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Identifying the Personal and Perceived Organizational Characteristics Associated with Job Satisfaction Among Juvenile Probation Staff

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by

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Satisfied employees are essential to an organization, as they are the primary means for meeting organizational needs. Employees who are more satisfied at work are less likely to leave their job or think about leaving their job, less likely to feel burnt out or stressed, and perform better at work. Job satisfaction is particularly important among criminal justice agencies, specifically probation agencies which largely rely on personnel for the supervision and rehabilitation of offenders. Yet the correlates of job satisfaction among juvenile probation staff are largely unknown. Theory suggests that organizational characteristics are influential predictors of job satisfaction across occupational domains. This current body of research is limited due to its predominant focus on institutional corrections, a deficiency in assessing a diverse variety of climate domains and their influence on job satisfaction, and a lack of standard factor analytic techniques.

Accordingly, the goal of this study is to address these gaps within the current body of research and examine the correlates of job satisfaction among juvenile probation staff. First, the psychometrics properties of six perceived organizational climate domains (i.e., innovation and flexibility, communication, agency quality, supervisory support, job–related stress, and organizational support) and job satisfaction are evaluated. Second, salient personal and organizational characteristics which influence job satisfaction are identified. Specifically, the model evaluates both direct and indirect effects of perceived organizational climate

characteristics on job satisfaction, as mediated through perceptions of job-related stress. Third, the study assesses whether job satisfaction varies across agencies.

Towards this goal, the study uses baseline data from the Juvenile Justice – Translational Research on Adolescents in the Legal System (JJ-TRIALS) initiative, a National Institute on Drug Abuse (NIDA) funded research project conducted in seven states with 36 participating juvenile probation agencies. Data are especially useful in the identification of job satisfaction correlates because they provide information on personal and organizational factors for a large sample of juvenile probation staff. This study used a number of analytic techniques including bivariate analyses, factor analysis, structural equation modeling, path analysis, and multivariate analyses.

Findings from the current study expand our understanding of the influence of personal and organizational factors on job satisfaction to an understudied population. Overall, juvenile probation staff reported moderate levels of job satisfaction. Furthermore, results highlight the importance of work-place factors and suggest efforts towards increasing job satisfaction and staff retention should focus on the improvement of organizational characteristics.

CHAPTER ONE:

INTRODUCTION

Since 2005, the majority of Americans have been unsatisfied with their jobs (Morris, 2017). Millennials, the largest age cohort in the current workforce, entered the workforce after the financial crisis in 2008-2009 and aren't even aware of the pay, benefits, and perks of the past. For decades, job satisfaction has been of interest to researchers and practitioners alike. Within the criminal justice field, state and federal prisons have invested a great deal of time and money exploring the correlates of job satisfaction among correctional officers. This effort is fueled by the costly outcomes associated with job dissatisfaction, including turnover, turnover intention, and the mental and physical health of employees. Job satisfaction and its consequences are also of interest to probation agencies, which rely on personnel, rather than machinery or computers, to accomplish day-to-day tasks and larger organizational objectives. Turnover is a serious issue for probation agencies which report anywhere from 17% to 24% of staff leaving their job each year (Lee & Beto, 2008; Simmons, Cochran, & Blount, 1997). Juvenile probation agencies also suffer from staff turnover with one state reporting 15% of staff leaving their jobs in 2002 (Texas Juvenile Probation Commission, 2003).

Job satisfaction is essential to organizations because, quite frankly, staff morale is good for business. Workers who are more satisfied are less likely to leave or have thoughts of leaving their job, feel less burnt out and stressed, and are more likely to perform well at work. This is

imperative for juvenile probation staff who are tasked with the supervision and rehabilitation of at-risk youth.

In 2014, more than half of all delinquency cases received a sanction of probation, resulting in approximately 358,700 youth on probation (Office of Juvenile Justice and Delinquency Prevention (OJJDP), 2017). This is not surprising as juvenile probation is the oldest and most commonly used disposition, being utilized at both the "front-end" of the juvenile justice system for low-risk offenders and the "back-end" as an alternative to incarceration for more serious offenders (Torbet, 1996). In some instances, communities may even use probation on a voluntary status to monitor at-risk youth, in lieu of formal adjudication. It has even been termed the "workhorse of the juvenile justice system" (Torbet, 1996), with juvenile probation staff often referred to as the "heart" of the juvenile justice system, handling various responsibilities including intake, court proceedings, and supervision (National Council of Juvenile and Family Court Judges [NCJFCJ], 2005).

Generally speaking, juvenile probation staff are responsible for conducting intake screenings of cases referred from the court, the investigation of predisposition or presentence youth, and the supervision of juvenile offenders. In comparison to adult probation staff, juvenile probation staff have unique job demands, such as the coordination of multiple entities like parents, guardians, teachers, treatment agencies, and medical providers (Steiner, Purkiss, Kifer, Roberts, & Hemmens, 2004). In some instances, these functions are performed while managing large caseloads (Livsey, 2006; Torbet, 1996). Additionally, juvenile probation officers (JPOs) are responsible for addressing the behavioral health needs of their clients. This is a relatively demanding task as an estimated 60-70% of juvenile justice-involved youth experience mental health and/or substance use-related problems (Fazel, Doll & Langstrom, 2008). Therefore, JPOs

act as critical facilitators or "gateway providers" for connecting high-risk youth with behavioral health care services (Holloway, Brown, Suman, & Aalsma, 2013). Clearly, job satisfaction is a salient issue for juvenile probation administration.

Similar to most correctional research, however, the majority of studies on job satisfaction have focused on institutional corrections staff (Britton, 1997; Cheeseman, Kim, Lambert, & Hogan, 2011; Lambert, Hogan, Paoline, & Clarke, 2005; Saylor & Wright, 1992), and to a lesser degree, adult probation staff (Getahun, Sims, Hummer, 2008; Jiang et al., 2016; Leonardi & Frew, 1991; Simmons et al., 1997). Although juvenile probation has received more attention in recent years, few, if any, studies have specifically focused on job satisfaction among juvenile probation staff. Given the differences in purpose, environment, management, and responsibilities between adult and juvenile probation agencies, this is problematic. Although adult and juvenile probation agencies have similar objectives in regard to the supervision of offenders, it is clear that the experiences of juvenile probation staff, and the climate which juvenile probation staff operate is very different from their adult counterparts.

Discussed in greater detail below, the current study seeks to address these gaps in the literature. The main objective of this study is to examine the correlates of job satisfaction among a large sample of juvenile probation staff who participated in a Juvenile Justice – Translational Research on Adolescents in the Legal System (JJ-TRIALS) project and determine if these correlates are consistent across counties.

Background of the Problem

According to Hopkins (1983, p. 7), job satisfaction is "the fulfillment or gratification of certain needs that are associated with one's work". This concept has been of interest, across

occupation domains, to managers and researchers alike (Lambert, Hogan, & Barton, 2001; Lum, Kervin, Clark, Reid, & Sirola, 1998; Spector, 1996). This is due to the costly consequences of low job satisfaction, to the organization and the individual (i.e., turnover, turnover intention, burnout, anxiety, and depression (Faragher, Cass, & Cooper, 2005; Whitehead, 1986). Job satisfaction among employees has been found to reduce burnout and emotional exhaustion, important precursors to absenteeism, inclinations to quit, decreased productivity, and turnover (Barling & MacIntyre, 1993; Holgate & Clegg, 1991; Sigler, 1988; Sigler & McGraw, 1984; Simmons et al., 1997). Studies examining the correlates of job satisfaction in corrections have largely focused on the influence of personal characteristics such as age, marital status, race, and gender (Bryd, Cochran, Silverman, & Blount, 2000; Cullen, Link, Cullen, & Wolfe, 1990; Simmons et al., 1997). These studies have produced mixed findings on the influence of personal factors, but generally suggest they explain little to none of the variance in job satisfaction. More recently, correctional literature has begun to consider the role of one's work environment and its relationship to job attitudes and behaviors. These studies find that organizational factors are much stronger predictors of job attitudes than personal characteristics (Castle, 2008; Griffin, 2001; Matz, Wells, Minor, & Angel, 2012). Specifically, an organization's atmosphere is made up of various climate domains, which are salient predictors of an employee's level of job satisfaction (Schneider & Synder, 1975).

Organizational climate research has been a staple of industrial and organizational psychology for decades, but has only recently gained interest in corrections. One's organizational climate is perceived as the interaction between environmental and personal characteristics (Forehand, 1968). This concept is rather intuitive given that we know employees do not work in a vacuum and will generate perceptions about their environment. The work environment consists

of factors that comprise the overall climate, including tangible and intangible factors (Dawson, 1986). It has been generally established within organizational and industrial psychology that organizational climate influences work outcomes such as productivity, satisfaction, and performance (Liao & Rupp, 2005; Maynard, Mathieu, & Ruddy, 2007; Pritchard & Karasick, 1973).

The work environment is complex and it is helpful to break it down into separate dimensions. Correctional literature has adopted this theoretical framework, measuring work environment through a variety of variables ranging from negative aspects of the work environment such as role conflict (e.g., Grossi & Berg, 1991), to positive facets like forms of support (e.g., Armstrong, Atkin-Plunk, & Wells, 2015; Cheeseman, et al., 2011), communication (e.g., Getahun et al., 2008), promotional opportunities (Jiang et al., 2016), and several others. However, studies examining climate within correctional facilities often fail to separate measures of job satisfaction from measures of climate (e.g., Camp, 1994; Wright, 1979; Wright & Saylor, 1991). This is faulty, as organizational climate research has established clear distinctions between job satisfaction and organizational climate (LaFollette & Sims, 1975; Schneider & Snyder, 1975). Correctional research has also overlooked the correlates of job satisfaction among juvenile probation staff. This is enigmatic as juvenile and adult probation officers (POs) deal with very different populations.

Juvenile probation is responsible for monitoring and rehabilitating minors who are, developmentally, very different than their adult counterparts. Therefore, the juvenile justice system takes more of a "parenting" approach when it comes to juvenile offenders. JPOs are responsible for addressing the needs of youth on probation, which may be quite extensive. For example, a high percentage of youth (60-70%) involved in the justice system have a diagnosable

mental health disorder, and nearly 30% of these youth have a severe mental health disorder (Skowyra & Cocozza, 2007). Additionally, one study reports that 61% of youth entering the system reported a history of psychological trauma (Ford, Hartman, Hawke, & Chapman, 2008). JPOs often monitor youths' educational status, which is often in jeopardy. That is, nearly half of all students who entered a residential juvenile justice facility have an academic achievement level that is below the grade equivalent for their age (Sedlak & McPheron, 2010). The unique needs of youth involved in the juvenile justice system is a key distinction between adult and JPOs and creates a very different work environment. This is reflected in the orientation of JPOs who tend to adopt more supportive roles, whereas adult POs are more likely to favor a law enforcement role (Sluder & Reddington, 1993). Given these substantial differences it is inappropriate to generalize the correlates of job satisfaction among adult probation samples to juvenile probation staff.

Overall, four salient limitations are identified in the correctional literature on job satisfaction. First, job satisfaction has not been thoroughly studied as a job attitude separate from organizational climate. Second, findings on the influence of personal characteristics are mixed, within and across correctional settings. Third, additional climate domains, such as perceived organizational support, are either unstudied or understudied. Finally, juvenile probation staff are absent from the literature, and it is largely unknown which personal and organizational characteristics influence their perceptions of job satisfaction.

The Current Study

Although past studies have documented the relationships between organizational and personal characteristics and job satisfaction, the correlates of job satisfaction have not been fully

examined among juvenile probation staff. Accordingly, the current study seeks to address this gap in the literature by examining the direct and/or indirect influence of personal and perceived organizational characteristics on job satisfaction among a large sample of probation staff. Specifically, this study has five primary objectives: 1) to establish baseline estimations of job satisfaction among juvenile probation staff; 2) to examine the psychometric properties of six organizational climate domains (i.e., perceived agency innovation and flexibility, communication, quality, supervisory support, job–related stress, and organizational support) and job satisfaction; 3) to identify salient personal and organizational characteristics which influence job satisfaction; 4) to identify whether job-related stress mediates the relationship between other organizational climate characteristics and job satisfaction; and 5) to identify whether job satisfaction varies across agencies and, if so, what agency-level factors account for this variance. To date, no studies have been located with examine the personal and work-related correlates of job satisfaction among juvenile probation staff.

The current study aims to expand upon prior research in several ways. First, by examining job satisfaction among juvenile probation staff, an understudied group. In addition, the sample includes juvenile probation staff from seven states increasing the generalizability of study findings. Second, research has identified consequences of job dissatisfaction (e.g., mental health issues, increased turnover intention), but has not thoroughly identified personal and work-related factors that influence job satisfaction among juvenile probation staff. In order to combat turnover and turnover intention it is important to first identify methods of increasing job satisfaction. Further, the present study assists in clarifying the somewhat mixed findings on the influence of demographic characteristics on job satisfaction, as well as inform on key organizational characteristics that have been identified in prior literature. Finally, potential

mediating relationships are examined to increase our understanding of the relationship between organizational context and job satisfaction.

Overview of Chapters

The following chapters present the theoretical framework, review of relevant literature, methodology, results, and conclusions of the current study in greater detail.

Chapter 2 provides a theoretical foundation and review of the relevant literature. The key aspects of organizational climate theory and its relevance to job satisfaction are discussed. Organizational climate theory posits that organizational and social factors which makeup one's working environment will impact employees' job attitudes. This section also provides a review of key personal and work-related correlates of job satisfaction. Finally, both direct and indirect effects, of job-related stress on job satisfaction are discussed.

Chapter 3 presents the methodology for the current study. This section begins with an overview of the current research questions, hypotheses, and illustration of the current model being tested. Furthermore, it outlines the nature of the JJ-TRIALS project and data used in the present study. Furthermore, it details the measurement of each of the personal, organizational, and job satisfaction variables. In addition, this section describes the analytic strategy for the data which is broken down into two stages. Stage one consists of bivariate, factor, and structural equation modeling, while stage two consists of path analysis, maximum likelihood (ML) regression, and the assessment of the need for multilevel analysis.

In Chapter 4, the empirical findings of the current analyses are presented. This chapter begins with a presentation of the first stage of analyses including sample demographics, bivariate analyses, factor analysis, and structural equation modeling. This section concludes with

results from the second stage of analyses: bivariate analyses, path analysis, ML regression, and preliminary multilevel analysis.

The fifth and final chapter, provides a discussion and interpretation of the current results. This is followed by a discussion of both theoretical and practical implications, limitations, and contributions to the literature. The final portion of this chapter provides suggestions for future research and discussion of the overall conclusions of the current study.

CHAPTER TWO:

REVIEW OF LITERATURE

Juvenile probation can be a very difficult yet rewarding occupation, with unique challenges and responsibilities. Officers monitor and assist in rehabilitating youth who have entered the justice system. This can be challenging at times when dealing with obstacles such as family engagement and the involvement of many different entities (e.g., behavioral health care providers). Job attitudes such as stress and satisfaction have been widely documented among institutional corrections officers, with less discussion focusing on job attitudes among community corrections officers. Absent from the literature is a thorough discussion of the factors associated with job satisfaction (JS) among probation staff, specifically juvenile probation staff. Understanding the underlying mechanisms of JS can be helpful in officer retention, as well as, boosting staff morale and job performance. This chapter begins by defining JS and briefly discussing consequences of low satisfaction, followed by a review of organizational climate theory and its relevance to JS. The chapter concludes with a review of the literature on the personal and organizational correlates of JS.

Due to the lack of published work focusing on JS among juvenile probation staff, the literature reviewed primarily focuses on institutional corrections (juvenile and adult) and community corrections (probation/parole).

Defining Job Satisfaction

JS is of interest to a wide array of researchers across a variety of disciplines. Twenty years ago, Spector (1996) estimated that over 12,400 studies incorporated JS in some manner. The first systematic measurement and intensive study of JS is generally seen as having been conducted by Hoppock in 1935 (Lawler, 1983). Nearly a century's worth of research on JS has produced a number of definitions for this concept. Although there is no single agreed upon definition of JS, there is general agreement that it is a subjective feeling an employee has in response to their particular job within an organization.

Hopkins (1983) defined JS as "the fulfillment or gratification of certain needs that are associated with one's work" (p. 7). Similar definitions have been developed over the years, for instance Locke (1976) suggested JS is "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (p. 1300). More simply, Spector (1996) defined JS as "the extent to which people like their jobs" (p. 214). Overall, there is general agreement that JS is an employee's emotional response to experiences generated from his or her job within an organization (Lambert, Barton, & Hogan, 1999). Although JS has been the focus of study across occupational domains for decades, only a small number of studies have examined JS among probation staff (Getahun et al., 2008; Jiang et al., 2016; Simmons et al., 1997). Most of those studies focused primarily on adult probation officers (POs), or included JS as a covariate when examining related job attitudes (Greenwood, 2016; White, Aalsma, Holloway, Adams, & Salyers, 2015). More recently, White and colleagues (2015) included JS as a covariate in their study of burnout among juvenile probation officers (JPOs), measuring JS using the General Satisfaction subscale of the Jobs Diagnostic Survey (Hackman & Oldham, 1975). In their study job dissatisfaction was a significant predictor of burnout among JPOs. Burnout is one of the

important consequences of job dissatisfaction, with others negative outcomes stressing the need to identify key personal and organizational factors associated with JS among juvenile probation staff. In her dissertation, Greenwood (2016) utilized a 6-item measure of JS, which was summed to form an index measure.

Consequences of Low Job Satisfaction

For decades, JS has been of interest to researchers and practitioners alike, particularly pertaining to criminal justice occupations. This effort is fueled by the costly outcomes associated with job dissatisfaction, including turnover, turnover intention, performance, and the mental and physical health of employees (Faragher et al., 2005; Griffeth, Hom, and Gaertner, 2000). It has been consistently documented that correctional staff display high rates of turnover and turnover intention, which is directly associated with JS (Wells, Minor, Lambert, & Tilley, 2016). Turnover can be especially costly for correctional agencies that rely almost exclusively on staff members, rather than computers or machines, to supervise youth and address their needs. Among adult probation staff turnover rates range from 17% to as high as 24% (Leo & Beto, 2008; Simmons et al., 1997). Among juvenile probation, Texas reported that 15% of juvenile probation staff left their job in 2002 (Texas Juvenile Probation Commission, 2003). This creates a number of direct and indirect expenses for agencies including the cost of recruitment, testing, hiring, and training new employees. Attrition may also break down communication between staff members and clients. It can take new staff time to acclimate to the environment and the needs of youth, and develop effective lines of communication with fellow JPOs, supervisors, and behavioral health care providers. During periods of high turnover agencies may utilize mandatory overtime

(Lambert & Hogan, 2009b), and caseloads may increase which may result in subpar work performance, decreased JS, and increased notions of quitting.

Furthermore, JS is associated with an employee's health. The pressures, strains, and stresses of the workplace are associated with dissatisfaction, which has been identified as a potentially important health factor. This isn't surprising considering work is often the single activity that occupies most people's time, with the majority of people spending half their waking hours at work (Bureau of Labor Statistics, 2016). Job dissatisfaction is associated with several mental/psychological health concerns including burnout, anxiety, and depression (Faragher, et al., 2005; Whitehead, 1986). This is particularly concerning for juvenile probation staff who encounter a variety of occupational strains including large caseloads (Torbet, 1996), role conflict (Clear & Latessa, 1993), matching youth to appropriate treatment, and acting as a liaison between various institutions (Steiner et al., 2004).

It is important to note, that much of the current research on the correlates of JS involves adult institutional corrections staff. The dearth of information on JS among JPOs is particularly problematic, considering previous research among adult POs documents higher levels of JS positively impacting work-related outcomes such as organizational commitment (Jiang et al., 2018) and decreased turnover intentions (Simmons et al., 1997; Lee, Joo, & Johnson, 2009). The next logical step in expanding the literature is to identify correlates of JS among juvenile probation staff, who play a substantial role in the American juvenile justice system.

Theoretical Framework

A longstanding theory used in JS literature is Organizational Climate Theory (OCT) (Payne, Fineman, & Wall, 1976; Pritchard & Karasick, 1973). It is somewhat intuitive to think

that peoples' work environment will influence their job attitudes. This is, in fact, empirically supported by OCT which holds that organizational and social variables, which compromise one's working environment, impact workers' attitudes toward their jobs. Organizational climate is most commonly defined and measured by workers' perceptions of their environment, including characteristics of the organization and relationships with other people. JS is often identified as an important variable in organizational climate research and an important topic within correctional literature. However, correctional literature often fails to examine these two concepts in a distinct manner and neglects to provide a clear definition of the relationship between the two concepts (Camp, 1994; Matz et al., 2012; Whitehead & Lindquist, 1989; Wright, 1979). The following section provides an overview of OCT, its distinction from culture, empirical support for the theory, and addresses previous statements about the similarities of JS and organizational climate.

Defining Organizational Climate

Organizational climate has been defined as the interaction between environmental and personal variables (Forehand, 1968). Hellriegel and Slocum (1974) suggested that organizational climate is an individual's perception of their work environment. James et al. (2008) defined organizational climate as "the overall meaning derived from the aggregation of individual perceptions of a work environment (i.e., the typical or average way people in an organization ascribe meaning to that organization)" (p. 15). Therefore, organizational climate is a concept derived from individual employees. Individuals' perceptions of the impact of their work environment on their personal well-being is often referred to as psychological climate (James et al., 2008). When employees share similar psychological climate perceptions, these form the basis of organizational climate. In other words, organizational climate, or characteristics of the work

environment, is the aggregation of individuals' shared perceptions of their work environment (Jones & James, 1979; Joyce & Slocum, 1984). JPOs can obtain a sense of organizational climate as early as entering the organization through things such as physical appearance, the attitudes of other officers, and the treatment of clients and new employees. In summary, organizational climate is a description of what workers see and experience happening to them when in an organizational situation (James, Joyce, Slocum, 1988; Schneider, 2000), this may include an employee's perception about policies, practices, procedures, and/or rewards (Jones & James, 1979; Rentsch, 1990).

From a measurement standpoint, organizational climate has traditionally been measured using one of two methods, either a global or a faceted approach. Global, or moral, measures assume individuals develop an overall summary of their perceptions of their organization (James & Jones, 1974; Schneider & Bartlett, 1968). Faceted measures focus on key dimensions thought to represent the most important aspect of the work climate (Campbell, Dunnette, Lawler, & Weick, 1970). Important dimensions of climate, as identified by climate researchers, include supportiveness, innovativeness, peer relationships, pressure, risk, reward, support, and many others. New dimensions are added to the definition of climate when researchers believe they may influence some phenomenon (Schneider, 2000). Schneider (1975) suggested a shift away from the use of global measures toward more specific criteria. He concluded that past global measures were inclusive and too multifaceted to be useful, exhibiting only modest relationships at best. The use of more specific criteria to measure organizational climate has been widely accepted with studies examining climates for sexual harassment (Fitzgerald, Drasgow, Hulin, Gelfand, & Magley, 1997), justice (Naumann & Bennett, 2000), and ethics (Victor & Cullen, 1988). In addition to these specific climates, multidimensional global measures have been utilized more

recently (Patterson et al., 2005). These measures identify specific dimensions related to organizational climate and their relationship to outcomes of interest. Within correctional literature, common dimensions include perceptions of stress, supervisory support, and communication (Griffin, 2001; Lambert Hogan, Paoline, & Stevenson, 2008; Simmons et al., 1997).

