in officer mental health is due to work stress ( $R^2=.316$ ). These findings underscore not only the importance of work stress for the relationship between the number of supervisees with mental health needs on officers' caseloads and PPOs' depressive symptoms but also for identifying factors that contribute to work stress.

*Table 3. PPO Depressive Symptoms Regressed on Study Variables*

|  | (1)                   | (2)                   | (3)                   |
|--|-----------------------|-----------------------|-----------------------|
| # of Supervisees with Serious Mental Illness | .107 (.001)**         | .112 (.001)**         | .070(.001)*           |
| Job Tenure                                   | -                     | .095 (.003)           | .047                  |
| Women (Men = ref.)                           | -                     | .025 (.041)           | -.003 (.035)          |
| White (Black = ref.)                         | -                     | .029 (.043)           | .040 (.036)           |
| Work Stress                                  | -                     | -                     | .547 (.034)***        |
|  | R <sup>2</sup> = .011 | R <sup>2</sup> = .022 | R <sup>2</sup> = .316 |

*Notes.* N=793. Standardized OLS regression coefficients with standard errors in ( ).

\*p < .05, p < \*\*.01, p < \*\*\*.001

Table 4. Work Stress Regressed on Study Variables

|  | (1)                   | (2)                   | (3)                   | (4)                   | (5)                   |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| # of Supervisees with Serious Mental Illness | .075 (.001)*          | .077 (.001)*          | .009 (.001)           | -.021 (.001)          | -.027 (.001)          |
| Job Tenure                                   | -                     | .088 (.003)*          | .026 (.002)           | .034 (.002)           | .014 (.002)           |
| Women (Men = ref.)                           | -                     | .052 (.037)           | .041 (.030)           | .054 (.031)           | .046 (.029)           |
| White (Black = ref.)                         | -                     | -.019 (.038)          | .023 (.032)           | .014 (.032)           | .029 (.030)           |
| Role Conflict                                | -                     | -                     | .564 (.030)***        | -                     | .378 (.035)***        |
| Role Overload                                | -                     | -                     | -                     | .543 (.030)***        | .323 (.034)***        |
|  | R <sup>2</sup> = .006 | R <sup>2</sup> = .016 | R <sup>2</sup> = .324 | R <sup>2</sup> = .298 | R <sup>2</sup> = .390 |

Notes. N=793. Standardized OLS regression coefficients with standard errors in ( ).

\*p < .05, p < \*\*.01, p < \*\*\*.001

#### 4.4 Officer Work Stress

Given the importance of work stress in mediating the relationship between supervising persons with mental health needs and officer psychological well-being and supervisees with mental health needs, as well as the direct effect of work stress for officer mental health, it is important to identify factors that link supervisees with mental health needs and PPOs' work stress. To this end, Table 4 regresses work stress on the number of supervisees with mental health needs as well as two potentially mediating officer-level variables—role conflict and role overload.

Consistent with the correlation matrix, Model 1 of Table 4 reveals that more supervisees with mental health needs on an officer's caseload are associated with work stress among PPOs ( $\beta=.075$ ,  $s.e.=.001$ ,  $p=.035$ ). For one standard deviation increase in the number of supervisees with mental health needs, there is a .075 standard deviation increase in PPOs' work stress. Shown in Model 2, the increased risk for work stress stemming from having more clients with SMI on an officer's caseload ( $\beta=.077$ ,  $p=.029$ ) is independent of all control variables—gender, race, and job tenure.

Models 3 and 4 of Table 4 assess whether the association between the number of supervisees with mental health needs on an officer's caseload and work stress is mediated by role conflict and/or role overload. In other words, these models examine whether the strength of the relationship between the number of supervisees with mental health needs on an officer's caseload and work stress is significantly reduced by controlling for role conflict and role overload. Role conflict ( $\beta=.564$ ,  $p=.000$ ) and role overload ( $\beta=.543$ ,  $p=.000$ ) are both significantly associated with increased risk for work stress among PPOs, while the number of supervisees with mental health needs on their caseloads is no longer significant. Therefore,

Models 1 and 2 support hypotheses 3 and 4, which state that role conflict and role overload mediate the relationship between the number of supervisees with mental health needs on an officer's caseload and work stress.

Comparing Models 2 and 3, results indicate that role conflict explains approximately 88 percent of the relationship between the number of supervisees with mental health needs and officers' work stress ( $1 - [.009/.077]$ ). Furthermore, a comparison of Models 2 and 4 reveals that role overload explains approximately 73 percent of the relationship between the number of supervisees with mental health needs and work stress among officers ( $1 - [.021/.077]$ ). To assess whether the reductions in the coefficient for the number of supervisees with mental health needs are significant, formal mediation analyses were conducted using a Sobel test (Sobel, 1982). The Sobel test confirmed that the link between the number of supervisees with mental health needs and PPO work stress is significantly mediated by role conflict (Sobel test  $z=3.91, p=.000$ ) and role overload (Sobel test  $z=6.53, p=.000$ ).

Model 5 includes both mediating variables and the significant independent associations remain. According to the standardized regression coefficients ( $\beta$ ), which indicate the strength of associations (Warner, 2013), role conflict ( $\beta=.378, p=.000$ ) has a slightly stronger association with work stress for officers assisting clients with mental health needs than role overload ( $\beta=.323, p=.000$ ). In addition to mediating the relationship between the number of supervisees with mental health needs on PPOs' caseloads and work stress, a substantial proportion of the variability explained in officer work stress is due to role conflict and role overload ( $R^2=.39$ ). This highlights the importance of role conflict and overload in the link between work stress and supervising persons with mental health needs, as well as the direct effect that role conflict and overload have on work stress.

#### 4.5 Expectations for Supervisee Success

Shown in Table 5, PPOs' expectations for the success of supervisees with mental health needs are regressed on the key study variables to test hypotheses 5 and 6, which state that the number of supervisees with mental health needs on PPOs' caseloads is associated with lower expectations for supervisee success and depressive symptoms moderates the relationship, respectively. The moderation analysis assesses whether the association between the number of supervisees with mental health needs on officers' caseloads and PPO expectations for supervisee success is stronger for officers with more depressive symptoms.

The results of Model 1 indicate that having more supervisees with mental health needs is associated with lower expectations for supervisee success ( $\beta = -.161$ ,  $s.e. = .006$ ,  $p = .000$ ). One standard deviation increase in the number of supervisees with mental health needs is associated with a .161 standard deviation decrease in PPOs' expectations for the success of supervisees with SMI. Shown in Model 2, the decreased expectations for supervisees' success associated with having more clients with SMI on an officer's caseload ( $\beta = -.161$ ,  $p = .000$ ) is independent of all control variables—gender, race, and job tenure. Therefore, Models 1 and 2 support hypothesis 5, which states that the number of supervisees with mental health needs on PPOs' caseloads is associated with lower expectations for supervisee success.

