

Obsessive-Compulsive Personality Traits in Law Enforcement

Vanessa M. Holtgrave

A Dissertation Submitted to the Faculty of
The Chicago School of Professional Psychology
In Partial Fulfillment of the Requirements
For the Degree of Doctor of Psychology

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A Dissertation Submitted to the Faculty of
The Chicago School of Professional Psychology at Irvine
In Partial Fulfillment of the Requirements
For the Degree of Doctor of Psychology

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2014

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Dedication

In honor of Joseph Bertram and Earl Strieker.

Acknowledgements

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Abstract

This study explored the association between obsessive-compulsive personality traits (OCPT) in law enforcement peace officers. While many researchers have sought to explain police personality, no literature was found regarding prevalence of OCPT in sworn officers who are currently employed. Previous literature on police personality indicated that certain personality features can positively influence occupational performance; therefore, this study's hypothesis was that obsessive-compulsive personality traits are beneficial in occupations where orderliness, attention to detail, adherence to laws and regulations, and leadership are encouraged. This study assessed prevalence of obsessive-compulsive personality traits in law enforcement, more specifically among sheriff's deputies, as compared to the general population. Overall OCPT was measured by the total mean score on the Five Factor Obsessive-Compulsive Inventory (FFOCI). Means were compared between the two groups using a one-tailed independent samples *t* test as the most appropriate statistical measure. More specific respondent traits were also assessed across 12 subscales: perfectionism, fastidiousness, punctiliousness, workaholism, doggedness, ruminative deliberation, detached coldness, risk aversion, excessive worry, constricted, inflexibility, and dogmatism. Differences between subscales were analyzed after-the-fact using multivariate analysis of variance (MANOVA). After attrition, 124 participants completed the inventory. Data revealed statistically significant results showing that the overall prevalence of OCPT would be significantly higher overall in law enforcement peace officers as compared to the general population. This study provides a unique perspective and contribution to the field of forensic psychology regarding with an emphasis on police personality. Information derived from this study will be useful for professionals who work closely with law enforcement populations involving the assessment, treatment, and research of peace officers.

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Chapter 1: Introduction and Rationale for the Study

Not many would consider organization, orderliness, strong work ethic, attention to detail, strict moral and ethical stance, and sense of duty to be maladaptive characteristics. Clinically speaking, a fine line exists between functional aspects of personality and dysfunctional or disordered features. An obsessive-compulsive personality spans a continuum, thus having varying degrees of impact on an individual's social and occupational functioning (American Psychiatric Association, 2013; Sperry, 2003). The purpose of this dissertation study was to examine the prevalence of obsessive-compulsive personality traits (OCPT) in law enforcement, more specifically sheriff's deputies, as compared to the general population in order to gain a better understanding of the role of OCPT as part of the naturally occurring police personality.

General population statistics on personality disorder prevalence can be found via the National Epidemiologic Survey on Alcohol and Related Conditions (Grant, Mooney, & Kushner, 2012) and were used as an objective reference in this dissertation research for general population prevalence and as a guide for representativeness. National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) demographics were not used in the original data set or interpretation. The primary researcher investigated the frequency of personality traits, not clinical disorders. Therefore, prevalence of OCPT in the general population was established in a similar manner as peace officer prevalence using the same instrument for both populations for congruity.

It is unclear whether OCPT is more prevalent in law enforcement or the general population. Peace officers should possess certain occupational traits that make them successful in their chosen vocation. These traits include, but are not limited to, the ability to be organized, engage in efficient and accurate report writing, follow legal regulations, have restricted

emotions, and be observant of detail (crime scenes for example) in their occupational field. This study theorized that individuals with OCPT are more prevalent in law enforcement occupations due to the necessary personality traits that are required to be successful in the field, regardless of the etiology of obsessive-compulsive personality traits.

Significance of the Problem

Due to the nature of the work, there is a possibility that features specific to obsessive-compulsive personality are more present in law enforcement peace officers when compared to members of the general population (non-law enforcement occupations). Prior empirical literature on personality disorders, more specifically OCPD, has been limited in relation to law enforcement. While personality studies have been conducted on law enforcement for the purpose of employment screening (Gallo & Halgin, 2011), studies are also used to identify maladaptive features of officers who were later terminated (Bartol, 1991). Furthermore, research on police personality is oftentimes conducted internationally rather than nationally; therefore, there is a general lack of empirical data that is representative to officers in the United States.

A general search of law enforcement yielded a plethora of empirical studies on general personality features, post-traumatic stress disorder (PTSD) or distress tolerance in police officers, substance abuse, adjustment dysfunction, the influence of anxiety on shooting behavior, and suicidality among officers (Andrew et al., 2008; Martin, Marchand, & Boyer, 2009; Nieuwenhuys & Oudejans, 2010; Pienaar, Rothmann, & van de Vijver, 2007; & Swatt, Gibson, & Leeper Piquero, 2007). With that being said, there is a lack of information regarding obsessive-compulsive personality disorder and its associated features.

No studies found, to date, have investigated prevalence rates or bidirectional influence of obsessive-compulsive personality disorder on peace officers or trait relation to occupational

functioning. An academic search on law enforcement concerning the prevalence of OCPD/OCPT in law enforcement included inquiries within PsycInfo, ProQuest, LexisNexis, EBSCO, Ebooks, OAIster, ArticleFirst, Google Scholar, Academic Search Premier, PsycARTICLES, and PsycBOOKS. Searches of these databases revealed no empirical studies that could be found by the primary researcher on the dissertation topic. With that being said, this study provided new and emerging information to the fields of forensic psychology, clinical psychology, industrial/organizational psychology, and more specifically, police psychology.

Police psychology includes several aspects that are imperative in understanding the importance of the present study. Police psychology is a distinct subfield of forensic psychology that focuses on the application of psychological principles and methods of policing. More specific areas of specialization within police psychology include pre-employment/post-offer psychological evaluation, fitness-for-duty evaluations, hostage negotiations, and trauma/stress counseling (Kitaeff, as cited in Kitaeff, 2011). Other areas include psychological services for officers and their family, interrogation/interviewing, and threat assessment (Bartol & Bartol, 2008).

The assumption of this study was that obsessive-compulsive personality traits or features are more prevalent in sworn peace officers when compared to members in the general population. This is due to the occupational need to be organized, orderly, emotionally constricted, and the propensity to follow rules/regulations. Additional features that may play a role in prevalence include the need for control, demanding communication style, and conscientiousness of social status, morals, and ethics. Moreover, the degree of obsessive-compulsive personality traits, as evidenced by psychological assessment, may be investigated in the future context of job performance for this specific occupation.

OCPD is the most common lifetime personality disorder present among the general population (Grant, Mooney, & Kushner, 2012). Therefore, if the present study is able to detect a higher prevalence rate of OCPT in law enforcement as compared to the general population, it can be assumed that rates of OCPT are significantly higher in officers as compared to any other personality disorder spectrum trait. Future studies may focus on job performance ratings between a wider variety of officers (U.S. Marshalls, state police, municipal police, military police, and probation officers) with greater obsessive-compulsive personality traits in comparison to those with few or no prominent traits. With that being said, results of the this study could supplement criteria for pre-employment/post-offer screening of law enforcement officers by targeting favorable psychological aspects of obsessive-compulsive personality traits through psychological assessment that must be met following a formal job offer.

Conducting pre-employment/post-offer psychological evaluations are a common practice in law enforcement hiring (Dantzker, 2011). Psychological assessments were historically included in pre-employment screening in order to establish psychological stability prior to extending an offer for employment. However, the use of mandatory pre-employment screening for psychological purposes is controversial due to the negative impact that results could have on candidates (Dantzker, 2011; Cochrane, Tett, & Vandercreek, 2003). Employers are only permitted to ask questions pertaining to disability after a conditional offer for employment has been made to the candidate. Thus, psychological screening for psychopathology is now considered to be part of medical assessment and only administered following during the conditional phase (Gallo & Halgin, 2011) unless questions assess for normal range personality traits (California Commission on Peace Officer Standards and Training, 2010). Research questions and hypotheses for the present dissertation study are listed below.

Research Question and Hypothesis

Research Question 1: To what degree is the rate of obsessive-compulsive personality traits (OCPT) more prevalent in law enforcement than non-law enforcement (general population)?

H1: Rate of OCPT will be higher in sworn sheriff's department peace officers than the general population.

Summary and Transition

In conclusion, the present study provides a unique perspective and contribution to the field of forensic psychology regarding prevalence rates of personality disorders in law enforcement personnel. Key variables of interest are affect, perfectionism, excessive work, orderliness, conscientiousness, interpersonal rigidity, and conformity for laws and morals. Chapter 2 also examines theoretical underpinnings of the assumptions in the present study. It is also important to understand both the characteristics of the disorder and aspects of policing in order to have an adequate understanding of how the two relate to each other in a meaningful way.

Chapter 2 will include an in-depth discussion about obsessive-compulsive personality disorder (OCPD), spectrum features or traits (OCPT), the etiology of OCPD, history of policing, and the use of psychological screening for law enforcement candidacy. Research methodology outlining how data was gathered from both populations will be described in detail in Chapter 3. Chapter 4 discusses the author and primary researcher of this dissertation study will discuss the statistical manipulations using the Statistical Package for the Social Sciences (SPSS) on original data.

A national survey indicated that over 90% of municipal police departments use psychological testing and assessment procedures for candidate selection (Cochrane, Tett, & Vandecreek, 2003); therefore, identifying obsessive-compulsive personality features in populations of law enforcement officers may have future implications on pre-employment/post-offer testing and evaluation (Dantzker, 2011). Future implications and limitations of the study will be examined in Chapter Five. Research results will be formulated to identify personality features, like OCPT, that are not otherwise indicated in psychological assessment with regard to occupational performance and law enforcement hiring practices for future studies. Appendices are listed after the References section and will provide the reader with visual examples of the study instrument (FFOCI) and scoring used, informed consent, demographic questionnaire, and debriefing.

Definition of Terms

Terms are defined in this glossary in order to provide readers with a better conceptual understanding of the content being discussed in this dissertation in relation to law enforcement. For the ease of the reader, all terms defined in the glossary will be italicized when they first become relevant in the paper.

Catastrophization/Catastrophizing: The propensity to catastrophize; to exaggerate the negative consequences of events or decisions. People are said to be catastrophizing when they think that the worst possible outcome will occur from a particular action or in a particular situation when they feel as if they are in the midst of a catastrophe in situations that may be serious and upsetting but are not necessarily disastrous. The tendency to catastrophize can unnecessarily increase levels of anxiety and lead to maladaptive behavior (VandenBos, 2007).

Co-Morbidity: The simultaneous presence in an individual of two or more mental or physical illnesses, diseases, or disorders (VandenBos, 2007).

Conscientiousness: The tendency to be organized, responsible, and hardworking, construed as one end of a dimension of individual differences in the Big Five Personality Model. It is also a dimension in the Five-Factor Personality Model (VandenBos, 2007).

Constriction/Constricted (Affective): Lack of awareness or appreciation for the emotions of one's self or others, as evident in being excessively dispassionate, not experiencing a wide range of feelings, and valuing logic over emotions (D. Samuel, personal communication, December 6, 2012).

Conscientiousness: A state of awareness of internal events and of the external environment (Gerrig & Zimbardo, 2002).

Detached Coldness: A lack of interpersonal warmth, as evident by appearing excessively reserved, serious, or formal (D. Samuel, personal communication, December 6, 2012).

Dichotomous Thinking: The tendency to think in terms of bipolar opposites, that is, in terms of the best and worst, without accepting the possibilities that lie between these two extremes. Also called polarized thinking (VandenBos, 2007).

Doggedness: Excessively and tenaciously disciplined, as evident in such behaviors as a single-minded determination to always finish what one has started, no matter the cost (D. Samuel, personal communication, December 6, 2012).

Dogmatism: The tendency to act in a blindly certain, assertive, and authoritative manner in accord with a strongly held set of beliefs (VandenBos, 2007); a closed-minded sense of values, as evident in having an excessively rigid adherence to a moral code (D. Samuel, personal communication, December 6, 2012).

Ego-Dystonic: In psychoanalytic theory, describing impulses, wishes, or thoughts that are unacceptable or repugnant to the ego or self. Also called ego-alien (VandenBos, 2007).

Ego-Syntonic: Compatible with the ego or conscious self-concept. Thoughts, wishes, impulses, and behavior are said to be ego-syntonic when they form no threat to the ego and can be acted upon without interference from the superego. First described in 1914 by Sigmund Freud (VandenBos, 2007).

Excessive Worry: Anxiously worrying about many different things, including work, the future, and how things can go wrong (D. Samuel, personal communication, December 6, 2012).

Fastidiousness: Excessively particular or demanding with respect to orderliness and organization, as evident in such behaviors as being very methodical about even the smallest level of detail (D. Samuel, personal communication, December 6, 2012).

Inflexibility: Lack of openness to options or actions, as evident in such behavior as being rigidly stuck in one way of doing things without considering alternatives (D. Samuel, personal communication, December 6, 2012).

Intellectualization: A neurotic defense. Excessively using intellectual processes to avoid expressing emotion with a focus on the inanimate. Used to avoid intimacy, attention with people, and expression of softer feelings (American Psychiatric Association, 2000).

Pathoplastic: The mutually influencing nonetiological relationship between psychopathology and interpersonal traits (Cain et al., 2012, p. 78); a relationship in which personality and psychopathology influence individual appearance, presentation, and expression in a bidirectional manner (Widiger, 2011).

Perfectionism: The tendency to demand of others or oneself a higher level of performance than is required by the situation, thought by some to be a risk factor for depression

(VandenBos, 2007); a personal standard of competence that demands perfection and rejects anything less, as evident in such behaviors as demanding that work is flawless and getting bogged down in making sure even the smallest aspect of a project is just right (D. Samuel, personal communication, December 6, 2012).

Punctiliousness: Excessively strict or exact in the adherence to duties and responsibilities, as evident in such behavior as demanding strict adherence to all rules and regulations (D. Samuel, personal communication, December 6, 2012).