To date, correctional research has measured the work environment through a variety of variables ranging from negative aspects such as job stress (e.g., Blau et al., 1986; Lambert, 2004) and role conflict (e.g., Grossi & Berg, 1991; Lambert & Paoline, 2008) to positive facets like peer support (Cheeseman et al., 2011), communication (Getahun et al., 2008), promotional opportunities (Jiang et al., 2016), and many others. Multidimensional measures have also been employed to examine features of supervisory support, organizational structure, training, and fear of victimization, among others (Griffin, 2001; Saylor & Wright, 1992). Finally, comprehensive or global measures have also been used but with less frequency. For example, Jurik and Halemba (1984) examined the association between JS and a global measure of climate they referred to as "perceived working conditions". This measure included topics on advancement opportunities, the variety and authority on the job, influence with regard to policy matters, and opportunities to increase one's knowledge and skills. Stinchcomb and Leip (2013) also utilized a general measure reflecting jail employees' overall feelings about the workplace. While global measures offer some insight into these relationships, multidimensional measures allow for a more detailed understanding of what specific climate domains are most important in the study of job attitudes.

Distinguishing Climate from Culture

Two major themes that have emerged when examining work-related outcomes are climate and culture. These are two alternative constructs for conceptualizing how individuals within an organization experience that setting. Although no comprehensive body of research exists on the occupational culture of criminal justice practitioners, climate and culture represent two well studied subsets of research within industrial/organizational psychology (Schneider, Ehrhart, & Macey, 2013), warranting distinction in the current study.

Organizational culture is thought of "as the shared basic assumptions, values, and beliefs that characterize a setting and are taught to newcomers as the proper way to think and feel, communicated by the myths and stories people tell about how the organization came to be the way it is as it solved problems associated with external adaptation and internal integration" (Schneider et al., 2013, p. 362). Similar definitions refer to the anthropological roots of organizational culture and suggest it is a property of groups and defined by "accumulated learning" among groups, to be passed on to newcomers (Schein, 1990). This transmission of culture, or integration, to newcomers is an interesting aspect of culture and important distinction from climate. The degree of integration varies depending on the strength and stability of the group. Schein (1990) goes on to suggest that the culture we "learn" in groups is not at the forefront of our awareness. Therefore culture is largely unconscious in day-to-day activities, but can be brought to awareness through the right set of questions. However, there is not complete agreement on what culture is or the best method of study. This is partly related to the variation in scientific disciplines and methodological strategies which study organizational culture.

Probation culture research describes characteristics of this culture as common values of POs, how they achieve JS, and attitudes, symbols, and rituals. Common values among POs

include: a belief that they have the ability to make a difference; a service attitude; and faith in the offender and colleagues (Worral & Mawby, 2014). Within culture research, POs are thought to achieve JS through what has been described as "emotional labor" (Hochschild, 1983), or managing emotions that arise due the work-related responsibilities. This line of research has largely focused on the relationships and values of probation staff, which is quite distinct from studies of climate.

When the culture perspective was in its early evolution it was rather simply distinguished from climate research. Schwartz and Davis (1981) put, very simply, that "one way to understand culture is to understand what it is not" (p. 32). In terms of methodological approaches, culture required a qualitative strategy to gauge the unique social setting observed by individuals. In contrast, climate research was characterized by quantitative methods with the primary objective of generalizing measures of climate across social settings (Denison, 1996).

In a review of both culture and climate literatures, Denison (1996) concluded that these two perspectives vary in their epistemology, point of view, methodology, theoretical foundations, temporal orientation, and discipline. The various dimensions of these views are outlined in Table 1. Climate researchers have generally been concerned with the impact of organizations on groups and individuals (James et al., 2008; Liao & Rupp, 2005; Joyce & Slocum, 1984). This research typically focuses upon various dimensions of climate, which consists of individuals' perceptions of procedures and practices such as leadership (Chen & Bliese, 2002; Schyns & Van Veldhoven, 2010) or service (Chuang & Liao, 2010). In contrast, culture researchers have focused on the evolution of social systems over time (Alvesson, 2002; Pettigrew, 1979; Schein, 2010, 1990). Greater attention is given to individual meaning (Geertz,

1973) and an understanding of underlying assumptions (Schein, 1990). Denison (1996) notes that the evolution of each perspective has followed very different patterns.

Table 1. Contrasting Organizational Culture and Organizational Climate Research Perspectives

Differences	Culture Literature	Climate Literature
Epistemology	Contextualized and idiographic	Comparative & nomothetic
Point of View	Emic (native point of view)	Etic (researcher's viewpoint)
Methodology	Qualitative field observations	Quantitative survey data
Level of Analysis	Underlying values and assumptions	Surface-level manifestations
Temporal Orientation	Historical evolution	Ahistorical snapshot
Theoretical Foundations	Social construction; critical theory	Lewinian field theory
Discipline	Sociology & anthropology	Psychology

Note. Reprinted from *What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm war,* by Daniel R. Dennison.

This brief overview of climate and culture literatures helps to define the constructs as two distinct perspectives with little overlap in their style or substance. Overall, culture is rooted in the values, beliefs, and assumptions held by the members within an organization. Through a process of socialization, meaning is established among groups within the workplace, and interaction of these groups produces culture (Denison, 1996). The transmission of culture to newcomers depends on the stability and strength of current group members. In contrast, climate is embedded in the organization's value system and presents the work environment in somewhat static terms. Climate is often described by fixed dimensions (e.g., leadership, communication) measured at a single point in time. Therefore, "climate is often considered as relatively temporary, subject to direct control, and largely limited to those aspects of the social environment that are consciously perceived by organizational members" (Denison, 1996, p. 625).

Empirical Support for Organizational Climate Theory

Correctional research has studied the influence of the work environment on various job attitudes for several decades. More recently, this line of research has expanded to examine different features of climate, such as supervisory support, communication, and organizational support (Armstrong & Griffin, 2004; Griffin, 2006; Lambert et al., 2017; Lambert et al., 2002; Lugo, 2016). Several studies have explicitly measured organizational climate within a correctional facility (Lugo, 2016; Taxman, Cropsey, Melnick, & Perdoni, 2008) highlighting key dimensions that constitute the climate of prisons. For example, Lugo (2016) captured the organizational climate across correctional institutions measuring four specific domains.

Correctional literature has measured organizational context based on perceptions of policies and procedures within the agency. For example, among a study of community correctional workers in China, agency formalization and supervisory support were negatively related to job-stress (Jin, Sun, Jiang, Wang, & Wen, 2017). In another study Belenko, Johnson, Taxman, and Rieckmann (2018) found high agreement on organizational climate regarding the need for agency training, policy, and procedures in the implementation of treatment programming. In a study of juvenile correctional staff and non-correctional staff (majority identifying as JPOs), Mikytuck and Clearly (2016) investigated the frequency of organizational factors being cited as the reason staff leave their job. These factors included opportunity for promotion, supervision, assignments, work hours, training opportunities, workload, salary, and safety. The authors also measured JS among staff, but do not examine the influence of organizational factors on JS.

The relationship between organizational context and JS among probation staff has yet to be thoroughly researched. However, job stress is a common aspect of organizational context

studied within a correctional setting. More specifically, a number of probation studies have examined perceptions of job stress as an indicator of organizational context. For example, in a nationwide study of probation and parole officers, Pitts (2007) identified the 15 most influential stressors for correctional staff. Some of the most influential stressors included inadequate salary, excessive paperwork, lack of departmental funding, caseload size too high, and inadequate equipment on the job. Rhineberger-Dunn, Mack, and Baker (2016) utilized these stressors to measure probation and parole officers' perceptions of their workplace. They found that educational training, job training, schedule fit, and pay dissatisfaction significantly predicted emotional exhaustion. Lacking in probation literature is the measurement of additional climate domains, such as innovation and communication, which have been established has key correlates of JS within institutional corrections settings (Lambert & Hogan, 2010; Matz et al., 2012).

Beyond criminal justice occupations, there is strong empirical support for OCT and the predictive influence of organization climate on job attitudes, specifically JS (Adeniji, 2011; Baltes, Bauer, Bajdo, & Parker, 2002; Batlis, 1980; Deshpande, 1996; Friedlander & Margulies, 1969; Fu & Deshpande, 2014; Gillies, Franklin, & Child, 1990; Glisson & James, 2002; Johnson & McIntye, 1998; Kline & Boyd, 1991; Liao & Rupp, 2005; Malinen & Savolainen, 2016; Maynard et al., 2007; Nalla, Rydberg, & Meško, 2011; Pritchard & Karasick, 1973; Schneider & Snyder, 1975; Schyns, Veldhoven, & Wood, 2009; Snyder, 1990; Taylor & Tashakkori, 1995; Tesluk, Vance, & Mathieu, 1999; Thakre & Shroff, 2016; Xiaofu & Qiwen, 2007). For example, Pritchard and Karasick (1973) found organizational climate to be more strongly related to JS among managers than job performance.

OCT has been established as an appropriate approach to predicting JS using both facetted and, in earlier years, global measures. Several studies have provided empirical support for the

relationship between faceted climates and JS (Glisson & James, 2002; Liao & Rupp, 2005; Maynard et al., 2007; Tesluk et al., 1999). For example, Liao and Rupp (2005) found that justice climate significantly impacted JS among workers across 44 different organizations. Additionally, empowerment climate was negatively associated with employee satisfaction among customer service engineers (Maynard et al., 2007). In a study examining the climate of participation among employees of a state department of transportation, researchers found that a participative climate was associated with increased JS (Tesluk et al., 1999). General climate measures have also been linked to JS. Schneider and Snyder (1975) found that their general measure termed "agency climate" was positively related to JS. Glisson and James (2002) created a general climate measure by combining dimensions of depersonalization, emotional exhaustion, and role conflict to broadly describe the climate as negative or positive, which was significantly related to JS. Climate's direct relationship with JS is well established within the literature, additionally, more recent research also suggests job-related stressors might mediate the relationship between organizational climate and JS.

Mediating Effects. The casual relationship between stress and JS is well established in the literature (Bedeian & Armenakis, 1981; Kemery, Bedian, Mossholder, & Touliatos, 1985; Kemery, Mossholder, & Bedeian, 1987). More recently, research has tested mediation models to better understand the relationship between organizational climate and JS. The job demands and resource model (JD-R) provides the conceptually underpinning for this nuanced approach to examining the relationships between organizational climate and job attitudes. The JD-R theorizes that organizational demands, including role stressors such as role ambiguity, and access to resources are associated with employee health and motivation. Job demands refer to physical, psychological, or social aspects of the job which require sustained physical or mental effort and

can, therefore, take a toll on the employee. Examples of job demands include an unfavorable physical work environment, mentally/emotionally demanding interactions with clients, and high levels of work pressure (Bakker & Demerouti, 2007). Employees working in organizations with high job demands are more likely to feel stressed by these pressures. Consequently, these feelings of stress are likely to mediate the relationship between other climate domains and an employee's level of JS.

Conceptually similar to stress, workplace identity and role ambiguity have been identified as mediating the relationship between climate and JS (Cortini, 2016; Pecino-Medina, Díaz-Fúnez, & Mañas-Rodríguez, 2017). For example, Cortini (2016) found that workplace identity mediated the relationship between learning climate and JS among apprentices. Following the job demands and resources model (JD-R), Pecino-Medina and colleagues found a similar effect in their study of public administrators. That is, role ambiguity partially mediated the relationship between climate and JS.

The investigation of stress as a mediating variable is a fairly recent development of OCT, with only a few studies exploring this model. Currently, findings are limited by the moral measurement of organizational climate. For example, Pecino-Medina et al. (2017) utilized a global measure of climate and were not able to identify key domains of climate. Further research is needed parse out the specifics of this relationship. That is, are there specific aspects of climate, related to JS, which are mediated by stress?

Research among probation staff has established that stress decreases JS (Getahun et al., 2008; Lee et al., 2009; Simmons et al., 1997) but there is a dearth of research examining the mediating effects of stress between organizational context and JS. The current study seeks to

address this gap in the literature by examining whether stress mediates the relationship between key organizational climate measures and JS among juvenile probation staff.

Distinguishing Organizational Climate from Job Satisfaction

There has been some debate within the literature on whether organizational climate is a distinct concept, or if individual-level climate perceptions are really a measure of responses similar to JS (Guion, 1973; Payne & Pugh, 1976). However, it is clear that organizational climate and JS are two distinct concepts and not necessarily correlated (LaFollette & Sims, 1975; Schenider & Snyder, 1975). The current section provides an overview of this debate and conceptual and empirical support for the independence of organizational climate and JS.

In the past researchers have argued that the two constructs measured the same phenomenon, the work environment. Johannesson (1973), Guion (1973), and James and Jones (1974) were some of the first critics emphasizing the similarities between the two constructs. Johannesson (1973) empirically compared measures of organizational climate and job attitudes, arguing that climate did not add much beyond what was measured under JS. James and Jones (1974) echoed the concerns of Johannesson, arguing that they "may" be related but that they may still represent different sources of information. This criticism of the overlap between organizational climate and JS has largely been dismantled, conceptually and empirically.

Conceptually, it has been argued that climate is a description of the work environment within an organization, whereas JS is a personal evaluation of one's job assignment (Ehrhart et al., 2014). The evaluation of JS is done through internal standards created by the individual, while climate is a direct perception of their environment (Schneider & Snyder, 1975). Payne, Fineman, and Wall (1976) hold that "climate is conceptually a descriptive measure and there are

no instances in the literature where it has been explicitly used as an evaluative one" (p. 50). Payne and colleagues attribute some of the empirical similarities between the constructs to the use of the Job Description Index (JDI) to measure JS. This measure was originally designed to include both descriptive and affective items, therefore it tapped into concepts beyond JS. Factor analysis of the JDI revealed two factors, one descriptive and one evaluative (Smith, Smith, & Rollo, 1974). Therefore, the overlap may be attributed to the use of the commonly used JDI. Research has also established that the constructs can be related, and perhaps should, but are not redundant. For example, LaFollette and Sims (1975) found JS was more strongly related to performance than climate and organizational climate measures were more strongly related to measures of organization practice. Schneider and Snyder (1975) determined the two concepts to be distinct for several reasons: "1) two measures of satisfaction…were more strongly related to each other than climate; 2) employees tended to agree more within units on climate than satisfaction; 3) the relationship between climate and satisfaction varied across position in the organization; 4) neither climate nor satisfaction were strongly related to productivity; and 5) satisfaction was more related to turnover than climate perceptions" (Ehrhart et al., 2014, p. 55).

The independence of these two constructs has been generally accepted. Both conceptual and empirical distinctions have been established addressing the concerns of prior critics. Contemporary research utilizes distinct measures of JS and organizational climate, resolving many of the previous apprehensions.

Correlates of Job Satisfaction

JS is influenced by a number of personal and work-related factors. An employee's work environment impacts their perceptions of the organization and their overall satisfaction. Decades

of research has provided a sound understanding of this assertion. These works date back to the 1930s when Elton Mayo (2004) conceptualized the social environment as an element important to employee satisfaction and productivity (Roethlisberger & Dickson, 1934). Following this conceptualization a number of theorists suggested that social context, or the atmosphere of an organization, could have important consequences, especially with regard to productivity (Argyris, 1964; Likert, 1967). To date, organizational climate has been identified as an important correlate of JS across various occupational domains. However, few studies have examined these correlates among probation staff. This is problematic given the need to increase JS, and subsequently reduce high rates of turnover among probation agencies, and the unique atmosphere of their work environment.

The majority of research on JS in corrections has largely focused on institutional correctional staff (Blau et al., 1986; Britton, 1997; Castle, 2008; Cheeseman et al., 2011; Griffin, 2001; Grossi & Berg, 1991; Lambert et al., 2005; Lambert & Hogan, 2009a; Lambert & Hogan, 2009b Lambert & Paoline, 2008; Slayer & Wright, 1992; Wright, 1993; Van Hoorhis et al., 1991). This is true for both staff who supervise adults (Armstrong et al., 2015; Jurik & Halemba, 1984; Leip, Stinchcomb, & Schiff, 2017) and juveniles (Blevins, Cullen, Frank, Sundt, & Holmes, 2006; Matz et al., 2012; Wells et al., 2016). Few studies have examined JS among community correctional staff (i.e., probation), with this limited number of studies primarily focusing on adult probation (Getahun et al., 2008; Jiang et al., 2016; Jiang et al., 2018; Lee et al., 2009; Leonardi & Frew, 1991; Simmons et al., 1997). To date, no empirical study examining the influence of personal and organizational factors on juvenile probation staff's JS was located.

Table 2 illustrates a summary of findings from published manuscripts on the direction of relationships between JS and personal and organizational characteristics. The primary focus of

correctional research on JS has focused on the influence of personal characteristics, such as race, age, and education (Byrd et al., 2000; Hepburn, 1989; Jurik et al., 1987). Generally, these findings are mixed, with personal characteristics explaining little to no variance in JS.

Table 2. Summary of the Direction of Relationships between Job Satisfaction and Personal and Organizational Characteristics by Correctional Occupation

	Adult Probation			**Prison**			**Jail**			**Juvenile Detention**		
	(+)	(-)	NS	(+)	(-)	NS	(+)	(-)	NS	(+)	(-)	NS
Personal Characteristics												
Age			X	X		X	X		X	X	X	
Sex			X			X			X			X
Male				X	X	X		X		X		
Female				X	X	X						
Race/Ethnicity			X			X			X			X
Non-White					X	X						
White				X	X	X			X	X		
Hispanic				X		X						
Job title/ Position	X	X		X	X	X			X			
Education			X	X	X	X		X	X			X
Married	X		X		X	X						
Tenure			X	X	X	X			X	X		
Experience			X	X		X			X		X	
Organizational characteristics												
Supervisory Support				X		X	X			X		
Stress		X	X		X			X			X	
Perceived Working Conditions				X								
Communication			X	X			X			X		
Org Support									X			
Perceptions of innovation				X								
Work climate							X					

As seen in Table 2, findings on the influence of personal characteristics are mixed regardless of correctional context (i.e., adult probation staff, prison staff, jail staff, or juvenile detention staff). For example, identifying as White has been found to have a positive, negative, and no relationship with JS among prison staff; no relationship among jail staff; and a positive relationship among juvenile detention staff. More recently, studies have incorporated organizational factors which are more consistently related to JS across occupation. Across studies, supervisory support, stress, and communication have been the most consistent predictors of JS. Among adult probation, stress appears to be the most consistent predictor, having a somewhat consistent, negative relationship with JS across studies. Unfortunately, no studies were located specifically examining JS among juvenile probation staff. However, studies examining stress and burnout among juvenile probation staff, find that JS is a consistent correlate of these negative job attitudes (Greenwood, 2016; White et al., 2015).

Organizational climate measures have received less attention within the correctional literature with fewer studies examining specific aspects of organizational climate. Overall, studies that examined both personal and organizational factors concluded that organizational factors are stronger predictors of JS (Cheeseman et al, 2011; Getahun et al., 2008; Lambert & Hogan, 2009a; Lambert, Hogan, & Barton, 2002; Stinchcomb & Leip, 2013). The following section reviews the organizational and personal correlates of JS among correctional staff in greater detail.

Organizational Characteristics

The following section provides a review of the current literature on six organizational characteristics of interest to the current study. There is scant research examining the influence of

organizational factors on probation staffs' degree of JS. Therefore, this section will discuss these organizational factors and their influence on JS across occupation domains and specify findings among criminal justice personnel including juvenile and adult correctional workers. The deficiency of research among juvenile probation staff highlights the necessity of the current study.

Stress

Juvenile probation is a business orientated about people, requiring intense, stressful interfaces with wayward offenders. Working with juvenile offenders also requires the involvement of parents or guardians in the processing of youth, creating additional challenges in servicing youth with removed parents/guardians. In an organization which relies primarily on individuals to accomplish agency goals, the well-being of employees is critical. Organizational characteristics which generate stress are a major concern as stress is linked to a variety of health problems among workers including depression, post-traumatic stress disorder, and anxiety. Research on job-related stress among criminal justice personnel has largely focused on police and correctional officers (COs) (Patterson, 1992; Slate, Johnson, & Wells, 2003), with a smaller number of studies documenting the effects of working environments among probation staff. These studies have predominantly involved adult probation staff, but these studies clearly document the negative impact of stress on JS (Getahun et al., 2008; Lee et al., 2009; Simmons et al., 1997).

Stress is broadly defined as a negative reaction to one's environment as perceived by the individual. Dr. Hans Selye, a pioneer of job stress research, defined stress as a nonspecific response of the body to any demand (Szabo, Tache, & Somogyi, 2012). Stress may be produced

by both positive and negative circumstances, and prolonged exposure to these circumstances can result in withdrawal from work, emotional exhaustion, and "burnout". The term "burnout" is sometimes used interchangeably with "stress" (Whitehead, 1989, 1987). However, burnout is described as prolonged exposure to job stress (Griffin, Hogan, Lambert, Tucker-Gail, & Baker, 2010).

Criminal justice personnel experience substantial stress given the nature of their work. In comparison to 26 other occupations (e.g., teaching, nursing, accounting) prison officers, police, and social services were among the top six occupations that reported being the most stressful regarding physical health and psychological wellbeing, as well as reporting the lowest levels of JS (Johnson, Cooper, Cartwright, & Millet, 2005). POs, specifically, have reported stress levels higher than those in the general population (Tabor, 1987). In addition, some research finds that probation and parole officers face higher levels of stress than police or COs (Patterson, 1992). In fact, juvenile correctional officers reported their work environment to be more stressful than workers in a normative sample on all but one dimension (Auerbach, Quick, & Pegg, 2003). High stress levels are associated with a number of negative health outcomes including a weakened immune system and absence due to sickness (Munch-Hansen, Wieclaw, Agerbo, Westergaard-Nielsen, & Bonde, 2010; Schneiderman, Ironson, & Siegel, 2005). A meta-analysis of over 300 empirical articles visibly indicates that stressful events are associated with changes in the immune system (Segerstorm & Miller, 2004). .

A number of studies have documented high levels of stress, specifically among POs (Finn & Kuck, 2005; Patternson, 1992; Gayman & Bradley, 2013; Pitts, 2007; Simmons et al., 1997; Thomas, 1988; Wells, Colbert, & Slate, 2006). Among POs, occupational stressors have been linked to job burnout, characterized as emotional exhaustion where individuals feel overwhelmed

and doubt the value of their work (Holgate & Clegg, 1991; Simmons et al., 1997). However, few studies have examined the link between occupational stress and serious mental health outcomes among POs. This relationship has been documented in other criminal justice occupations, mainly law enforcement and institutional corrections (Gershon, Barocas, Canton, Li, & Vlahov, 2009; Lambert, Hogan, Tucker, 2009; Schaufeli & Peeters, 2000). Similar to studies among institutional corrections, Gayman and Bradley (2013) find that occupational stress among POs has a direct effect on depressive symptoms. Specifically, emotional exhaustion/burnout and role conflict were predictive of depressive symptoms.

Wells and colleagues (2006) generally categorize causes of stress for criminal justice personnel into four areas: the job or task itself, internal to the organization, external to the organization, or personal in nature. Internal organizational stresses among adult POs include relationships with supervisors, unsatisfactory salaries, and a lack of opportunity for promotion (Simmons et al., 1997; Whitehead, 1986). Similar to COs, POs also experience role conflict or role ambiguity (Brown, 1987; Whitehead, 1986). Some stressors are inherent to the occupation or tasks required of POs, such copious amounts of paperwork and interaction with dangerous offenders (Finn & Kuck, 2005; Thomas, 1988). Large caseloads and limited resources among probation staff can interfere with doing the job well (Finn & Kuck, 2005; Torbet, 1996). External stressors may be more common among law enforcement who interact with the public and media more frequently. However, nationally publicized failures of probation to monitor offenders may cause the public to scrutinize probation agencies. In a study of over 3,000 probation and parole officers nationwide, Pitts (2007) notes that inadequate salary, excessive paperwork, lack of departmental funding, court leniency with criminals, and high caseloads were the five most influential stressors.