Depressive symptoms among PPOs is introduced in Model 3, where results indicate that higher levels of depressive symptoms are associated with lower expectations for supervisee success ( $\beta = -.170$ ,  $p = .000$ ). Although the number of supervisees with mental health needs remains significantly associated with expectations for supervisee success ( $\beta = -.142$ ,  $p = .000$ ), there is a reduction (12%) in the original relationship ( $1 - [-.142 / -.161] = .12$ ). Mediation analysis indicates that the reduction in the association between the number of supervisees with mental

health needs and officers' expectations for supervisee success after including depressive symptoms among PPOs was significant (Sobel test  $z=3.075$ ,  $p=.002$ ).

In order to assess whether depressive symptoms moderate the relationship between the number of supervisees with mental health needs on PPOs' caseloads and PPOs' expectations for supervisee success (hypothesis 6), Model 4 introduces an interaction term between supervisees with mental health needs and PPO depressive symptoms predicting expectations for supervisee success. Results indicate that the interaction term is not significant ( $\beta=-.167$ ,  $p=.196$ ), which signifies that the direction and/or the magnitude of the relationship between the number of supervisees with mental health needs on officers' caseloads and PPOs' expectations for supervisee success does vary at different levels of officer depressive symptoms.

#### **4.6 Work-Units**

In order to evaluate whether the relationships found in this study are not working at the organizational level, rather than the individual officer level, a hierarchical linear modeling analysis (HLM) was conducted to assess the variation of PPOs' depressive symptoms across work units. The rationale for this analysis was to address intraclass correlation (ICC). The ICC refers to the proportion of variance in depressive symptoms among PPOs that is explained by the clustering structure of the hierarchical model (Luke, 2004). According to the unconditional model, the ICC was .012 and there was no significant association between work-units and depressive symptoms among officers. Therefore, which unit an officer works accounts for approximately 1.2 percent of the total variation in depressive symptoms among PPOs. When the main independent variable was included, the number of supervisees with mental health needs on officers' caseloads, the ICC was even smaller (.009). Therefore, less than 1 percent of the variation in depressive symptoms when controlling for the number of supervisees with mental

health needs on officers' caseloads can be explained by the work-unit of officers. These results indicate that the relationship between officer mental health and supervising persons with mental health needs does not significantly vary at the local organizational level (or work unit).

*Table 5. Expectations for Success Regressed on Study Variables*

|  | (1)                   | (2)                   | (3)                   | (4)                   |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| # of Supervisees with Serious Mental Illness             | -.161 (.006)***       | -.161 (.006)***       | -.142 (.006)***       | .008 (.020)           |
| Job Tenure   | -                     | -.001 (.012)          | .015 (.012)           | .015 (.012)           |
| Women (Men = ref.)                                       | -                     | .022 (.167)           | .026 (.165)           | .025 (.165)           |
| White (Black = ref.)                                     | -                     | .003 (.175)           | .008 (.173)           | .007 (.173)           |
| Depressive Symptoms                                      | -                     | -                     | -.170 (.142)***       | -.126 (.197)**        |
| # of Supervisees w/ SMI*Depressive Symptoms <sup>1</sup> | -                     | -                     | -                     | -.167 (.010)          |
|  | R <sup>2</sup> = .026 | R <sup>2</sup> = .026 | R <sup>2</sup> = .055 | R <sup>2</sup> = .057 |

*Notes.* N=793. Standardized OLS regression coefficients with standard errors in ( ). <sup>1</sup>Interaction term of # of supervisees with serious mental illness (SMI) and depressive symptoms.

\*p < .05, p < \*\*.01, p < \*\*\*.001



## 5 DISCUSSION

Poor psychological well-being is not only potentially detrimental to the personal lives of officers but may also have negative consequences for the quality of their work and supervisees' success. Considerable attention has been given to bureaucratic and organizational influences of PPOs' well-being (Finn & Kuck, 2005; Lutze, 2014; West & Seiter, 2004; Whitehead & Lindquist, 1985) and the supervision experiences of persons with SMI (Babchuk et al., 2012; Crilly et al., 2009; Draine et al., 2002; James & Glaze, 2006; Silver et al., 2002; Lurigio et al., 2012). However, there has been little discussion regarding PPO depressive symptoms stemming from supervising persons with mental health needs (see Gayman, Powell, & Bradley, 2017) or whether officer mental health is associated with their expectations for supervisee success. To the extent that these relationships exist, in addition to officer well-being, there may be important policy and practical implications for supervisee outcomes, general public safety, and parole/probation financial costs. This study is also important because it contributes to the scholarly literature on the sociological theories of Stress-Process, Organizational Climate, and the Cognitive Model of Depression.

Given the potential costs associated with poor mental health for officers (e.g., absenteeism, diminished performance, poor decision making) (Charbonneau et al., 2005; Kessler et al., 2008; Lerner et al., 2010; Leopold, 2001; Stewart et al., 2003), it is critical for organizations to understand factors that contribute to officer psychological well-being. PPOs' large caseloads are increasingly comprised of people with special needs, such as mental health treatment and related services (DeMichele & Payne, 2007; Taxman, Shepardson, & Byrne, 2004). Even though specialized criminal justice programs aimed at assisting and/or diverting people with SMI are becoming increasingly prevalent (Skeem, Emke-Francis, & Eno Louden,

2006; Epperson, Canada, & Lurigio, 2013), most probationers and parolees with mental health needs are still supervised in non-specialized settings (Wolff & Pogorzelski, 2005). Consequently, the interplay between supervisees with SMI and PPOs' mental health is worthy of attention for all officers rather than only those working specialized caseloads.

Scholars have recently identified the challenges (e.g., treatment access, financial resources, social support, etc.) and resulting job difficulties officers face when assisting clients with mental health needs (Epperson et al., 2014; Van Deirse et al., 2017). Recent research on the association between supervisees with SMI and officer well-being shows a link between supervisees with SMI, emotional exhaustion, and PPO mental health (Gayman, Powell, & Bradley, 2017). This study extends previous research by assessing whether the number of supervisees with SMI on an officer's caseload is associated with officer depressive symptoms. The findings demonstrate that officers with more supervisees with SMI significantly increases depressive symptoms, underscoring the psychological toll of working with persons with SMI. Given the personal and work-related consequences associated with poor mental health (Charbonneau et al., 2005; Kessler et al., 2008; Lerner et al., 2010; Leopold, 2001; Stewart et al., 2003), these findings highlight the importance of addressing issues related to working with persons with SMI, as well as identifying factors that may contribute to the link between supervising persons with SMI and officer mental health.