Reaction Formation: In psychoanalytic theory, a defense mechanism in which unacceptable or threatening unconscious impulses are denied and are replaced in consciousness with their opposite. For example, to conceal an unconscious prejudice an individual may preach tolerance; to deny feelings of rejection, a mother may be overindulgent toward her child. Though the symbolic relationship between the unconscious with and its opposite, the outward behavior provides a disguised outlet for the tendencies it seems to oppose (VandenBos, 2007).

Risk-Aversion: An excessive reluctance to take chances or risks, as evident in such behavior as always playing it safe, preferring the safe and subdued over thrills and excitement (D. Samuel, personal communication, December 6, 2012).

Ruminative Deliberation: Excessive deliberation, as evident in such behavior as being unable to make a decision due to considering and even dwelling upon all possible concerns (D. Samuel, personal communication, December 6, 2012).

Workaholism: A maladaptive achievement-striving in which work and accomplishments are emphasized at the expense of other pursuits, as evident in such behavior as sacrificing relationships and leisure activity for the sake of productivity (D. Samuel, personal communication, December 6, 2012).

Chapter 2: Review of Related Literature

This chapter will provide a review of pertinent literature as it relates to the prevalence of obsessive-compulsive personality traits (OCPT) in law enforcement peace officers. This will include an in-depth discussion about obsessive-compulsive personality disorder (OCPD), spectrum features or traits, etiology of OCPD and traits, theoretical orientation, differential diagnosis, and cultural considerations. The author will also review relevant literature on policing including the history of police psychology and the use of psychological testing for pre-employment/post-offer psychological assessment and candidate screening.

Theoretical and Conceptual Underpinnings

What is a Personality Disorder?

An examination of the spectrum of personality disorders is intended to provide insight about the misrepresentation of personality disorders and their associated features as being solely negative to interpersonal and occupational functioning. Personality features become disordered or dysfunctional when an individual's personality traits have become rigid, inflexible, maladaptive, and have caused functional impairment in one or more lifestyle domains. An individual may also present with a mix of features from several personality types (American Psychiatric Association, 2013).

It has been theorized that personality disorders are not static, but rather span on a continuum from healthy to pathological depending on unique personal traits, triggering events, and attachment (American Psychiatric Association, 2013; Sperry, 2003). Personality functioning is viewed as a distribution of features related in some manner as an adaptation to core beliefs of the individual, their understanding of themselves, and fundamental interactions with others. Level of functional impairment can range from little or no impairment to severe psychosocial

impairment (American Psychiatric Association, 2013). These spectrum relationships can be thought of as the association between personality and psychopathology in association to underlying etiological factors that influence how the person behaves on an interpersonal level (Widiger, 2011).

Identifying personality disorders can become quite difficult as the disorders themselves are categorized as maladaptive variant features of healthy functional personality traits. In other words, individual traits can fall anywhere between functional and dysfunctional, making it hard to meet distinct criteria for any single diagnosable personality disorder (American Psychiatric Association, 2013; Sperry, 2003). Furthermore, the different spectrum traits yield varying degrees of influence on an individual's occupational and interpersonal functioning (Widiger, 2011).

Personality involves how an individual thinks, behaves, feels, and relates to others in their environment. Personality and psychopathology has what is known as a *pathoplastic* relationship. A pathoplastic relationship is one in which personality and psychopathology influence individual appearance, presentation, and expression in a bidirectional manner (Widiger, 2011). According to the fifth edition of the Diagnostic and Statistical Manual (DSM-V), personality disorders are longstanding patterns of behavior that begin in early adulthood and cause significant clinical impairment and interpersonal distress in one or more functional domains (American Psychiatric Association, 2013).

Some personality disorders appear to remit with age or cause less dysfunction. Dysfunction may markedly affect cognition, social functioning, interpersonal functioning, emotion regulation, impulse control, and occupational functioning. Obsessive-compulsive personality disorder does not appear to be affected by age and may continue well into late

adulthood (American Psychiatric Association, 2013). However, as previously stated, personality characteristics can be functional and positive and should not be categorized as solely maladaptive.

Personality disorders were formerly classified into clusters on the second axis (*Axis II*) of the multiaxial system of the DSM-IV-TR. The newest edition of the Diagnostic and Statistical Manual removed the multiaxial system and no longer codes personality disorders as distinct from primary mental disorders (American Psychiatric Association, 2013). The DSM-V classifies OCPD, along with five other personality disorders, as a disorder requiring additional study on the fundamental impairments in personality functioning. Positively, a greater emphasis was placed on trait-based criteria and psychosocial impairment on personality functioning in order to increase the stability of the disorders (American Psychiatric Association, 2013; Grohol, 2013).

Cluster A personality disorders are characterized by odd or eccentric interpersonal features and often appear similar to schizophrenic disorders. This cluster includes schizoid, schizotypal, and paranoid personality disorders. Cluster B personality disorders include antisocial, borderline, narcissistic, and histrionic personality disorders (American Psychiatric Association, 2013; Sperry, 2003). Lastly, individuals with Cluster C personality disorders often appear anxious or fearful. Avoidant, dependent, and obsessive-compulsive personality disorders are included in this cluster (American Psychiatric Association, 2013). As previously discussed, many individuals can have features from more than one cluster and ranging on a spectrum from functional to dysfunctional (Sperry, 2003). For the purposes of the present study, OCPD and associated features will be discussed descriptively in order to illustrate the theoretical relationship between these traits and peace officers.

Obsessive-compulsive personality disorder (OCPD). Obsessive-compulsive personality disorder (OCPD) has a conglomerate of features that effect functioning in different ways. OCPD, as defined by the American Psychiatric Association (2013) in the fifth edition of the Diagnostic and Statistical Manual (DSM-V), is a persistent and pervasive pattern of preoccupation with orderliness and control. The concept of control is operationalized as both interpersonal and mental control at the expense of flexibility and efficiency. Persons diagnosed as having OCPD have a behavioral style that is influenced by intense *perfectionism* (American Psychiatric Association, 2013; American Psychiatric Association, 2000). The DSM-IV-TR and DSM-V defines prominent traits of OCPD with constructs from the Five Factor Model. These traits include perfectionism, rigidity, orderliness, perseveration, anxiousness, pessimism, guilt, shame, low self-esteem, restricted affectivity, oppositionality, and manipulativeness (American Psychiatric Association, 2013; American Psychiatric Association, 2000; Skodol et al., 2011).

The World Health Organization (1992) describes a type of personality disorder called the Anankastic Personality Disorder (F60.5), which is synonymous with obsessive-compulsive personality disorder and excludes the anxiety disorder known as obsessive-compulsive disorder (American Psychiatric Association, 2013). Characteristics of an anankastic personality include excessive feelings of doubt and caution, preoccupation with details, rules, lists, order, and organization, perfectionism to the degree that it interferes with task completion, excessive conscientiousness, exclusion of pleasurable activities and interpersonal relationships due to preoccupation with productivity. Individuals with this personality type also present as having intense preoccupation with details, rules, lists, order, organization or schedule, such a high degree of perfectionism that it interferes with task completion, undue adherence to social conventions, stubbornness, rigidity, pedant, ostentatious, or arrogant show of learning with

excessive formalism; insistence that others submit to their way of doing things, reluctance to delegate tasks, and presence of intrusive impulsive or thoughts (World Health Organization, 1992).

The DSM-V did not change pre-existing criteria for OCPD, but proposed an alternate model for personality disorders. The alternate model for OCPD asserts that these individuals' identity is centralized around the sense of self that is inherently derived from work productivity (American Psychiatric Association, 2013). The American Psychiatric Association (2013) also proposed four potentially pathological personality traits: rigid perfectionism, preservation, intimacy avoidance, and restricted affectivity. While conscientiousness can be a productive personality feature, rigid perfectionism is an extreme form of conscientiousness. From another perspective, persistence, avoidance of close relationships, restricted affect and conscientiousness can be positive when spanning on the functional end of the aforesaid personality features, especially in occupations where such traits are necessary. Despite the stigmatic perception that surrounds personality pathology, officers may be able to use these features for practical purposes in their profession.

The OCPD individual is often referred to as a "workaholic" or "perfectionist" with a tendency to be extremely rigid and inflexible in several areas of their life. Characteristics of perfectionism can be defined as overly-scrutinous self-evaluation and determined pursuit of achievement in response to self-imposed standards. It has been theorized that individuals exhibiting perfectionism characteristics react to failure in a manner that is consistent with their own standards of harsh self-criticism (Shafran, Cooper, & Fairburn, 2002). Interestingly, a study on undergraduate students found that perfectionism significantly predicted scores on *workaholism* (Bovornusvakool, Vodanovich, Ariyabuddhiphongs, & Ngamake, 2012).

Leisurely activities may be entirely excluded from activities due to overly excessive devotion to others areas (e.g. workaholism). If leisurely activities are pursued they may become exceedingly distressing to others involved due to the structure and the rigidity placed on the activity (American Psychiatric Association, 2013). Not surprisingly, workaholics have increased health complaints with elevated measures on perfectionism, job stress, and lack of responsibility delegation to others. These characteristics are also consistent with OCPD diagnosis (Spence & Robbins, 1992).

OCPD is characterized by a proclivity to be overly conscientious, rigid morality, ethics, or spiritual beliefs. Literature derived from a longitudinal study on the stability of personality disorder symptoms across two years identified two specific diagnostic criteria, interpersonal stubbornness and difficulty delegating work to others, as being the least changeable obsessive-compulsive personality traits (McGlashan et al., 2005). Additional traits associated with obsessive-compulsive personality also include difficulty with decision-making; therefore, OCPD individuals may frequently avoid or protract decisions due to the overwhelming fear of failure (American Psychiatric Association, 2013; Sperry, 2003).

Interpersonally, OCPD individuals are highly conscientious of social status. Interestingly, law enforcement is an authority status that can be viewed as honorable, responsible, and upstanding. Those diagnosed as having OCPD may have a propensity for obedience and pleasing, yet may experience some degree of defiance when issues go against their rigid core beliefs. They may have an overly assertive communication style and are often referred to as being insistent, obsequious, or bossy. OCPD individuals may not be aware of how their behavior affects others or are capable of interpreting other's reactions in return, which is oftentimes misinterpreted as a lack of empathy (American Psychiatric Association, 2013; Sperry, 2003).

Thus, these individuals may come off as insensitive or uncaring when unintended (American Psychiatric Association, 2013).

OCPD is characterized affectively by emotional *constriction* or difficulty expressing softer feelings. This is also known as isolation of affect. Despite the avoidance of certain primary feelings, these individuals may express secondary emotions, like anger, quite easily. This can cause conflict with relationships due to the lack of softer emotional expression for the other person. Additionally, individuals with OCPD may be reluctant to delegate tasks to their significant others, which may be perceived as an overall lack of trust in others (American Psychiatric Association, 2013).

Protective factors. Cognitively, these individuals may display several forms of defensive mechanisms, like *intellectualization* and *reaction formation*, in order to reduce associated emotions (Lingiardi et al., 1999). These schemas perpetuate automatic thoughts directed at themselves and others; therefore, individuals diagnosed as having OCPD tend to employ cognitive distortions like *catastrophizing*, *dichotomous thinking* (black-and-white thinking), or magnification (Beck & Freeman, 1990).

Intellectualization is employed to reduce negative emotions by thinking about events in a relatively objective and unattached approach. Emotional conflict is dealt with by the excessive use of abstract or complex thinking (American Psychiatric Association, 2000). The individual may focus on the intellectual component of situations by dissecting social situations in a cold intellectual manner while ignoring the emotional component (Bender, 2005). This method of coping is used to avoid or reduce unpleasant primary emotions like depression or anxiety (American Psychiatric Association, 2000). Conversely, with that being said, having the ability to

restrict emotion while looking at a situation from a more objective standpoint may allow peace officers to interact with citizens without excessive emotional distress interference.

Reaction formation is used to reduce anxiety by assuming opposite behaviors or feelings. For example, an OCPD individual may feel a lack of internal control thus assuming a facade of collectiveness in order to reduce anxiety associated with fear of a loss of control. Cognitive-behavioral theorists assert that these individuals suffer from maladaptive schemas of perfection and the internal need for control (Sperry, 2003). Being able to appear in control when one feels a loss of control may be a strength for officers who work with citizens in need of support or are particularly vulnerable to instability.

Theoretical Foundations

Psychodynamic formulation. Psychoanalytic theory was one of the first to elucidate personality with a systematic description of traits. The anal character, used to describe obsessive-compulsive personality traits, has three core features that distinguish this personality style from others (Schneider, 2006). These features include orderliness, obstinacy, and parsimony. Orderliness is characterized by a need for cleanliness and *conscientiousness* of tasks. Obstinacy purports that individuals with similar personalities are prone to stubbornness and defiance. Lastly, parsimony describes excessive frugality with finances (Freud, as cited in Schneider, 2006).

Historically speaking, Sigmund Freud worked closely with a patient, Dr. Ernst Lanzer, who was candidly immortalized in psychological literature as the “Rat-Man”. Lanzer, an Army officer, acknowledged that he had been having obsessions since childhood that intensified in adulthood due to a conglomerate of stressors. Interestingly, his obsessions centralized around the belief that sadistic injury or death would be imparted upon his loved ones. Compulsions

were rooted in the psychological belief that he would feel relief after engaging in self-harm or mutilation. Lanzer's compulsions were of a self-injurious nature and oftentimes involved the officer cutting his own throat with a razor. His core obsessional belief was that self-imposed punishment would spare his father and girlfriend from perceived harm while also relieving the overwhelming anxiety caused from obsessive sadistic thoughts (Mahoney, 1986). In other words, Lanzer's sense of inflated responsibility was pathogenically linked to mechanisms of the obsessive-compulsive personality; thus, causing exaggerated concern for others (Moritz, Kempke, Luyten, Randjbar, & Jelinek, 2011). As a result, Lanzer experienced clinical impairment in several areas of functioning.