Relationship with Job Satisfaction. The negative association between job-related stress and JS is well documented across occupation domains (Klassen & Chiu, 2010; Nabirye, Brown, Pryor, & Maples, 2011; Pugliesi, 1999). According to Lambert and colleagues (2002), stress is one of the most frequently examined variables in correctional research on job attitudes. Studies investigating the influence of job-related stress on JS among COs largely find a negative association (Blevins et al., 2006; Dennis 1998; Grossi & Berg, 1991; Hepburn & Knepper, 1993; Karlinsky, 1979; Walters, 1993; Whitehead & Lindquist, 1986; Van Voorhis et al., 1991). The same inverse relationship between stress and JS is found, specifically, among probation staff (Getahun et al., 2008; Lee et al., 2009; Simmons et al., 1997; Slate et al., 2003; White et al, 2015), largely focusing on adult POs. Based on this relatively large body of research it is expected that increased levels of stress will be associated with decreased feelings of JS among juvenile probation staff.

Communication

Communication is a vital function among organizations, especially probation agencies which deal with the treatment and supervision of youth. Goldhaber (1993) described communication as the lifeblood of the organization and the tread that ties the system together. Employees within an organization spend 50-80% of their work day engaging in communication, demonstrating the importance of workplace correspondence (Klemmer & Snyder, 1972). For JPOs this involves communicating with a number of entities including, youth, parents, supervisors, behavior health care providers, and peers. Communication is a dynamic concept encompassing formal and informal communication among and between employees and leadership. Price (1997) defines communication as "the degree to which information is

transmitted among the members of an organization" (p. 349). Communication can occur during times of socialization, education, feedback, and assimilation. Clear and effective communication provides employees important information about job responsibilities and procedures. Effective communication can assist in avoiding problems before they occur, as well as resolving issues that arise in the workplace. Communication relevant to work-related matters is likely to reduce role conflict experienced at work, and in turn increase JS (Behrman & Perreault, 1984).

Relationship with Job Satisfaction. Correctional literature has documented the importance of effective communication in regard to POs' daily responsibilities such as interactions with parents, clients, and other professionals. These various forms of communication serve as opportunities to work more effectively and increase feelings of satisfaction with one's job. For example, two qualitative studies reported that parents found the probation process challenging when POs and other professionals communicated inadequately (Hillian & Reitsa-Street, 2003; Osher & Shufelt, 2006). Poor relationships between parents and JPOs can create ambiguity about the process and hinder children from acquiring needed services (Osher & Shufelt, 2006). POs are also in a unique positon where they may provide social support through communication with the offender. Holmstrom, Adams, Morash, Smith, and Cobbina (2017) found that female offenders experienced positive behavioral effects when they received supportive communication from their PO. Research has also documented the importance of communication between POs and other criminal justice professionals including judges (Hagan, Hewitt, & Alwin, 1979; MacDonald & Baroody-Hart, 1999), law enforcement (Griffin & Hepburn, 2004; Murphy & Lutze, 2009), and behavioral health care providers (Welsh et al., 2016). These lines of communication serve as a means of increasing efficiency and overall feelings of satisfaction.

It is unknown how communication impacts juvenile probation staff JS, as no published studies could be located on this topic. However, correctional research suggests that increased perceptions of communication increases JS. Two other studies among COs found communication to be a critical element of the work environment (Lambert, Hogan, Paoline, & Stevenson, 2008; Lambert & Paoline, 2008). Lambert and colleagues (2008) reported that instrumental communication had a strong, positive impact on JS, as well as a negative impact on job-related stress. Among juvenile detention workers, communication was the strongest predictor of JS when accounting for both personal and organizational characteristics (Matz et al., 2012). One study of adult probation and parole officers did report that perceptions of communicated directives had no significant impact on JS (Getahun et al., 2008). However, research generally suggests that effective communication at work allows individuals to do their job well, which leads to feelings of accomplishment and a sense of pride, increasing feelings of satisfaction.

Beyond correctional literature the relationship between organizational communication and JS is well supported. A number of studies find a strong, positive correlation between communication and JS (Goldhaber, Porter, Yates, & Lesniak, 1978; Johnson & McIntye, 1998; Miles, Patrick, & King, 1996; Muchinsky, 1977; Nathan, Mohrman, & Milliman, 1991; Pincus, 1986; Schweiger & Denisi, 1991; Wheeles, Wheeles, & Howard, 1983). This relationship is consistent across occupational domains, such as: university administrators (Wheeless, Wheeless, & Howard, 1983), blue collar employees (Kim & Hammer, 1976), teachers (Richmond & McCroskey, 1979), and nurses (Trombetta & Rogers, 1988). These findings are also consistent across different levels of authority, such as supervisors and subordinates (Hatfield & Huseman, 1982).

Indeed, a more recent study among workers at various levels of employment in India found a strong positive correlation between organizational communication and JS (Giri & Kumar, 2010). More specifically, openness and trust dimensions of organizational communication were most strongly related to JS. In a study of multiple organizational factors communication remained a significant predictor of JS along with good supervisor social support, keeping staff informed, and good decision authority (Krueger et al., 2002). In a study examining multiple dimensions of JS, satisfaction with communication was highly correlated with all five dimensions of JS (Muchinsky, 1977).

The extensive amount of research across occupations, and the somewhat smaller amount of correctional research, suggests that communication is an important aspect of the work environment that has a significant impact on JS and stress. It is hypothesized that communication will have a positive impact on JS and a negative relationship with stress among juvenile probation staff.

Perceived Organizational Support

Organizational support theory (OST) holds that employees will develop perceptions about how they feel the organization values their contributions and cares about their well-being, this is referred to as perceived organizational support (POS) (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Eisenberger & Stinglhamber, 2011). According to OST, POS depends on how employees perceive an organization's intent in regard to how they treat employees. When employees feel a sense of support, they then feel obligated to help the organization achieve its goals and expect that their increased efforts will result in greater rewards (Cropanzano & Mitchell, 2005). POS also gives employees a sense of fulfillment in terms of

socioemotional needs, causing greater identification and commit to the organization, desire to help the organization succeed, and greater psychological well-being (Kurtessis, Eisenberger, Ford, Buffardi, Stewart, & Adis, 2017). This fulfillment of socioemotional needs through POS enhances feelings of JS, along with other job attitudes such as self-esteem.

POS is conceptually similar to other forms of social support which refer to connections with individuals who provide assistance and support for a person (Cohen, Underwood, & Gottlieb, 2000; Lambert, Altheimer, & Hogan, 2010). A lack of support can leave employees feeling isolated and alone at work, exacerbating the effects of workplace stress (Ileffe & Steed, 2000). Inversely, social support can be viewed as an additional resource for employees to combat job-related stress (Neveu, 2007). This is a valuable resource providing psychological support, assistance, feedback, and motivation for employees which can boost their self-esteem (Lambert et al., 2010). Social support is beneficial for employees, as well as employers. Social support can stimulate innovation, resulting in quicker solutions to problems, allowing for the work to be more effective and enjoyable (Lambert, Minor, Wells, & Hogan, 2016). Conversely, a lack of social support can be seen as a lack of resources, negatively impacting outcomes and goals of the organization, as well as JS.

Relationship with Job Satisfaction. POS has received little attention in correctional literature. Although a number of studies have explored the impact of supervisory support (Cheeseman et al., 2011; Grossi & Berg, 1991), peer support (Castle, 2008; Jiang et al., 2016), and family support (Armstrong et al., 2015), organizational support has yet to be thoroughly explored. Only one study examining organizational support among correctional staff was located. In her study of jail staff Griffin (2001) found higher levels of organizational support to predict higher levels of JS in the expected direction; however this relationship was not

considered statistically significant. No concrete conclusions can be reached about organizational support's relationship with JS based on one study. Thus, it is necessary to review literature across occupation domains beyond criminal justice personnel.

In a recent meta-analysis assessing OST, POS was strongly and positively related to JS (Kurtessis et al., 2017). This relationship was consistent across occupational domains. For example, in a study among traffic officers, there was a positive relationship between organizational support and JS. The effects of perceived support on work outcomes accounted for almost 12% of the variance in JS. Even moderate amounts of explained variance are noteworthy, because small differences in satisfaction, or productivity, can make for significant enhancements in casework (Baruch-Feldman, Schwartz, Brondolo, & Ben-Dayan, 2002). A second meta-analysis reviewing the correlates of POS found it to have a strong, positive relationship with JS (Rhoades & Eisenberger, 2002). Thus, when employees feel as through their organization supports their efforts, this strengthens employees' beliefs that the organization cares and recognizes their performance, which in turn increases feelings of JS. Based on the large number of studies establishing this relationship, it is hypothesized that increased feelings of POS will increase feelings of JS among juvenile probation staff.

Supervisory Support

Supervisory support is an important component of organizational climate. Supervisory support as a dimension of climate dates back to the 1930s and the work on social climates by Levin, Lippitt, and White (1939). The relationship a superior has with his/her staff is an important component of the workplace. Supervisors are typically in regular contact with employees by conducting trainings, monitoring progress, implementing and enforcing policies

and procedures, and providing counsel. Efficient leadership supports efforts to meet organizational goals by providing guidance, assisting in the completion of tasks, and meeting deadlines. Supervisors within probation agencies act as resources to staff by assisting officers in doing their job correctly, managing clients, and shaping their orientation of supervision.

Supervisors or leadership may use a variety of management strategies. Some styles focus on achieving tasks by setting clear expectations and providing praise or rewards for meeting those expectations (Burke et al., 2006). Other strategies focus more on the person in which leaders will emphasis a vision for the organization, driving change in people and context (Bass, 1985). These transformational behaviors include encouraging innovation, listening to individual concerns, and intellectual stimulation. Other person-oriented techniques include the empowerment of employees through coaching and feedback behaviors so staff are able to manage themselves (Burke et al., 2006). The actions of leadership can have a strong impact on employees. For example, Fleishman (1953) found that the climate created by leadership was the climate adopted by employees, despite what they were taught in training.

Interest in supervisor support has grown within correctional literature, in part, because supervisors play an important role in managing work-related stress (Armstrong & Griffin, 2004; Armstrong et al., 2015; Auerbach et al., 2003; Cullen, Link, Wolfe, & Frank, 1985). That is, higher levels of perceived supervisory support act as a potential protective factor insulating staff from job-related stressors. Additionally, leadership plays an important role in the coordination of services between community corrections agencies and treatment providers (Welsh et al., 2016). Probation services rely on these partnerships between behavioral health care agencies to provide appropriate treatment and effective supervision for probationers. In addition,

supervisory support has been linked to various behavioral outcomes among employees, including JS.

Relationship with Job Satisfaction. In contrast to other organizational climate domains, supervisory support has received considerable attention in correctional research. Findings suggest that increased support from supervisors is associated with increased feelings of JS (Britton, 1997; Cullen et al., 1985; Jurik & Winn, 1987; Lambert, 2004; Lambert et al., 2016; Lambert & Hogan, 2009a; Van Voorhis et al., 1991). Support is an important resource, assisting staff in doing their jobs more effectively, which leads to increased satisfaction. Conversely, a lack of supervisory support can be seen as a withdrawal of resources distancing staff from supervisors and the organization (Brough & Williams, 2007). In their study of COs, Cheeseman et al. (2011) found supervisory support to account for the largest amount of variance in JS. This was more influential than demographic variables, peer support, and other job characteristics. The majority of these findings reflect insights from institutional corrections staff who experience very different working environments and job demands than community corrections staff (Armstrong et al., 2015; Cheeseman et al., 2011). One study focusing on community corrections employees found similar relationships. That is, in a study of adult POs in Pennsylvania, Leonardi and Frew (1991) found a strong correlation between supervisor feedback and overall JS. However, this study utilized a small sample size and limited statistical analysis.

Furthermore, supervisory support helps reduce stress, allowing staff to form more positive views of their jobs and to bond with the organization (Blevins et al., 2006; Cullen et al., 1985; Dowden & Tellier, 2004; Griffin, 2001; Griffin, 2006; Grossi, Keil, & Vito, 1996; Jurik & Winn, 1987; Lambert, 2004; Van Voorhis et al., 1991). For example, among community corrections officers, Jin and colleagues (2017) found supervisory support to significantly predict

role ambiguity among COs in China. As discussed previously, stress is a well-established correlate of JS among probation staff (Pitts, 2007).

The impact of supervisory support on JS is well documented beyond correctional research. For example, in a study among academic staff at a Nigerian University, support from supervisors was a significant predictor of JS (Adeniji, 2011). Support from both immediate and unit supervisors significantly increased JS among traffic enforcement officers (Baruch-Feldman et al., 2002). Additionally, in a study of multiple organizational factors good supervisor social support remained a significant predictor of JS along with communication, keeping staff informed, and good decision authority (Krueger et al., 2002). Based on these findings it is hypothesized that higher levels of supervisory support will be associated with higher levels of JS.

Perceived Agency Quality

Agency quality refers to the quality of procedures within an organization and utilized to assess organization climate (Patterson et al., 2005). Literature examining quality has primarily focused on the quality of the service as perceived by customers (Schneider, Parkington, & Buxton 1980; Schneider, White, & Paul, 1998) and well as quality of procedures (Deming, 1981). Patterson et al. (2005) largely based their measure of quality of procedures on the works of Hackman and Wageman (1995) and Demings (1986). Hackman and Wageman (1995) examined the role of total quality management (TQM) within organizations postulating four assumptions about quality: 1) quality is less costly than poor workmanship; 2) employees naturally care about the quality of their work and will take initiative to improve it; 3) organizations are composed of highly interdependent parts and problems invariably cross traditional functional lines; and 4) quality is the responsibility of management. They suggested

that quality can be improved by focusing on work processes, controlling variability in the process, analyzing how well the process is going, and leaning from those outcomes to continuously improve the process.

In regard to probation there is little literature that directly addresses quality of practices (Shapland et al., 2012). However, a number of studies have examined the effectiveness (e.g., McGuire, 1995) and values (e.g., Nellis, 1995) of probation work both of which infer quality. In the United States standards of quality probation are incorporated into an agency's accreditation. These quality standards are broadly organized into three categories: administration and management, supervision, and presentence investigation and report (Taylor, 2003). Accreditation promotes quality within an agency by increasing professionalism, standardizing services, and increasing accountability.

Perceptions of quality within probation have gained more attention recently (Grant & McNellis, 2015; Robinson, Priede, Farrall, & Shapland, 2014; Shapland et al., 2012). For example, Robinson and colleagues (2014) surveyed probation staff to explore their perceptions of quality. They concluded that there was strong consensus about the aspects of quality among frontline practitioners, middle managers, and administrative staff. These quality components included: good working relationships; resources; individualization and flexibility; goals and outcomes; attributes, skills, and values which staff bring to work; and support.

Relationship with Job Satisfaction. Within correctional literature to date, no study has examined the influence of perceptions of quality on JS. However, this relationship has been established outside of correctional literature (Barling, Kelloway, & Iverson, 2003; Berg, 1999; Saks, 1999). That is, agencies which promote quality work systems "enable employees to experience meaningfulness in their work, greater responsibility in their job, and better use of

their knowledge and skills leading to increased satisfaction…in their jobs" (Barling et al., 2003, p. 276). Therefore, it is hypothesized that perceived agency quality will have a positive association with JS in the current study.

Innovation and Flexibility

Organizational literature describes two types of innovation, actual and perceived. Actual innovation refers to the implementation of new ideas and use of feedback to make changes aimed at increasing success within the organization (Miron, Erez, & Naveh, 2004; West, 2002). Actual innovation involves taking new steps to address problems or challenges faced by the organization (West & Farr, 1990). This isn't simply thinking of new ideas, but taking action and implementing them. Implementing these changes is more likely to occur when an organization's administration is open to experimenting with new ideas and procedures (O'Reilly, Chatman, & Chadwell, 1991). This may include both tangible (e.g., introducing new software), and intangible changes (e.g., a new manner of sharing information or creation of new knowledge) (Cohen & Levinthal, 1990).

Perceived innovation refers to employee perceptions that their organization supports and encourages innovation. Koys and DeCotiis (1991) define perceived innovation as "the perception that change and creativity are encouraged, including risk-taking into new areas…" (p. 273). The current study focuses on perceived innovation, which is likely to accurately reflect actual innovation. That is, staff perceptions of innovation are likely to be an accurate assessment as to whether there is actual innovation occurring within the organization. However, it is possible that employees may fail to perceive actual innovation, or they believe there is a climate of innovation or change when, actually, there is not (Lambert & Hogan, 2010). Organizations involved in

innovative practices do so by tapping into the expertise of their employees and gaining their input throughout the process.

Relationship with Job Satisfaction. Perceptions of innovation are important because, theoretically, employees who feel their organization engages in innovation, should have a more positive view of the organization. Perceptions of innovation are linked to JS in the sense that organizations are supporting the creativity of their employees, increasing their satisfaction (DeStefano, Clark, Gavin, & Potter, 2006).

Perceived organizational innovation and flexibility has received very little attention in the correctional literature. To date, one study has examined the relationship between perceived innovation and JS among COs (Lambert & Hogan, 2010). In their study, perceived organizational innovation had a significant, positive relationship with JS even after accounting for personal characteristics, stress, and other dimensions of the work environment. Therefore, an innovative climate allows employees to have a greater sense of involvement at work, as well as a feeling that positive change can occur at their agency. This atmosphere is likely to lead employees to feeling more positively about their jobs. Beyond corrections, organizational innovation has been found to have a positive association with JS (DeStefano et al., 2006; Johnson & McIntye, 1998; Lee, Chen, Tsui, & Yu, 2014). Furthermore, this relationship is expected to be present in the current study.

Demographic Characteristics

Studies examining individual-level correlates of JS among probation staff have largely focused on demographic characteristics of employees, job characteristics, and factors outside of the workplace such has family life (Jin et al., 2017; Leonardi & Frew, 1991; Simmons et al.,

1997). Overall, studies have found minimal support for the association between demographic factors and JS, with many studies reporting inconsistent or weak associations (Getahun et al., 2008; Jiang et al., 2016; Lee et al., 2009). Officer characteristics commonly used in JS research include age, gender, race/ethnicity, level of education, tenure with agency, experience in the field, and position or rank within the agency; less commonly discussed is the influence of caseload on JS. These characteristics' relationship with JS is discussed below.

Age. The influence of age on JS is somewhat mixed across the literature with some studies reporting no association with JS (Armstrong et al., 2015; Walters, 1993; Whitehead & Lindquist, 1986; Van Voorhis et al., 1991) and others reporting a positive relationship (Blau et al., 1986; Camp & Steiger, 1995; Paoline & Lambert, 2011; Wells et al., 2016). These mixed findings hold across different correctional setting (i.e., prison, jail, juvenile detention, adult probation). For example, Cheeseman et al. (2011) found that older prison officers reported higher levels of JS. Conversely, Lambert (2004) found no relationship between age and satisfaction among prison staff. While fewer in number, probation research suggests there is no significant relationship between age and JS (Getahun et al., 2008; Jiang et al., 2016; Simmons et al., 1997).

Gender. The bulk of the literature suggests there are no gender differences in JS among correctional staff (Armstrong et al., 2015; Britton, 1997; Cullen et al., 1985; Lambert et al., 2002), with only a few studies finding that JS is higher among female officers (Britton, 1997; Camp & Steiger, 1995). Although the majority of research suggests that gender is not a significant correlate of JS, it warrants attention among understudied groups. There has been major efforts to increase the number of females employed in the field of corrections (Horne, 1985; Philliber, 1987) and this relationship has yet to be examined among juvenile probation staff.

Race/Ethnicity. Officers' race has been inconsistently related to JS across studies. In a review of prior literature, Lambert et al. (2002) found that a large proportion of empirical studies suggested no association between race and JS among correctional staff. However, Cullen et al. (1985) found that non-White officers were more dissatisfied with their job. Similarly, Van Hoorhis et al. (1991) found White COs reported higher levels of JS than all other minority groups. Fewer studies have examined feeling of JS among Hispanics, providing generally mixed results. Armstrong et al. (2015) found that Hispanics, in comparison to Caucasians, were more satisfied with their job. In contrast, Wright and Saylor (1992) found no relationship between identifying as Hispanic and feelings of JS. Largely, findings suggest no relationship between race and JS, however this is yet to be explored among juvenile probation staff. Additionally, the relationship between ethnicity and JS warrants further investigation in correctional literature.

Education. There are several reasons why education plays a key role in officer JS. According to criminal justice reformers, education enhances the professionalization of the workforce (Jurik, 1985). It is logical that better-educated workers would be more competitive when seeking more interesting or rewarding tasks or assignments at work. Conversely, more educated employees may feel overqualified for their positions and less satisfied with their work. The impact of officer education level on JS is mixed, with some studies reporting more educated officers being less satisfied with their jobs (Castle, 2008; Cullen et al., 1985; Griffin, 2001; Jurik & Halemba, 1984; Jurik & Winn, 1987; Rogers, 1991) and others reporting more educated officers being more satisfied (Blau et al., 1986; Flanagan, Johnson, & Bennett, 1996; Grossi & Berg, 1991; Grossi et al., 1996; Lambert et al., 2005; Lambert, Hogan, & Griffin, 2007; Lindquist & Whitehead, 1986). Specifically among probation staff, no significant relationship has been identified (Getahun et al., 2008; Jiang et al., 2016; Simmons et al., 1997).

Tenure. Tenure refers to how long an individual has worked for a particular agency, and is typically measured in years. Findings are somewhat mixed, with studies of COs working in prisons finding positive (Jurik & Halemba, 1984), negative (Slayer & Wright, 1992; Wright, 1993), and no relationship with JS (Byrd et al., 2000; Lambert, 2004; Lambert et al., 2005). Among jail staff, literature suggests there is no relationship between tenure and JS (Griffin, 2001; Lambert & Paoline, 2008). Among staff in a juvenile detention facility, a positive relationship was found between tenure and satisfaction (Wells et al., 2016). Finally, only one study among probation staff was located which examined tenure, finding no significant relationship. The relationship between tenure and JS warrants further investigation.

Experience. Similar to tenure, experience refers to how long an individual has worked in their current position or field (e.g., correctional officer). This is often measured as their total number of years working that position, regardless of agency affiliation. In comparison to tenure, experience is less commonly included in studies, but findings generally report no significant impact on JS regardless of correctional setting (Byrd et al., 2000; Castle, 2008; Cullen et al., 1990; Getahun et al., 2008; Simmons et al., 1997). However, Britton (1997) and Grossi and Berg (1991) found a positive association between experience and JS among COs and Blevins et al. (2006) found a negative association among juvenile detention workers.

Position. Sometimes referred to as rank, or job level, position has produced mixed findings in relation to JS. In a study of 35 probation staff, Leonardi and Frew (1991) found a positive correlation between being a supervisor and JS. However, due to small sample size and limited statistical analyses (i.e., bivariate correlations), findings should be interpreted with caution. Among prison staff, being a supervisor was associated with higher levels of satisfaction (Britton, 1997). Lambert (2004) found a positive relationship with satisfaction for both COs and

supervisors. In another study of prison staff, Lambert and colleagues (2008) found that COs were less likely to be satisfied with their jobs. Other studies of prison and jail staff have reported no relationship between position and JS (Byrd et al., 2000; Lambert & Hogan, 2009a; Lambert & Paoline, 2008).

Caseload. Largely absent from JS literature is a focus on probation staff, with few exceptions (e.g., Getahun et al., 2008; Jiang et al., 2016; Simmons et al., 1997; White et al., 2015). Unique to probation, in comparison to prison and jail staff, is their management of a caseload of probationers. Average caseload estimates have varied from 41 (Torbet, 1996) to 139 (Finn & Kuck, 2005). High caseloads make it difficult for officers to find time to properly supervise their clients, adding to additional stresses of the job such as paperwork and deadline pressures. Large caseloads are a source of stress for POs (Pitts, 2007; White et al., 2015), which is likely to decrease their feelings of JS. The relationship between caseload size and officer satisfaction has yet to be directly tested, but it is hypothesized that having a caseload, in comparison to no caseload, will have a negative relationship with JS.