The propensity for experiencing job stress as a community supervision officer has been well established and generally credited to administrative tasks. Indeed, unrealistic deadlines and excessive paperwork are two of the most often reported stressors for PPOs (Finn & Kuck, 2005; Lutze, 2014; Slate, Wells, & Johnson, 2003; Whitehead, 1985). However, minimal research on PPOs has examined the mental health consequences of accumulating work stress (see Gayman &

Bradley, 2013) or has identified sources of work stress more related to the core component of PPOs' work (i.e., interacting with supervisees). The second question this study addressed was whether work stress mediates the relationship between the number of supervisees with mental health needs on PPOs' caseloads and depressive symptoms. Findings revealed that officers' level of work stress explains a significant proportion of the association between the number of supervisees with SMI on an officer's caseload and officer mental health. Consistent with Stress Process research, which states that prolonged exposure to stress may lead to depressive symptoms (Pearlin, 1989; Thoits, 2010; White, 1997), this study emphasizes the risk of mental health problems for officers experiencing work stress and illustrates the potential for job stress to stem from PPO-Supervisee relationships, specifically when supervisees have mental health needs. In order to mitigate job stress, as well as subsequent mental health problems, it is important to identify factors that contribute to the link between supervisees with SMI and officer work stress.

Previous research has identified the potential risk for mental health problems among officers supervising people with SMI and revealed emotional exhaustion as a possible explanation (Gayman, Powell, & Bradley, 2017). Yet, despite their best efforts, Gayman and colleagues (2017) were unable to provide practitioners with specific areas to target for intervention. According to their study, neither officer training nor supervisee services mitigate the relationship between the number of supervisees on officers' caseloads and depressive symptoms among PPOs (Gayman, Powell, & Bradley, 2017). Therefore, this study builds on previous research by investigating whether role conflict and role overload mediate the relationship between the number of supervisees with mental health needs on PPOs' caseloads and work stress. The findings demonstrate that role conflict and role overload largely explain

how officers supervising people with SMI accumulate job stress, which leads to depressive symptoms. Thus, an upstream approach to addressing officer mental health should recognize and include role conflict and role overload as potential sources of work stress and subsequent depressive symptoms for officers assisting clients with mental health needs. Prevention and intervention efforts aiming to alleviate poor mental health for officers should implement policies and procedures that minimize the conflict and overload associated with working with persons with SMI.

Finally, this study asked whether the number of supervisees with mental health needs on PPOs' caseloads is associated with lower expectations for supervisee success. Findings showed that officers' expectations for the success of supervisees with SMI were lower for officers supervising more people with SMI. Research in other human service fields demonstrates a link between practitioner expectations and client success. For instance, psychotherapists' expectations have been linked to improved treatment outcomes for their clients (Connor & Callahan, 2015). Although the relationship between officer well-being and objectively measured supervisee outcomes is beyond the scope of this study, this project provides a first step toward this effort. Given that PPOs' attempts to assist people in avoiding future involvement with the criminal justice system are often unsuccessful when clients have mental health needs (Cloyes, Wong, Latimer, & Abarca, 2010; Ostermann & Matejkowski, 2014; Porporino & Motiuk, 1995; Skeem & Eno Loudon, 2006), accounting for the expectations of officers may broaden our understanding of supervision experiences for persons with mental health needs.

According to evidence-based practices (EBP), reducing recidivism requires addressing supervisees' individual needs (Andrews & Bonta, 2010; Robinson, Lowenkamp, Holsinger, VanBenschoten, Alexander, & Oleson, 2012; Taxman, Shepardson, & Byrne, 2004) and

addressing the needs of people with SMI involves attending to many aspects of one's life (Furman & Jackson, 2002; Rosenblatt & Atkisson, 1993). Yet, undergoing psychological distress may prevent PPOs from effectively implementing such practices (Lowenkamp, Holsinger, Robinson, & Cullen, 2012; Lewis, Lewis, & Garby, 2013; Lutze, 2014; Salyers et al., 2015; White et al., 2015). To this end, this project provides an important step toward better understanding officers' mental health and perceptions of supervisees' outcomes when assisting clients with SMI by assessing whether depressive symptoms moderate the relationship between the number of supervisees with mental health needs on PPOs' caseloads and PPOs' expectations for supervisee success. It was argued that the link between more supervisees with SMI on an officer's caseload and lower officer expectations for supervisee successes would be stronger for officers experiencing worse mental health. Findings were unable to support the conditional effect of depressive symptoms. However, consistent with the Cognitive Model of Depression, this project did reveal that officer mental health is related to PPOs' expectations for the success of clients with mental health needs. Specifically, depressive symptoms significantly mediated the relationship between the number of persons with mental health needs on PPOs' caseloads and PPOs' expectations for the success of supervisees with SMI.

These findings provide practical implications for the field of community supervision. First, the results of this study highlight the importance for decision makers to understand the potential mental health problems stemming from assigning too many persons with SMI to officers' caseloads. Given the prevalence of persons with SMI under community supervision, this factor is relevant for all officers rather than only those supervising specialized caseloads. Additionally, this study identifies the number of supervisees with SMI as a potential source of work stress and subsequent mental health problems for officers. Although the stressful careers of

PPOs have been well demonstrated (Tabor, 1987; Simmons, Cochran, & Blount, 1997; Finn & Kuck, 2005; Lutze, 2014), these results provide the first evidence for work stress and subsequent mental health problems arising from the number of supervisees with SMI on officers' caseloads. Furthermore, the findings of this study reveal role conflict and overload as potential target areas for prevention and intervention efforts. Therefore, to the extent that community supervision agencies wish to mitigate mental health problems among PPOs supervising persons with SMI, it is imperative to explore ways of reducing role conflict and role overload for officers.

Additionally, this study provides an important step toward understanding the possible toll that increased PPO depressive symptoms has on officer-supervisee relationships. Indeed, findings revealed that higher depressive symptoms among PPOs results in lower expectations for the success of supervisees with SMI. Given that other fields demonstrate a correlation between practitioner expectations and client outcomes, these lower expectations may have a detrimental impact on the supervision experience of persons with mental health needs and their success in completing parole/probation terms.

By highlighting the potential impact of supervising persons with SMI on officers' psychological well-being and expectations for supervisee success, this study provides useful information to practitioners, policy makers, and agency heads in the fields of probation and parole. Moreover, on an even broader level, these findings offer insight into the criminal justice system's (in)ability to sustain meaningful improvement in the lives of persons with mental health needs (DeMatteo, LaDuke, Locklair, & Heilbrun, 2013) and support some scholars' claims that policy reform efforts should be focused on creating non-punitive treatment options for supervisees with serious mental illness rather than primarily implementing treatment programs within the criminal justice system (Vitale, 2017).

## 5.1 Limits and Future Directions

To guide further research on this topic, it is necessary to identify and address the limitations of this investigation. First, the data was collected in 2009 and criminal justice reform has been a primary focus among many state and federal legislation since this time. Indeed, particular attention has been devoted to probation and parole practices (Executive Sessions on Community Corrections, 2017; Georgia Council on Criminal Justice Reform, 2017). The continued research of this topic will provide more recent data, which will better illustrate the current community supervision environment.

Second, the sample was derived from only one state's community supervision agency. Therefore, generalizability to other organizations is extremely limited. However, given that policies and procedures of community supervision agencies vary greatly across states, the issue of generalizability may be less important than a localized understanding of policies and practices, and their influence on officers' work experiences and mental health. In this vein, research comparing states with different policies and practices may help shed light on factors that contribute to officers' work experiences and mental health.