The "Rat-Man" alias was derived from a therapeutic session with Freud in which Dr. Lanzer described a story he had heard from fellow Army officer about a cruel Asian torture technique. As the story goes, victims were stripped naked and a heated pot with live rats was subsequently placed directly onto their buttocks. It was said that the rats were released, while still on the buttocks, and permitted to chew their way through the offender's anus as punishment (Mahony, 1986). His obsessions converged around the idea that the rat torture would be used as a means of punishing his father and girlfriend; therefore, Lanzer would harm himself to protect them from enduring such an inhumane act. Freud diagnosed the Rat-Man's combination of symptoms as "obsessional neurosis", which represented an early psychoanalytic phase called the anal phase.

The Rat-Man had what is now identified as symptoms of obsessive-compulsive disorder (OCD) (Bruder, 2011; Weiner & Craighead, 2010); however, it has been suggested that he suffered from both OCD and OCPD features (Sperry, 2003). Although they share a similar name, obsessive-compulsive personality disorder and obsessive-compulsive disorder have been

distinguished from one another in the fourth and fifth editions of the Diagnostic and Statistical Manual of Mental Disorders as being separate conditions (American Psychiatric Association, 2013).

Theoretically speaking, if the Rat-Man had been diagnosed with OCPD it would have meant that he had regressed from the Oedipal psychoanalytic phase to the anal phase. Freud had formulated that, in OCPD, the superego is punitive therefore causing the individual to rely on defense mechanisms like intellectualization (Sperry, 2003). Proponents for psychoanalytic theory have asserted that individuals with OCPD use perfectionism as a means for gaining parental approval that was absent from their childhood. Other psychodynamic theorists believe that the obsessive pattern is used to escape feelings of shame, weakness, or lack of acceptance due to perceived failure (Salzman, 1980).

Evolution-based personality theory. Theodore Millon, a 19th century American psychologist and the forefather of personality theory, was well known for his interpretation of personality types. Millon (2004) identified five subtypes of the compulsive personality that incorporates features from other personality types. These personality subtypes are categorized as conscientious, puritanical, bureaucratic, parsimonious, and bedeviled (Millon, 2004).

Five factor model. Obsessive-compulsive personality disorder has been conceptualized theoretically as a maladaptive personality classification that can be understood largely as a dysfunctional variant of conscientiousness (Samuel & Widiger, 2011; Widiger, 2011). The conscientiousness trait is applicable to OCPD because of the overlap in facets regarding order, motivation for achievement (excessive work or “workaholic” behavior), the propensity to be overly conscientious regarding duty and ethical/moral matters, competence (OCPD feature of perfectionism), and deliberation. A study by Samuel and Widiger (2011) indicated that measures

of conscientiousness were strongly supported by OCPD traits. Otherwise stated, OCPD is a pathological variant of the normal trait of conscientiousness based on the empirical literature on the Five Factor Model (Samuel & Widiger, 2011). Because personality spans on a spectrum of healthy to pathological (American Psychiatric Association, 2013), it would make sense in a conceptual manner that individuals with obsessive-compulsive personality traits would have a functional variant of conscientiousness.

Subject matter experts on interpersonal demands of the job and competency have listed several observable patterns of behavior, or competencies, as important to successful peace officer performance. These competencies include integrity/ethics, assertiveness/persuasiveness, conscientiousness/dependability, teamwork, adaptability/flexibility, attention to safety/impulse control, decision-making and judgment, emotion regulation and stress tolerance, social competence, and service orientation. Conscientiousness has been found to have the strongest relationship to peace officer work-related behaviors and officer competency (California Commission on Peace Officer Standards and Training, 2010). Denning (as cited in the California Commission on Peace Officer Standards and Training, 2010) found a significant relationship between conscientiousness, emotional stability, and agreeableness and the probability of being selected as a California state peace officer.

Absence of strong dimensional facets of conscientiousness, more specifically impulse control, and agreeableness have been significantly related to counterproductive work-place behaviors (Ones et al., as cited in California Commission on Peace Officer Standards and Training, 2010). Counterproductive work behaviors include theft and related behaviors, destruction of property, misuse of information, misuse of time and resources, unsafe behavior,

poor attendance, poor quality of work, alcohol use, drug use, and inappropriate verbal actions (Gruys, as cited in California Commission on Peace Officer Standards and Training, 2010).

Personality-oriented integrity testing is less overt and questions do not provide a clear indication about the purpose of the assessment (Sackett, Burris, & Callahan, as cited in California Commission on Peace Officer Standards and Training, 2010). Testing with the purpose of work outcomes prediction has a stronger relationship with the prediction of negative employment outcomes rather than positive outcomes. Negative employment outcomes include the need for discipline, failure to complete training, and termination from employment (Ones & Viswesvaran, as cited in California Commission on Peace Officer Standards and Training, 2010).

Etiology of Obsessive-Compulsive Personality

Biopsychosocial Approach

Because personality disorders are longstanding patterns of behavior, attachment theory has been influential in explaining these disorders from a developmental perspective (Emmelkamp & Kamphuis, 2007). Attachment style is characterized by external self-definitions, like accomplishments, rather than internal orientation. The temperament of OCPD individuals may appear to be irritable, anxious, or even difficult (Sperry, 2003). Positively, OCPD appears to have higher psychosocial functioning when compared to other personality types. A study by Skodol and colleagues (2002) found that patients with schizotypal personality disorder and borderline personality disorder had significantly higher occupational and social impairment when compared to patients with OCPD.

Environmental factors may also play a key role in the etiologic development of obsessive-compulsive personality disorder and associated features. Parents of OCPD individuals may have been over-controlling regarding punishment; thus, the child learned to associate

punishment with failing to meet parental expectation. Having a parent who is a perfectionist would essentially mean that the child consistently failed to meet exceedingly high expectations; therefore, it is theorized that children of perfectionistic parents develop a neurotic tendency of scrupulous interpersonal structure to combat associated feelings of unworthiness. Emotional expressivity is not common in households with OCPD parents; as a result, children fail to learn proper emotional expression and empathy resulting in the obsessive-compulsive personality characteristic of cold emotionality or constricted affect. Lastly, children are taught to feel guilty when failing to meet expectations and caused to feel ashamed when acting impulsive or against social norms (Sperry, 2003).

A study by Raiskila and colleagues (2013) specifically addressed the issue of gender differences in OCPD. When looking at a group of homogeneously diagnosed individuals with major depression as the primary diagnosis, researchers were able to observe heterogeneous differences without considerable variability. Results suggested that males were the majority with 50% of males and 28% of females in the personality disorder sample diagnosed as having OCPD (Raiskila et al., 2013). Paradoxically, results from the National Epidemiologic Survey on Alcohol and Related Conditions indicated that lifetime prevalence of OCPD was estimated at 7.8% with rates for gender being equal between male and female participants (Grant, Mooney, & Kushner, 2012) and the American Psychiatric Association (2013) indicated that systematic studies suggest that OCPD is diagnosed twice as often among males when compared to females.

Certain prefrontal disruptions may also contribute to the etiology of personality disorders like obsessive-compulsive personality disorder (Ruocco, McCloskey, Lee & Coccaro, 2009). Because clinical diagnosis of obsessive-compulsive personality suggests adherence to rules and regulations, it is theorized that OCPD individuals develop coping skills for overcoming

disorganization during neurocognitive tasks. Previous literature demonstrated that working memory deficits and cognitive disorganization were characteristics present in individuals with obsessive-compulsive features or traits (Aycicegi-Dinn, Dinn, & Caldwell-Harris, 2009). Blom and colleagues (2011) found that males with the s allele of the serotonin transporter promoter polymorphism 5HTTLPR had a significantly lower likelihood of OCPD traits while females had higher trait scores.

Cultural Consideration

OCPD is significantly less common in certain races including those of Hispanic decent (Grant, Mooney, & Kushner, 2012). Cultures that stress order and structural rigidity have been identified as being an at-risk-population for developing OCPD (American Psychiatric Association, 2000). As previously stated, certain racial groups are at higher risk for developing personality disorders than others (The National Epidemiologic Survey on Alcohol and Related Conditions, 2012). Chinese culture is one that may perpetuate the development of OCPD features. They are a society with a strong emphasis on saving, Confucian philosophy, and social status; therefore, individuals of Chinese-decent are at higher risk for developing OCPD features regarding miserly spending style, preoccupation with social status though possessions, and restricted emotional expression (Li, Marques, Hinton, Wang & Xiao, 2009).

Differential Diagnosis

While obsessive-compulsive disorder (OCD) and obsessive-compulsive personality disorder (OCPD) share common names, they are distinct clinical mental disorders. In the earlier times, OCPD was theorized to be a variant of OCD. In all actuality, despite prior findings, many individuals who meet the criteria for OCD, an anxiety disorder, do not meet criteria for the pattern of behaviors associated with OCPD, a personality disorder. Moreover, OCD is

characterized by true obsessions and compulsions that are recurring and distressing to the individual. Compulsions, or ritualized behaviors, are used to relieve the anxiety associated with obsessions (e.g. hand washing, checking, and so forth). OCPD is a pervasive set of beliefs, behaviors, and attitudes that form an individual's personality with core beliefs centralized around perfection regardless of compulsions (American Psychiatric Association, 2000).

Individuals with OCD often feel driven by obsessions and compulsions as if there is some foreign entity controlling their thoughts and behavior, which can be extremely distressing to the individual. As a result, OCD is said to be *ego-dystonic* (also referred to as ego-alien), meaning that the individual's thoughts, attitudes, impulses, or behavior cause significant distress to the individual (VandenBos, 2007). On the other hand, individuals with OCPD have an *ego-syntonic* attitude toward the disorder. This means that thoughts, attitudes, and behavior are not recognized as being particularly distressing or foreign (VandenBos, 2007). Retrospectively, these features are adaptive and can often be overlooked by clinicians.

One empirical study looked at dimensional traits present in OCD/OCPD relations rather than simply identifying rates of *co-morbidity* between the two disorders. When compared with OCPD patients, OCD patients scored lower on self-image, self-esteem, and entitlement. OCPD patients had differences on manipulateness, mistrust, and disinhibition dimensions (Wu, Clark, & Watson, 2006). Wetterneck and colleagues (2011) assessed the relationship between specific OCPD dimensions and the severity of OCD. The study yielded results that suggested a relationship between the severity of OCD and OCPD related dimensions including inflexibility, compulsive hoarding, doubts about actions, and perfectionism. The aforementioned may be influential factors when assessing more distinct police personality characteristics.

Narcissistic personality disorder can also have characteristics of perfection and difficulty delegating tasks to others because it is believed that tasks will not be completed appropriately. Features that distinguish the obsessive-compulsive personality from narcissism are the nature of self-belief. The narcissistic individual is more likely to believe they are close to perfection while the OCPD individual is highly self-critical. The narcissist will engage in indulgence while those with OCPD tends to be frugal with money for practical purposes. The lack of emotional liability and expression in OCPD can also mimic features of schizoid personality disorder. Distinguishing diagnostic features are vital when assessing the fundamental capacity for emotion. As previously stated, OCPD individuals are quite capable of emotional expression but may feel uncomfortable with softer emotions. Chronic substance use, more notably the use of cocaine, can also produce OCPD-like traits (American Psychiatric Association, 2013).

Prevalence Rates

Five major empirical studies have examined nationwide prevalence of personality disorders in the general population. They collectively estimated about 10% of the general population diagnosed as having one or more personality disorders. Foreign countries' prevalence rates range from approximately 6.1-13.4% (Sansone & Sansone, 2011). The most recent National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) study had 43,093 subjects with diagnosis made using the Alcohol Use Disorder and Associated Disabilities Interview Schedule-DSM-IV Version. Results suggested that 14.79% of American adults (30.8 million) were diagnosed as having at least one personality disorder consistent with DSM-IV criteria. NESARC (2012) found that OCPD is the most common lifetime personality disorder seen in the general population.

A study by Grant and colleagues (2004) also found that OCPD is the most frequently diagnosed personality disorder found in the general population when compared to all other personality disorders (Grant, Stinson, Dawson, Chou, Ruan, & Pickering, 2004). The DSM-IV-TR lists OCPD national prevalence at about 1% in the community and 3-10% in mental health populations (American Psychiatric Association, 2000). Similarly to the NESARC study (2012), the DSM-V identified OCPD as the most frequently diagnosed personality disorder in the general population with a prevalence ranging from 2.1% to 7.9% (American Psychiatric Association, 2013). Supporting studies report similar prevalence of OCPD in the general population (7.8%) (Grant, Mooney, & Kushner, 2012). Positively, obsessive-compulsive personality disorder has not been identified as a predictor of disability as other personality disorders have indicated (e.g. antisocial personality disorder, schizoid, paranoid, dependent and avoidant personality disorder) (The National Epidemiologic Survey on Alcohol and Related Conditions, 2012). Gender and ethnicity will be factors addressed in the present study specifically as an indication for future research in Chapter Five.

Police Psychology

The true copper's dominant characteristic, if the truth be known, is neither those daring nor vicious qualities that are sometimes attributed to him by friend or enemy, but an ingrained conservatism, an almost desperate love of the conventional. It is untidiness, disorder, the unusual, that a copper disapproves of most of all. (Buckner, as cited in Balch, 1972, p. 106)

As previously stated, police psychology is the application of psychological principles and methods to policing. More specific areas of specialization within police psychology include pre-employment/post-offer psychological assessment, fitness-for-duty evaluations, hostage negotiations, and trauma/stress counseling (Kitaeff, as cited in Kitaeff, 2011). The present study will discuss the history of policing, Type A personality and law enforcement, OCPD and law

enforcement, and employment testing in order to give the reader a better understanding of the important contribution this study will provide to the field.