Summary

Research, to date, strongly supports the assertion that work environment is a salient factor in the lives of correctional staff. This research has revealed key dimensions of the work environment that are associated with job stress and JS, such as communication, supervisory support, and POS. Understudied, or entirely absent, in correctional literature are climate dimensions of quality, innovation and flexibility, organizational support, and communication. Furthermore, following the JD-R model, job-related stress should be explored as a mediating variable between organizational climate and JS.

In addition to characteristics of the work environment, findings reviewed here suggest the need for the inclusion of key demographic factors in any study examining JS. Although some personal characteristics are known to have a lesser impact on JS, it is important to explore these relationships among juvenile probation staff as it is unknown to what degree findings among other correctional staff apply to juvenile probation. Moreover, baseline estimates of JS among juvenile probation staff are absent from the literature. The current study seeks to fill some existing gaps in correctional literature by accounting for a variety of organizational domains overlooked in correctional research, as well as examining these relationships among juvenile probation staff, an understudied population.

CHAPTER THREE:

METHODOLOGY

Introduction

The current study focuses on the relationship between job satisfaction (JS) and key demographic characteristics, and perceptions of organizational characteristics among a large sample of juvenile probation staff. Specifically, this study has four main objectives. The first objective is to establish baseline estimates of JS among juvenile probation staff. Second, to examine the psychometric properties of perceived organizational characteristics and JS. Third, to examine the correlates of JS by examining the relationships among perceived organizational characteristics and JS, including potential mediating effects. Finally, the current study seeks to determine what personal characteristics are significantly related to job satisfaction among probation staff, after organizational climate characteristics are considered. The present chapter provides the methodology for addressing the aforementioned research objectives. The research questions and hypotheses, description of the sample, measures, and analytic plan are also discussed.

Research Questions

The current study sought to answer a variety of questions regarding the correlates of JS among juvenile probation staff, specifically:

(1) Do the six proposed individual-level variables describing characteristics of organizational climate (i.e., agency innovation and flexibility, communication, agency quality, supervisory support, job–related stress) and JS represent seven distinct latent factors, respectively?

(2) Are perceived organizational characteristics of agency innovation and flexibility, communication, agency quality, supervisory support, job–related stress, and organizational support related to JS?

(3) Is the relationship between organizational characteristics and JS direct or is it mediated by job-related stress?

(4) Are demographic characteristics (i.e., gender race, ethnicity, age, current job, education, experience, tenure, and having a caseload) related to probation staffs' JS? Do these relationships remain after accounting for organizational climate characteristics?

(5) Does JS vary across agencies? If so, are there agency-level measures that predict JS across agencies?

Hypotheses

Given the collection of empirical research surrounding JS among community and institutional corrections staff (e.g., Jiang et al., 2016; Lambert et al., 2002; Simmons et al., 1997), specific findings to the aforementioned research questions are hypothesized. That is, each of the six individual-level climate domains are expected to each represent one latent construct. In addition, the six items measuring JS are expected to form one unidimensional construct (Broome, Knight, Edwards, & Flynn, 2009).

Given the current study's focus on juvenile probation staff and their underrepresentation in empirical research on the correlates of JS, hypotheses regarding the influence of demographic factors on JS are largely based on studies involving institutional correctional officers (COs). Furthermore, the nature of these relationships is somewhat mixed. For example, tenure has been found to have both a positive (Jurik & Halemba, 1984), negative (Slayer & Wright, 1992), and no relationship (Lambert, 2004) with JS among correctional staff. Examining the magnitude and direction of the relationship between demographic factors and JS will help to clarify these previous mixed findings. Evidenced by previous studies (e.g., Jiang et al., 2016; Lambert et al., 2002) one would expect a number of significant relationships between various demographic characteristics and JS, prior to accounting for organizational climate. Prior to the inclusion of organizational climate measures, education, tenure, and current job are predicted to significantly and positively relate to juvenile probation staffs' JS (Cullen et al., 1985; Grossi & Berg, 1991; Lambert et al., 2008; Walters, 1993). In regard to race, gender, age, and experience, the bulk of literature suggests that there is no relationship with JS. However, this relationship has not been well established among juvenile probation staff. Accordingly, no hypothesized relationships are specified between race, gender, age, experience, and JS (Lambert et al., 2002; Simmons et al., 1997). Few studies have examined the influence of Hispanic ethnicity on JS, but a more recent study leads one to expect Hispanics will be more satisfied with their jobs than Non-Hispanics (Armstrong et al., 2015). Finally, caseload size is expected to have a significant, negative relationship with JS (Jalbert et al., 2011). Again, these relationships are expected to reduce in magnitude once organizational climate measures are included in the analysis.

Hypotheses related to organizational characteristics are illustrated in Figure 1. Each arrow represents a hypothesized relationship. For example, agency communication is

hypothesized to significantly and directly impact job-related stress; in turn, job-related stress is hypothesized to significantly and directly impact JS; therefore, there is a hypothesized, significant, indirect relationship between agency communication and JS. It is expected that innovation and flexibility, communication, quality, supervisory support, and organizational support will have a negative relationship with stress; and stress will have a negative relationship with JS. The direct effect of all six organizational climate variables on JS will also be examined. It is expected that innovation and flexibility, communication, quality, supervisory support, and organizational support will have a direct, positive relationship with JS (Barling et al., 2003; Griffin, 2001; Kurtessis et al., 2017; Lambert et al., 2008; Lambert & Hogan, 2010).

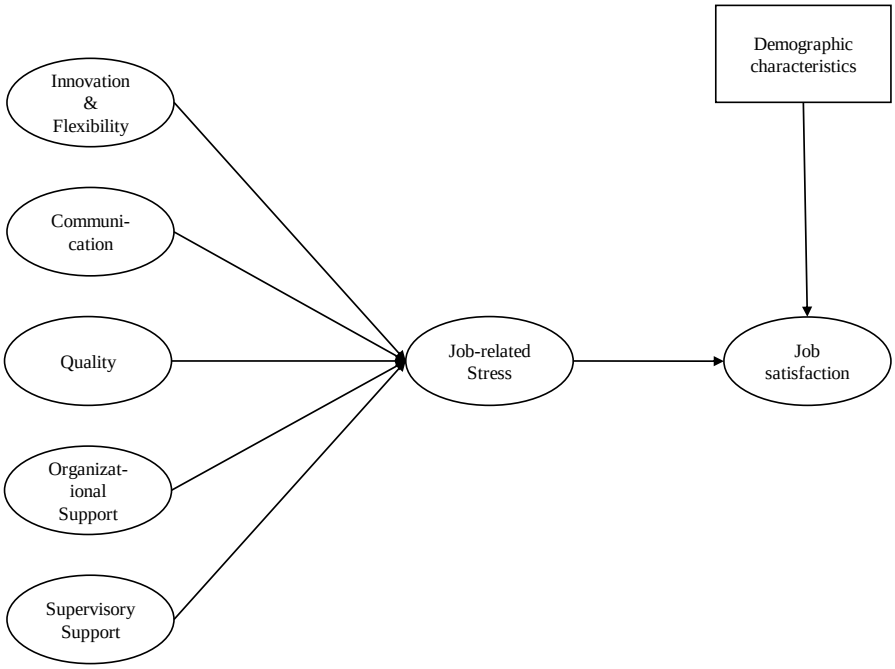

Figure 1. Latent Variable Model of the Relationship between Organizational Climate Characteristics and Job Satisfaction[a]

[a]Ovals represent latent constructs, while rectangles represent observed variables

Prior research has established the causal relationship between stress/stressors and JS (Bedeian & Armenakis, 1981; Kemery et al., 1985; Kemery et al., 1987). Studies have recently

expanded upon this relationship to consider organizational climate and its direct and indirect relationships with stress and JS. This was done following the job demands and resources (JD-R) model which generally assumes that any demand and any resource can impact an employee's health and wellbeing. Studies from this new model found that stress partially mediated the relationship between organizational climate and JS (Pecino-Medina et al., 2017). The current study seeks to expand this model and expects to find that stress will mediate the relationship between the six organizational climate measures and JS.

Sample and Data

Data for this study were collected in a National Institute on Drug Abuse (NIDA) funded research project conducted in seven states[1]. Juvenile Justice – Translational Research on Adolescents in the Legal System (JJ-TRIALS) was a 5-year implementation science initiative launched by NIDA in July 2013, involving six Research Centers and one Coordinating Center. Participating states included Texas, Mississippi, Florida, Georgia, Kentucky, Pennsylvania, and New York.

Target sites within these states were juvenile justice agencies serving youth on probation under community supervision, and associated behavioral health agencies. There were a total of 36 participating sites at baseline[2].

The project was designed to promote change among juvenile justice agencies and associated behavior health care providers, and to evaluate the differential effectiveness of two service conditions in 36 sites. Specifically, project goals included "(1) improving the continuum

[1] The use of data was approved by the JJ-TRIALS Steering Committee with Dr. Steven Belenko listed as Principal Investigator on the study.
[2] The nested nature of the data was considered in the current study. However, the low variation of job satisfaction across agencies did not warrant multilevel analysis.

of substance use [treatment] services for juvenile offenders under community supervision and (2) test[ing] the effectiveness of two implementation strategies for promoting system-wide change" (Knight et al., 2016, p. 2). The two implementation strategies were additive. The Core condition included five interventions employed at all sites during the 6-month baseline period. This included "(1) JJ-TRIALS orientation meetings, (2) needs assessment/system mapping, (3) behavioral health training, (4) site feedback report, and (5) goal achievement training" (Knight et al., 2016, p. 4). For example, at the goal achievement training sites received assistance in using their site feedback reports to select a goal that would meet their local needs. Sites in the Enhanced condition received a trained facilitator provided by each Research Center, who assisted sites in working through their goal achievement activities during a one-year experimental period. The facilitator was responsible for providing onsite and phone/email feedback on site progress toward reaching goals, providing ongoing expertise on Data Driven Decision Making (DDDM), that is using data to inform decisions, and expertise and guidance on the adoption/expansion of evidence based practices (EBPs) (for a detailed description of the interventions please see Knight et al., 2016).

Inclusion criteria for juvenile justice agencies were "(a) the ability to provide service records, (b) [to] serve youth under community supervision, (c) [provide] access to treatment provider(s) if treatment was not provide[d] directly, (d) [have a] minimum average case flow of 10 youth per month, (e) [have a] minimum of 10 staff per site, and (f) [have] a senior juvenile justice staff member who agree[d] to serve as site leader/liaison during the study" (Knight et al., 2016, p. 7).

The study design involved a cluster randomized trial in order to evaluate the effectiveness of the Core and Enhanced intervention conditions in the 36 sites. Juvenile justice

sites were matched into pairs within the states and randomly assigned to either the Core or Enhanced conditions, and randomly assigned to one of three project entry cohorts. The project was divided into three phases, a baseline phase lasting six months, an experimental phase lasting approximately 12 months, and a post-experimental phase lasting six months, for a project timeline of approximately two years.

The current sample is comprised of data collected in 2015-2016 from the Staff Survey – Juvenile Justice staff (commonly referred to as the Staff Survey), this represents baseline data for the project. All sites (juvenile justice and behavioral health) selected line staff to participate in the survey during the baseline phase, as well as three follow-up surveys during months 2 and 12 of the experimental period, and at month 6 of the post-experimental period. These surveys asked questions regarding organizational characteristics, substance use treatment services, prevention efforts, decision making, and interagency relationships. Given the focus of the study, and its aim to assess the correlates of JS among juvenile probation staff, only juvenile justice participants were included in the current study. Baseline surveys used in the current study were administered prior to any intervention procedures.

The selected measures build upon prior research incorporating both organizational climate and personal characteristics of staff. Although research on JS and personal characteristics is mixed in regard to the magnitude and direction of the relationship, it is advantageous to examine these relationships among juvenile probation staff, who remain understudied within the correctional literature. Research on organizational climate clearly demonstrates its influence on JS, but this relationship has yet to be established among juvenile probation staff.

Measures

All data pertaining to individual-level measures were obtained from the Staff Survey, and is therefore self-reported. These Likert style questions had four to five response options. Questions with five response options ranged from "strongly disagree" (coded as 1) to "strongly agree" (coded as 5). Questions with four response options include: "definitely false" (coded as 1), "mostly false", "mostly true", and definitely true" (coded as 4). For a full list of variable items and frequency breakdowns please see Appendix A.

Dependent Variable

Perceived Job Satisfaction. JS is theorized to be a latent construct consisting of six items from the Survey of Organizational Functioning (SOF). This is comprised of six Likert style questions with responses ranging from "strongly disagree" to "strongly agree". Sample items include "You are satisfied with your present job", "You give value to the work you do here", and "You are proud to tell others where you work". One negatively worded item was reverse coded so high values indicate a favorable response for each item. Prior research has documented the unidimensionality of these items (Broome et al., 2009), as well as their internal consistency (Welsh et al., 2016). A global or overall approach was utilized, focusing on the overall level of JS rather than specific facets of the job (Brayfield & Rothe, 1951). This is preferred over a faceted measure as it allows respondents to mentally assess what they feel are relevant dimensions of JS (Camp, 1994). Furthermore, faceted measures assume that the composite measure includes all relevant dimensions of JS for all workers (Lambert et al., 1999). Summing faceted measures to create overall measures of JS can be inappropriate and result in a biased measure of overall JS (Balzer et al., 1997; Bedeian et al., 1992; Lambert et al., 2002).

Independent Variables

Perceived Job-related Stress. Job-related stress is theorized to be a latent variable measured by four Likert style items which assess perceptions of pressure at the participant's place of work. Sample items include "Staff members are under too many pressures to do their jobs effectively" and "The heavy workload here reduces agency effectiveness". These items are a part of the Texas Christian University (TCU) organizational readiness for change (ORC) instrument (Institute of Behavioral Research, 2018). The internal reliability and unidimensionality of this measure is documented by Lehman, Greener, and Simpson (2002), as a subscale of organizational climate. Additionally, scales from the ORC have demonstrated good reliability and validity across multiple studies (Garner, Knight, & Simpson, 2007; Lehman, Greener, Rowan-Szal, & Flynn, 2012; Shortell et al., 2004; Taxman, Young, Wiersema, Rhodes, & Mitchell, 2007; Welsh et al., 2016).

Perceived Agency Innovation and Flexibility. This estimated latent variable is comprised of six Likert style items based on a subscale of organizational climate designed to assess the degree of innovation and flexibility within an agency (Patterson et al., 2005). Sample items include "This organization is quick to spot the need to do things differently" and "Assistance in developing new ideas is readily available". Items in this measure are based on concepts of flexibility (Garrahn & Stewart, 1992; King & Anderson, 1995) and innovation (West & Farr, 1990) that reflect readiness for change and innovation. Patterson et al. (2005) have documented the unidimensionality of this measure among manufacturers.

Perceived Agency Quality. Agency quality is theorized to be a latent variable measured by four Likert style questions. This measure seeks to address the quality of procedures within an organization, and was utilized in the current study to assess another important characteristic of

organizational climate. Sample items include “People believe the organization’s success depends on high-quality work” and “This organization is always looking to achieve the highest standard of quality”. One negatively worded item was reverse coded so that a high value indicated a favorable type of response for each item. The internal reliability and unidimensionality of this subscale of organizational climate has been demonstrated in prior research (Patterson et al., 2005).

Perceived Agency Communication. This measure of organizational functioning was taken from the TCU ORC, agency communication is conceived to be a latent variable measured by six Likert style items. The measure gauges perceptions of the climate of communication within the organization. For example, “Staff members always feel free to ask questions and express concern” and “The formal communication channels work very well here”. One negatively worded item was reverse coded so high values indicate a favorable response for each item. The internal consistency and unidimensionality of this measure is documented in prior research as a subscale of the TCU ORC instrument (Lehman et al., 2002).

Perceived Organizational Support. Perceived organization support assesses how organizational effectiveness is felt to be promoted. Prior studies provide evidence for the high internal consistency and unidimensionality of this measure based on the Survey of Perceived Organizational Support (SPOS) (Eisenberger et al., 1986; Shore & Wayne, 1993). The eight-item short form (Eisenberger, Cummings, Aemeli, & Lynch, 1997; Lynch, Eisenberger, & Armeli, 1999; Rhoades et al., 2001) was utilized in the current study. Item samples include “My organization really cares about my well-being” and “My organization cares about my opinions”. Two negatively worded items were reverse coded so high values indicate the same type of response for each item.

Perceived Supervisory Support. Supervisory support is theorized to be a latent construct based on four Likert style items. Supervision can be a valuable resource of support, increasing JS (Evans & Hohenshil, 1997; Schneider, Gunnarson, & Wheller, 1992). Items used a common stem referring to "My supervisor" and asked about specific elements of that person's behavior. For example, items ask respondents if their supervisor is respectful in handling staff member mistakes and if he/she encourages others' ideas. This measure serves as a brief, global assessment of supervisory support and is conceptually similar to constructs employed by Broome et al. (2009), Avolio, Bass, and Jung (1999), and Podsakoff, MacKenzie, Moorman, and Fetter (1990). However, since the items were so highly correlated, the one item which was most highly correlated with the other three items was selected to represent supervisory support in order to avoid issues with multicollinearity.

Personal Characteristics. A total of nine variables capturing the personal characteristics of probation staff were included in the current study: gender, ethnicity, race, age, level of education, current job level, years of experience, tenure with current employer, and caseload. Gender is a dichotomous variable coded 0 = male and 1 = female. Ethnicity is a dichotomous variable coded 0 = Non-Hispanic/Latino and 1 = Hispanic/Latino. Race is a dichotomous variable; due to lack of variation in race in the sample it is coded as 0 = Non-White and 1 = White.[3] Age is a continuous variable ranging from 23 to 67 years. Level of education is an ordinal-level variable that refers to the highest degree completed (1 = high school diploma or equivalent; 2 = some college but no degree; 3 = Associate's degree; 4 = Bachelor's degree; 5 = Master's degree; 6 = Doctoral degree or equivalent). Current job level was an ordinal-level

[3] Race was originally captured as American Indian/Alaska Native (1.02%), Asian (0.61%), Native Hawaiian or Other Pacific Islander (0%), Black or African American (24.39%), White (71.95%), More than one race (1.02%), Other (2.03%).

variable that referred to the participant's current position (1 = support/other; 2 = Counselor; 3 = case manager; 4 = probation officer; 5 = supervisor; 6 = division director; 7 = agency director)[4]. However, due to lack of variation and somewhat similar level of positions (e.g., probation officer and counselor have a similar level of authority) this was treated as a dichotomous variable (0 = non-JPO; 1 = JPO). The dichotomous treatment of rank/position is common within correctional research on job attitudes, using COs or probation officers (POs) as the reference category (Byrd et al., 2000; Lambert & Hogan, 2009a; Lambert & Hogan, 2009b; Paoline & Lambert, 2011). It is important to note that many of the aforementioned positions have similar responsibilities as JPOs such as carrying a caseload, coordinating treatment services, and working with superiors on day-to-day tasks.[5]

Respondents were also asked to indicate how many years and months of experience they had been working with youth. This was recoded and summed into a single, standardized continuous measure of experience. That is, number of months was divided by 12 (the number of months in a year), and then added to the number of years reported. For example, if a respondent indicated that he/she had 8 years and 3 months of experience, this was recoded to 8.25 years of experience (8 + [3/12]). Respondents' experience working with youth ranged from 0 to 44.08 years with a median of 14.5 years (M = 15.20; SD = 8.59). Respondents also reported their tenure with their current employer in years and months. The same process was used to recode tenure into a continuous standardized measure. Tenure ranged from 0 to 39.92 years with a median of 10.75 years (M = 12.00; SD = 8.17). Finally, caseload was originally captured as a continuous variable referring to the number of youth under supervision that the respondent was

[4] Current job level was originally captured as agency director (3.92%), division director (4.33%), supervisor (16.08%), probation officer (60.62%), case manager (6.60%), counselor (3.92%), and support/other (4.54%).
[5] The following percentages of staff carried a caseload at the time of survey administration: agency directors (16%), division directors (5%), supervisors (14%), case managers (93%), counselors (84%), and support/other (15%).

currently overseeing. However, nearly a third (31%) of respondents indicated they were not supervising any youth. Due a lack of variability, caseload was recoded into a dichotomous variable coded as 0 = no caseload and 1 = caseload.[6] Table 2 provides a description of individual-level characteristics for the current sample.

Missing Data

The original, total sample consisted of 492 probation staff across 36 agencies. Due to some missing information, missing data were addressed in three stages. First, missing data analysis was conducted using Stata 15 to examine the pattern and scope of missing information. Findings indicated 1.9% (n = 143) of the values were missing information across all cases/variables, in a non-patterned manner. Further, 6.71% (n = 33) of cases were missing information on at least one variable. Second, cases with missing information on any variable were compared to cases with complete information using t-tests. Results showed no significant differences between compete cases (i.e., no missing information) and incomplete (i.e., missing information on one or more variable) cases, suggesting that data were missing at random (MAR).

Third, missing data were addressed using direct maximum likelihood (ML), which is often referred to as full information ML or FIML. Direct ML "operates by estimating a set of parameters that maximize the probability of getting the data that were observed" (Newman, 2003, p. 332). Direct ML is generally regarded as the best method for handling missing data in most factor analysis and structural equation modeling (SEM) applications (Duncan, Duncan, & Li, 1998; Allison, 2003). This method is advantageous over multiple imputation, another popular

[6] While nearly a third of the sample did not carry an active caseload, the majority of these respondents identified as either a supervisor, probation officer, case manager, counselor, or support/other (75%), indicating that they typically share similar responsibilities as other staff and have similar experiences in their work environment. It is possible that respondents had active caseloads outside the time the survey was conducted.

method, for two primary reasons. First, multiple imputation requires the imputation model to be "congenial" with the analysis model. Direct ML is conducted within a single model and does not have this requirement. Second, direct ML produces a deterministic result. In contrast, multiple imputation is based on random draws, producing a different result each time it is run (Allison, 2012). All models were run in Mplus version 8 (Muthén & Muthén, 1998-2017), which utilizes direct ML by default, an option many statistical software programs do not offer. After applying direct ML in factor analysis and SEM the total sample consisted of 485 juvenile probation staff.[7] For subsequent regression analyses listwise deletion was utilized resulting in a total sample of 454 participants.

Analytical Strategy and Model Re-specification

Analyses for the current study were carried out in two stages. Throughout these two stages, a number of steps were carried out including, a series of bivariate, factor, path, and multivariate analyses. Stage one addressed the theoretical model illustrated in Figure 1 through a series of bivariate and factor analytic procedures. First a series of bivariate analyses were performed to determine the level of association among the items associated with each latent construct. Next, the properties of the proposed variables were examined in greater depth, including frequency distributions and correlations. These analyses laid the groundwork for subsequent factor analyses of the organizational climate measures and JS. Second, the psychometric properties of each organization climate measure were addressed through exploratory factor analysis (EFA), followed by confirmatory factor analysis (CFA) utilizing Bayesian estimation. Finally, the structural equation model illustrated in Figure 1 was tested. As

[7] The number of cases ranged from 489-492 for the construction of factor scores within each CFA. Path analysis reduced the sample size to 485 cases.

discussed in the results section, the psychometric analysis results indicate a latent variable modeling approach was not feasible with the dataset. Accordingly, a path analysis was used.

Stage two involved respecifying the original theoretical model and was completed in several steps. First, factor scores were extracted from the aforementioned CFA. Second, bivariate analyses between JS, personal, and organizational variables were conducted. Third, path analysis was utilized to examine the nature of the relationship between perceived organizational characteristics and JS (see Figure 2). Fourth, given that no mediating effects emerged in the data, an ML regression model was estimated involving both personal and organizational characteristics. Finally, the feasibility of conducting a multilevel model was explored. All models were analyzed using Mplus version 8 (Muthén & Muthén, 1998-2017).