Third, because this study utilizes cross-sectional data, this study cannot make inferences regarding the temporality between study variables. For instance, this project cannot rule out whether an officer's negative attitudes towards supervisees' ability to successfully complete probation or parole leads to increased officer depression. However, considering the literature on the Cognitive Model of Depression, this project is confident this relationship develops, at least in part, as conceptualized with depressive symptoms leading to pessimistic bias among PPOs. Longitudinal research accounting for the temporal order between these variables is an important next step.

Finally, all study variables in this data set are confined to the subjective experiences of officers. This is an important limitation because officers' self-reports of psychological well-being may influence their perceptions regarding the mental health needs of supervisees as well as their expectations for the success of supervisees with SMI. Future research should include additional data sources, such as official diagnoses of mental illness and/or survey data from supervisees, which is nested within their assigned officer to provide a more complete depiction of the relationship.

## **5.2 Conclusion**

Considering the significant overrepresentation of people with mental health needs under community supervision in the U.S. and the tendency for these supervisees to be disproportionately rearrested (Cloyes et al., 2010; Ostermann & Matejkowski, 2014; Porporino & Motiuk, 1995; Skeem & Eno Loudon, 2006), it is imperative for probation and parole agencies to learn how to better serve this population. This is not a new discovery as many studies have illustrated the supervision experience for individuals with SMI (Babchuk et al., 2012; Draine et al., 2002; Epperson et al., 2014; Lurigio et al., 2012). However, few studies (see Gayman, Powell, & Bradley, 2017) have examined the other side of the relationship. Specifically, this study investigated the psychological well-being and subsequent attitudes of officers supervising people with mental health needs. This project revealed that supervising people with SMI can have negative consequences for PPOs' mental health and that this is partly explained by officers' work stress. The extent that work stress leads to depressive symptoms among PPOs is largely due to the presence of role conflict and role overload for officers assisting clients with mental health needs. In addition, this project highlighted the potential negative impact that experiencing psychological problems stemming from supervising people with SMI may have on officers'



expectations for supervisee success. Findings demonstrated a decrease in officers' expectations for the success of clients with SMI as the number of supervisees with SMI on their caseloads increased. In addition, this study revealed a significantly inverse relationship between depressive symptoms and the expectations for client success among officers supervising at least one person with mental illness on their caseload. These findings identify areas for community supervision agencies to address in order to better serve officers and supervisees with SMI.

## REFERENCES

- Allard, T. J., Wortley, R. K., & Stewart, A. L. (2003). Role conflict in community corrections. *Psychology, Crime & Law, 9*(3), 279–89.
- Allison, P. D. (1995). *Multiple regression: A primer*. Thousand Oaks, CA: Sage Publishing.
- Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct* (5th ed.). New Providence, NJ: LexisNexis Matthew Bender.
- Angermeyer, M. C., & Matschinger, H. (1995). Violent attacks on public figures by persons suffering from psychiatric disorders: Their effects on the social distance towards the mentally ill. *European Archives of Psychiatry and Clinical Neuroscience, 245*, 159-164.
- Anson, R., & Bloom, M. E. (1988). Police stress in an occupational context. *Journal of Police Science and Administration, 16*(4), 229-235.
- Armon, G. (2009). Do burnout and insomnia predict each other's levels of change over time independently of the job demand control-support (JDC-S) model. *Stress and Health, 25*, 333-342.
- Babchuk, L. C., Lurigio, A. J., Canada, K. E., & Epperson, M. W. (2012). Responding to probationers with mental illness. *Federal Probation, 76*(2), 41-48.
- Blair, R. B., Black, C. M., & Long, H. J. (1981). The state correctional officer as keeper and counselor: An empirical investigation of the role. *Journal of Sociology and Social Welfare, 8*:875-98.
- Blasko, B. L., Friedmann, P. D., Rhodes, A. G., & Taxman, F. S. (2015). The Parolee-parole officer relationship as a mediator of criminal justice outcomes. *Criminal Justice and Behavior, 42*(7), 722-740.

Bonta, J., Law, M., & Hanson, K. (1998). The prediction of criminal and violent recidivism among mentally disordered offenders: A meta-analysis. *Psychological Bulletin* 123(2), 123–42.

Bonta, J., Rugge, T., Scott, T., Bourgon, G., & Yessine, A. K. (2008). Exploring the black box of community supervision. *Journal of Offender Rehabilitation*, 47(3), 248–70.

Bradley-Engen, Mindy S., Cuddeback, G.S., Gayman, M. D., Morrissey, J. P., & Mancuso, D. (2010). Trends in state prison admission of offenders with serious mental illness. *Psychiatric Services*, 61(12), 1263–65

Byrne, D. G., & Espnes, G. A. (2008). Occupational stress and cardiovascular disease. *Stress and Health*, 24, 231-238.

Buetler, P. D., Nussbaum, P. D., & Meredith, K. E. (1998). Changing personality of police officers. *Professional Psychology: Research and Practice*, 19(5), 503-507.

Carter, M. M., & Sankovitz, R. J. (2014). *Dosage probation: Rethinking the structure of probation sentences*. Silver Spring, MD: Center for Effective Public Policy.

Castonguay, L. G., Constantino, M. J., & Holtforth, M. G. (2006). The working alliance: Where are we and where should we go? *Psychotherapy: Theory, Research, Practice, Training*, 43, 271-279.

Charbonneau, A., Bruning, W., Titus-Howard, T., Ellerbeck, E., Whittle, J., Hall, S., Campbell, J., Lewis, S. C., & Munro, S. (2005). The community initiative on depression: Report from a multiphase work site depression intervention. *Journal of Occupational and Environmental Medicine*, 47, 60-67.

Clark, M. D., Walters, S., Gingerich, R., & Meltzer, M. (2006). Motivational interviewing for probation officers: Tipping the balance toward change. *Federal Probation*, 70(1), 38–44.

Cloyes, K. G., Wong, B., Latimer, S., & Abarca, J. (2010). Time to prison return for offenders with serious mental illness released from prison a survival analysis. *Criminal Justice and Behavior*, 37(2), 175–87.

Collins, S., Coffey, M., & Cowe, F. (2009). Stress, support and well-being as perceived by probation trainees. *Probation Journal*, 56(3), 238-256.

Corrigan, P. W. & Cooper, A. E. (2005). Mental illness and dangerousness: Fact or misperception, and implications for stigma. In P. W. Corrigan (Ed.), *On the stigma of mental illness: Practical strategies for research on social change* (pp. 165-179). Washington, DC: American Psychological Association.

Crane, D., & Hill, E. (2009). *Handbook of families and work: Interdisciplinary perspectives*. New York, NY: University Press of America.

Crilly, J. F., Caine, E. D., Lamberti, J. S., Brown, T., & Friedman, B. (2009). Mental health services use and symptom prevalence in a cohort of adults on probation. *Psychiatric Services*, 60(4), 542-544.

Deering, J. (2010). Attitudes and beliefs of trainee probation officers: A 'new breed'? *Probation Journal*, 57(1), 9-26.