History of Police Psychology

Psychologists began working in law enforcement long before forensic psychology was recognized as a field. Germany had been using psychologists in various capacities since the early 1900s. The intent for pre-employment psychological evaluation was to ensure that only psychologically fit candidates would be entering into the force (Kitaeff, 2011). Hugo Munsterberg is credited with being the first forensic psychologist. His 1908 book *On the Witness Stand* addressed several issues pertinent to the field of police psychology. Topics included witness memory, effect of emotion on law enforcement, untrue confessions, suggestibility in witness accounts, hypnosis, and early crime prevention (Munsterberg, as cited in Kitaeff, 2011).

Martin Reiser became the first nationally recognized police psychologist in 1954. Reiser was chosen to pre-screen all applicants for the Los Angeles City Police Department (LAPD) using the first edition of the Minnesota Multiphasic Personality Inventory (MMPI) along with several other methods of objective and projective testing (Blau & Super, as cited in Kitaeff, 2011). As psychologists' presence in police departments became more frequent, the 1967 Presidential Commission on Law Enforcement and the 1967 Administration of Justice report would eventually set the trend for police presence to become increasingly omnipresent. In combination with the National Advisory Commission on Annual Justice Standards and Goals, recommendations would eventually result in the requirement of pre-employment psychological evaluation for all law enforcement candidates (Janik, as cited in Kitaeff, 2011; Ostrov, as cited in Kitaeff, 2011). By 1990, 64% of state police departments and 73% of city municipal police

departments had instituted mandatory psychological assessment as part of pre-employment screening for candidacy (Kitaeff, 2011).

Psychologists began assessing for personality traits commonly found in police officers rather than focusing strictly on disorders. This assisted in giving psychologists an idea of what a “police personality” would look like. One study investigated authoritarian features in experienced officers as compared to inexperienced officers (Laguna, Linn, Ward, & Rupslaukyte, 2010). Other studies assessed behavioral misconduct and involuntary separation from the department (Kane & White, 2009). With that being said, what characteristics are considered to be positive or negative in police officers? Moreover, how do these characteristics affect job performance and use of pre-employment/post-offer psychological screening?

Peace officers are held to high standards. These standards include higher education than previously required, general public acceptance, completion of specialized training, and exhibiting ethical behavior and community commitment (Schneider, 2009). Officers are also required to pay attention to small details (e.g. report writing, crime scene investigation, etc.) and expected to be emotionally stable, honest, morally sound, conscientious, and agreeable (Berry, Ones, & Sackett; as cited in Kitaeff, 2011).

Prior research on police officer personality has also focused on identifying traits that correlate with future occupational success or failure. Kitaeff (2011), an authority on police psychology, believes that officers should also exhibit emotional warmth, social boldness, self-reliance, organization, and high energy. Operationally speaking, professionalism in policing can be viewed as a predictor of future occupational effectiveness. Morality is especially vital because officers are consistently exposed to situations that create temptation and possibility for

corruption, which is further compounded by the limited likelihood that officers would be caught and punished for such misdoings (Kिताeff, as cited in Kitāeff, 2011).

Subject matter experts on interpersonal demands of the job and competency have listed several observable patterns of behavior as important to successful peace officer performance. These competencies include integrity/ethics, assertiveness/persuasiveness, conscientiousness/dependability, teamwork, adaptability/flexibility, attention to safety/impulse control, decision-making and judgment, emotion regulation and stress tolerance, social competence, and service orientation. Conscientiousness has been found to have the strongest relationship to peace officer work-related behaviors and officer competency (California Commission on Peace Officer Standards and Training, 2010).

Absence of strong dimensional facets of conscientiousness (more specifically impulse control) and agreeableness have been significantly related to counterproductive work-place behaviors (Ones et al., as cited in California Commission on Peace Officer Standards and Training, 2010). Counterproductive work behaviors include theft and related behaviors, destruction of property, misuse of information, misuse of time and resources, unsafe behavior, poor attendance, poor quality of work, alcohol use, drug use, and inappropriate verbal actions (Gruys, as cited in California Commission on Peace Officer Standards and Training, 2010).

Type A Personality and Law Enforcement

Previous research has concentrated on identifying a police personality (Abrahamsen & Strype, 2009); however, personality disorders and associated features have not been a subject of extensive research. While no studies exist to date on OCPD and law enforcement, a handful of studies have been conducted on Type A personality features and police officers. Type A behavior includes excessive ambition or over-commitment, the need to be approved and

esteemed by others in an obvious manner, competitive nature, urgency with time, bossy communication style, perfectionism, and the need for control and implementation of structured plans (American Psychiatric Association, 2000; Siegrist, Starke, Chandola, Godin, Marmot, Niedhammer, & Peter, 2004). The anal character, a previously discussed psychoanalytic concept, reemerged as an assortment of characteristics associated with Type A personality. These features included conscientiousness, authoritarianism, focus to detail, and perfectionism (Haslam, 2011).

Having a Type-A personality may also have an increased risk of OCPD development (American Psychiatric Association, 2000). In fact, Type A personality has several features that overlap with OCPD including preoccupation with work, time urgency, and competitiveness (American Psychiatric Association, 2013). Type A personality features in emergency service personnel are integrated features in what personality theorists called the “rescue personality” (Mitchell, as cited in Wagner, Martin, & McFee, 2009). Rescue personality characteristics include inner locus of control, action-oriented behavior, high standards of performance, socially conservative, easily bored, and highly dedicated (Wagner, Martin, & McFee, 2009).

A large Australian study on police officers found an association between Type A variable interaction effects with situational components of reward and effort (Allisey, Rodwell, & Noblet, 2012). The same study also found that over-commitment (or workaholism) was distinct yet related to other Type-A personality dimensions including propensity for achievement (Allisey, Rodwell, & Noblet, 2008).

As previously stated, the American Psychiatric Association (2000) has recognized attention to detail or pre-occupation with details as a key characteristic of OCPD. Yovel and colleagues (2005) used the global-local hierarchical-letters paradigm to identify visual attention

in individuals with OCPD. Results suggested that individuals with obsessive-compulsive personality are able to focus on small level details (versus global details) in their surroundings. Research supports the theory that individuals with OCPD have a style of attention that allows them to focus visually on smaller details, which can be vital to certain occupations.

Obsessive-Compulsive Personality and Law Enforcement

Stigma surrounding mental disorders is likely to effect how society views personality patterns. It is possible that obsessive-compulsive personality spectrum features negatively affect workplace performance due to the pattern of maladaptive traits that are sometimes associated with clinical OCPD. However, obsessive-compulsive personality traits may be highly beneficial in occupations where orderliness, attention to detail, and leadership are encouraged in the workplace (Kyrios, Nedeljkovic, Moulding, & Doron, 2007). As previously stated, officers are required to be obedient, cooperative, emotionally restrictive, have attention to detail, and maintain interpersonal rigidity in regards to upholding state and federal laws (Schneider, 2009).

An influential study looked at Louisiana police officers for correlations between OCD features and poor job performance. Poor job performance included, but was not limited to, off-duty moving violations, community complaints, unprofessional conduct and racially offensive behavior. The study found that the higher the presence of OCD, the lower the incidence of job performance errors (DeCoster-Martin, Weiss, Davis, & Rostow, 2004). While DeCoster-Martin study (2004) was on OCD and not OCPD, it is possible that several of the co-morbid features could have influenced the results, thus supporting the premise for the present study.

The relationship between personality features and job strain also play a role in officer success and wellbeing. Temple (2009) linked neuroticism and conscientiousness to coping and strain in law enforcement officers in the United States. Positively, conscientiousness, a

prominent obsessive-compulsive personality feature, is imperative in law enforcement for several reasons. A study on South African police officers found that low scores on conscientiousness, affective stability, coping, avoidance, and external influences were factors that influenced higher rates of suicidal ideation in officers (Pienaar, Rothmann, & van de Vijver, 2007). Denning (as cited in the California Commission on Peace Officer Standards and Training, 2010) found a significant relationship between conscientiousness, emotional stability, and agreeableness and the probability of being selected as a California state peace officer.

Psychological Screening for Employment

Psychological assessment for the purposes of candidate screening is a common practice among law enforcement agencies. Personality testing is used to predict job performance and identify mental disorders that may affect suitability for employment in a specific occupation (Kitaeff, 2011). The use of pre-employment psychological screening for law enforcement candidates is a controversial topic because mandatory mental health screening could have a negative impact on candidates (Dantzker, 2011; Cochrane, Tett, & Vandercreek, 2003).

Pre-employment testing came under heavy criticism by the Equal Employment Opportunity Commission (EEOC) in the 1970s because of possible discriminatory issues if a mental disorder were to be identified that could subsequently compromise equal opportunity of employment to candidates. In the 80's and 90's the Big Five Model brought pre-employment back in a more positive light and emphasized the importance of human personality on workforce behavior (Carrigan, 2007). Psychological testing can also be useful in identifying features of obsessive-compulsive personality in peace officers as a future implication for employment screening.

A pre-employment post-offer psychological evaluation (PEPOPE) is necessary to screen candidate psychological and physical ability to perform job-related functions in a competent manner. PEPOPEs are part of the proficiency assessment process regarding candidate selection. Other areas of assessment include a test of candidate physical fitness and ability, written test, polygraph test, comprehensive background investigation, and an oral board interview (Gallo & Halgin, 2011).

The goal of the pre-employment post-offer psychological evaluation is to determine whether or not the candidate is suitable to perform job-related functions that are essential to the law enforcement occupation and what reasonable accommodations would be needed. Under the Americans with Disabilities Act (as cited in Gallo & Halgin, 2011), employers are permitted to ask disability-related questions about physical and psychological functioning, but psychological examination is classified as a medical exam and can only occur after a conditional employment offer has been extended to the applicant (American Psychiatric Association, as cited in Gallo & Halgin, 2011).

In California, law enforcement departments are lawfully permitted to perform pre-employment screening if used to identify normal-range personality characteristics, not to identify emotional impairment (California Commission on Peace Officer Standards and Training, 2010). This reduces the likelihood that screening will have a negative impact on candidates, but still allows for evaluators to assess suitable candidates while weeding out unfit candidates (Dantzker, 2011; Cochrane, Tett, & Vandercreek, 2003). According to the City of Los Angeles Personnel Department and LAPD Recruitment Office, psychological evaluation is a mandatory procedure in pre-employment evaluation that must be completed by applicants prior to a candidacy offer (City of Los Angeles Personnel Department, 2007).

Departments may also elect to ask disability-related questions for employment screening because it can be used as a valid means of weeding out unfit candidates before the department commits to a significant financial investment in the candidate for training (Kitaeff, 2011). However, as previously stated, this can only occur after a conditional offer for employment has been extended to the candidate. Only 8% of peace officer applicants will actually complete the selection process. This is because the peace officer selection process is both extensive and costly. The psychological evaluation phase of the selection process is one of the most expensive and time-consuming phases (California Commission on Peace Officer Standards and Training, 2010).

As of 2006, a total of 648 state and local law enforcement academies provided basic training to law enforcement recruits nationwide. The Census of Law Enforcement Training Academies (CLETA) estimated that academies expend about \$1.3 million dollars annually in operating expenditures. This cost reflects the salary of average full time employees and \$16,000 spent per entry-level recruit. Cost increases when training becomes specialized beyond entry-level (Bureau of Justice Statistics, 2012). Federal training academies, in-service training academies, corrections and detention training, or other specialized types of training were not included in the results because the cost was much higher than originally estimated.

To provide psychological services to law enforcement officers, psychologists should have, at minimum, knowledge of several issues pertaining to the field of police psychology. Knowledge oftentimes includes police role, essential police functions and duties, occupational stress unique to police work conditions, testimonial privilege, and advanced knowledge of assessments used in PEPOPEs (American Psychological Association, as cited in Gallo & Halgin, 2011).

Certain guidelines must be established regarding pre-employment/post-offer psychological evaluations (Gallo & Halgin, 2011). Pre-employment evaluation not only has to comply with state and federal laws for discrimination, but also must maintain a degree of reliability and validity (Carrigan, 2007). Several psychological methods are used in order to detect favorable personality characteristics in law enforcement candidates. Preceding studies on pre-employment testing and occupational performance were used as a measure of predictability of characteristics found in officers who will later leave the force due to termination (Caillouet, Varela, Boccaccini, Davis, & Rostow, 2010). None of these studies screened for OCPT in law enforcement with regard to occupational performance.

Evaluation consists of comprehensive psychological interview and psychological testing. Factors that may disqualify law enforcement candidates from advancing in screening include having a prior psychiatric diagnosis or history, history of psychiatric inpatient hospitalization, or having received psychotropic medication. Attention-deficit hyperactivity disorder and learning disabilities are not immediate disqualifiers but warrant further testing or investigation. Personality disorders were not directly listed as a disqualifying diagnosis for LAPD police recruitment (City of Los Angeles Personnel Department, 2007).

Personality-oriented integrity testing is less overt and questions do not provide a clear indication about the purpose of the assessment (Sackett, Burris, & Callahan, as cited in California Commission on Peace Officer Standards and Training, 2010). Testing with the intent of work outcomes prediction has a stronger relationship with the prediction of negative employment outcomes rather than positive outcomes. In other words, psychological assessment is more apt to identify negative aspects in officers rather than positive ones. Negative employment outcomes include the need for discipline, failure to complete training, and

termination from employment (Ones & Viswesvaran, as cited in California Commission on Peace Officer Standards and Training, 2010).

Unfortunately, most psychological assessments that assess personality rely heavily on individual self-report. Testing results may not be fully representative of the individual because of the typically unrealistic views that personality disordered individuals may exhibit. Simply put, people with personality disorders may be unable to view themselves in the manner that others are able to. Furthermore, candidates may underreport traits that they feel are socially undesirable. To combat socially desirable responding, more advanced studies have incorporated both self-report and peer-report responses in order to identify discrepancies in these types of psychological assessments (Oltmanns & Strauss, 1998).