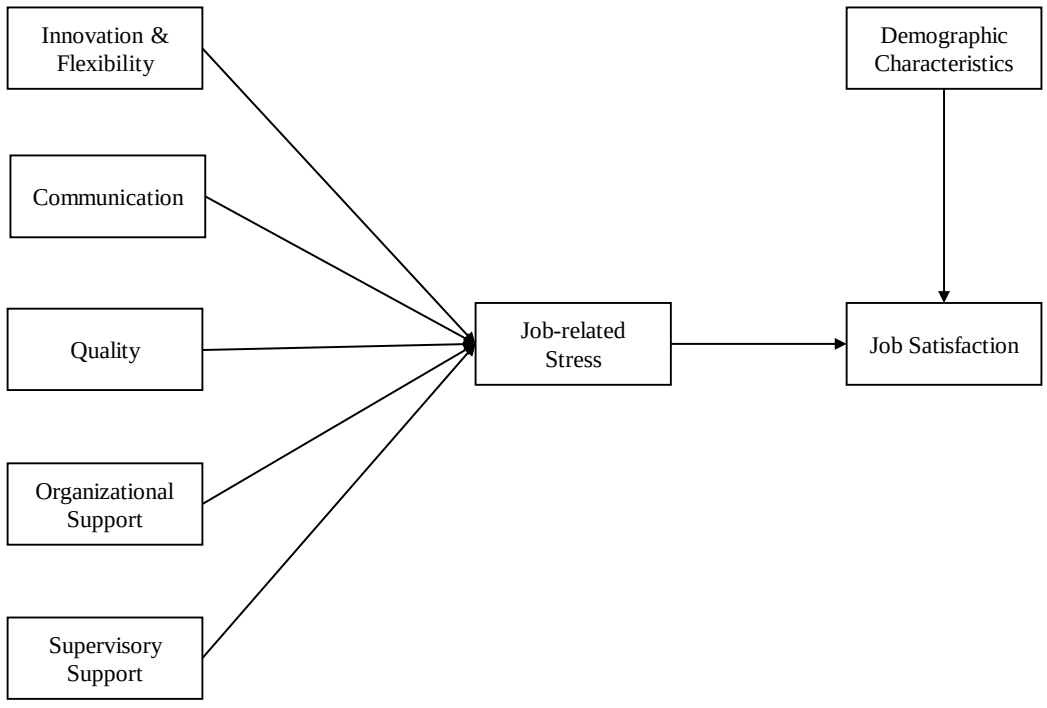

Figure 2. Proposed Path Model of the Relationship between Organizational and Personal Characteristics and Job Satisfaction with a Job-Related Stress Mediator

Factor Analysis. Following bivariate analyses, the first analytic step involved exploratory and confirmatory factor analysis of the six perceived organizational climate variables and JS. As discussed, previously, organizational climate is defined by employees' perceptions of their work environment, with these perceptions defining multiple, unidimensional characteristics that comprise an organization's climate (Broome et al., 2009; Lehman et al., 2002; Rhoades et al., 2001; Shortell et al., 2004; Patterson et al., 2005). Based on this definition the measures of organizational climate are comprised of several latent variables. A latent variable or factor is an unobserved measure that explains the correlation among other observed variables, commonly referred to as indicators (Brown, 2015). That is, observed measures are related because they are assessing a common factor. For the purpose of the current study, JS, job-related stress, quality, innovation and flexibility, organizational support, supervisory support, and communication are perceived to be distinct latent factors representing key dimensions of juvenile probation staffs' working environment. Factor analysis is a common method used to determine the unidimensionality of latent constructs, and, was utilized in the current study.

There are two main types of factor analytic procedures, EFA and CFA. EFA does not begin with a specific factor model but, rather, general specifications about the type of model that might exist (Fabrigar & Wegener, 2011). This technique is useful in "exploring" the number of factors needed to explain the intercorrelations among observed variables. In contrast, CFA is driven by theory and prior research and, therefore, specifies the number and nature of latent factors and has multiple measures of model fit. Prior research on each perceived organizational measure indicated the items of each organizational climate characteristic represented one latent factor, which accounts for the variance and covariance among the designated indicators (Broome et al., 2009; Lehman et al., 2002; Rhoades et al., 2001; Patterson et al., 2005). Factor analysis is

advantageous, when possible, because it allows for estimation and removal of measurement error associated with observed variables (Ullman, 2006).

EFA was used as an initial step in determining the number and nature of latent factors. . Although strong conceptual underpinnings allow for CFA, EFA was utilized as a preliminary step since no studies, to the best of the author's knowledge, have validated these measures among juvenile probation staff (Broome et al., 2009; Patterson el at., 2005). As discussed in the results section, EFA results laid the groundwork for subsequent CFA.

Goodness of fit in standard CFA and SEM models is determined by five criteria: 1) the model chi-square; 2) root mean square error of approximation (RMSEA); 3) standardized root mean square residual (SRMR) (for models involving continuous variables); 4) comparative fit index (CFI); 5) and the Tucker-Lewis index (TLI) (Brown, 2015; Hu & Bentler, 1999). Literature suggests that a good fitting model will have SRMR values ≤0.08; CFI and TLI values close to 0.95 or greater; and RMSEA values of 0.05 or less (Hu & Bentler, 1999). Additionally, a non-significant chi-square p-value of >0.05 indicates acceptable model fit (Kline, 2015). Other methodologists have specified various ranges of acceptable values rather than adhering to strict cutoff points. For example, Browne and Cudeck (1993) suggest that RMSEA values less than 0.08 reflects adequate model fit, RMSEA values less than 0.05 propose excellent model fit, and values of ≥0.1 suggest that the model should be rejected. Others note that an RMSEA between 0.08-0.10 suggest "mediocre" fit (MacCallum, Browne, & Sugawara, 1996). However, these fit indices are often affected by model complexity, sample size, normality of data, type of data, and amount and type of misspecification (Brown, 2015). Within CFA and SEM frameworks, modifications can be made to the overall fit of the model. However, it is important that modifications are theoretically or logically justified (Hox & Bechger, 1998).

Standard CFA and SEM models involving continuous variables often rely on ML estimation, which assumes the variables are normally distributed (Brown, 2015). Utilizing ML estimation with categorical data is problematic as it does not meet these assumptions and can result in biased standard errors, an inflated chi-square test, and underestimation of parameters (Muthén & Kaplan, 1985). Given the categorical nature of all indicators measuring organizational characteristics and JS, ML estimation for EFA and CFA models would be inappropriate in the current study. Alternatives to ML estimation techniques include weighted least squares regression (WLS) (Flora & Curran, 2004) and Bayesian estimation (Muthén & Asparouhov, 2012). Although WLS is commonly used for categorical indicators, it is not a good choice among small to moderate sample sizes and when model complexity increases (Flora & Curran, 2004; Muthén & Kaplan, 1992). In comparison, Bayesian estimation provides more flexibility in terms of data and sample requirements. As discussed in the results section, CFA were first estimated using WLSMV, but results indicated Bayesian estimation was a more appropriate method in the current dataset.

Although Bayesian estimation techniques have been around for centuries, it has not been until recently that they have been utilized more frequently by applied researchers (Kaplan & Depaoli, 2013). Brown (2015) suggests that the sluggish adoption of these techniques is due to the fact that Bayesian statistics challenge many of the assumptions of traditional statistics (e.g., Bayesian estimation relies on the posterior distribution) and a lack of availability of statistical software to perform such analyses. Arguably, these techniques are gaining popularity among applied researchers because they offer more flexibility in model testing that more closely aligns with theory (Muthén & Asparouhov, 2012). Bayesian estimation has a number of strengths including: “better performance in small samples; lack of reliance on asymptotic theory (i.e.,

unlike ML, Bayesian analysis does not assume the distributions of parameter estimates are normal on the basis of large-sample theory); automatic handling of missing data…; ability to estimate complex models that are not feasible in ML estimation (e.g., measurement models entailing categorical models with multiple latent variables); better factor scores;…and higher statistical power in some scenarios (e.g., non-normal sample data compared to ML estimates…)" (Brown, 2015, p. 401). Bayesian estimation can also be helpful when estimating multilevel and mixture models (Kaplan & Depaoli, 2012).

Bayesian is also distinct from traditional statistics in its assessment of model fit. Goodness of fit is determined by the: 1) posterior predictive *p* (PPP) value (Gelman, Meng, Stern, & Rubin, 1996); and 2) potential scale reduction factor (PSRF) (Gelman & Rubin, 1992). In Mplus, the PPP value is computed "using every 10^{th} iteration among the iterations used to describe the posterior distribution of parameters" (Muthen & Asparouhov, 2012, p. 315). PPP values around 0.5 or greater are thought to suggest excellent model fit, whereas *p* values of .10 or >.05, appear reasonable (Muthen & Asparouhov, 2012). The PSRF is used to assess the convergence of cumulative Markov Chains, by comparing the estimated between-chain and within-chain variances for each parameter of the model. Brooks and Gelman (1998) suggested that a PSRF value of <1.2 means that one can be fairly confident that convergence has been reached. However, some researchers use a more stringent criteria for the PSRF, a value of <1.1. Following CFAs with Bayesian estimation, these factors were utilized in subsequent SEM illustrated in Figure 1.

SEM is a powerful tool used for estimating direct and mediating effects of measured variables that are directly observed, and latent variables, that are unobserved or not directly observed. SEM often involves CFA and path analysis to assess the relationships specified in a

given model (Kaplan, 2008). That is, CFA provides the measurement model within a SEM, which specifies the number of factors, the relationship between indicators and the factors, and, if indicated, the relationship among indicator errors (Brown, 2015). Subsequently, the structural model specifies how the latent factors are related (e.g., direct or indirect effects). Elaborated on in the results section, Figure 1 was estimated using SEM, however the model did not fit the data due to the complexity of the structural model. Therefore, the model was respecified in the second stage of analyses.

The second stage of analyses was conducted in several steps. First, factor scores were extracted from the aforementioned CFA. Second, path analysis tested the model illustrated in Figure 2. Third, multivariate analyses were performed to in two stages, first examining the relationship between JS and personal characteristics, then examining the full model (i.e., personal and organizational characteristics). Finally, the feasibility of multilevel was explored given the nested nature of the data.

Factor Scores. Due to the complexity of the SEM in Figure 1, factor scores were produced using Bayesian estimation for each organizational climate characteristic and JS, and utilized in subsequent path analyses to address research question #3. In the current study, factor scores serve as proxies for latent variables in order to examine the indirect relationship illustrated in Figure 2.

Path Analysis. As discussed in the results section, due to the complexity of the model shown in Figure 1, path analysis is utilized over SEM to assess the model. Path analysis is closely related to multiple regression and considered an extension of the regression model (Garson, 2013). According to Stage, Carter, and Nora (2004), the purpose of path analysis is "to provide estimates of the magnitude and significance of hypothesized causal connections among

sets of variables…" (p. 5). Similar to the structural model, the direction of relationships can vary (e.g., direct, indirect, bi-directional). In contrast to a SEM, path analyses only include observed variables. A regression analysis is conducted for each specified relationship, producing standardized path coefficients describing the magnitude of that relationship. The fit of the model to the data is typically evaluated based on similar goodness of fit statistics as those of SEMs discussed earlier (i.e., RMSEA, CFI/TLI, chi-square, SRMR).

Path analysis is advantageous because it allows researchers to examine both direct and indirect effects simultaneously. Due to the complexity of the SEM in Figure 1, factor scores were produced for each organizational climate characteristic and JS, and utilized in subsequent path analyses to address research question #3.

Multivariate Analyses. Discussed in the results section, no mediation effect was found, therefore ML regression models were estimated to identify and isolate key factors influencing JS among juvenile probation staff. Multivariate analyses were conducted using additive models. The first model included only personal characteristics, while the second model represents the full model by adding organizational climate characteristics. As assessed through changes in explained variance, potential changes in significance and magnitudes of unstandardized coefficients, this strategy allows for comparisons to be made across the two models to identify key personal and organizational climate measures which have the most influence on JS.

Multilevel Modeling. Multilevel modeling has more recently become a popular methodology for studying nested phenomena within the social and behavioral sciences (Raudenbush & Sampson, 1999). Single level analysis assumes residuals are independent, but when data are sampled from a clustered, hierarchical data structure, this assumption can be

violated. That is, we can expect observations in the same county to be more alike than observations in another county, causing observations in the same group to have correlated errors (Nezlek, 2008). This violation causes standard errors to be underestimated, increasing the probability of a Type 1 error. Multilevel modeling allows for variation in the effect of a given predictor on a given outcome across counties. Random intercepts and random slopes are ways of taking this heterogeneity into account. Given the nested nature of the current data (i.e., probation staff nested in agencies) the feasibility of a multilevel model was assessed. First, preliminary analyses are conducted by examining a null, or intercept-only, model to examine the intraclass correlation (ICC) of JS. The model is used as a benchmark to compare subsequent models. Next, the design effect was calculated. Finally, a second preliminary model is estimated with all six organizational measures at the within-level and one measure of organization size at the between-level.[8] Discussed further in the results section, the estimation of a two-level model is not indicated.

Summary

Through factor analysis, path analysis, and regression estimation procedures, results are expected to evaluate the aforementioned research questions and hypotheses. That is, (1) whether the perceived specified organizational climate characteristics and JS can be measured as latent constructs; (2) whether perceived communication, supervisory support, organizational support, agency quality, and agency innovation and flexibility impact JS directly or if this relationship is mediated by job-related stress; (3) and whether personal characteristics

[8] Organizational size is a common measured used in multilevel agency research examining job attitudes such job satisfaction (Broome et al., 2009)

significantly impact JS after accounting for organizational climate. The following chapter presents analyses and results for these research questions.

CHAPTER FOUR:

ANALYSES AND RESULTS

The current study sought to 1) determine if perceived organizational climate characteristics of job satisfaction (JS), communication, innovation and flexibility, agency quality, supervisory support, and stress form respective unidimensional latent factors among a large sample of juvenile probation staff, 2) assess the effects (e.g., direct and mediating effects) of these organizational characteristics on JS and, 3) assess the influence of personal characteristics on JS. This chapter presents the results from the analyses examining the influence of personal and organizational characteristics on JS among juvenile probation staff in two stages. The first stage provides an overview of sample demographics and bivariate analyses, followed by factor analyses and structural equation modeling. This is followed by the second stage of analyses which includes path analysis, and subsequent multivariate analyses, concluding with an assessment for the feasibility of multilevel modeling.

Sample Descriptives

Descriptive statistics are provided in Table 3. Overall, the participants are predominately White (72%), female (59%), with a median age of 41 (M = 41.6, SD = 9.68). The majority of participants are juvenile probation officers (JPOs) (61%). Participants largely hold Bachelor's degrees (61%), with a little over a third holding a Master's degree or higher. Approximately two-thirds (68%) of juvenile probation staff report having a caseload, supervising at least one youth.

Participants vary in their experience ranging from less than a year to 44 years of experience, with a median of 14.5 years (M = 15.20, SD = 8.59). Tenure with current employer also has a wide range with some participants working with their current agency for less than a year and others reporting nearly 40 years with a median of 10.75 years (M = 12.00, SD = 8.17).

Table 3. Descriptive Statistics of Juvenile Probation Staff (n = 477-492)

Variable	Mean or Frequency (%)	SD	Median	Min/Max
Personal Characteristics				
Race/Ethnicity				0-1
White	354 (72.0%)	--	--	--
Hispanic	59 (12.0%)	--	--	--
Gender				0-1
Male	201 (40.9%)	--	--	--
Female	290 (59.1%)	--	--	--
Age	41.6	9.68	41	23-67
Current job				0-1
Juvenile probation officer	294 (60.6%)	--	--	--
Education				1-7
No HS diploma or equivalent	--	--	--	--
HS diploma or equivalent	2 (0.4%)	--	--	--
Some college, but no degree	8 (1.6%)	--	--	--
Associate's degree	7 (1.4%)	--	--	--
Bachelor's degree	299 (61.0%)	--	--	--
Master's degree	161 (32.9%)	--	--	--
Doctoral degree or equivalent	11 (2.2%)	--	--	--
Other	2 (0.4%)	--	--	--
Caseload	331 (68.3%)	--	--	0-1
Experience	15.20	8.59	14.50	0-44.08
Tenure	12.00	8.17	10.75	0-39.92

As illustrated in Table 4, in regard to the dependent variable JS, participants, on average, report that they are satisfied with their job. Approximately half of juvenile probation staff either "agree" or "strongly agree" that they are satisfied on all six items. Respondents report a moderate level of stress, with approximately 40% or more agreeing or strongly agreeing with each of the four items. Respondents report relatively strong feelings of organizational support with 64% or more reporting "mostly true" or "definitely true" for each of the eight items.

Similarly, 66% or more of respondents report “mostly true” or “definitely true” to each of the items measuring innovation and flexibility within their agency. Participants perceive a relatively strong climate of quality within their agency with 83-90% reporting “mostly true” or “definitely true” to each of the four items. Perceptions of communication among respondents are moderate. Finally, there is a strong perception of supervisory support among respondents.

Table 4. Percentage of Responses for Organizational Climate and Job Satisfaction Measures (n = 481-492)

	Disagree Strongly	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
Dependent variable					
Job Satisfaction					
You are satisfied with your present job (E7a)	1.65	7.63	14.43	49.69	26.60
You would like to find a job somewhere else[a] (Re7b)	23.70	30.77	27.23	13.72	4.57
You feel appreciated for the job you do (E7c)	3.31	16.98	27.74	38.72	13.25
You like the people you work with (E7d)	--	2.26	10.49	51.44	35.80
You give high value to the work you do here (E7e)	0.62	1.03	6.37	41.68	50.31
You are proud to tell others where you work (E7f)	1.03	2.47	15.64	39.92	40.95
Organizational Characteristics					
Stress					
Staff members are under too many pressures to do their jobs effectively	2.66	26.84	26.84	29.71	13.93
Staff members often show signs of stress and strain	1.44	13.96	19.10	45.79	19.70
The heavy workload here reduces agency effectiveness	4.51	25.41	30.94	27.87	11.27
Staff frustration is common here	2.66	10.25	21.93	40.16	25.00

Table 4 (Continued)

	Disagree Strongly	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
Communication					
Ideas and suggestions from staff get fair consideration by management (E5a)	5.35	18.52	26.13	41.77	8.23
The formal communication channels work very well here (E5b)	6.97	23.16	19.88	42.42	7.58
The informal communication channels work very well here (E5c)	4.11	16.43	24.02	47.43	8.01
Staff is always kept well informed (E5d)	9.24	25.87	26.08	31.42	7.39
More open discussions about agency issues are needed here (E5e)	2.66	10.04	21.72	46.11	19.47
Staff members always feel free to ask questions and express concern (E5f)	9.24	20.33	22.79	37.37	10.27
Supervisory Support					
Your supervisor acknowledges creative solutions to problems (E9a)	1.43	5.32	15.95	52.97	24.34
Your supervisor encourages others' ideas (E9b)	1.64	6.35	16.80	50.20	25.00
Your supervisor is respectful in handling staff member mistakes (E9c)	2.86	6.34	12.88	50.31	27.61
Your supervisor encourages staff to try new ways to accomplish their work[a] (E9d)	1.84	6.35	19.26	48.16	24.39

	Definitely False	Mostly False	Mostly True	Definitely True
Quality				
This organization is always looking to achieve the highest standards of quality (E3a)	1.63	6.30	54.27	37.80

Table 4 (Continued)

	Definitely False	Mostly False	Mostly True	Definitely True
Quality is taken very seriously here (E3b)	1.63	9.59	55.51	33.27
People believe the organization's success depends on high-quality work (E3c)	1.85	10.88	59.96	27.31
This organization does not have much of a reputation for top-quality performance[a] (Re3d)	40.82	42.68	14.02	2.47
Organizational Support				
My organization really cares about my well-being (E4a)	7.61	24.90	53.50	13.99
My organization strongly considers my goals and values (E4b)	5.94	30.94	49.39	13.73
My organization shows little concern for me[a] (Re4c)	25.77	45.77	25.77	2.68
My organization cares about my opinions (E4d)	5.74	27.87	53.07	13.32
My organization is willing to help me if I need a special favor (E4e)	6.21	22.57	58.18	13.04
Help is available from my organization when I have a problem (E4f)	2.05	16.19	61.07	20.70
My organization would forgive an honest mistake on my part (E4g)	5.14	15.02	65.02	14.81
If given the opportunity, my organization would take advantage of me[a] (E4h)	23.33	47.71	22.71	6.25
Innovation & Flexibility				
New ideas are readily accepted here (E1a)	4.69	22.24	56.73	16.33
This organization is quick to respond when changes need to be made (E1b)	5.56	26.75	52.67	15.02

Table 4 (Continued)

	Definitely False	Mostly False	Mostly True	Definitely True
Management here is quick to spot the need to do things differently (E1c)	4.50	26.99	54.40	14.11
This organization if flexible; it can quickly change procedures to meet new conditions and solve problems as they arise (E1d)	5.94	23.57	57.38	13.11
Assistance in developing new ideas is readily available (E1e)	4.75	28.93	55.17	11.16
People in this organization are always searching for new ways of addressing problems (E1f)	3.70	18.89	60.16	17.25

[a]Item is reverse coded for subsequent analyses.

Stage 1: Bivariate Analyses, Factor Analyses, and Structural Equation Modeling

Prior to conducting path analysis that serves as the main analysis for this study (See Figure 1), a series of bivariate analyses examine the association among observed organizational climate items. The results from these analyses are the first step in conducting the factor analysis used to explore the dimensionality of each construct. First, an exploratory factor analysis (EFA) verifies the number and nature of latent factors. Next, confirmatory factor analysis (CFA) produces both latent constructs and factor scores that are utilized in subsequent analyses. Finally, SEM is conducted to examine whether stress mediates the relationship between latent and observed organizational characteristics and JS. This section reports the results of analyses of the 38 items measuring the six organizational climate characteristics and JS, factor analyses, and SEM.

Bivariate Analyses. First, the bivariate polychoric correlations among items for the seven latent variables are studied to determine whether the items are associated.[9] As displayed in Table 5, correlations among items for each proposed latent variable are strongly and positively correlated.

Table 5. Polychoric Correlations between Items of Observed Indicators

Job Satisfaction								
	1	2	3	4	5	6	7	8
1. E7a	--							
2. Re7b	.733	--						
3. E7c	.685	.525	--					
4. E7d	.271	.281	.313	--				
5. E7e	.492	.346	.395	.358	--			
6. E7f	.641	.529	.489	.405	.687	--		
Job-related Stress								
1. E6a	--							
2. E6b	.702	--						
3. E6c	.694	.667	--					
4. E6d	.646	.781	.567	--				
Communication								
1. E5a	--							
2. E5b	.722	--						
3. E5c	.509	.636	--					
4. E5d	.638	.726	.539	--				
5. E5e	.451	.452	.210	.481	--			
6. E5f	.592	.667	.507	.673	.459	--		
Supervisory Support								
1. E9a	--							
2. E9b	.900	--						
3. E9c	.820	.829	--					
4. E9d	.803	.826	.810					
Agency Quality								
1. E3a	--							
2. E3b	.816	--						
3. E3c	.653	.785	--					
4. Re3d	.584	.554	.404	--				

[9] Polychoric correlations are used when data are categorical in nature. This correlation assumes an underlying bivariate normal distribution.