DeMatteo, D., LaDuke, C., Locklair, B. R., & Heilbrun, K. (2013). Community-based alternatives for justice-involved individuals with severe mental illness: Diversion, problem-solving courts, and reentry. *Journal of Criminal Justice*, 41, 64-71.

DeMichele, M. T. (2007). *Probation and Parole's Growing Caseloads and Workload Allocation: Strategies for Managerial Decision Making*. Lexington, KY: The American Probation & Parole Association.

DeMichele, M., & Payne, B. K. (2007). Probation and parole officers speak out -- caseload and workload allocation. *Federal Probation Journal*, 71, 30-35.

Dignam, J. T., Barrera, M., Jr., & West, S. G. (1986). Occupational stress, social support, and burnout among correctional officers. *American Journal of Community Psychology* 14: 177-93.

Ditton, P. M. (1999). *Mental health and the treatment of inmates and probationers* (NCJ 174463). Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

Draine, J., Salzer, M. S., Culhane, D. P., Hadley, T. R. (2002). Role of social disadvantage in crime, joblessness, and homelessness among persons with serious mental illness. *Psychiatric Services*, 53(5), 565-573.

Eckenrode, J., & Gore, S. (1990). *Stress between work and family*. New York, NY: Plenum Press.

Eno Louden, J., Skeem, J., Camp, J., & Christensen, E. (2008). Supervising probationers with mental disorder: How do agencies respond to violations? *Criminal Justice and Behavior*, 35, 832– 847.

Eno Louden, J. & Skeem, J. L. (2013). How do probation officers assess and manage recidivism and violence risk for probationers with mental disorder? An Experimental investigation. *Law and Human Behavior*, 37(1), 22-34.

Eno Louden, J., Skeem, J. L., Camp, J., Vidal, S., & Peterson, J. (2012). Supervision practices in speciality mental health probation: What happens in officer-probationer meetings? *Law and Human Behavior, 36*(2), 109-119.

Epperson, M. W., Canada, K. E., & Lurigio, A. J. (2013). Mental health court: One approach for addressing the problems of persons with serious mental illnesses in the criminal justice system. In J. B. Helfgott (ED.), *Criminal Psychology*. Westport, CT: Praeger Publishers.

Epperson, M. W., Canada, K., Thompson, J., & Lurigio, A. (2014). Walking the line: Specialized and standard probation officer perspectives on supervising probationers with serious mental illnesses. *International Journal of Law and Psychiatry, 37*(5), 473–83.

Ertem, M., & Duman, Z. C. (2016). Motivational interviewing in a patient with schizophrenia to achieve treatment collaboration: A case study. *Archives of Psychiatric Nursing, 30*, 150-154.

Evans, S. Huxley, P., Gately, C., Webber, M., Mears, A., Pajak, S., Medina, J., Kendall, T., & Katona, C. (2006). Mental health, burnout and job satisfaction among mental health social workers in England and Wales. *British Journal of Psychiatry, 188*, 75-80.

Executive Session on Community Corrections. *Toward an Approach to Community Corrections for the 21st Century: Consensus Document of the Executive Session on Community Corrections*. Program in Criminal Justice Policy and Management, Harvard Kennedy School, 2017.

Farrell, R. S., & Turpin, G. (2003). Vicarious traumatization: implications for the mental health of health workers? *Clinical Psychology Review, 23*(3), 449–480.

Fazel, S., & Danesh, J. (2002). Serious mental disorder in 23,000 prisoners: A systematic review of 62 surveys. *The Lancet, 359*, 545–50.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Thousand Oaks, CA: Sage Publishing.

Figley, C. R. (1995). Compassion fatigue as secondary traumatic stress disorder: An overview. In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 1-20). New York: Brunner/Mazel.

Finn, P. & Kuck, S. (2005). Stress among probation and parole officers and what can be done about it. Retrieved 3/30/17. <http://www.ojp.usdoj.gov/nij>.

Fisher, P. M. (2003). *Workplace stress & trauma in policing: Sources, outcomes & implications*. A review document prepared for the Canadian Professional Police Association (CPPA) Annual General Meeting, Edmonton, Alberta.

Fitzgibbon, W., Hamilton, C., & Richardson, M. (2010). A risky business: An examination of Irish probation officers' attitudes towards risk assessment. *Probation Journal: The Journal of Community and Criminal Justice*, 57(2), 163-174.

Fry, R. (2008). Why evidence-based practices are important (or please pass the leeches). *Offender Programs Report*, 11(5), 65-77.

Fulton, B., Stichman, A., Travis, L., & Latessa, E. (1997). Moderating probation and parole officer attitudes to achieve desired outcomes. *The Prison Journal*, 77, 295-312.

Furman, R. & Jackson, R. (2002). Wrap-around services: An analysis of community-based mental health services for children. *Journal Of Child And Adolescent Psychiatric Nursing: Official Publication Of The Association Of Child And Adolescent Psychiatric Nurses, Inc.*, 15(3), 124-31.

Ganster, D. C., & Schaubroeck, J. (1991). Work stress and employee health. *Journal of Management*, 17, 235-271.

Gayman, M. D. & Bradley, M. S. (2013). Organizational climate, work stress, and depressive symptoms among probation and parole officers. *Criminal Justice Studies*, 26(3), 326–46.

Gayman, M. D., Powell, N. K., & Bradley, M. S. (2017). Probation/parole officer psychological well-being: The impact of supervising persons with mental health needs. *American Journal of Criminal Justice*. doi: 10.1007/s12103-017-9422-6.

Georgia Council on Criminal Justice Reform. (2017). *Report of the Georgia Council on Criminal Justice Reform*. Atlanta: Georgia Council on Criminal Justice Reform.

Gershon, R. R. M., Barocas, B., Canton, A. N., Li, X., & Vlahov, D. (2009). Mental, physical, and behavioral outcomes associated with perceived work stress in police officers. *Criminal Justice and Behavior*, 36, 275-289.

Ghaddar, A., Mateo, I., & Sanchez, P. (2008). Occupational stress and mental health among correctional officers. A cross-sectional study. *Journal of Occupational Health*, 50, 92-98.

Gilmartin, K. M. (2002). *Emotional survival for law enforcement: A Guide for officers and their families*. Tucson: E-S Press.

Glisson, C. (1994). The effect of services coordination teams on outcomes for children in state custody. *Administration in Social Work*, 18, 1-23.

Glisson, C. & Hemmelgarn, A. (1998). The effects of organizational climate and interorganizational coordination on the quality and outcomes of children's service systems. *Child Abuse & Neglect*, 22(5), 401–21.

Green, A., Miller, E., & Aarons, G. (2013). Transformational leadership moderates the relationship between emotional exhaustion and turnover intention among community mental health providers. *Community Mental Health Journal*, 49(4), 373–79.



Hageman, M. J. (1982). Responses of police officers to stress. *Journal of Police Science Administration* 10, 235-43.