Tests used for psychological screening in occupational settings oftentimes include assessment of cognitive function, vocational interest, and personality assessment. The latter is vital in order to exclude certain candidates with mental disorders or maladaptive personality features from further advancing in employment screening. Some of the most common personality instruments used for employment testing include the second edition of the Minnesota Multiphasic Personality Inventory (MMPI-II), California Psychological Inventory (CPI), Personality Assessment Inventory (PAI), Inwald Personality Inventory (IPI), Sixteen Personality Factor Questionnaire (16PF), Edwards Personal Preference Schedule (EPPS), and the Rorschach Inkblot Test (Kitaeff, 2011).

The Minnesota Multiphasic Personality Inventory (MMPI-2) is one of the most widely used psychological assessments in the nation. It is appropriate in a variety of settings including inpatient psychiatric, outpatient mental health, community medical centers, and correctional facilities to measure personality (Graham, 2012). The 567-item self-report inventory categorizes

responses into ten clinical scales and three validity scales (Pearson Education, Inc., 2012). The MMPI-2 is utilized in police assessment because of the established reliability and validity of the standardized assessment (Varela, Scogin, & Vipperman, 1999).

Because the main purpose of the MMPI-2 is to detect symptoms associated with psychopathology, the Americans with Disabilities Act (ADA) has classified psychological testing like the MMPI-2 as medical tests and is only evaluated after all other factors in candidacy have been considered (Kitaeff, 2011). Unfortunately, the MMPI-2 lacks items needed to properly assess obsessive-compulsive personality features or conscientiousness (keeping in mind that perfectionism is a disordered variant of the conscientiousness domain) (Samuel & Widiger, 2010; Samuel et al., 2012).

While the MMPI-2 does not have an OCPD specific subscale, the disorder is often reflected through higher elevations on the K scale (correction), scale 1 (hypochondriasis), scale 3 (hysteria), and scale 7 (psychasthenia/obsessionalism), respectively (Graham, 2012). Prior studies on the MMPI-2 have also found associations between elevated L (lie) scale scores and several performance problems in law enforcement peace officers. Therefore, observing the L scale assists evaluators with recommendations for pre-employment consideration (Weiss, Davis, Rostow, & Kinsman, 2003).

An MMPI-2 study by Laguna and colleagues (2010) assessed authoritarian traits in vocationally experienced officers as compared to inexperienced officers. Researchers hypothesized that authoritarian traits and job success were related to number of years worked. No differences were found in either group of officers but inexperienced officers had higher subscale scores on antisocial practices (ASP) and lower scores on emotional reactivity to stressors (Laguna, Linn, Ward, & Rupslaukyte, 2010).

Assessment of Obsessive-Compulsive Personality

A study by Samuel and Widiger (2010) compared eight different obsessive-compulsive personality scales in order to find representative features of OCPD across self-report measures. Researchers compared the MMPI-II, NEO PI-R, Millon Clinical Multiaxial Inventory (MCMI-III), OMNI Personality Inventory, Wisconsin Personality Inventory (WISPI-IV), Structured Clinical Interview for DSM-IV Axis-II Personality Questionnaire (SCID-II-PQ), Schedule for Nonadaptive and Adaptive Personality (SNAP), and the Personality Diagnostic Questionnaire (PDQ-4). Internal consistency between the scales for OCPD varied tremendously from suggesting heterogeneity of instrumentation (Samuel & Widiger, 2010).

The Five-Factor Model (FFM) for personality disorders evaluates five general domains of personality including conscientiousness, neuroticism, openness, agreeableness, and extraversion (Ozer & Reise, 1994). It has been found to have significant validity with normative data for various countries including the United States. The FFM can be used clinically as a complimentary screening modality (Miller et. al, 2008). Samuel and Widiger (2010) utilized the FFM as a point of empirical comparison for personality disorder measurement in a recent study. Results from the study suggested differences among the domains and criteria in the span of features represented. Some items measured specific clinical features of OCPD while others measured a broad distribution across the DSM-IV-TR clinical diagnostic criteria. Conscientiousness, neuroticism, agreeableness, and openness to actions (or lack thereof) were acknowledged as important indications in OCPD assessment (Samuel & Widiger, 2010).

In summary, previous findings suggest that the obsessive-compulsive personality is characterized by a combination of healthy traits and a spectrum of unhealthy symptomatic behaviors (Grilo et al., 2004). The OCPD individual is behaviorally stubborn, perfectionistic,

intrapsychically self-critical, and interpersonally inflexible regarding control. They may experience more social dysfunction than occupational due to their tendency to be diligent workers. However, these individuals may be difficult companions due to their highly self-critical and rigid nature (Hersen, Turner & Beidel, 2007). Identification of differential diagnosis and history of symptoms is necessary for appropriate identification of obsessive-compulsive personality traits in law enforcement, especially with regard to positive identification of traits for employment screening.

The literature review outlined that, while characteristics can be maladaptive, overall prognosis for OCPD is positive. In fact, as previously stated, OCPD is the most prevalent personality disorder in the general population. OCPD characteristics of attention to small detail, affective restriction, affinity for work (workaholism), conscientiousness, and propensity to be law-abiding are all features that can be beneficial to law enforcement. While OCPD and associated traits are not currently targeted in employment screening, the present study has illustrated the need for attention to more naturally occurring features of the “police personality”.

Chapter 3: Research Design and Methodology

The purpose of this non-experimental comparative study was to examine prevalence of obsessive-compulsive personality traits (OCPT) in law enforcement officers as compared to the general population. This chapter will discuss participant and population demographics, instrumentation, methodology, and ethical acceptability during data collection.

Participants

Subjects in the law enforcement group were chosen in a non-random assignment manner based on participant characteristics. The study utilized purposive, non-probability, convenience sampling of a non-representative subset of a larger population. Participants were selected from Napa County Sheriff's Department and from the general population with random selection within each group. Random selection was utilized in absence of random sampling because the law enforcement were already part of a naturally occurring organizational group. General population participants were randomly sampled through a survey modality.

Participation in the study was on a voluntary basis. Inclusion criteria for the law enforcement group study consisted of age and specific sub-group occupation limited to sheriff's deputies only. Criteria were established so that variability between departments could be minimized since different law enforcement departments may have varying pre-employment testing practices and interpersonal features (e.g. municipal police, military police, state police, U.S. Marshalls, and county sheriff's deputies). All members of the general population were welcome to participate in the present study given they met the inclusion criteria.

Exclusion criteria for sheriff's department peace officers and members of the general population consisted of age constraints. Participants were required to be over 21 years of age in order to consent to the present study, while all participants under the age of 21 were excluded

from the research. Age was chosen based on of the required age of deputies to enter and complete the training academy. Age cutoff was established at 65 years of age, as that is the retirement age of most officers. The general population was matched to ensure conformity.

Participants in the study are meant to represent a subset of a larger population in which the present findings will be generalized. Due to the sampling technique, participants may not be entirely representative of the demographic variability found in the participating sheriff's department and within the general population. In an attempt to make each group as representative as possible, information on participant demographics were obtained prior to data collection.

A report of power analysis was conducted in order to determine the number of participants or sample size that will be necessary for participation in the present study. A priori power analysis was set to assess the difference between two independent means (law enforcement and general population). Anticipated effect size for a one-tailed t-test was estimated at 0.5 with a desired statistical power level of 0.95, alpha level of 0.05, and allocation ratio of 1. According to power analysis parameter values, the minimum total sample size was estimated at 176 participants with a minimum sample size of 88 participants per group. The rate of survey return was calculated at 176 surveys (df = 174).

Population Demographics

The Napa County Sheriff's Department is located approximately 54 miles NE from the California state capital. The Patrol Bureau provides services to unincorporated areas of Napa County, Yountville, American Canyon, and Lake Berryessa and covers 794 square miles of land and associated waterways in the County of Napa. Napa County Sheriff's Department employs 102 full-time sworn peace officers. Of those officers, seven (6.9%) are female and 95 (93.1%)

are male (B. Banducci, personal communication, November 15, 2013). Their mission is as follows: “the Napa County Sheriff’s Office is committed to providing the highest level of professional services to our community, while fostering partnerships based on trust and respect” (Napa County Sheriff’s Office, 2010, pg. 3). The core departmental values are “obedience to the Constitution of the United States, uncompromising personal and professional integrity, compassion, fairness, and respect for the dignity of those we protect (Napa County Sheriff’s Office, 2010, pg. 3)”.

The Napa County Sheriff’s Department is comprised of two divisions: Patrol/Operations Division and Services Division. The Patrol/Operations Division is further divided into Special Assignments and Auxiliaries subdivisions. The Patrol/Operations Division includes uniformed deputies on patrol, investigations, Sheriff’s Activities League, Napa Special Investigations Bureau, Problem Oriented Policing Program, Animal Services, Dive Team, SWAT Team (Hostage Negotiators and Threat Assignment), Hazardous Devices Team, Color Guard, Off-Road Enforcement Team, Search and Rescue, Mounted Posse, and Aero Squadron. The Services Division includes the Coroners Bureau, Court Services, Transportation Bureau, Civil Services Bureau, Technical Services Bureau, Administrative (training and hiring), Property and Evidence, and Technology (Napa County Sheriff’s Office, 2010).

As of 2000, nationwide sheriffs’ offices gender minority breakdown comprised of 17.1% full-time sworn racial and ethnic minorities. Females accounted for 12.5% of officers while males made up the other 87.5%. Approximately 9.4% African American officers, 6.1% Hispanic officers, and 1.6% additional minorities (Asians, Pacific Islanders, American Indian, and Alaska Natives) accounted for peace officer ethnicity (U.S. Department of Justice, 2003). Information regarding national demographics for representativeness can be found in Table 1.

Table 1

Population Representation

Ethnicity	%
European American (Caucasian)	82.9
African American ^a	9.4
Hispanic	6.1
Other (Asian, Pacific Islander, American Indian, and Alaska Natives)	1.6

Note. European American population percent estimate was taken from the difference of the listed minorities; all estimates were taken from the 2000 nationwide Department of Justice statistics and were the most recent found. ^aAfrican American ethnicity percent prevalence was rounded up

Because the law enforcement population is homogeneous, less variability was expected due to the generalizability of the group of participants. Extraneous variables account for a degree of error because they remain uncontrolled. Some degree of control was obtained by assessing participant characteristics for representativeness (age, race, and gender) and also by limiting law enforcement participation to sheriff's departments only.

Prior to attrition, 37 peace officers and 135 members of the general population participated in the study. Post-attrition, 29 law enforcement participants and 98 general population participants completed the questionnaire and preliminary paperwork (N=124). Law enforcement participants made up approximately 22% of the entire sample of participants while members of the general population accounted for 78%. Caucasian participants comprised the majority of both groups of participants while minorities remained underrepresented. Males were most likely to respond in the law enforcement group (86.5%) while females made up the majority of the general population group (67.4%). Participant demographic data can be found in Table 2.

Table 2

*Respondent Demographic Data**

	Law Enforcement	General Population
Female	5	91
Male	32	44
European American (Caucasian)	31	112
African American	31	112
Hispanic	3	13
Asian/Pacific Islander	2	4
Native American	0	1
Multiracial/Other	0	4

* Prior to attrition and removal of outliers

Methodology

The primary researcher used survey methodology to electronically distribute an informed consent, demographic survey, the Five Factor Obsessive-Compulsive Inventory, and debriefing statement. All documents were submitted to and approved by the Chicago School of Professional Psychology Institutional Review Board (IRB). A copy of all documents used can be found in the appendices.

The present quantitative study utilized a non-experimental design of between-groups variety. A non-experimental design was chosen for this study because the primary researcher is interested in naturally occurring personality characteristics within two chosen populations. Comparative research was employed in the study as a means of comparing two groups on a single categorical independent variable. The sole independent variable in the present study is participant occupation (law enforcement as compared to non-law enforcement).

The independent variable is an intervening variable that was observed in this study. Because the independent variable is organismic, it cannot be manipulated. Instead, the variable was used to divide participants in the present study into groups to allow for comparison of the dependent variable relative to the subject variable. The dependent variable is continuous and consists of the mean score of obsessive-compulsive personality traits between populations as indicated by Five-Factor Obsessive-Compulsive Inventory (FFOCI) with a range of 120-600.

Surveys are the most common type of method used to collect quantitative data with respect to real-world implications and external validity. They can be self-administered, administered by a participating web-based survey modality, via telephone, or administered through standard mail (Center for Civic Partnerships, 2007). This approach for data collection has proven to be effective because surveys are a means of obtaining larger samples of qualifying participants in a broader geographical range with the intent to generalize findings to a specific population (McIntyre, 1999). The assumption with using survey methodology in the present study is that participants will respond in a manner that closely represents behaviors that occur naturally without having to engage in behavioral observation.

By using a survey/questionnaire approach, the primary researcher can access a wider geographical range of peace officers. Additionally, questionnaires take less time for participants to complete than traditional psychological testing methods where participation may be limited when participants are required to complete a lengthy psychological assessment or comprehensive interview. Moreover, peace officers may be less likely to divulge current information to an evaluator that might have been withheld previously during the psychological assessment portion of employment screening. Lastly, the use of lengthier approaches, like the MMPI-II or the MCMI-II, could limit the number of participants in the study while simultaneously limiting

generalizability of the sample to the population. No secondary data was used in conjunction with the survey data.

Research Question and Hypothesis

Research Question 1: To what degree does prevalence of obsessive-compulsive personality traits (OCPT) in law enforcement compare to the general population? Law enforcement is defined in the present study as active peace officers in the Napa County Sheriff's Department. Prevalence rates of OCPT will be obtained via comparison of FFOCI subscale scores and overall means.

H1: Rates of OCPT will be higher in peace officers when compared to the general population as measured by a psychological assessment inventory (FFOCI).