Table 5 (Continued)

	1	2	3	4	5	6	7	8
Organizational Support								
1. E4a	--							
2. E4b	.752	--						
3. Re4c	.579	.673	--					
4. E4d	.589	.698	.579	--				
5. E4e	.590	.660	.556	.603	--			
6. E4f	.590	.744	.690	.617	.696	--		
7. E4g	.535	.608	.585	.543	.703	.655	--	
8. Re4h	.488	.562	.684	.577	.509	.577	.544	--
Innovation and Flexibility								
1. E1a	--							
2. E1b	.660	--						
3. E1c	.689	.745	--					
4. E1d	.591	.820	.723	--				
5. E1e	.711	.691	.761	.742	--			
6. E1f	.648	.625	.681	.689	.761	--		

Within all seven constructs, the items are strongly and positively correlated; indicating that participants who have high values on one indicator, within a construct, are more likely to have a high value on one of the other items within that particular construct. Among the six indicators of JS correlations range from 0.271-0.733. Correlations among communication indicators range from 0.210-0.722; innovation and flexibility indicators range from 0.591-0.820; agency quality indicators range from 0.404-0.816; organizational support items are correlated between 0.488-0.752; and stress indicators range from 0.567-0.702.

Item correlations within supervisory support are very high, ranging from 0.820-0.900, suggesting issues of multicollinearity. Given that the four items measuring supervisory support are so highly correlated (>.800), the item which is most highly correlated with the other three items is selected to represent supervisory support in subsequent analyses in order to avoid issues

with multicollinearity[10]. As can be seen among the five remaining organizational climate characteristics and JS, there are strong relationships among the indicators[11].

Exploratory Factor Analysis. Next, preliminary EFA models are conducted for each of the five organizational climate characteristics and JS to verify the number and nature of latent factors. Although strong conceptual underpinnings allow for CFA, EFA is often utilized as a preliminary step given that few studies have validated these measures among juvenile probation staff (Broome et al., 2009; Patterson et al., 2005). Results in Table 6 present un-rotated loadings and eigenvalues for each construct. On the first factor of each construct, loadings range from 0.38-0.86, suggesting that each item belongs to that factor (Merenda, 1997). Each factor also exhibits "simple structure", that is, variables have high loadings on one factor and near-zero (or comparatively lower) loadings on the second factor. Based on the Kaiser-Guttman rule, one factor is retained for each construct; however, reliance on this criteria alone may result in either overfactoring or underfactoring. (Brown, 2015). Therefore, a scree test and Horn's parallel analysis, an eigenvalue-based procedure, guides final factor selection (Horn, 1965; Humphreys & Montanelli, 1975)[12].

Table 6. Summary of Exploratory Factor Analysis Results for Organizational Climate Measures and Job Satisfaction (n = 467-485)

	Factor Loadings	
Item	1	2
Factor 1: *Job Satisfaction*		
You are satisfied with your present job	.80	-.22
You would like to find a job somewhere else	.68	-.24
You feel appreciated for the job you do	.64	-.15
You like the people you work with	.38	.18
You give high value to the work you do here	.57	.34

[10] All four items began with the same phrasing "Your supervisor…" which may account for the high degree of correlation.

[11] Cronbach's alpha for each of the proposed measures suggests strong internal consistency (>.80) of each set of items. Each construct's alpha value is as follows: JS = 0.80; stress = 0.86; innovation and flexibility = 0.89; quality = 0.81; communication = 0.86; organizational support = 0.89; supervisory support = 0.92.

[12] Horn's parallel analysis test generates artificial data besides the actual dataset and estimates eigenvalues for each dataset. Factor selection is based on how many "real" eigenvalues are greater than those generated by random data.

Table 6 (Continued)

Item	Factor Loadings 1	2
You are proud to tell others where you work	.72	.24
Eigenvalue:	2.51	.33
Factor 2: *Job-related Stress*		
Staff members are under too many pressures to do their jobs effectively	.77	.10
Staff members often show signs of stress and strain	.82	-.09
The heavy workload here reduces agency effectiveness	.72	.14
Staff frustration is common here	.75	-.14
Eigenvalue:	2.35	.05
Factor 3: *Communication*		
Ideas and suggestions from staff get fair consideration by management	.74	.02
The formal communication channels work very well here	.83	-.08
The informal communication channels work very well here	.60	-.23
Staff is always kept well informed	.79	.05
More open discussions about agency issues are needed here	.49	.24
Staff members always feel free to ask questions and express concern	.74	.06
Eigenvalue:	2.99	.13
Factor 4: *Agency Quality*		
This organization is always looking to achieve the highest standards of quality	.79	.06
Quality is taken very seriously here	.86	-.04
People believe the organization's success depends on high-quality work	.70	-.12
This organization does not have much of a reputation for top-quality performance	.53	.12
Eigenvalue:	2.14	.03
Factor 5: *Organizational Support*		
My organization really cares about my well-being	.67	-.19
My organization strongly considers my goals and values	.81	-.16
My organization shows little concern for me	.72	-.09
My organization cares about my opinions	.70	-.06
My organization is willing to help me if I need a special favor	.72	.25
Help is available from my organization when I have a problem	.76	.10
My organization would forgive an honest mistake on my part	.68	.22
If given the opportunity, my organization would take advantage of me	.65	-.05
Eigenvalue:	4.12	.20

Table 6 (Continued)

Item	Factor Loadings 1	2
Factor 6: *Innovation and Flexibility*		
New ideas are readily accepted here	.72	.12
This organization is quick to respond when changes need to be made	.79	-.18
Management here is quick to spot the need to do things differently	.80	-.02
This organization if flexible; it can quickly change procedures to meet new conditions and solve problems as they arise	.78	-.16
Assistance in developing new ideas is readily available	.80	.13
People in this organization are always searching for new ways of addressing problems	.74	.14
Eigenvalue:	3.59	.11

Visual inspection of each scree plot indicates that the last substantial decline in the magnitude of the eigenvalues occurs after the first value (Cattell, 1966) (Please see Appendix B for scree plot figures). Some suggest that this test may be ambiguous (e.g., if there is no clear change in the slope) and subjective to one's own interpretation. However, this test performs well in the current study given the large sample size and well-defined factors (Gorsuch, 1983). Results from Horn's parallel analysis test suggest that two factors should be retained for JS, communication, innovation and flexibility, and stress. However, the second "real" eigenvalues are only marginally larger than those generated by random data (respectively, 0.287, 0.082, 0.004, 0.045). Horn's test suggests three factors be retained for organizational support, but the second and third values are only marginally greater than the artificial values (i.e., 0.055, 0.128). Therefore, one factor for each construct is retained based on prior research (Eisenberger et al., 1997; Lehman et al., 2002; Patterson et al., 2005), the Kaiser-Guttman rule, and the scree test.

Confirmatory Factor Analysis. Next, preliminary CFA models involving Bayesian estimation are conducted, and factor scores are generated, for each of the five organizational characteristics and JS.

Preliminary CFA results are presented in Table 7. Bayesian estimation is appropriate in the current analyses due to the non-normal distribution of the 34 items. Each latent factor is scaled by fixing the variance of the latent variable to 1.000 (Brown, 2015). Based on these results, JS (PPP = 0.000), organizational support (PPP = 0.002), and stress (PPP = 0.029) did not meet acceptable fit criteria. Further examination of the item correlations indicates issues of multicollinearity within the three constructs. In order to address these issues, the most highly correlated item(s) are removed from each factor analysis; these subsequent analyses are presented in Table 8.

Table 7. Preliminary Factor Analysis of Five Organizational Characteristics and Job Satisfaction using Bayesian Estimation

Factor	No. of Items	Posterior Predictive P-value	Potential Scale Reduction*
Job Satisfaction	6	0.000	1.009
Job-related Stress	4	0.029	1.001
Communication	6	0.080	1.007
Agency Quality	4	0.250	1.009
Organizational Support	8	0.002	1.010
Innovation & Flexibility	6	0.060	1.006

*Information based on 50,000 iterations

Two items are removed from JS, within organizational support, three items are removed. Finally, one item is removed from job-related stress. All items significantly load onto each latent construct. As shown in Table 8, results suggest acceptable fit of a one factor model for each construct.

Table 8. Final Factor Analysis of Five Organizational Climate Characteristics and Job Satisfaction using Bayesian Estimation and Standardized Loadings (n = 488-492)[a]

	Factor Loadings
Factor 1: *Job Satisfaction*	
You would like to find a job somewhere else[b]	1.000
You feel appreciated for the job you do	0.888
You like the people you work with	0.496
You are proud to tell others where you work	1.075
Posterior Predictive P-value:	0.325
Potential Scale Reduction:	1.005

Table 8 (Continued)

	Factor Loadings
Factor 2: *Stress*	
Staff members are under too many pressures to do their jobs effectively	1.000
The heavy workload here reduces agency effectiveness	0.631
Staff frustration is common here	0.538
Posterior Predictive P-value:	0.509
Potential Scale Reduction:	1.004
Factor 3: *Communication*	
Ideas and suggestions from staff get fair consideration by management	1.000
The formal communication channels work very well here	1.580
The informal communication channels work very well here	0.715
Staff is always kept well informed	1.184
More open discussions about agency issues are needed here[b]	0.493
Staff members always feel free to ask questions and express concern	0.986
Posterior Predictive P-value:	0.080
Potential Scale Reduction:	1.007
Factor 4: *Agency Quality*	
This organization is always looking to achieve the highest standards of quality	1.000
Quality is taken very seriously here	1.762
People believe the organization's success depends on high-quality work	0.799
This organization does not have much of a reputation for top-quality performance[b]	0.456
Posterior Predictive P-value:	0.250
Potential Scale Reduction:	1.009
Factor 5: *Organizational Support*	
My organization really cares about my well-being	1.000
My organization shows little concern for me[b]	1.541
My organization cares about my opinions	1.133
My organization would forgive an honest mistake on my part	1.001
If given the opportunity, my organization would take advantage of me[b]	1.242
Posterior Predictive P-value:	0.275
Potential Scale Reduction:	1.001
Factor 6: *Innovation & Flexibility*	
New ideas are readily accepted here	1.000
This organization is quick to respond when changes need to be made	1.310
Management here is quick to spot the need to do things differently	1.394
This organization if flexible; it can quickly change procedures to meet new conditions and solve problems as they arise	1.339
Assistance in developing new ideas is readily available	1.492

Table 8 (Continued)

	Factor Loadings
People in this organization are always searching for new ways of addressing problems	1.105
Posterior Predictive P-value:	0.060
Potential Scale Reduction:	1.006

[a]Information based on 50,000 iterations
[b]Item was reversed coded prior to analyses

The posterior predictive p-value (PPP) for each factor is above 0.05, the suggested cutoff point for good fit (Muthén & Asparouhov, 2012), and the potential scale reduction is less than 1.100 (Brooks & Gelman, 1998). Finally, the Kolmogorov-Smirnov test does not identify any problematic parameters. These findings provide support for the hypotheses that JS, organizational support, stress, communication, quality, and innovation and flexibility represent individual latent factors.

Structural Equation Modeling. Next, these factors are used in a subsequent, preliminary SEM to examine whether job-related stress mediates the relationship between the organizational characteristics and JS, as seen in Figure 3 (Research Question #3).

However, the model does not fit the data, with a posterior predictive p-value of 0.000 and the Kolmogorov-Smirnov distribution test producing a p-value of 0.0001, indicating problematic parameters in the posterior distributions of the different *Markov chain Monte Carlo* (MCMC) chains.[13] This is likely due to the low ratio of parameters to sample size which causes complexity and difficulty in estimating the model. Given the complexity of the model, it is appropriate to reconceptualize the model in order to address the aforementioned research questions. Therefore, factor scores are constructed for each of the five organizational

[13] Unlike maximum likelihood (ML), which utilizes point estimates of the model parameters, Bayesian analysis estimates features of the posterior distributions. MCMC sampling is used to estimate posterior distributions of the model parameters (Brown, 2015).

characteristics and JS based on the aforementioned items displayed in Table 6; these were created by Bayesian estimation and used in subsequent path analyses.

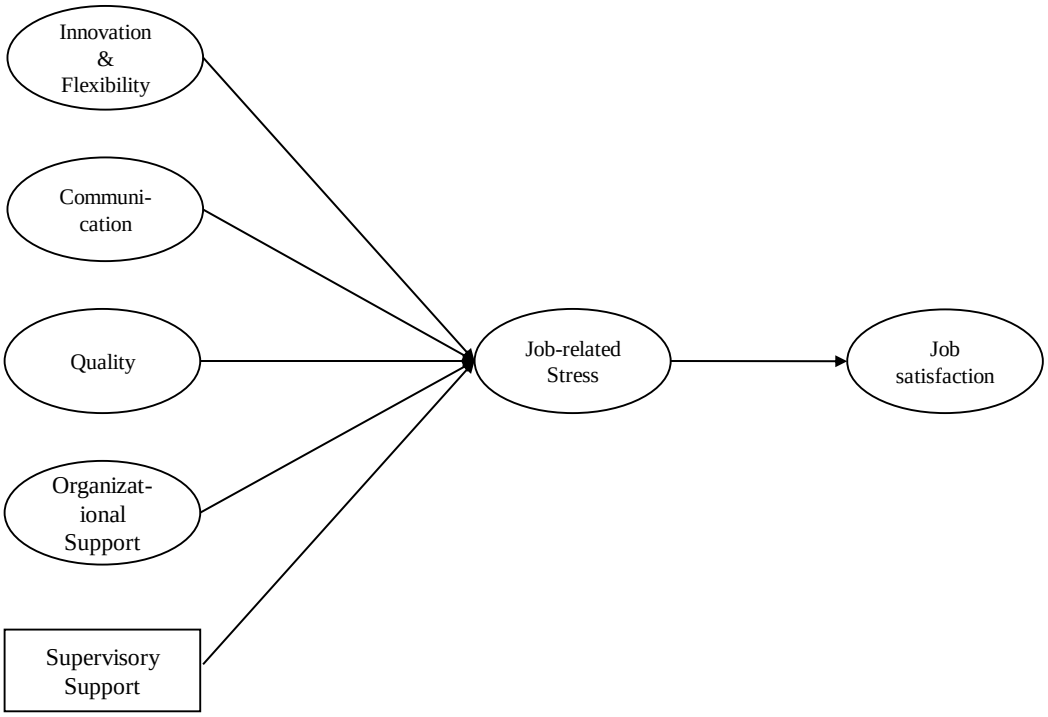

Figure 3. Structural Equation Model of the Relationship between Organizational Characteristics and Job Satisfaction with a Job-Related Stress Mediator[a]

[a]Ovals represent latent constructs, while rectangles represent observed variables

Stage 2: Bivariate, Path, and Multivariate Analyses

Bivariate Analyses. Table 7 provides correlations among personal and organizational characteristics, represented as factor scores. Bivariate analyses indicate that personal and organizational characteristics are significantly related to JS. Among personal characteristics age (r = .12, p < .01) and identifying as White (r = .26, p < .001) demonstrated a significant and positive correlation with JS. Being a JPO (r = -.21, p < .001) and managing a caseload (r = -.26, p < .001) has a significant and negative relationship with JS. Five organizational characteristics are significantly related to JS, with supervisory support (r = .40, p < .001), communication (r =

.55, $p < .001$), innovation and flexibility ($r = .46$, $p < .001$), and organizational support ($r = .63$, $p < .001$) having a positive relationship, and job-related stress ($r = -.30$, $p < .001$) having a negative relationship. These findings support further path and multivariate analyses to examine these relationships in greater depth.

Table 9. Bivariate Correlations among Job Satisfaction, Personal, and Organizational Characteristics (n = 492)

	1.	2.	3.	4.	5.	6.	7.	8.
1. Gender	1							
2. Age	-0.039	1						
3. Education	0.084	0.061	1					
4. White	-0.083	0.251***	-0.038	1				
5. Hispanic	0.004	-0.154*	-0.025	-0.790***	1			
6. JPO	-0.065	-0.334***	-0.197***	-0.111^{+}	0.290***	1		
7. Experience	-0.112*	0.726***	0.130*	0.246***	-0.164*	-0.225***	1	
8. Tenure	-0.085	0.625***	0.027	0.256***	-0.176*	-0.176***	0.758***	1
9. Caseload	0.003	-0.337***	-0.178**	-0.204**	0.183^{+}	0.654***	-0.318***	-0.310***
10. Job Satisfaction	-0.050	0.124**	0.018	0.262***	-0.087	-0.208***	0.055	0.015
11. Supervisory Support	0.013	0.011	0.039	0.001	0.102	-0.097^{+}	-0.079	-0.098*
12. Communication	-0.061	0.033	-0.041	0.028	0.015	-0.309***	-0.054	-0.030
13. Innovation & Flexibility	-0.026	-0.022	-0.031	0.100^{+}	-0.015	-0.193***	-0.049	-0.024
14. Agency Quality	-0.083	0.076^{+}	-0.006	0.135*	-0.069	-0.203***	0.012	0.062
15. Stress	0.029	-0.120**	-0.066	-0.119*	-0.068	0.258***	-0.007	-0.023
16. Organizational Support	-0.068	0.092*	0.046	0.153**	0.027	-0.270***	0.004	-0.016

Table 9 (Continued)

	9.	10.	11.	12.	13.	14.	15.	16
1. Gender								
2. Age								
3. Education								
4. White								
5. Hispanic								
6. JPO								
7. Experience								
8. Tenure								
9. Caseload	1							
10. Job Satisfaction	-0.255***	1						
11. Supervisory Support	-0.091	0.399***	1					
12. Communication	-0.301***	0.547***	0.383***	1				
13. Innovation & Flexibility	-0.244***	0.456***	0.238***	0.693***	1			
14. Quality	-0.201***	0.466	0.287***	0.557***	0.586***	1		
15. Stress	0.302***	-0.405***	-0.154***	-0.478***	-0.335***	-0.304***	1	
16. Organizational Support	0.305***	0.626***	0.364***	0.683***	0.634***	0.524***	-0.520***	1

Path Analysis. Figure 2 provides the framework for the current model being tested. However, the model does not fit the data well (X^2 = 208, p < .001; RMSEA = 0.289; CFI = 0.565; SRMR = 0.133). Modification indices recommend correlating the error terms for JS and job-related stress. Following this recommendation results in an acceptable fit of the model to the data (X^2 = 25, p < .001; RMSEA = 0.008; CFI = 0.954; SRMR = 0.025) (Hu & Bentler, 1995). Although this modification produces an acceptable model fit, it is empirically driven. Examination of the wording of the questions, their placement in the survey, and the conceptual framework for this study does not provide support for this modification. Therefore, this modification is inappropriate in the current study. Due to these limitations, the mediating effect of job-related stress cannot be meaningfully explored in the current study.

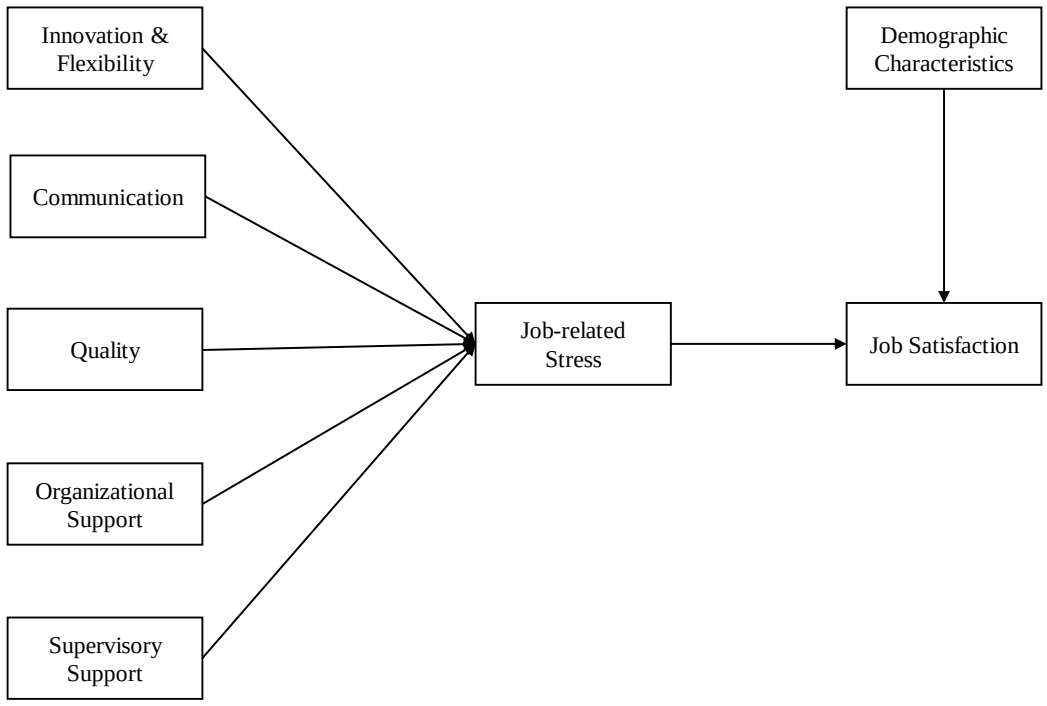

Figure 4. Path Model of the Relationship between Organizational and Personal Characteristics and Job Satisfaction with a Job-Related Stress Mediator

Multivariate Analyses. Because the mediating effect of stress could not be fully explored in the current sample, Table 10 presents maximum likelihood (ML) regression analyses which estimate the effects of personal and organizational climate factors on JS. Model 1 serves as a baseline model including only the personal characteristics of probation staff.[14] Overall, personal characteristics account for approximately 9.6% of the explained variance in JS (F[9, 446] = 5.25, p < .001). In Model 1, identifying as White (b = .27, p < .001) is significantly associated with higher JS scores. In addition, managing a caseload (b = -.20, p < .05) is significantly associated with lower scores of JS among juvenile probation staff.[15]

Table 10. ML Regression Results: Personal and Work-Related Factors Associated with Job Satisfaction with Robust Standard Errors

	Model 1 (n = 456)			Model 2 (n = 454)		
Variables	*b*	RSE	β	*b*	RSE	β
Personal Characteristics						
Gender	-.09	.06	-.06	-.01	.05	-.01
Age	.01	<.01	.15*	<.01	<.01	.03
White	.27	.08	.20***	.18	.06	.13**
Hispanic	.11	.11	.05	<-.01	.08	<-.01
Probation Officer	-.11	.08	-.08	.02	.06	.01
Education	<.01	.05	<.01	.01	.04	.01
Caseload	-.20	.08	-.14*	-.02	.06	-.02
Experience	<.01	.01	-.06	.01	<.01	.07
Tenure	-.01	<.01	-.12*	-.01	<.01	-.08+
Organizational characteristics						
Communication				.08	.03	.15*
Innovation & Flexibility				<-.01	.04	-.01
Quality				.06	.02	.13**
Supervisory Support				.11	.03	.14***

[14] Model diagnostics for each of the two models reveal no issues with skewness or kurtosis, as estimates for the dependent variable fall within the appropriate range of 2.0 and 7.0, respectively (Curran et al., 1996). Collinearity is examined by the variance inflation factor (VIF) which is well below 10 for each model (VIF = 1.80, 1.92 respectively). (Neter, Wasserman, & Kutner, 1989). Based on White's test of homoscedasticity and Breusch-Pagan test, heteroskedasticity exists in the data (White, 1980). Therefore, robust standard errors are produced in the current models. Finally, the normal distribution of errors is suggested based on residual statistics and a review of residual plots.

[15] Due to extremely low standard errors for age, experience, and tenure estimates are unreliable. Therefore, effects are not reported in the current study. The model was rerun without these three variables and produced substantively similar results.

Table 10 (Continued)

	Model 1 (n = 456)			Model 2 (n = 454)		
Variables	*b*	RSE	β	*b*	RSE	β
Organizational Support				.23	.04	.35***
Job-related Stress				-.03	.02	-.08^{+}
F		4.90***			30.81	
R^2		0.096			0.484	

+.10>p>.05; *p<.05; **p<.01; ***p<.001

Model 2 is the full model including both personal and organizational variables. The inclusion of organizational climate characteristics dramatically increases the predictive strength of the model, as it accounts for approximately 48.4% of the explained variance in JS (F[15, 438] = 30.81, p < .001). In the full model, five of the six organizational characteristics are statistically significant. Communication (b = .08, p < .05), quality (b = .06, p < .01), supervisory support (b = .11, p < .001), and organizational support (b = .23, p<.001) are all associated with higher scores of JS. Although marginally significant, stress (b = -.03, p = .06) is associated with a decrease in JS scores. Interestingly, one of the two personal characteristics was no longer significantly related to JS once organizational climate measures are included. That is, caseload is no longer a significant predictor of JS in the full model. Finally, identifying as White remained a significant predictor of JS in Model 2, but went from being significant at the p < .001 level in Model 1 to being slightly less significant at the p < .01 level. Next, the feasibility of multilevel modeling is assessed given the nested nature of the current sample.