Harcourt, B. E. (2006). From the asylum to the prison: Rethinking the incarceration revolution. *Working paper No. 114. University of Chicago Public Law & Legal Theory, Research Paper Series* (Retrieved from [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=881865](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=881865)).

Harper, R., & Hardy, S. (2000). An evaluation of motivational interviewing as a method of intervention with clients in a probation setting. *British Journal of Social Work*, 393-400.

Hartwell, S. (2004). Triple stigma: Persons with mental illness and substance abuse problems in the criminal justice system. *Criminal Justice Policy Review*, 15(1), 84-99.

Hepburn, J. R. & Allonetti, C. (1980). Role conflict in correctional institutions: An empirical examination of the treatment-custody dilemma among correctional staff. *Criminology*, 17, 445-59.

Herman, J. (1992). *Trauma and recovery*. New York: Basic Books.

Hiday, V. A., & Burns, P. J. (2010). Mental illness and the criminal justice system. In T. L. Scheid, & T. N. Brown (Eds.), *A handbook for the study of mental health: Social contexts, theories, and systems* (pp. 478-498) (2nd Ed.). New York, NY: Cambridge University Press.

Holloway, E., Brown, J., Philip, S., & Aalsma, M. (2013). A Qualitative examination of juvenile probation officers as gateway providers to mental health care. *Criminal Justice Policy Review* 24(3), 370-392.

Hsieh, Ming-Li et al. 2015. "Probation Officer Roles: A Statutory Analysis." *Federal Probation* 79(3):20-37.

James, D. J., & Glaze, L. E. (2006). Mental health problems of prison and jail inmates. (Special Report, NCJ 213600). Washington, DC: Government Printing Office, Bureau of Justice Statistics.

Kaeble, D., Maruschak, L. M., & Bonczar, T. P. (2015). *Probation and Parole in the United States, 2014*. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics. <http://www.bjs.gov/content/pub/pdf/ppus14.pdf>.

Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-Month DSM-IV disorders in the National Comorbidity Survey replication. *Archives of General Psychiatry*, *62*, 617-627.

Kessler, R. C., McGonagle, K. A., Shao, S., Nelson, C. B., Hughes, M., Eshleman, S., Wittchen, H. U., & Kendler, K. S. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: Results from the National Comorbidity Survey. *Archives of General Psychiatry*, *51*, 8-19.

Kessler, R., White, L. A., Birnbaum, H., Qiu, T., Kidolezi, Y., Mallett, D., & Swindle, R. (2008). Comparative and interactive effects of depression relative to other health problems on work performance in the workforce of a large employer. *Journal of Occupational and Environmental Medicine*, *50*, 809-816.

Klein, S., & Alexander, D. (2011). The impact of trauma within organisations. In N. Tehrani (Ed.), *Managing trauma in the workplace* (pp. 117-138). New York: Routledge.

Kleinpeter, C., Koob, J.J., & Chambers, R. (2011). Motivational interviewing training for probation officers in California. *International Journal of Learning*, *18*(2), 191-201.

Knight, C. (2007). The re-emergence of the importance of the “relationship” within community and criminal justice practice. *British Journal of Community Justice*, *5*(3), 1-4.

Kroes, N., Hurrell, J., & Margolis, A. (1974). Job stress in police administrators. *Journal of Police Science Administration*, 2, 381-387.

Laningham, D., Taber, M., & Dinitz, R. (1966). How adult probation officers view their job responsibilities. *Crime and Delinquency*, 12, 97-108.

Latessa, E. J., & Smith, P. (2015). *Corrections in the community*. New York, NY: Routledge.

Lee, W., Joo, H., & Johnson, W. W. (2009). The Effect of participatory management on internal stress, overall job satisfaction, and turnover intention among federal probation officers. *Federal Probation*, 73(1), 33-40.

Leopold, R. S. (2001). *A year in the life of a million American workers*. New York, NY: MetLife Disability Group.

Lerner, D., Adler, D. A., Rogers, W. H., Chang, H., Lapitsky, L., McLaughlin, T., & Reed, J. (2010). Work performance of employees with depression: The impact of work stressors. *Health Promotion*, 24(3), 205-213.

Lewis, K. R., Lewis, L. S., & Garby, T. M. (2013). Surviving the trenches: The personal impact of the job on probation officers. *American Journal of Criminal Justice*, 38(1), 67-84.

Lindner, C., & Bonn, R. L. (1996). Probation officer victimization and fieldwork practices: Results of a national study. *Federal Probation*, 60(2), 16-23.

Lindner, C., & Koehler, R. J. (1992). Probation officer victimization: An emerging concern. *Journal of Criminal Justice*, 20(1), 53-62.

Lindquist, C. A., & Whitehead, J. T. (1986). Burnout, job stress and job satisfaction among Southern correctional officers. *Journal of Offender Counseling Services Rehabilitation*, 10, 5-26.

Link, B., G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27, 363–85.

Lipsky, L. V. D., & Burk, C. (2009). *Trauma stewardship: An everyday guide to caring for self while caring for others*. San Francisco: Berrett-Koehler Publishers, Inc.

Lowenkamp, C. T., Holsinger, A. M., Robinson, C. R., & Cullen, F. T. (2012). When a person isn't a data point: Making evidence-based practice work. *Federal Probation*, 76(3), 121-121.

Luke, D. A. (2004). *Multilevel Modeling*. Newbury Park: Sage Publications. ISBN: 0761928790.

Lurigio, A. J., Epperson, M. W., Canada, K. E., & Babchuk, L. C. (2012). Specialized probation programs for people with mental illnesses: A review of practices and research. *Journal of Crime and Justice*, 35(2), 317–26.

Lutze, F. (2014). *Professional lives of community corrections officers: The invisible side of reentry*. Thousand Oaks, CA: Sage Publishing.

Madsen, I., Rugulies, R., & Diderichsen, F. (2014). Does good leadership buffer effects of high emotional demands at work on risk of antidepressant treatment? A Prospective study from two Nordic countries. *Social Psychiatry and Psychiatric Epidemiology* 49(8), 1209-1218.

Markowitz, F. E. (1998). The effects of stigma on the psychological well-being and life satisfaction of persons with mental illness. *Journal of Health and Social Behavior*, 39(4), 335-347.

Markowitz, F. (2011). Mental illness, crime, and violence: Risk, context, and social control. *Aggression and Violent Behavior*, 16, 36-44.

Matthews, J. (2009). People first: Probation officer perspectives on probation work — A practitioner's response. *Probation Journal*, 56(1), 61–67.

McCann, L., & Pearlman, L. A. (1990). Vicarious traumatization: a framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress*, 3, 131-149.

Mele, C. & T. A. Miller. (2005). *Civil Penalties, Social Consequences*. New York: Routledge.

Menaghan, E. G. (2010). Work, family, and their intersection. In W. Avison, C. Aneshensel, S. Schieman, & B. Wheaton (Eds.), *Advances in the conceptualization of the stress process* (pp. 131-145). New York, NY: Springer.