Instrumentation: Five-Factor Obsessive-Compulsive Inventory (FFOCI)

The Five-Factor Obsessive-Compulsive Inventory (FFOCI) was used to assess OCPT in peace officers and members of the general population. The FFOCI is the newest measure to be developed for OCPT measurement in the general population. The inventory was constructed explicitly to measure variants or traits of obsessive-compulsive personality using facets of the Five Factor Model (FFM) (Samuel et al., 2011). A study by Samuel, Riddell, Lynam, Miller, and Widiger (2012) was able to prove that the FFOCI had discriminant and incremental validity for data beyond existing OCPD measures. Participants consisted of a collegiate population of 407 undergraduates. Based on results, the FFOCI demonstrated convergent correlations with established psychological measures of obsessive-compulsive personality disorder and Five Factor Model facets (Samuel et al., 2012). As such, the FFOCI is considered to be a valid psychological measure of OCPT, which will be applicable to the study. Permission was granted by the primary author of the instrument for use in the current study on September 20th, 2012.

Definitions for OCPT classifications in scoring were also provided by the primary author of the instrument at the request of the primary experimenter.

The FFOCI questionnaire contains 120 items. Each item is scored on a 1 to 5 likert-type scale (1 = that the statement is false or that you strongly disagree; 2 = that the statement is mostly false or you disagree; 3 = that the statement is about equally true or false, you cannot decide, or you are neutral on the statement; 4 = that that the statement is mostly true or you agree; and 5 = that the statement is definitely true or you strongly agree).

The FFOCI is scored on 12 subscales (Samuel, Riddell, Lynam, Miller, & Widiger, 2011). These subscales are based on the FFM facets and include *Excessive Worry*, *Detached Coldness*, *Risk-Aversion*, *Constricted*, *Inflexible*, *Dogmatism*, *Perfectionism*, *Fastidiousness*, *Punctiliousness*, *Workaholism*, *Doggedness*, and *Ruminative Deliberation* (Samuel et al., 2011). Definitions for each subscale can be found in the Definition of Terms. Examples of FFOCI questions include “It usually takes quite a bit to get me stressed out”, “I don’t spend much time on organizing or ordering things,” or “I prefer not having a schedule to stick to” (Samuel et al., 2011). Refer to Appendix C for a complete copy of the Five Factor Obsessive-Compulsive Inventory.

Procedure

Ethical Acceptability During Data Collection

The primary researcher obtained human subject’s consideration and clearance from the Chicago School of Professional Psychology Institutional Review Board (IRB) on June 18th, 2013. Federal regulations require that the Institutional Review Board review, approve, and monitor all research involving human subjects. The IRB protects the rights and welfare of human research participants. The Chicago School of Professional Psychology has an established

IRB committee to review human subject research. This board is supported by regulatory services and is necessary in order to determine the protection, rights, and welfare of the human subjects in this dissertation study. Collaborative Institutional Training Initiative (2012) modules were completed on September 26, 2012, prior to IRB clearance (CITI Ref # 8618265). CITI training ensures that researchers are provided with ethics education prior to conducting the present investigative study on human participants (Collaborative Institutional Training Initiative, 2012). Lastly, a letter was obtained from the undersheriff of the Napa County Sheriff's department granting permission on February 5th, 2013, to use up to 102 sworn Napa County peace officers for research in the present study.

Informed consent was administered and electronically signed by all participants prior to participation in the study. Informed consent ensured that all participants consenting to participation in the study were aware that this writer conducted all research and that participation in this project is designed to further expand on how personality traits are represented within the realm of police psychology. Participants were notified of the duration of time in minutes was needed to successfully complete the demographic questionnaire and the psychological instrument. Participants were also notified that they had the right to refuse to participate or withdraw from the present study at any time without penalty. Within the informed consent agreement, participants were also informed that their participation in the study was confidential and anonymous. A copy of the informed consent used in the current study can be found in Appendix B.

Data Collection

The author of this dissertation served as the primary experimenter for the study. The experimenter collected all data for this dissertation via survey modality. No research assistants

were utilized for data collection. The researcher had no awareness of the identity of participants and had no access to identifying information in the study because of the anonymous nature of the survey methodology. As previously stated, participants were chosen for groups based on occupational classification (sheriff's department peace officer and non-law enforcement/general population). Differences in FFOCI means between the two groups were then compared and contrasted for significant differences in prevalence rates of obsessive-compulsive personality traits as evidenced by the overall mean of the FFOCI and overall mean subscale scores.

The researcher compiled a list of California-based sheriff's departments from a combination of multiple database sources. Three of the four departments contacted declined to participate. The Napa County Sheriff's Department agreed to participate. No archival data was used for this dissertation research. A questionnaire was administered to sworn deputy peace officers that are currently employed by the Napa County Sheriff's Department with written approval from the undersheriff of the participating department.

Included with the survey was a cover letter from the primary experimenter identifying the purpose of the research. The cover letter indicated that the study was part of a clinical forensic psychology pre-doctoral dissertation involving the study and prevalence of personality characteristics in peace officers as compared to the general population. The letter clearly stated that there was no incentive for any participant who successfully completes the survey questionnaire.

The questionnaire was distributed several times via electronic communication from the Napa County Undersheriff and SurveyMonkey to ensure that participants had ample opportunity to participate in the survey. Each participant was administered the test materials only once. In the first instance, the survey was sent by the Undersheriff to peace officers and by participating

recruiters to members of the general population via electronic mail as an attached link to a widely used survey modality. The data collection site, SurveyMonkey, functioned as the administrator and information was not obtained via direct contact between the experimenter and the participants. SurveyMonkey works in association with several approved distributors including Facebook and Twitter. The survey modality required that the primary researcher create a page for dissertation participant distribution. The primary experimenter refrained from sharing the SurveyMonkey link on personal social media pages.

Surveying was used in order to reduce the likelihood of biased responding due to feared breach of anonymity and reduce the fear of retaliation for answers that law enforcement command staff may inadvertently see. As previously stated in ethical considerations, confidentiality and anonymity were clearly stated within a digitally attached informed consent form (See: Appendix B). To ensure anonymity of the participants, participants were expressly instructed not write any information on their survey that would allow them to be identified by the researcher. Due to the number of times the survey was distributed by the undersheriff, law enforcement participants were notified not to participate in the study if they had already done so. Because this study used a survey modality, the researcher did not make any in-person appearances to the participating sheriff's department. As previously indicated, the study's survey URL was distributed via email more than one time to potential respondents in order to obtain as many participants as possible.

Participants were asked to mark a 1-5 likert-type response to each assessment question. General population participants were accessed through SurveyMonkey recruiters and given an identical questionnaire and asked to respond to the questions in the same manner as deputy peace officers. Groups did not receive different instructions. Participants were instructed expressly to

answer the items in an honest and forthright manner (Samuel et al., 2011). This is because information collected for this dissertation study was limited to self-report.

Electronic debriefing was provided to all participants upon completion of the FFOCI questionnaire. Respondents were given the opportunity to contact the primary researcher for a chance to obtain a comprehensive summary of the dissertation research findings. A complete copy of the debriefing can be found in Appendix D. Precautions were taken in order to maintain complete privacy and confidentiality of the participants in the present study.

Chapter 4: Results

This chapter discusses results and analysis of the present dissertation study on the prevalence of OCPT in law enforcement as compared to the general population. A detailed description of the participant demographic data can also be found in this chapter in order to illustrate population representativeness, overall attrition rate, and the rationale for using a one-tailed t-test to analyze data in the present study will also be discussed.

The purpose of this quantitative research design was to assess for prevalence of OCPT in law enforcement peace officers as compared to members of the general population using the Five Factor Obsessive-Compulsive Inventory (FFOCI). Data collection was consistent with the procedure presented in Chapter 3. All data is original and was collected via survey modality. General population participants were recruited through social SurveyMonkey approved distributors. Recruitment of law enforcement participants was achieved with the assistance of the Napa County Undersheriff. Reliability and validity was previously established through instrument testing (Samuel et al., 2012).

Attrition and Outliers

The number of participants to be contacted was estimated prior to data analysis. This number was estimated at 176 total participants (88 per each group). The overall attrition percentage was calculated at 26.7% participant withdrawal from the study prior to survey completion. An attrition summary of subjects who prematurely exited the study can be found below in Table 3.

Participants who exited from the study only completed the informed consent and the demographic questionnaire. None of the exiting participants began a questionnaire, thus those participants were removed from data analysis. No questionnaires were completed, thus

participants who exited the study were removed from data analysis. Participants with missing values were excluded prior to data analysis. An analysis of missing values indicated that the data set had no variables with 5% or more missing values. Two outliers were identified during preliminary data analysis. One outlier in each group was removed for purposes of normality. Removal of outliers changed the total number of participants after attrition from N = 126 to N = 124.

Table 3

Attrition Summary

	Total Respondents	Withdrew from Study	%
Law Enforcement	37	9	24.3
General Population	135	37	27.4

Note: Total respondents include the number of participants prior to removal of outliers

Coding for Confidentiality

During the course of this study, proper implementation of data collection procedures and use of the instrument was accomplished with maintained participant anonymity. All categorical variables were coded as with a number that represents membership of different groups for comparison. Coding allows variables like age, ethnicity, marital status, and occupation to be coded in a manner that suggests membership in a certain group or cohort.

Analysis of Prevalence

Research Question: To what degree does prevalence of obsessive-compulsive personality traits (OCPT) in law enforcement compare to the general population?

The research question in this quantitative dissertation study that deputy peace officers will have higher rates of obsessive-compulsive personality traits when compared to the general population is based on the assumption that law enforcement conform to certain occupational

demands (need to be orderly, organized, have attention to detail, emotional restriction, assertive communication, and abide by rules and regulations).

The research question was analyzed by an independent samples t-test. An independent samples t-test is preferred in this situation because of the directionality or prevalence of scores, the need for increased power when assessing group means, and because a t-test allows for analysis of two group means when normative data is not present. Occupation was used as the grouping variable to divide the participants into mutually exclusive groups (law enforcement and non-law enforcement). The independent samples t-test ($N = 124$) consisted of FFOCI scores as the dependent variable while occupational group membership (law enforcement and non-law enforcement/general population) served as the independent variable in the present study. Multivariate analysis after-the-fact was used to determine statistical differences between the independent occupational groups on several continuous dependent variable subscales.

Measures of central tendency and dispersion were computed in order to obtain an exploratory understanding of both populations. The 0.5 effect size was chosen in order to reduce the probability of a Type I error occurring: incorrectly rejecting the null hypothesis when it was in fact true and confirming a significant difference between groups when there was none present. Paradoxically, having a more stringent alpha level would have increased the likelihood of a Type II error: failing to reject a false null hypothesis or failing to detect a difference when there was one.

Based on descriptive statistics, the overall mean FFOCI score for the law enforcement group was $M = 384.37$ ($SD = 44.93$). The overall mean FFOCI score for the general population group was $M = 354.39$ ($SD = 59.58$). Refer to Table 4 for a more detailed summary of the subscale descriptive statistics.

Table 4

Means and Standard Deviations for FFOCI Subscales

Variable	<u>Law Enforcement</u>		<u>General Population</u>	
	M	SD	M	SD
Excessive Worry	26.74	6.17	30.94	9.44
Detached Coldness	29.85	7.28	21.92	6.75
Risk-Aversion	31.26	4.83	28.79	7.66
Constricted	29.33	5.00	21.36	6.19
Inflexible	28.30	5.72	25.23	6.91
Dogmatism	32.67	27.51	27.51	5.98
Perfectionism	36.15	6.02	34.68	7.23
Fastidiousness	32.67	5.84	33.29	8.52
Punctiliousness	36.26	4.62	33.72	6.64
Workaholism	34.85	6.25	32.95	6.45
Doggedness	35.99	6.09	32.92	6.94

Research Hypothesis

Rate of OCPT will be higher in Napa County Sheriff's Department sworn peace officers when compared to members of the general population as measured by the FFOCI (mean).

This study's research hypothesis is based off of the professional observations of the primary researcher while working closely with law enforcement peace officers. Results from the independent-samples t-test on original data are consistent with the research question and

hypothesis. Data analysis indicated significant differences in OCPT prevalence among the two groups.

On average, law enforcement officers reported more obsessive-compulsive personality traits ($M = 384.37$, $SD = 44.93$, $N = 27$) than participants who had non-law enforcement occupations ($M = 354.39$, $SD = 59.58$, $N = 97$). This difference was significant $t(122) = -2.43$, $p = .009$ at the .05 level. T-test results are summarized in Table 5.

The calculated effect size ($d = -.044$) based on Cohen's coefficient as derived from the t-score and degrees of freedom of the comparison indicates a moderate sized effect. The effect size value indicates that there is an estimated 66% standing percentile with 27.4% of nonoverlap (Cohen, as cited in University of Colorado Colorado Springs, 2000).

Assumptions

Several assumptions are present in this dissertation study that need to be met in order to appropriately interpret results of the independent samples t-test. Assumptions are that the data will represent a normal distribution, homogeneity of variance, independent observation of scores, and high power. Normal distribution assumes that participant data will be normally distributed between the two means. Assessing variance requires that both populations are drawn from normal populations which is why the samples are tested for normality first. Independent observation scores assumes that both samples are independent of each other with no relationship existing between the individuals in one sample as compared to another (both samples were from their respective populations) (Lund Research Ltd., 2013; O'Rourke, Hatcher, & Stepanski, 2005).

Assumption 1

The dependent variable in the present study (mean FFOCI score) is continuous and was measured at the interval level. The range of minimum and maximum scores is 120-600.

Assumption 2

The independent variable consisted of two categorical, independent groups of occupations (two groups: law enforcement or non-law enforcement).

Assumption 3

Independent observations were observed between occupational groups. Each group had different participants based on the grouping variable (occupation). Because of occupational grouping, participants were unable to participate in more than one group.

Assumption 4

Preliminary data analysis indicated that data presented with two significant outliers. One outlier was presented per each occupational group. Both outliers were removed prior to analysis in order to meet this assumption.

Assumption 5

The Shapiro-Wilk test of normality was chosen to assess the normality of group numerical means. The test indicated that both occupational groups had normal distributions of the dependent variable across the independent variable. The non-law enforcement group had more normality than the law enforcement group, most likely due to the increased sample size in the non-law enforcement/general population group. Examination of skewness, kurtosis, histograms, and normal Q-Q plots was also used to make an evaluation about normality. The non-law enforcement group had a relatively symmetrical and peaked distribution. As expected, the law enforcement group has an unsubstantial positive skew with a leptokurtic distribution because scores were one-directional and higher across participants with regard to FFOCI scores.