Multilevel Analyses. The current sample of juvenile probation staff is nested within 36 different agencies suggesting the need to explore a multilevel analysis approach to the data. Therefore, preliminary analyses examine the variance of JS across agencies. Analyses consisted of 476-478 juvenile probation staff across the 36 agencies with an average cluster size of 13.

First a null, or intercept-only, model is estimated to examine the intraclass correlation (ICC) of JS. This model serves as a benchmark to compare subsequent models.

The ICC of the null model is 0.079. Thus, only 7.9% of the variance of the JS scores is at the group level. This is relatively small, but can still result in considerable bias in statistical significance tests using conventional ML regression analyses (Cohen, Cohen, West, & Aiken, 2003). That is, even small ICCs can have a meaningful impact on significance tests if there are a large number of individuals in each cluster (Barcikowski, 1981). Therefore, it is important to consider the design effect which is a function of both the ICC and cluster size (Muthén & Satorra, 1995). Design effect is approximately equal to the following: [1 + (average cluster size – 1 x ICC)]. According to Muthén, design effects less than 2.0 "do not appear to result in overly exaggerated rejection proportions at p = 0.05 for conducting single-level analyses" (Heck & Thomas, 2015, p. 37). Applying this formula to the null model results in the following design effect: [1 + (13-1 x 0.079)] = 1.95. Given there is such a low percentage of variance in JS across agencies, there will not be much available variance to explain by estimating a level-two model (Heck & Thomas, 2015). Based on these preliminary results a two-level model is not indicated. Hence, a single-level model is examined in the current study.

Summary

Analyses for the current study were conducted in two stages. The first stage addressed the SEM illustrated in Figure 1 through a series of bivariate and factor analytic procedures. Bivariate analyses determined the level of association among items associated with each latent construct. Next, EFA and CFA using Bayesian estimation established the unidimensionality of each organizational factor and JS. Finally, SEM results indicated that a latent variable modeling approach was not feasible. Accordingly, the second stage of analyses respecified the model,

illustrated in Figure 2. Factor scores were extracted from the previously conducted CFAs for each of the organizational constructs and JS. Factor scores were utilized in a subsequent path analysis to examine the mediating effects of job-related stress. Because no mediating effects emerged, ML regression was estimated using both personal and organizational characteristics, in additive models. Finally, the feasibility of a multilevel was assessed, suggesting a multi-level approach was not warranted in the current study.

CHAPTER FIVE:

DISCUSSION

A good deal of research has indicated personal and organizational factors impact JS among correctional staff. However, three limitations within this body of research have hindered our understanding of the nature of these relationships among juvenile probation staff. These limitations include the predominant focus on institutional corrections, a deficiency in assessing a diverse variety of climate domains and their influence on job attitudes, and a lack of standard factor analytic techniques. This study sought to address these limitations by exploring the impact of a variety of personal and organizational characteristics on job satisfaction (JS) among juvenile probation staff across 36 agencies. Specifically, this study had three main objectives: 1) to examine the psychometric properties of six organizational domains (i.e., perceived agency communication, organizational support, supervisory support, stress, innovation and flexibility, agency quality) and JS; 2) to examine the direct effects of personal and organizational characteristics on JS, and 3) to identify whether stress mediated the relationship between organizational characteristics and JS.

The findings of this study found nearly full support for the first objective (i.e., supervisory support items were too highly correlated for factor analytic techniques), full support for the second, and no support for the third objective, finding that stress did not mediate the relationship between organizational climate measures and JS. First, EFA and CFA provided moderate support for the first research question. The model fit indices indicated that

organizational climate indicators formed one unidimensional latent construct for perceived communication, organizational support, stress, innovation and flexibility, quality, and JS, respectively. Second, regression analyses indicated the substantive predictive power of organizational climate characteristics in comparison to personal characteristics on JS. Finally, stress was not found to mediate the relationship between organizational climate characteristics and JS. These findings are discussed in greater detail below, followed by implications of the present findings, study limitations, directions for future research, and concluding remarks.

Summary of Research Findings

The current study utilized data collected from 492 juvenile probation staff across 36 agencies in seven states. Overall, respondents were predominately White (72%), female (59%), worked as a juvenile probation officer (JPO) (68%), and had a median tenure of approximately 11 years. Staff, on average, were relatively satisfied with their job, reporting a moderate level of stress. It is challenging to compare estimates of JS in the current study to prevalence rates of previous studies for two reasons. First, the current study is among the first to examine the relationship between personal and work-related factors associated with JS among juvenile probation staff. One's job attitudes are shaped based on their personal working environment (Schneider, 2000). Thus, it is difficult to make comparisons with other studies since the majority of these studies have focused on adult probation staff and institutional corrections staff. While there is some overlap in the duties and objectives of juvenile and adult probation staff, their clients and work environments are much different (Steiner et al., 2004).

Second, estimates of JS tend to vary across studies due to the variation in conceptualizations and operationalizations of JS. For example, Simmons et al. (1997) utilized all

36 items contained in Spector's (1985) JS scale to create an additive scale. Jiang and colleagues (2016) utilized five items, answered with a 5-point Likert-type scale, to assess JS. They then employed factor analysis, establishing unidimensionality of JS as a latent construct. Getahun et al. (2008) used a six item scale to measure several aspects of satisfaction including satisfaction with the job, salary, and benefit packages. The current study used four Likert-style items in subsequent factor analyses to construct a unidimensional latent construct of JS, then used factor scores in subsequent regression analyses. Nuanced approaches to measurement, including factor analytic processes, are advantageous for the field, but impede comparisons in the present study.

Psychometrics

The first research question sought to determine the unidimensionality of six organizational characteristics and JS. Previous research supported this assertion, but it had not been tested among a sample of juvenile probation staff. Findings from the current study were largely consistent with prior research in that six of the seven concepts each formed a unidimensional latent construct. In contrast to prior literature, the items making up supervisory support exhibited signs of multicollinearity, and therefore, were not used to form a latent construct of supervisory support (Broome et al., 2009). This inconsistency may be explained by the adjustments made to the instrument in the current study. That is, the original scale included eight items measuring supervisory support and, although conceptually similar, were worded slightly different. For example, one item in the original measure was worded, "your program director encourages new ways of looking at how we do our jobs", while in the current study was worded "your supervisor encourages staff to try new ways to accomplish their work". Correlations between the four items used in the present study were high (i.e., >.80) suggesting

issues of multicollinearity. This may be due to the phrasing of the four items. That is, all questions began with the same phrasing "Your supervisor…" which may have been repetitious to the respondent. This repetitious phrasing and utilization of the shortened version of the scale may account for the high correlations between items.

The validity and unidimensionality of the additional six constructs has been established across occupations including clinical staff (Broome et al., 2009) and manufacturing employees (Patterson et al., 2005). In the current study, factor analysis demonstrates further support for the unidimensionality of items measuring perceived communication, organizational support, stress, innovation and flexibility, quality, and JS in a sample of juvenile probation staff. Exploratory factor analysis (EFA) results suggested the retention of one factor for each concept, and confirmatory factor analysis (CFA) results suggested a good fit of the model to the data.

Personal characteristics

Research questions two and four sought to identify which personal and organizational factors influenced JS among juvenile probation staff. Previous adult probation studies have shown that personal factors account for little to none of the variation in JS, with work-related factors largely shaping feelings of JS (Getahun et al., 2008; Jiang et al., 2016; Simmons et al., 1997). Findings from the current study are consistent with prior research on both community and institutional corrections staff, in that organizational factors accounted for the majority of the variation in JS. Personal characteristics accounted for 9.6% of the variation in JS, which increased to 48.4% when organizational characteristics were considered. Furthermore, the significant influence of identifying as White and having a caseload either decreased or disappeared completely when organizational factors were taken into consideration.

Interestingly, identifying as White ($p < .01$) remained statistically significant. This is inconsistent with prior literature involving adult probation staff which has found no significant impact of race on JS (Getahun et al., 2008; Simmons et al., 1997). However, these findings coincide with a number of institutional corrections studies which show that White staff are generally more satisfied with their jobs (Blevins et al., 2006; Wells et al., 2016; Byrd et al., 2000). Race could be linked to JS because White staff constitute the majority of employees in the current sample. Of the 36 agencies White respondents were the majority, in comparison to non-White respondents, in 22 of the participating agencies (61%). Non-Whites represent the majority of respondents in only 28% of agencies.[16] A smaller group constituting a minority within an agency can face greater tokenism in comparison to the majority group (Kanter, 1977). Minorities face several challenges in the workplace and tokenism is yet another barrier for minority employees and can contribute to a negative work experience, and thus lower JS. While speculative, given that there was a large percentage of White respondents in the current sample, this may suggest that non-White staff experience tokenism and thus have lower levels of reported JS (Minor et al., 2014; Wells et al., 2016).[17] The perception of tokenism may also be impacted by the race of the respondent's immediate supervisor or key leadership. However, this information was not available in the current study.

Organizational Characteristics

There is greater consensus on the direction and magnitude of relationships between JS and work-related factors, in comparison to personal characteristics. Prior literature has linked JS

[16] This should be interpreted with caution as the proportion of respondents may not reflect the actual racial proportions within the agency.
[17] Although tenure was marginally significant in the present study, the standard errors were so low this estimate is unreliable. This also applies to innovation and flexibility in Model 2.

to general work climate (Stinchcomb & Leip, 2013), as well as more specific features including perceived supervisory support (Matz et al., 2012), stress (Simmons et al., 1997), communication (Lambert & Paoline, 2008), and innovation (Lambert & Hogan, 2010). Findings from the current study largely coincide with prior literature examining these organizational domains, with few exceptions. Following prior literature, increased perceptions of communication was associated with greater JS. Opens lines of communication are important for staff to do their jobs effectively. Work is a central part of many adults' lives, and doing well at work provides people with a sense of accomplishment and pride in their work. This ultimately allows people to feel satisfied with their jobs. Good communication is especially important for juvenile probation staff who must coordinate with multiple entities including children, parents, behavioral health care staff, and superiors. Given the number of individuals juvenile probation staff are responsible for working with it is not surprising that improved communication increases feelings of JS. Perceived communication also acts as a protective factor, insulating employees from the stressors of work (Lambert et al., 2008).

Across correctional domains, supervisory support is consistently linked to increased JS (Armstrong et al., 2015; Blevins et al., 2006). This finding holds true in the current sample of juvenile probation staff. This is not surprising as occupational literature finds that organizational characteristics more closely linked to aspects of the job are more influential on employees' job attitudes than organizational structure characteristics (Hall, Goodale, Rabinowitz, & Morgan, 1978). That is, experiences or characteristics which staff experience more closely and regularly will have a greater impact on their attitudes and behavior. Staff typically interact with their supervisor(s) on a day-to-day basis regarding performance, expectations, processes, youth-related outcomes, and many other matters. Supervisors who are supportive and active regarding

work-related issues are likely to increase feelings of satisfaction among subordinates. In addition to assisting staff in doing their jobs effectively, supervisory support acts as a protective factor to the stresses associated with correctional work (Armstrong et al., 2015; Cheeseman et al., 2011). These stresses include lack of recognition, co-workers not doing their job, political pressure from within the department, and making critical on-the-spot decisions, among others (Pitts, 2007).

Perceived organizational quality refers to the quality of procedures within an organization. Research finds there is a clear consensus on the aspects of quality (e.g., good working relationships, goals and outcomes, resources) across probation staff (Robinson et al., 2014). The current study found that increased perceptions of quality were associated with an increase in JS. This is consistent with occupation literature which has found that organizations which promote quality work systems "enable employees to experience meaningfulness in their work, greater responsibility in their job, and better use of their knowledge and skills leading to increased satisfaction…in their jobs" (Barling et al., 2003, p. 276).

Juvenile probation is centered around people, requiring intense, sometimes stressful interactions with wayward offenders, families, and behavioral health care providers. Previous studies have largely focused on police and COs, with a smaller number documenting these relationships among probation staff. Of the studies that exist, however, job-related stress has been strongly linked to decreased JS among probation staff (Getahun et al., 2008; Lee et al., 2009; Simmons et al., 1997). While marginally significant ($p = .06$), increased levels of stress was linked to decreased JS, in the current study. Being stressed at work is unpleasant and can result in risk-taking behaviors, emotional troubles, and health issues (Pitts, 2007). Indeed, stress is associated with a number of other negative outcomes including burnout/emotional exhaustion (Whitehead & Lindquist, 1985) and depressive symptoms (Gayman & Bradley, 2013). This

marginal significance may be explained by the large scope of organizational factors included in the current study. To date, no study within the correctional literature has examined all six of the current organizational climate measures. More specifically, no studies were located examining perceived organizational quality, and only one study measuring perceived agency innovation was located (Lambert & Hogan, 2010). It is possible that these additional climate measures accounted for a greater proportion of the variance in JS, mitigating the role of stress on feelings of satisfaction.

Perceived organizational support (POS), which refers to staffs' perceptions concerning how much an organization values their contributions and wellbeing (Rhoades et al., 2001), was the strongest predictor of JS among juvenile probation staff. POS is a relatively understudied construct in the correctional literature. To the best of the author's knowledge, only one study among jail staff has examined POS in relation to JS. Occupational research consistently documents the strong relationship between POS and JS (Kurtessis et al., 2017; Rhoades & Eisenberger, 2002). According to organizational support theory, employees have a tendency to personify organizations, ascribing humanlike characteristics to the organization (Levinson, 1965). Because employees personify organizations in this manner, they view favorable or unfavorable treatment indicative of the organization's caring or spiteful orientation. In instances of POS, employees feel a sense of obligation to assist the organization in achieving its goals and, in turn, will expect greater rewards for their increased efforts (Cropanzano & Mitchell, 2005). POS gives employees a sense of fulfillment in terms of socioemotional needs, causing greater psychological wellbeing, and greater identification and commitment to the organization. It is likely that this increased fulfillment and sense of support enhances JS and potentially other unmeasured job attitudes.

Indeed, POS has been linked to many practical job attitudes and behaviors, such as organizational commitment (Shore & Tetrick, 1991), job involvement, strain, and withdrawal behavior, including intentions to leave (Rhoades & Eisenberger, 2002). Thus, it makes sense that juvenile probation staff who do not perceive their organization as supporting their efforts, would not particularly enjoy their job.

Mediation

The third research question sought to determine if job-related stress mediated the relationship between organizational climate measures and JS, following the job demands and resource (JD-R) model. Although there was a direct effect of stress on JS, the current study did not find support for an indirect relationship with stress acting as a mediator. This was inconsistent with studies among other occupations which found stress to, at least, partially mediate the relationship between organizational climate and JS (Cortini, 2016; Pecino-Medina et al., 2017). However, this mediation model is a novel concept and not fully established in the literature. A lack of mediation might be explained by the JD-R model. In addition to the importance of job demands, this model also holds that the interaction between job demands and job resources is central, because resources may act as buffers to job demands (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003). For example, a high quality relationship between an employee and their supervisor may alleviate the impact of job strain. Appreciation and support from the supervisor may assist the employee in coping with stress, as well. Therefore, the interaction between job demands and job resources may help to clarify the relationship between organizational climate measures and JS.

Multilevel

The current sample of probation staff were nested within 36 agencies, therefore the fifth and final research question sought to determine whether JS varied across agencies and, if so, what agency-level measures predicted JS across agencies. Results illustrated that only 7.9% of the variance of JS scores was at the group level. Although even small ICC values can result in bias in statistical significant tests, examination of the design effect supported the initial assertion that it was not necessary to examine the influence of agency-level measures. In other words, since there was such a low percentage of variance in JS across agencies, there was not much available variance to explain by developing a two-level model (Heck & Thomas, 2015). This contradicts studies outside of corrections which find some variability in JS across organizations (Broome et al., 2009; Gius, 2015; Pohl & Galletta, 2017). For example, Broome and colleagues (2009) found that the program-level accounted for 14% of the total variability of JS among treatment program staff. To date, this is the first study among juvenile probation staff to examine JS across agencies.

Overall, the findings from the current study find support or partial support for the aforementioned hypotheses. As a result, several implications can be drawn from these findings.

Implications of Results

Findings of this study coincide with the large body of research that suggests organizational factors have a strong relationship with JS. Findings from the current study offer several important theoretical and practical implications. Indeed, the current study indicates that efforts to increase JS should focus on improving workplace factors among juvenile probation staff. Related research indicates feelings of JS directly impacts turnover and turnover intention among staff, therefore, it is important for administrators to understand the correlates of JS (Wells

et al., 2016). Efforts to increase JS among employees are likely to result in decreased turnover, a substantial issue for probation agencies (Texas Juvenile Probation Commission, 2003; Simmons et al., 1997).

First, current findings suggest that JS can be improved via overall (e.g., formal and informal) communication. Providing staff with information on their performance, policies, and procedures assists them in doing their job well. Management should focus on improving the direction of communication, both vertically (i.e., between superiors and subordinates) and horizontally (i.e., between employees at the same level) (Lambert et al., 2008). Organizations which employ these communication directives have happier and more committed employees (Price and Mueller, 1986). Furthermore, communication isn't limited to formal orders from leadership. Communication "must be an ongoing, open, and supportive…process in all areas of the organization" (Lambert et al., 2008, p. 222). In addition to improving JS, good communication reduces feelings of stress (Lambert et al., 2008). Organizations which supply information on a strict need to know basis leads to frustration among employees, who are more likely to feel as though they aren't important members of the agency (Lincoln & Kallberg, 1990).

Second, supervisors should be aware of the crucial role they play in shaping employees' JS. It is well established that supervisory support increases JS and reduces stress among staff (Armstrong et al., 2015; Lambert, 2004). Supervisors can increase perceptions of support by providing consistent feedback and acknowledging employees for their hard work (Lambert & Hogan, 2009a). Supervisors can further their supportive orientation by focusing on: 1) emotional support, 2) role modeling, 3) instrumental support, and 4) creative work-family management (Hammer, Kossek, Yragui, Bodner, & Hanson, 2009). Supervisors can provide emotional support by talking with employees and making them feel comfortable discussing both

personal and work-related issues. Supervisors should also be aware that the vast majority of learning occurs through observation of others rather than through direct experiences (Bandura, 1977). Therefore, leadership should provide examples of strategies on how to perform tasks effectively or behavior that will lead to desirable work outcomes (Hammer et al., 2009). Instrumental support refers to managers responding to employees' day-to-day needs in a proactive manner. For example, they may need to provide flexibility in scheduling if probation staff are required to make court appearances or meet with a family member outside of the office. Finally, Hammer and colleagues (2009) suggested that JS is impacted by a supervisor's willingness to assist employees in managing their responsibilities to work and their families.

Third, management should be aware of the total quality management (TQM) philosophy, which focuses on improving quality and productivity in organizations (Luthans, Rubach, & Marsnik, 1995). Given that perceived organizational quality can improve feelings of JS, it is recommended that human resource departments "review and enhance the motivation, training, and retention of good employees…" (Noorliza & Muhammad Hasmi Abu Hassan, 2006, p. 41). Many probation agencies have quality improvement programs, policies, or even outside bureaus that set standards for probation work. Policies may include standards on management accountability, assessment services, and/or intervention services (Florida Department of Juvenile Justice, 2012). Another model useful to probation agencies is the Plan-Do-Study-Act (PDSA) model which focuses on identifying goals an agency wants to accomplish and how to integrate these goals into organizational activities (Langley, Nolan, Nolan, Norma, & Provost, 1996). This quality improvement process was derived from the TQM model and recently used in criminal justice settings (Rudes et al., 2012). For example, Rudes, Viglione, and Taxman (2014) found the PDSA model to be successful in implementing evidence-based change

in adult probation organizations. JJ-TRIALS also utilized the PDSA model in facilitating the goal selection process of the project. These quality improvement efforts are important, not only because they increase the quality of services within an organization, but also work to increase feelings of JS among staff.

Fourth, stress is a negative response felt by many employees, which requires attention. Probation staff have stressful jobs, with stress levels increasing in recent years, due in part to an increase in more serious offenders ending up on probation (Finn & Kuck, 2005). JPOs are at the hub of the juvenile justice system, dealing with offenders at each stage of the system. Knowing the causes of stress and its adverse effects can assist in increasing JS. Some of these include inadequate equipment on the job, large caseloads, inadequate support from the supervisor, and lack of recognition. In order to cope with the stresses of work, community corrections officers report physical exercise and taking extra sick leave "simply to relieve the pressure" (Finn & Kuck, 2005, p. 3). A number of these sources of stress can be address with additional resources, such as updated computer equipment and additional trainings.

In order to combat the negative consequences of workplace stress, agencies might also consider the implementation of stress reduction interventions. A number of studies call for these interventions for COs, which primarily exist at the local level. These programs fall into three basic structures: in-house programs, independent contracted services, and hybrid arrangements (Finn, 2000). These programs offer professional counseling, peer support, address chronic stress and/or stress following a critical incident, or may serve family members. Due to the variation in program operations, administrators are faced with the challenge of deciding what model to adopt, but this gives them an opportunity to tailor the program to their needs (Finn, 2000). Program adoption would not only reduce stress and improve JS, but also assist in the retention of staff. As

noted previously, workplace factors such as enhanced supervisory support and communication are also helpful in reducing stress among staff, helping employees feel less frustrated and strained, which in turn helps them perform better and feel more satisfied.

Fifth, a large body of literature documents the link between POS and JS. Leadership should be aware that staff can have a humanistic relationship with an organization and derive a sense of support from that relationship. POS is not only associated with improved feelings of JS, but contributes to a reduction in perceived stress (Shaw et al., 2013). Therefore, enhancements in POS are helpful in improving job attitudes and, in turn, reducing turnover. Perceptions of organizational support are strongly driven by effective leadership, desirable working conditions, fair treatment, and favorable human resources practices (Eisenberger, Malone, & Presson, 2016). This can result in a number of practical implications for juvenile probation agencies centered around improving their ability to do their jobs effectively. For example, staff may perceive a better working environment if they have access to appropriate tools such as updated computer software, electronic monitoring systems, adequate office space, and evidence-based screeners. A number of the aforementioned tactics on promoting supervisory support may also increase an individual's positive perception of their organization at large since management hold more authority and typically represent the agency. Additionally, one Chief Probation Officer involved in the JJ-TRIALS project noted that she could recognize a change in staff attitudes when they were granted certain rewards, such as the option of a four day work week and telecommuting (Chief Probation Officer, personal communication, May 8, 2018). Low cost reward systems like this are likely to be a viable option for juvenile probation agencies to enhance POS and increase JS.

All of the suggested methods to deal with juvenile probation staff JS involve modifying or addressing workplace factors. This is good news for administrators because these organizational changes are within their control, in comparison to personal characteristics which are largely unsusceptible (legally or otherwise) to manipulation. Organizational change within corrections is complicated and challenged by many obstacles (e.g., centralized decision-making, and complex bureaucratic designs). However, in the last 15 years external changes may be creating opportunities for internal organizational change to occur. For example, there has been a move toward implementing evidenced-based practices within correctional agencies, which enhances the quality of the agency (Taxman & Belenko, 2011). Although organizational change requires time and effort, substantial payoffs for both the organization and staff should result including increased JS, lowered stress, and ultimately lower turnover and intentions of turnover (Wells et al., 2016).