Morash, M. Kashy, D. A., Smith, S. W., & Cobbina, J. E. (2015). The effects of probation or parole agent relationship style and women offenders' criminogenic needs on offenders' responses to supervision interactions. *Criminal Justice and Behavior*, 42(4), 412-434.

Newell, J. M. & MacNeil, G. A. (2010). Professional burnout, vicarious trauma, secondary traumatic stress, and compassion fatigue: A review of theoretical terms, risk factors, and preventive methods for clinicians and researchers. *Best Practices in Mental Health: An International Journal*, 6(2), 57–68.

Ostermann, M. & Matejkowski, J. (2014). Exploring the intersection of mental health and release status with recidivism. *Justice Quarterly*, 31(4), 746-766.

NIMH.NIH.gov

Pager, D. (2003). The mark of a criminal record. *American Journal of Sociology*, 108(5), 937-975.

Paparozzi, M. (1994). An evaluation of the New Jersey board of parole's intensive supervision program. Doctoral Dissertation. Newark, NJ: Rutgers University.

Paparozzi, M. A., & Gendreau, P. (2005). An intensive supervision program that worked: Service delivery, professional orientation, and organizational supportiveness. *The Prison Journal*, 85(4), 445-466.

Paris, M. & Hoge, M. (2010). Burnout in the mental health workforce: A review. *Journal of Behavioral Health Services & Research*, 37(4), 519–28.

Patterson, B. L. (1992). Job experience and perceived job stress among police, correctional, and probation/parole officers. *Criminal Justice and Behavior*, 19, 260-285.

Pearlin, L. I. (1989). The sociological study of stress. *Journal of Health and Social Behavior*, 30, 241-256.

Pescosolido, B. A. (2006). Of pride and prejudice: The role of sociology and social networks in integrating the health sciences. *Journal of Health and Social Behavior*, 47(3), 189-208.

Peterson, J., Skeem, J., Kennealy, P., Bray, B., & Zvonkovic, A. (2014). How often and how consistently do symptoms directly precede criminal behavior among offenders with mental illness?" *Law and Human Behavior*, 38(5), 439–49.

Pitts, W. J. (2007). Educational competency as an indicator of occupational stress for probation and parole officers. *American Journal of Criminal Justice*, 32, 57-73.

Poole, E. D. & Regoli, R. M. (1980). Role stress, custody orientation, and disciplinary action: A study of prison guards. *Criminology*, 18, 215-226.

Porporino, F. J., & Motiuk, L. L. (1995). The prison careers of mentally disordered offenders. *International Journal of Law and Psychiatry*, 18, 29-44.

Purkiss, M., Hemmens, C., & Burton, V. S. (2003). Probation officer functions: A statutory analysis. *Federal Probation, 67*(1), 12-23.

Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychosocial Measurement, 1*, 385–401.

Robinson, C. R., Lowenkamp, C. T., Holsinger, A. M., VanBenschoten, S., Alexander, M., & Oleson, J. C. (2012). A random study of Staff Training Aimed at Reducing Re-arrest (STARR): Using core correctional practices in probation interactions. *Journal of Crime and Justice, 1*-22.

Rosenblatt, A., & Atkisson, C. (1993). Assessing outcomes for sufferers of severe mental disorder: A conceptual framework and review. *Evaluation and Program Planning, 16*, 347-363.

Salyers, M. P., Hood, B. J., Schwartz, K., Alexander, A. O., & Aalsma, M. C. (2015). The experience, impact, and management of professional burnout among probation officers in juvenile justice settings. *Journal of Offender Rehabilitation, 54*(3), 175–93.

Schaufeli, W. B., & Peeters, M. C. (2000). Job stress and burnout among correctional officers: A literature review. *International Journal of Stress Management, 7*, 19-48.

Schneid, T. L. & Brown, T. N. (2010). *A Handbook for the Study of Mental Health: Social Contexts, Theories, and Systems* (2nd Eds.). New York: Cambridge University Press.

Schneider, A. L. (1996). Further exploration of the flight from discretion: The role of risk/need instruments in probation supervision decisions. *Journal of Criminal Justice, 24*(2), 109-121.

Schnittker, J., & John, A. (2007). Enduring stigma: The long-term effects of incarceration on health. *Journal of Health and Social Behavior, 48*(2), 115-130.

Shirom, A. (2009). Burnout and health: Expanding our knowledge. *Stress and Health, 25*, 281-185.

Shultz, K. S., Wang, M., & Olson, D. A. (2010). Role overload and underload in relation to occupational stress and health. *Stress and Health, 26*, 99-111.

Sigler, R. T. (1988). Role conflict for adult probation and parole officers: Fact or myth. *Journal of Criminal Justice, 16*(2), 121-129.

Silver, E., Mulvey, E. P., & Swanson, J. W. (2002). Neighborhood structural characteristics and mental disorder: Faris and Dunham revisited. *Social Science & Medicine, 55*, 1457-1470.

Simmons, C., Cochran, J. K., & Blount, W. R. 1997. The effects of job-related stress and job satisfaction on probation officers' inclinations to quit. *American Journal of Criminal Justice, 21*(2), 213-29.

Skeem, J. L., Emke-Francis, P., & Eno Louden, J. (2006). Probation, mental health, and mandated treatment: A national survey. *Criminal Justice and Behavior, 33*(2), 158-184.

Skeem, J. L., & Eno Louden, J. (2006). Toward evidence-based practice for probationers and parolees mandated to mental health treatment. *Psychiatric Services, 57*(3), 333-342.

Skeem, J., Eno Louden, J., Manchak, S., Vidal, S. & Haddad, E. (2009). Social networks and social control of probationers with co-occurring mental and substance abuse problems. *Law and Human Behavior, 33*, 122-135.

Skeem, J., Eno Louden, J., Polasheck, & Cap, J. (2007). Assessing relationship quality in mandated treatment: Blending care with control. *Psychological Assessment, 19*, 397-410.

Slate, R. N., Johnson, W. W., & Wells, T. (2000). Probation officer stress: Is there an organizational solution? *Federal Probation, 64*, 56-59.



Slate, R., Wells, T., & Johnson, W. (2003). Opening the manager's door: State probation officer stress and perceptions of participation in workplace decision making. *Crime & Delinquency, 49*(4), 519–41.

Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology, 13*, 290-312.

Solomon, A. L. (2008). Putting public safety first: 13 parole supervision strategies to enhance reentry outcomes (paper). Retrieved 10/18/16. <http://webarchive.urban.org/publications/411791.html>.

Steadman, H. J., Osher, F. C., Robbins, P. C., Case, B., & Samuels, S. (2009). Prevalence of serious mental illness among jail inmates. *Psychiatric Services, 60*(6), 761–65.

Steiner, B., Travis III, L. F., Makarios, M. D., & Brickley, T. (2011). The Influence of parole officers' attitudes on supervision practices. *Justice Quarterly, 28*(6), 903-927.

Stewart, W. F., Ricci, J. A., Chee, E., Hahn, S. R., & Morganstein, D. (2003). Cost of lost productive work time among US workers with depression. *Journal of the American Medical Association, 289*(23), 3135-3144.