Assumption 6

Homogeneity of variance was assessed using Levene's test for homogeneity of variances, ($F = 3.16, p = .08$). Since the significance value for Levene's test in this study is greater than .05, it can be assumed that the variability in both of the groups very similar with low variability.

Additional Analyses

Analysis after-the-fact using a one-way MANOVA was conducted in order to determine occupational differences between FFOCI subscales. An alpha level of .05 was established. Outliers were eliminated prior to analysis and an evaluation of assumptions was conducted in order to pick the most appropriate test statistic. To meet the assumption for sample size, the larger group must be no larger than 1.5 times that of the smaller group. This assumption was violated since the law enforcement group was significantly smaller than the general population sample. Box's Test of Equality of Covariance was significant, $p (.007) < \alpha (.05)$, thus indicating that significant differences are observed between covariance matrices of the dependent variable across groups. Because Box's Test was significant, the null hypothesis is rejected and the observed covariance matrices of the dependent variable are not equal across groups, thus violating the assumption. In other words, there are significant differences between covariance matrices.

Levene's Test of Equality of Error Variances tested the assumption that the variance of each variable is equal across groups ($N = 124$). Levene's test was significant for four variables: Excessive Worry (.001), Risk Aversion (.011), Fastidiousness (.009), and Ruminative Deliberation (.006). This researcher accepts the alternative hypothesis which states: The error variance of the dependent variable are not equal across the two groups. The error variance of the dependent variable are equal across groups for the following subscales: Detached Coldness

(.327), Constricted (.497), Inflexible (.232), Dogmatism (.774), Perfectionism (.296), Punctiliousness (.065), Workaholism (.945), and Doggedness (.302).

Because of violation of associated assumptions, Pillai's Trace test was chosen because it is more robust than Wilk's Lambda. Results from multivariate analysis suggested significant occupational group differences on a linear combination of 12 FFOCI subscales [Pillai's Trace = 0.418, $F(12, 111) = 6.65$, $p < .05$; partial $\eta^2 = .42$]. Pillai's Trace demonstrated approximately 42% of the composite DV (OCPT) is associated with the group factor (occupation). To protect against Type II error, a Bonferroni alpha correction was used to test each ANOVA at the .004 level with significance at the .004 adjusted alpha level.

Statistically significant effects were observed between occupational group on three FFOCI subscales including Detached Coldness [$F(1, 122) = 28.20$, $p < .004$; partial $\eta^2 = .19$] and Constricted [$F(1, 122) = 37.90$, $p < .004$; partial $\eta^2 = .24$]. There was no statistically significant effect of occupation on the following variables: Excessive Worry, Risk Aversion, Inflexible, Doggedness, Perfectionism, Fastidiousness, Punctiliousness, Workaholism, and Ruminative Deliberation.

Table 5
Tests of Between Subjects Effects (MANOVA)

Dependent Variable	F	Sig
Excessive Worry	4.78	.031
Detached Coldness	28.20	.000*
Risk Aversion	2.51	.116
Constricted	37.89	.000*
Workaholism	76.52	.175
Doggedness	91.60	.160
Ruminative Deliberation	.966	.885

Note: significant; $p < .004$

Summary

In summary, the present dissertation study assessed prevalence of OCPT in law enforcement as compared to the general population based on original data. After attrition and outliers, data from 124 participants was analyzed using an independent samples t-test. A multivariate analysis after-the-fact (MANOVA) was used to determine statistical differences between the independent occupational groups on several continuous dependent variable subscales. Based on descriptive statistics, the overall mean FFOCI score for the law enforcement group was significant when compared to the general population (non-law enforcement) with a moderate effect size, meaning that law enforcement officers reported more obsessive-compulsive personality traits than participants who had non-law enforcement occupations. Analysis after-the-fact using a one-way MANOVA was conducted to gain more qualitative data on differences between occupations with regard to OCPT. Statistically significant differences were observed between occupational group on three FFOCI subscales: Detached Coldness and Constricted.

Chapter 5: Discussion

Findings, Conclusions, and Future Implications

The primary purpose of this study was to investigate the prevalence of obsessive-compulsive personality traits in law enforcement personnel, more specifically sheriff's deputies, as compared to the general population based on the occupational need for such traits. For that reason, it was hypothesized that the rate of OCPT would be higher in law enforcement officers when compared to general population participants as measured by the mean scores on the Five Factor Obsessive-Compulsive Personality Inventory. The research hypothesis was based on professional observation by the primary researcher while working closely with law enforcement.

Parametric statistics were used to compare the mean prevalence of obsessive-compulsive personality traits in law enforcement peace officers as compared to the general population. Findings revealed statistically significant differences between the two groups with law enforcement having higher mean OCPT than participants with non-law enforcement occupations. In the final chapter of this dissertation, findings will be discussed with regard to police personality, limitations of the study, future implications for leaders in this field, and recommendations.

In the review of pertinent literature, holes were evident in the empirical study of law enforcement peace officers and naturally occurring police personality. Findings from original data were supported by the main hypothesis that law enforcement peace officers have significantly higher obsessive-compulsive personality traits when compared to non-law enforcement participants at the statistically significant level. With that being said, results from the study generated several practical suggestions for addressing issues in research and future applied practice in police psychology. Future implications and recommendations from the study

will be discussed more extensively in this chapter.

Overview of the Findings

A one-tailed independent-samples t-test statistical analysis was conducted in order to explore whether prevalence of OCPT is higher in law enforcement than in the general population. T-test statistical analysis was also used post-hoc in order to compare individual subscales. As previously indicated, an independent-samples t-test was chosen because it was the most appropriate means of statistical analysis to compare the overall mean of traits between two independent samples. Based on original data, the two populations presented as unequal groups after accounting for attrition. General population participant numbers were represented appropriately while the law enforcement group had fewer participants than estimated in the power analysis. This was due to a lack of participation of law enforcement participants and attrition. The effect of unequal participant groups will be further discussed in the limitations section of this chapter.

Results obtained from the study supported the initial theoretical hypothesis that peace officers have a significantly higher rate of OCPT than members of the general population. Thus, the likelihood of obsessive-compulsive personality traits occurring naturally within law enforcement occupational settings appears to be significant when compared to individuals with non-law enforcement occupations. This is substantial to the field because research on obsessive-compulsive personality traits as part of the “police personality” has largely remained unstudied until this study; thus, results contribute to the growing field of police psychology and subsequently contribute to clinical psychology, forensic psychology, and industrial-occupational psychology. While comparison to literature is oftentimes helpful, this study is the first of its kind

to the best of this writer's knowledge. Therefore, results from this study cannot be compared to previous findings because there were none available at the time this research was conducted.

Results of this study should be examined in the context of both positive applications and limitations. Despite OCPD being the most commonly diagnosed lifetime personality disorder in the general population (American Psychiatric Association, 2013; NESARC, 2012), the law enforcement sample was still found to have significantly higher traits. Since OCPD is diagnosed 25-50% more frequently in males than females (American Psychiatric Association, 2013; Raiskila et al., 2013), it would make sense that a male dominated profession would have higher rates of obsessive compulsive personality traits.

As previously stated, the law enforcement sample was significantly higher in overall OCPT when compared to individuals with non-law enforcement occupations in the general population. Interestingly, the general population sample presents as being significantly higher in excessive worry when compared to the law enforcement sample. The ability to have lower excessive worry may help contribute to protective factors in law enforcement while working in high-stress situations, although this would need to be studied independently. Law enforcement participants were significantly higher on detached coldness, constriction, inflexibility, and dogmatism when compared to the general population sample. The most significantly different subscale scores between groups were observed on the detached coldness and constriction subscales. Significant differences between groups were not observed on seven of the FFOCI subscales: risk aversion, perfectionism, fastidiousness, dogmatism, workaholism, punctiliousness, doggedness, or ruminative deliberation.

According to definitions provided for the FFOCI (Samuel, D. Personal Communication. December 6, 2012), based on this study, the general population has a propensity to worry over

numerous things including work and the future. Individuals in this sample may also exhibit excessive worry about the possibility of things going wrong. This sample also presents as being higher in fastidiousness when compared to other subscales. This means that the general population participants also present as excessively particular, demanding, or methodical with respect to orderliness, detail, and organization.

Based on the FFOCI subscale definitions (Samuel, D. Personal Communication. December 6, 2012), the law enforcement sample group is likely to show a constricted range of feelings, which may be most appropriate for an occupation that requires officers to appear strong and stoic in times of great stress and even trauma. As expected, the law enforcement group also displays an excessively reserved, serious, or formal interpersonal style towards others. Participants in this group also have a propensity to display a rigid adherence to moral code when compared to the general population group.

While significant differences between groups were not distinguished for several features, it should be noted that the highest subscale scores for law enforcement participant traits were observed in perfectionism, punctiliousness, and doggedness when compared to other subscales. Inventory subscale definitions (Samuel, D. Personal Communication. December 6, 2012) indicated that officers who participated in the study displayed a personal standard of competence that demands perfection, may get bogged down in making sure projects are just right or flawless, are excessively strict in adhering to their duties and responsibilities, and adhere exactly to rules and regulations.

Adherence to duty and responsibility is especially important for peace officers since their primary mission is to protect the public and ensure that citizens also follow rules and regulations. Officers also present as disciplined, and determined to finish what they start. Compared to other

subscales and with regard to overall significance, law enforcement participants had the lowest mean subscale scores on excessive worry. In fact, excessive worry was significantly lower in the law enforcement population when compared to the general population participants. Results suggest with statistical significance that peace officers are less likely to display anxious worry over things like work, the future, and things going wrong.

In a comparison of all subscales, the highest subscale scores for general population participants were observed in perfectionism and fastidiousness. The general population participants responded in a manner that suggests higher personal standard of competence as evidenced by behaviors consistent with perfectionism and demanding that projects are just right. The general population sample presents as excessively particular or demanding with orderliness and organization. Also compared to other subscales, the general population FFOCI subscales with the lowest scores were observed in constricted affect and detached coldness. This population is likely to be more passionate and experience a wider range of feelings, value emotions over logic, and appreciate the emotions of others. Participants representing the general population are also likely to be higher in interpersonal warmth and may come off as more informal and less reserved when compared to those who are higher on detached coldness. The doggedness trait on the FFOCI would be the trait most closely related to conscientiousness. Interestingly, significant differences were not observed between the general population sample and the law enforcement sample despite peace officers having an overall higher mean on this subscale.

Limitations

This study presented with limitations unique to the methodology, region of sampling, instrumentation, effect size, positive image responding, and other sources of invalidity. Because

the present study utilized a non-experimental design, it has weaker internal validity and stronger external validity. Threats to the internal validity of the study include experimental mortality, extreme scores, quality of responding, and human error with instrumentation scoring.

A limitation and threat to validity for this type of design methodology includes the possibility of attrition and scoring errors. Surveys are subject to a high degree of attrition due to the nature of this type of modality. Questionnaires that are somewhat lengthy, like the one used in this study, may have lead to smaller groups because subjects failed to complete usable questionnaires. When a study receives a low response rate, it is likely due to several factors. These factors include length of test, time available for participation, type of test, poor participant motivation, inability to ask the evaluator questions, anxiety about confidentiality or other reasons associated with the questionnaire, and so forth. The strength of the relationship between the independent variable and the dependent variable may have been weakened due to the high degree of participant attrition.

The instrument used in this study has 120 questions with 26 questions requiring reverse scoring on each instrument. Hand scoring each questionnaire comes with some degree of possible human error, which is a threat to internal validity. In this study, 127 usable questionnaires were scored. That equated to over 15,000 responses that need to be hand-scored correctly.

Using a questionnaire/survey methodology may also limit the researcher from obtaining observable information from participants that can be assessed during an interview. It also creates a problem where participants are unable to be assisted with questions that they may have regarding questions on the inventory. Additional limitations are associated with the availability of valid and reliable psychometric assessments for obsessive-compulsive personality disorder or

traits.

Although several psychological measures have questions associated with obsessive-compulsive personality disorder, only one test has been created specifically for testing the spectrum of obsessive-compulsive personality on a more empirical level (Samuel, et al., 2011). That test was used in this study due to the specificity of the inventory questions with regard to obsessive-compulsive personality. Since the inventory was created in 2011, studies developing new tests may struggle from truncation of range issues and small effects may reflect a lack of predictive power when in fact these effects can be highly important (Kitaeff, 2011).

While self-report measures are one of the most commonly used methods of data collection, questionnaires are subject to exaggeration, bias, and underreporting of clinical or personality traits due to self-serving bias and defensiveness. For the purposes of this study, it was assumed that participants responded in a manner that would reflect their personality in a minimally distorted manner. False responding can occur in part due to cognitive distortions or societal pressures to respond in a certain way which grossly under-represents personal characteristics that could be seen as maladaptive, neurotic, or socially unacceptable. Alternately, it is likely that participants may have had a lack of introspect in assessing or recalling accurate depictions of their own behaviors (Bell, 1996); thus, the use of self-report measures may limit external validity.

The estimated magnitude of the primary outcome of the relationship between OCPT and law enforcement, combined with the degree of effect size, indicates that a larger sample size may have been needed. While a significant relationship was found between variables when comparing the overall mean, a number of subscales were found to be insignificant upon

comparison. Increasing the sample size in the law enforcement sample would reduce the possibility that sampling error impacted insignificant results of the additional FFOCI subscales.

As previously stated, the two populations presented as unequal groups after accounting for attrition. General population participant numbers were represented appropriately while the law enforcement group had fewer participants than estimated in the power analysis. This was due to a lack of participation of law enforcement participants and attrition. Concerns regarding coercion of law enforcement participants by an occupational authority figure (undersheriff) were taken into account. It is likely that, had the officers felt pressured to participate in the present study, there would have been a larger number of participants. Therefore, for the purposes of the present study, coercion to participate anonymously does not appear to be an issue.