Limitations

There were several limitations throughout the course of the present study. First, the use of secondary data limited the measurement of variables used in the current study. For example, asking participants about their sense of organizational commitment was beyond the goals of the original research project. Organizational commitment refers to an employee's loyalty and involvement in the organization (Mowday, Porter, & Steers, 1982) and a common variable considered in JS literature. A number of studies have found organizational characteristics (e.g., quality supervision, organizational support, communication) to have a positive influence on organizational commitment (Griffin & Hepburn, 2005; Lambert et al.,

2006). Moreover, JS has been found to have a positive relationship with organizational commitment (Lambert et al., 2007).

In addition, general or global measures, rather than specific/faceted measures, of stress and JS were used in the present study. Despite the drawbacks of specific measures, multidimensional concepts have the potential to enhance our understanding of the relationships between JS and personal and organizational factors. For example, the current study uses a global measure of job-related stress, whereas other correctional studies have examined specific dimensions of stress such as role ambiguity, role conflict, and job dangerousness (Jin et al., 2017; Lambert et al., 2007). Other studies have used the Job Stress Index (JSI) which includes eleven scales assessing three areas (e.g., stress, red tape, time pressure, job insecurity, physical demands, and danger) (Sandman, 1992). Although, the current study used a global measure of JS, other researchers have utilized the Job Descriptive Index (JDI) (Smith, 1969) which assesses five specific dimensions of JS (i.e., satisfaction with work, coworkers, supervision, pay, and promotion). The relationships between personal characteristics, organizational climate domains, and JS may vary based on specific dimensions of JS. Moreover, interpretation of the relationship between caseload size and JS is limited to either having a caseload or not, rather than examining whether larger caseloads were associated with a decrease in JS and vice versa.

Second, the findings should be interpreted with caution as causality could not be determined due to the cross-sectional nature of the data. The use of baseline data from the JJ-TRIALS project limits the understanding of the direction of causal relationships in the current study. Additionally, the results may not be generalizable across different jurisdictions and agencies. Despite the fact that data from the current project represent participants from 36 agencies across seven states, the data are not considered to be nationally representative.

Participating agencies were not drawn by a probability sample, but recruited by each participating Research Center.

Third, the current study could not address climate strength across agencies due to small sample sizes. Climate strength is a relatively new aspect of organizational climate research and refers to "the extent to which the perceptions of employees within a unit are aligned with each other" (Ehrhart et al., 2014, p. 98). If employees agree on the type of climate their organization creates, there is thought to be a strong climate. A strong climate can be either positive or negative; a strong negative climate may hinder productivity and negatively impact job attitudes. The overall strength of each agency's climate would be important to consider because it may influence an employee's JS. For example, strong, positive climates may increase JS since employees generally enjoy the atmosphere of their workplace. Additionally, climate strength would provide an assessment of the level of agreement on climate perceptions. That is, if there is a strong climate within an agency, as perceived by individual workers, this would suggest general agreement on the perception of their workplace atmosphere.

Contributions to the Literature

The current study contributes to the growing body of literature indicating that work environment is an important predictor of JS among probation staff. First, prior correctional research has largely focused on institutional corrections and adult probation staff. The current study expands this body of research to an understudied population, juvenile probation staff. Second, the current study included several unexplored or underexplored personal and organizational factors (i.e., caseload, innovation and flexibility, quality, and organizational support) and assessed their relationships with JS. Third, the present study contributes to

organizational climate research through the use of advanced statistical techniques to test the unidimensionality of organizational climate measures in a new population (i.e., juvenile probation staff). Finally, the majority of correctional studies focus solely on direct effects. The current study expands on this body of literature by examining mediating relationships.

Directions for Future Research

There are several opportunities to explore in future research. First, half of the variance in JS in unexplained in the current study; therefore, studies attempting to explain additional variance in JS should examine supplementary domains of organizational climate. The amount of variance explained may be increased by considering such variables as formalization, job variety, job autonomy, organizational commitment, family support, and job desirability (Matz et al., 2014; Wells et al., 2016). Moreover, it is important to incorporate additional aspects of organizational climate theory within the correctional literature. For example, research should assess climate strength across units to determine if there are shared perceptions within the agency.

Second, aside from the current study, it is unclear how findings among the adult probation samples apply to juvenile probation staff. Continued research among juvenile probation staff is needed to further establish the influence of personal and work-related factors on JS. Furthermore, correctional literature is mixed on the influence of personal characteristics on JS. For example, identifying as White has been found to have a positive, negative, and no relationship with JS (Grossi & Berg, 1991; Wells et al., 2016; Van Hoorhis et al., 1991). Further research is needed to elucidate the direction of relationships between personal characteristics and JS within probation and corrections at large. Studies should compare findings in adult probation

to that of juvenile probation staff in order to make informed decisions about the improvement of JS within each group. Furthermore, future endeavors should examine the influence of personal and work-related factors within subgroups. For example, Griffin (2001) found differences in the perception of organizational factors between males and females. It would also be advantageous to explore these relationships across rank. The correctional literature largely suggests there is no relationship between rank and JS (Byrd et al., 2000; Lambert et al., 2007), but this has yet to be fully addressed within a probation context.

Third, research among juvenile probation staff should expand on the current model to investigate turnover and turnover intention. Prior research finds support for Lambert's (2001) model, which suggests that JS acts as a mediating variable between key personal, work-related factors and turnover/turnover intention among juvenile correctional staff (i.e., person/work factors → JS → turnover/turnover intention) (Wells et al., 2016). It would be advantageous to include additional organizational climate measures within this model to better inform administration on best efforts to increase satisfaction and reduce turnover. Also, additional research is needed to verify this model among juvenile probation staff.

Finally, mixed-methods approaches should be incorporated in future studies. Qualitative interviews with juvenile probation staff would help to elaborate on empirical findings. For example, interviews are helpful for expanding on survey responses and may help clarify perceptions of JS and stress. Interviews are also helpful in opening up new topic areas not initially considered, this would also be advantageous in determining climate domains to consider among juvenile probation staff. Qualitative approaches might be particularly important when investigating staff climate perceptions and offer further insight into these concepts. In addition to qualitative methods, longitudinal approaches are necessary to establish the directionality of

causal relationships. JS and stress are dynamic concepts that change over time. Therefore, longitudinal studies could improve our understanding of the relationships between personal characteristics, perceived organizational characteristics, and JS.

Conclusion

The current study had two overarching goals. The first was to establish baseline estimates of JS among juvenile probation staff. The second was to isolate key personal and organization factors which influenced JS. Findings from the current study suggest that juvenile probation staff had a moderate level of JS, which was largely explained by organizational climate factors. This suggests that administration should focus on organizational characteristics such as providing supportive leadership and reducing feelings of job-related stress among staff. These are critical objectives in promoting the health and wellbeing of staff who are responsible for the rehabilitation and supervision of at-risk youth. The demands and nature of juvenile probation can be rewarding, yet demanding. Agencies can only be as effective as their staff, therefore it is important to have policies and practices that promote the satisfaction and health of employees.

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APPENDICES

Appendix A: Descriptive Statistics

Table A1: Descriptive Statistics of Juvenile Probation Staff (n = 477-492)

Variable	Mean or Frequency (%)	SD	Median	Min/Max	α
Dependent Variable					
Job satisfaction	3.94	0.64	4.0	1-5	0.81
Organizational Characteristics					
Stress	3.46	0.86	3.5	1-5	0.86
Innovation & Flexibility	2.85	0.58	2.8	1-4	0.89
Quality	3.22	0.55	3.3	1-4	0.81
Communication	3.06	0.81	3.2	1-5	0.86
Organizational Support	2.85	0.56	2.9	1-4	0.89
Supervisory Support[a]	3.93	0.86	4.0	1-5	--
Personal Characteristics					
Gender				0-1	
Male	201 (40.9%)	--	--	--	--
Female	290 (59.1%)	--	--	--	--
Age	41.6	9.68	41	23-67	--
Race/Ethnicity				0-1	
American Indian/Alaskan Native	5 (1.0%)	--	--	--	--
Asian	3 (0.6%)	--	--	--	--
Native Hawaiian or Other Pacific Islander	--	--	--	--	--
Black or African American	120 (24.4%)	--	--	--	--
White	354 (72.0%)	--	--	--	--
More than one race	5 (1.0%)	--	--	--	
Other	10 (2.0%)	--	--	--	--
Hispanic	59 (12.0%)	--	--	--	--
Current job				0-1	
Agency Director	19 (3.9%)				
Division Director	21 (4.3%)				
Supervisor	78 (16.1%)				
Probation Officer	294 (60.6%)				
Case Manager	32 (6.6%)	--	--	--	--
Counselor	19 (3.9%)				
Support/Other	22 (4.5%)				
Education				1-7	
No HS diploma or equivalent	--	--	--	--	--
HS diploma or equivalent	2 (0.4%)	--	--	--	--
Some college, but no degree	8 (1.6%)	--	--	--	--
Associate's degree	7 (1.4%)	--	--	--	--
Bachelor's degree	299 (61.0%)	--	--	--	--
Master's degree	161 (32.9%)	--	--	--	--

Table A1 (Continued)

Variable	Mean or Frequency (%)	SD	Median	Min/Max	α
Doctoral degree or equivalent	11 (2.2%)	--	--	--	--
Other	2 (0.4%)	--	--	--	--
Experience	15.2	8.59	14.5	0-44.08	--
Tenure	12.0	8.17	10.8	0-39.92	--
Caseload	15.1	16.77	13.0	0-150	--

Appendix B: Scree Plots

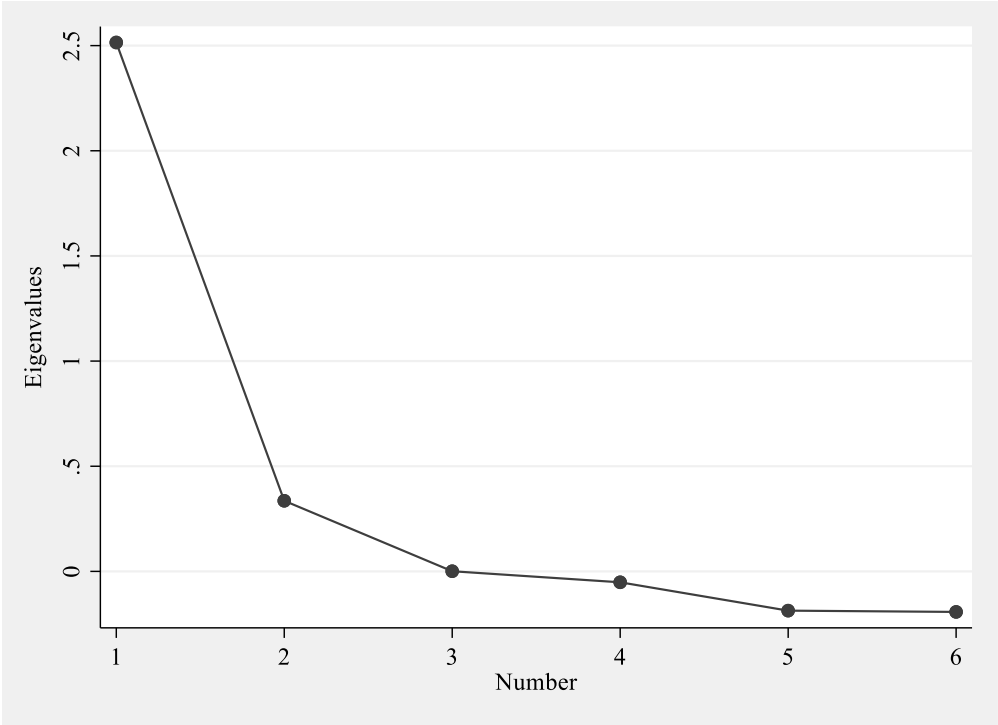

Figure 1A. Scree plot of Job Satisfaction Eigenvalues

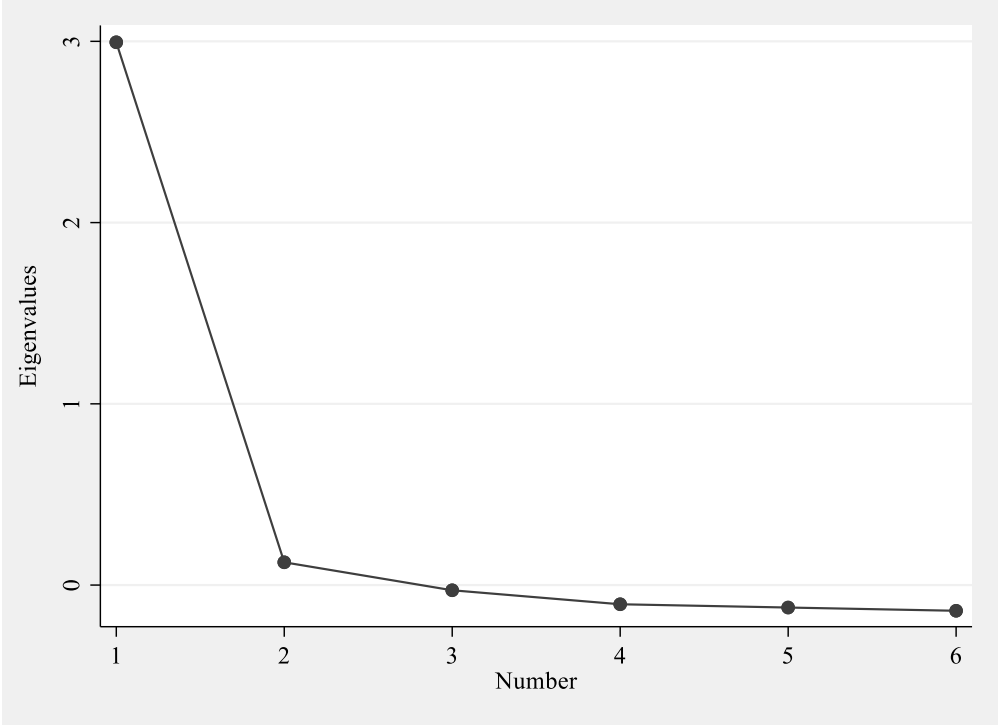

Figure 2A. Scree plot of Communication Eigenvalues

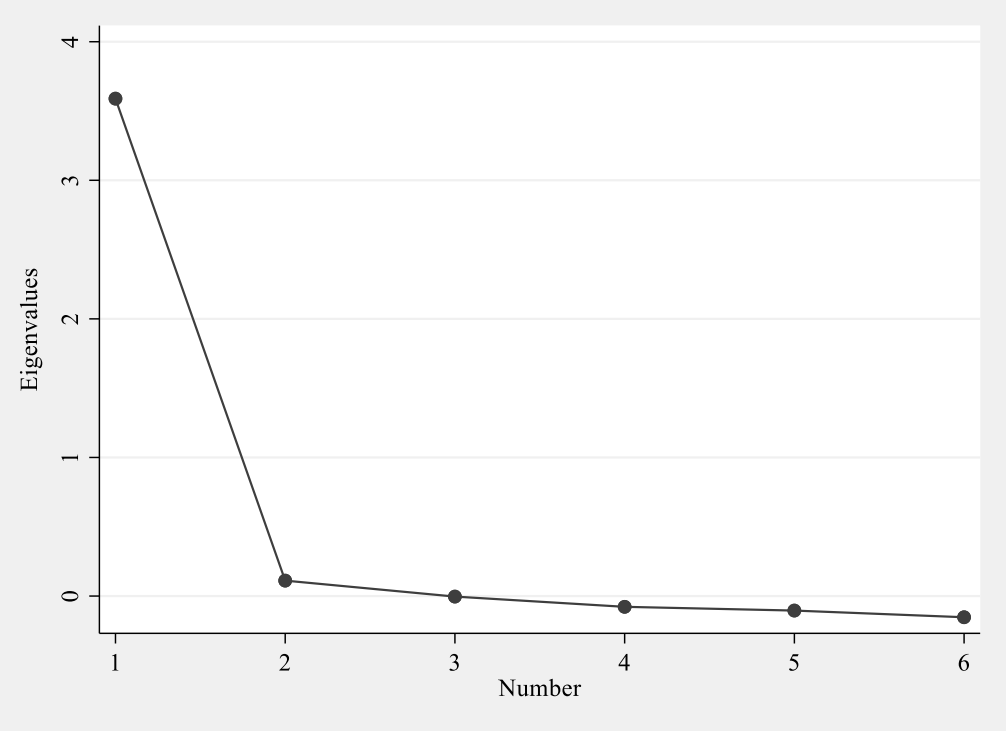

Figure 3A. Scree plot of Innovation and Flexibility Eigenvalues

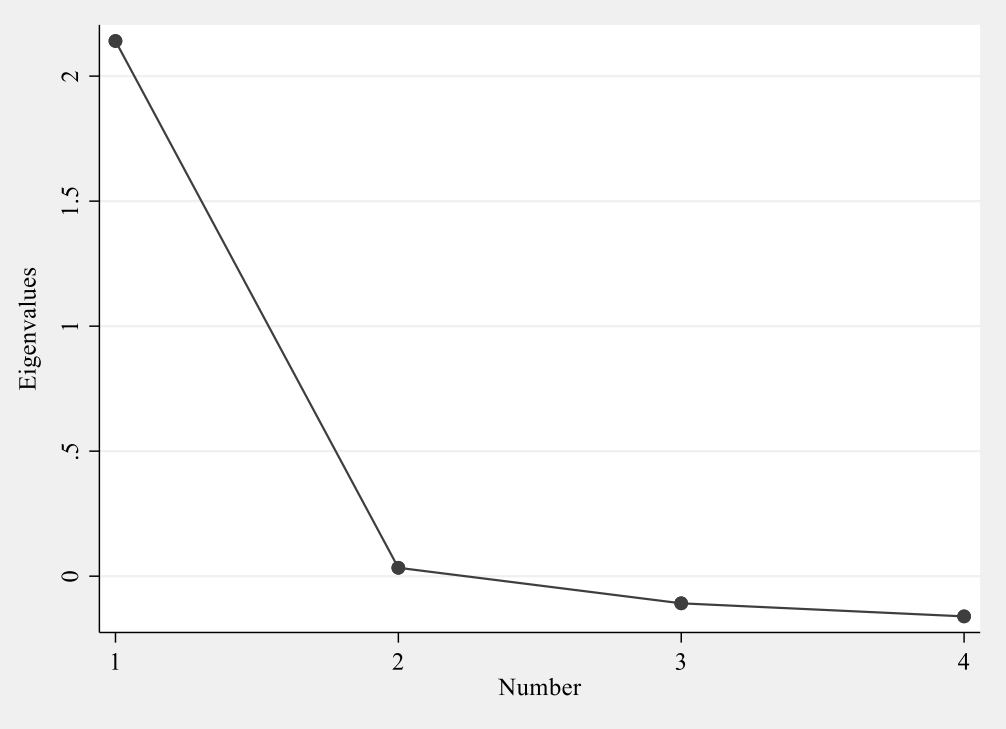

Figure 4A. Scree plot of Agency Quality Eigenvalues

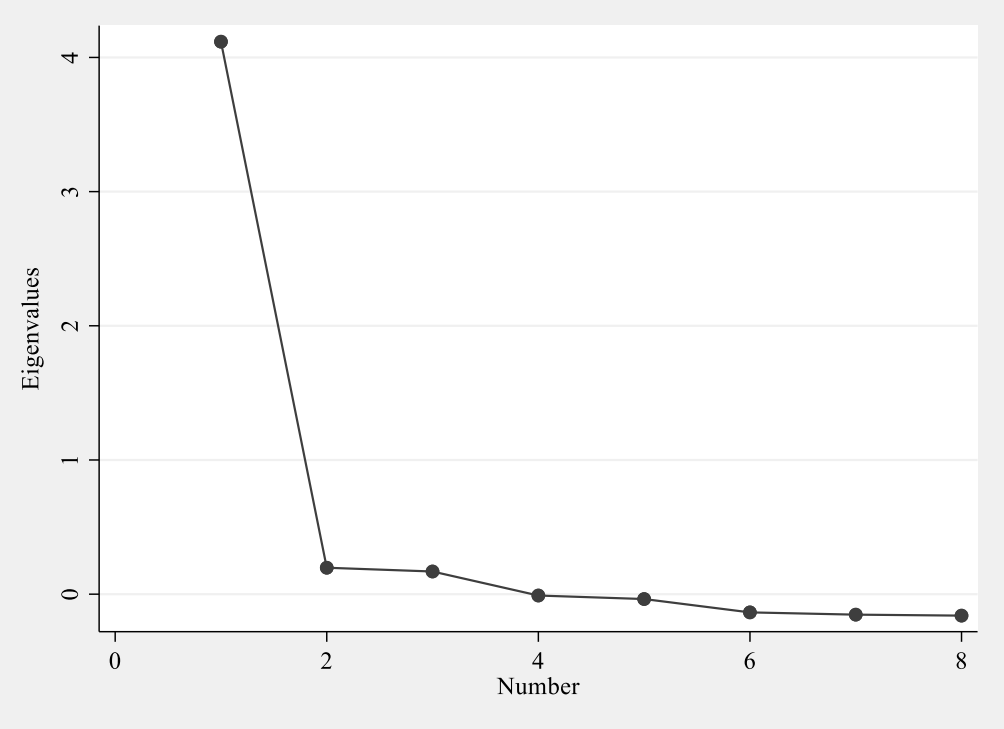

Figure 5A. Scree plot of Organizational Support Eigenvalues

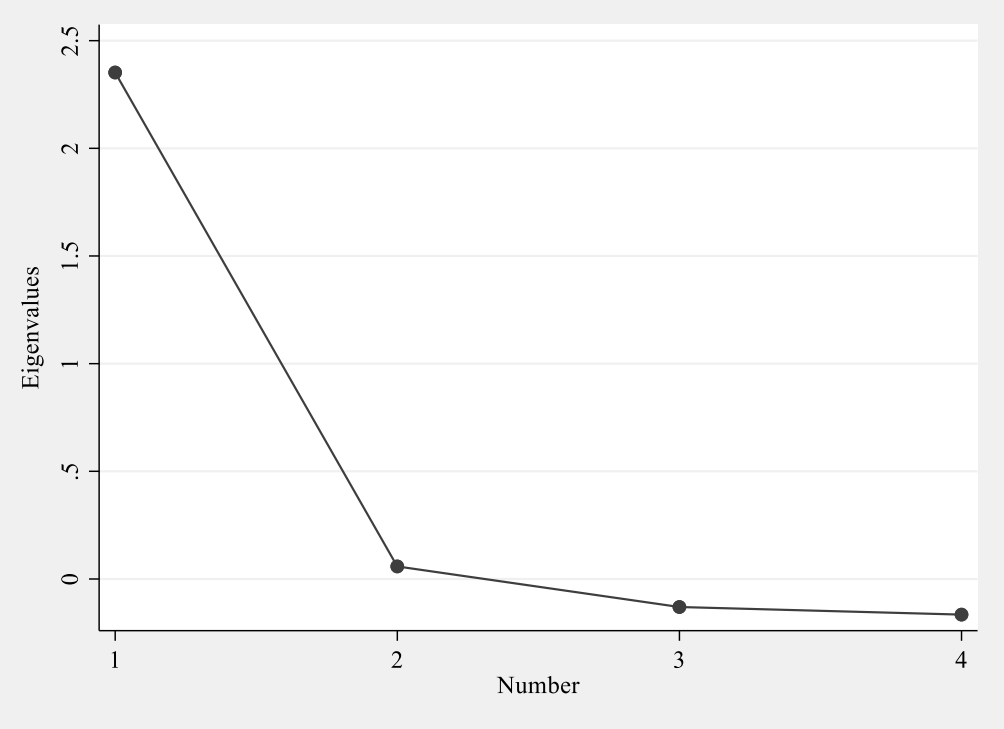

Figure 6A. Scree plot of Stress Eigenvalues

Appendix C: Acknowledgement

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