Swartz, J. A., & Lurigio, A. J. (1999). Special section of mental ill offenders: Psychiatric illness and comorbidity among adult male jail detainees in drug treatment. *Psychiatric Services, 50*(12). 1628-1630.

Sweeney, G., & Nichols, K. Stress experiences of occupational therapists in mental health practice arenas: A review of the literature. *The International Journal of Social Psychiatry, 42*, 132-140.

Tabor, R. W. (1987). A comparison study of occupational stress among juvenile and adult probation officers. Unpublished doctoral dissertation, Virginia Polytechnical Institute and State University, Blacksburg.

Taxman, F. S. (2008). No illusion, offender and organizational change in Maryland's proactive community supervision model. *Criminology and Public Policy*, 7(2), 275-302.

Taxman, F. S., Shepardson, E. S., & Byrne, J. M. (2004). *Tools of the trade: A guide to incorporating science into practice*. Washington, D.C., U.S. Department of Justice, National Institute of Corrections. <http://www.nicic.org/Library/020095>.

Tehrani, N. (2011). The incidence of secondary traumatic stress in workers dealing with traumatizing materials, victims and perpetrators. In N. Tehrani (Ed.), *Managing trauma in the workplace* (pp. 100-114). New York: Routledge.

Terry, W. (1981). Police stress: The empirical evidence. *Journal of Police Science Administration*, 14, 61-75.

Thoits, P. A. (2010). Stress and health: Major findings and policy implications. *Journal of Health and Social Behavior*, 51, 41-53.

Thomas, R. L. (1988). Stress perceptions among select federal probation and pretrial services officers and their supervisors. *Federal Probation*, 52, 48-58.

Umamaheswar, J. (2012). Bringing hope and change: A study of youth probation officers in Toronto. *International Journal of Offender Therapy and Comparative Criminology*, 57(9), 1158-1182.

Van Daalen, G., Willemsen, T., Sanders, K., & Van Veldhoven, M. (2009). Emotional exhaustion and mental health problems among employees doing 'people work': the impact of job

demands, job resources and family-to-work conflict. *International Archives of Occupational and Environmental Health*, 82(3), 291–303.

Van Deirse, T. B., Cuddeback, G. S., Wilson, A. B., & Burgin, S. E. (2017). Probation officers' perceptions of supervising probationers with mental illness in rural and urban settings. *American Journal of Criminal Justice*.

Veysey, B. M. (1996). *Chapter 10: Effective strategies for providing mental health services to probationers with mental illnesses*. US Department of Justice (DOJ).

Vidal, S., & Skeem, J. L. (2007). Effects of psychopathy, abuse, and ethnicity on probation officers' decision-making and supervision strategies. *Law and Human Behavior*, 31, 479-498.

Violante, J. (1983). Stress patterns in police work. *Journal of Police Science Administration*, 11, 211-216.

Vitale, A. S. (2017). *The end of policing*. Brooklyn, NY: Verso Publishing.

Walters, S. T., Clark, M. D., Gingerich, R., & Meltzer, M. L. (2007). *Motivating offenders to change: A guide for probation and parole* (NIC Accession No. 022253). Retrieved from the U.S. Department of Justice, National Institute of Corrections website: <http://nicic.gov/Library/022253>.

Wells, T., Colbert, S., & Slate, R. N. (2006). Gender matters: Differences in state probation officer stress. *Journal of Contemporary Criminal Justice*, 22(1), 63-79.

Warner, Rebecca. 2013. *Applied Statistics: From Bivariate Through Multivariate Techniques*. 2nd ed. Thousand Oaks, CA: Sage Publications, Inc.

Wasserman, G. A., McReynolds, L. S., Whited, A. L., Keating, J. M., Musabegovic, H., & Huo, Y. (2008). Juvenile probation officers' mental health decision making. *Administration and Policy in Mental Health and Mental Health Services Research*, 35, 410-422.

West, A. D. & Seiter, R. P. (2004). Social worker or cop? Measuring the supervision styles of probation & parole officers in Kentucky and Missouri. *Journal of Crime and Justice*, 27(2), 27-57.

Wheaton, B. (1991). The specification of chronic stress: Models and measurement. Presented at the annual meeting of the Society for the Study of Social Problems, August, Cincinnati, OH.

Wheaton, B. (1994). Sampling the stress universe. In W. R. Avison & I. H. Gotlib (Eds.), *Stress and mental health* (pp. 77-115). New York, NY: Plenum Press.

Whetzel, J. Pappozzi, M., Alexander, M., & Lowenkamp, C. T. (2011). Goodbye to a worn-out dichotomy: Law enforcement, social work, and a balanced approach (A survey of federal probation officer attitudes). *Federal Probation*, 75(7), 7-12.

Whisler, P. M. (1994). A study of stress perception by selected state probation officers. Unpublished master's thesis, University of South Florida, Tampa, FL.

White, W. L. (1997). The incestuous workplace: Stress and distress in the organizational family. Center City, MN: Hazelden.

White, L. M., Aalsma, M. C., Holloway, E. D., Adams, E. L., & Salyers, M. P. (2015). Job-related burnout among juvenile probation officers: Implications for mental health stigma and competency. *Psychological Services*, 12(3), 291-302.

White, M. C., Chafetz, L., Collins-Bride, G., & Nickens, J. (2006). History of arrest, incarceration and victimization in community-based severely mentally ill. *Journal of Community Health, 31* (2), 123-135.

White, W., Gasperin, D., Nystrom, J., Ambrose, T., & Esarey, C. (2005). The other side of burnout: Exemplary performance and health among probation officers. *Perspectives: The Journal of the American Probation and Parole Association, 29*(2), 26–31.

Whitehead, J. T. (1985). Job burnout in probation and parole: Its extent and intervention implications. *Criminal Justice and Behavior, 12*(1), 91-110.

Whitehead, J. T. (1987). Probation officer burnout: A Test of two theories. *Journal of Criminal Justice, 15* (1), 1-16.

Whitehead, J. T. & Lindquist, C. (1985). Job stress and burnout among probation/parole officers: Perceptions and causal factors. *International Journal of Offender Therapy, 29*, 109-19.

Wolff, N., Bjerklie, J. R., & Maschi, T. (2005). Reentry planning for mentally disordered inmates: A social investment perspective. *Journal of Offender Rehabilitation, 41*(2), 21-42.

Wolff, N., Epperson, M., Shi, J., Huening, J., Schumann, B. E., & Sullivan, I. R. (2014). Mental health specialized probation caseloads: Are they effective? *International Journal of Law and Psychiatry, 37*(5), 464–72.

Wolff, N., & Pogorzelski, W. (2005). Measuring the effectiveness of mental health courts: Challenges and recommendations. *Psychology, Public Policy, and Law, 11*(4), 539-569.

Wright, E. R., Gronfein, W. P., & Owens, T. J. (2000). Deinstitutionalization, social rejection, and the self-esteem of former mental patients. *Journal of Health and Social Behavior, 41*(1), 68-90.