Unequal participant groups increases the likelihood that results will appear to be insignificant when there is a significant difference. With that being said, there is a higher chance that the sample variance for the law enforcement groups appears larger than the true variance because the sample size was unequal to that of the general population group. Despite the fact that the general population sample had more normality due to the larger sample size, sample sizes were assumed to be equal based on the Levene's test. Because the study presented with unequal sample size with equal variances assumed, the Welch-corrected t-test was not necessary.

Generalizability of the groups to their respective populations is also an issue because sampling was not entirely random since law enforcement peace officers were chosen from one participating department. The sample of officers represents peace officers in an affluent area of California; therefore, generalizing the findings beyond the sample should be done with great caution. Both sample groups lacked demographic representativeness. Various demographic groups including age, gender, and ethnicity appeared to be underrepresented in the present study.

Caucasian participants were overrepresented while all other minorities were underrepresented in the general population in a manner that is inconsistent with national demographics. Similarly, females and younger age groups were over-represented in the general population group.

Female officers were represented appropriately in the sample of law enforcement officers in this study, accounting for 13.5% of the sample before missing data was removed. The national average of female sheriff's department deputies was estimated 12.5% in recent years (U.S. Department of Justice, 2003). The law enforcement sample was not necessarily gender biased when compared to more representative populations because males are more prevalent in the law enforcement occupation (U.S. Department of Justice, 2003). Gender differences may influence the presentation of OCPT in the peace officer population.

Since the law enforcement sample in this study is not demographically representative based on national statistics, participants within the officer sample remain representative of law enforcement candidates who have passed pre-employment standards and testing and currently function as peace officers within a California county sheriff's department in an affluent region. Technically speaking, law enforcement participants have already passed extensive employment screening and a mental health evaluation; therefore, participants in the law enforcement group will not be screened out for additional factors. Unfortunately, the general population group cannot be screened for additional mental health conditions in the same manner as the law enforcement group, thus presenting a confound.

As previously referenced, studies show that males are significantly more likely to be diagnosed with obsessive-compulsive personality disorder (OCPD) than females (Raiskila et al., 2013). Because law enforcement professions are male dominated, gender influences could cause prevalence to be higher in the law enforcement group than the general population group based on

demographic factors because of the overrepresentation of males. Racial and cultural bias also exists in the present study. Caucasian participants were overrepresented in both sample groups accounting for 83% in the general population group and 86% in the law enforcement group. Cultural bias exists because the results can only be generalized to American culture and not to international law enforcement officers or general populations.

Understandably, respondents are motivated to present themselves in a favorable manner and deny undesirable thoughts and behaviors (California Commission on Peace Officer Standards and Training, 2010). Interestingly, officers were still willing to endorse items that the general population did not, even if it meant admitting to being more emotionally constricted, inflexible, and detached. Patterns of behavior identified in this study may be the result of the common practices involved in policing that requires these traits. Nonetheless, the FFOCI does not employ a method to detect or mitigate the impact of positive image responding or socially desirable responding (California Commission on Peace Officer Standards and Training, 2010).

Limitations in the present study include a lack of current empirically supported data on prevalence of obsessive-compulsive personality disorder and associated features in law enforcement. Another limitation involves the availability of psychological assessment and measurement of OCPD and traits. Until 2011, no objective personality tests were available for the assessment of OCPD/OCPT. The Minnesota Multiphasic Personality Disorder (2nd edition) is generally used for law-enforcement psychological screening (Weiss, Davis, Rostow, & Kinsman, 2003), but lacks effective screening for obsessive-compulsive personality traits. Positively, a valid and reliable instrument, the Five Factor Obsessive-Compulsive Inventory (FFOCI), was developed in 2011 with the specific purpose of screening for obsessive-

compulsive personality traits and appears promising (Samuel, Riddell, Lynam, Miller, & Widiger, 2012).

Unfortunately, studies utilizing this instrument for OCPT identification are limited due to the recent development of the instrument. As such, a lack of objective psychological assessment methods for OCPT may cause the study to have limited validity. Since the inventory was created in 2011, studies developing new tests may struggle from truncation of range issues and small effects may reflect a lack of predictive power when in fact these effects can be highly important (Kitaeff, 2011).

Implications for Police Psychology

Obsessive-compulsive personality traits are adaptive and can oftentimes be overlooked, especially in individuals who are employed in occupations that benefit from trait variants of this personality type. Results from the current study provide further support for the practical application of employment screening that involves obsessive-compulsive personality traits in law enforcement. Extrinsic tasks related to OCPT are required by several occupations in the ordinary population (medical doctors and attorneys).

This study theorized that individuals with OCPT are more prevalent in law enforcement occupations due to the necessary personality traits that are required to be successful in the field, whether these traits are intrinsic or extrinsic. It is also possible that being in an occupation that requires meticulous organization can magnify OCPT characteristics, though research has not been done to test this. The current study provides evidence for the importance of screening for obsessive-compulsive personality traits in law enforcement peace officers during pre-employment post-offer psychological screening.

While personality studies have been conducted on law enforcement for employment

screening purposes, studies are oftentimes used to identify maladaptive features of officers who are later terminated from the force rather than identifying naturally occurring patterns in the “police personality” of officers who have remained in the force. It is unknown if the officers who were assessed or will be assessed will remain in the force. However, studies like this one can provide important information with regard to the relationship between police personality and occupational success (as measured by performance evaluations and other methods).

Recommendations for Future Research

Several improvements can be made to this study with regard to future implications. Additional research may be needed on the same topic in order to establish a larger sample size for increased power. Furthermore, it is recommended that future studies also focus on a wider variety of officers (U.S. Marshalls, state police, municipal police, military police, and probation officers). Assessing a range of officers can provide police psychologists with empirical evidence on how the police personality presents not just in comparison with the general population, but in comparison with other departments.

Future studies should increase cultural diversity in sampling to identify how the results can be generalized to other cultures, both nationally and internationally. Length of time in the force (for law enforcement participants) and type of occupations (for non-law enforcement) should also be considered in future research. It is also recommended that future research be conducted on OCPT in association with job performance with greater obsessive-compulsive personality traits and those with few or no prominent traits. Researchers may opt to distribute the questionnaire in person to departments in order to reduce the likelihood of attrition that is inevitably associated with survey methodology.

Results of the this study could alter criteria for pre-employment/post-offer screening of law enforcement officers by targeting favorable psychological aspects of obsessive-compulsive personality traits through psychological assessment that must be met following a formal job offer. This study generated several significant findings applicable to the field of psychology (industrial/organizational, police, forensic, and clinical).

Evidence of prevalence rates of obsessive-compulsive personality traits in law enforcement supports the concept of perfectionism features as a characteristic more frequently found in law enforcement occupations. The results found from the present study support the original research hypotheses. These findings can be useful in determining future examination for law enforcement personnel who will be successful in the force.

Occupational stress is a significant cause of police officer burnout. Negative exposures like demanding events encountered on the job and a lack of coping techniques are important predictors in occupational burnout in officers despite the number of years of experience (Ivie & Garland, 2011). Future research on OCPT in relation to officer reports of burnout can provide an insight in whether or not officers who are higher in OCPT are more or less susceptible to burnout. Given lower ratings of anxious worry and higher rating of emotional constriction in the law enforcement population, it is possible that officers with higher OCPT would show more resilience to occupational burnout. Regardless of such, teaching managers how to effectively manage officers with organizational stress is greatly needed.

As previously stated, individuals diagnosed as having OCPD have been found to have higher psychosocial functioning when compared to other forms of personality disorders (Skodol et al., 2002). Information from the present study may prove to be valuable to future studies wishing to expand on OCPT prevalence within law enforcement. Future studies may focus on

whether or not positive effects are seen on job performance in relation to OCPT. Furthermore, findings from the present study can be useful in future pre-employment psychological examination for law enforcement candidates.

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Appendix A: Informed Consent Form

I have been informed that the present study involves research that will be conducted by Vanessa M. Holtgrave, M.S., a student of the clinical forensic psychology doctoral program at The Chicago School of Professional Psychology, Irvine, CA. I understand that this project is designed to study aspects of police psychology, more specifically personality traits of law enforcement officers. I have been asked to participate in this study. I understand that my participation in this study will involve the completion of a questionnaire designed to measure personality traits. I am aware that my involvement in this study will take approximately (15-30) minutes of my time.

I understand that I may refuse to participate or withdraw from this study at any time without penalty. I understand that my identity as a participant in this study will be kept in strict confidence and that no information that identifies me in any way will be released without my separate written approval. I am aware that all information that identifies me will be protected to the limits allowed by law. I have been informed that all individual data collected about me for the purposes of this study will be destroyed by Vanessa M. Holtgrave within five (5) years of the date of the signing of this document. Data, which will remain anonymous, will be password protected and stored on an external hard-drive that is only accessible by the undersigned.

I am aware that although I may not directly benefit from this study, my participation in this project will benefit future implications for research associated with police psychology, clinical forensic psychology, and industrial/occupational psychology. With that being said, my cooperation and participation will be greatly appreciated.

I understand that I may contact Vanessa M. Holtgrave at the information provided below or her supervisor Dean Rishel, Ph.D. at the information provided below if I have any questions about this project or my participation in this study. I understand that at the end of the study I may request a summary of results or additional information about the study from Vanessa M. Holtgrave.

By clicking “yes” on the electronic form, I am indicating that I have read this form and understand what it says. I am 21 years or older and voluntarily agree to participate in this research project. The primary researcher may be contacted at the information provided below if I have any questions about the study or would like additional information on the topic of study.

Vanessa Holtgrave, M.S.

Researcher Contact Information

Vanessa M. Holtgrave, M.S.

Phone Number: (618) 420-2051

Email: vmh0415@ego.thechicagoschool.edu

Dean Rishel, Ph.D.

Chairperson Contact Information

Dean Rishel, Ph.D.

Phone Number: (949) 769-7742

Email: drishel@thechicagoschool.edu

Appendix B: Demographic Questionnaire

The following questions are designed to obtain information about yourself and your background. Please read each question carefully and provide your response by placing an X in the space provided – indicating the most appropriate response. There are no correct or incorrect answers. Please be honest with your responses as your identity is confidential. Thank you for taking the time to complete this brief questionnaire.

1. What is your gender

___ a. Male

___ b. Female

2. What is your age

___ a. 21-24

___ b. 25-34

___ c. 35-44

___ d. 45-54

___ e. 55-65

3. What is your most prominent ethnic background?

___ a. Caucasian/Anglo-American/White

___ b. African American/Black/Afro-American

___ c. Hispanic/Latino/Chicano/Mexican-American/Mexican

___ d. Asian/Pacific Islander

___ e. Native American

___ f. Other/Multiracial

4. What is your current legal marital status?

___ a. Single, never married

___ b. Married

___ c. Widowed, not currently married

___ d. Divorced, not currently married

___ e. Separated, currently married

5. What is your occupation?

___ a. Law Enforcement (Sheriff's Department Only)

___ b. Non-law enforcement (All Other Occupations)

Appendix C: Five Factor Obsessive-Compulsive Inventory (FFOCI)

Copyright: 2011

Douglas B. Samuel, Ashley D. B. Riddell, Donald R. Lynam, Joshua D. Miller, and Thomas A. Widiger

Description: This questionnaire contains 120 items. Each item is scored on a 1 to 5 scale, where 1 = that the statement is false or that you strongly disagree; 2 = that the statement is mostly false or you disagree; 3 = that the statement is about equally true or false, you cannot decide, or you are neutral on the statement; 4 = that that the statement is mostly true or you agree; and 5 = that the statement is definitely true or you strongly agree.

Please read each item carefully and provide your answer that best corresponds to your agreement or disagreement. There are no right or wrong answers. Describe yourself honestly and state your opinions as accurately as possible.

1. It usually takes quite a bit to get me stressed out
2. I am a warm and engaging person
3. If it sounds exciting, I'd try anything once.
4. I usually consider the feelings of others when making a decision.
5. I prefer not having a schedule to stick to.
6. What is right or wrong sometimes depends on the situation.
7. I sometimes sacrifice the quality of my work, just to get it finished.
8. I don't spend much time on organizing or ordering things.
9. When I really think about it, I guess I don't take my responsibilities seriously enough.
10. I don't have a list of my major goals or aspirations in life.
11. It's OK to let things slip sometimes.
12. Every once in awhile I like to leap first and ask questions later.
13. I don't really worry about things too much.
14. I enjoy getting to know people on a personal level.
15. I love the excitement of making risky decisions.
16. How people feel deep down inside is important to me.
17. I like to explore new and unusual places and things.
18. My motto is live and let live.
19. I don't get bogged down in making sure everything is just right.
20. I am not a particularly methodical or well organized person.
21. I don't always take the rules and regulations too seriously.
22. If something really fun came up, I'd stop work for the day even if I hadn't finished things yet.
23. I don't always finish everything I start.
24. I sometimes do things impulsively without thinking it through in advance.
25. I tend to get very nervous that my work won't be good enough.
26. I take a personal interest in the people I meet.
27. I sometimes do dangerous things just for the fun of it.

28. I find it difficult to feel what other people are feeling.
29. People have often complained that I am stuck in my ways.
30. I feel it is very important to correct the viewpoints of others.
31. People often think I work too long and hard to make things perfect.
32. The smallest details are often the most important.
33. Following the rules is always important, even if I'm playing a game by myself.
34. My work ethic allows me to meet any goal.
35. I'm fanatical about getting things done when they need to be.
36. I examine every detail of an issue before coming to a decision.
37. Sometimes unimportant details cause me a great deal of worry.
38. I often come across as formal and reserved.
39. I much prefer playing it safe, even if miss out on something.
40. Empathy, or putting myself in someone else's shoes, is not my strong suit.
41. Sticking to my routine is the only way to avoid trouble.
42. Matters of morality are "black and white" and have no room for grey.
43. Doing something "good enough" is not OK for me.
44. I take such good care of my things that they last much longer than they probably should.
45. I have such a strong sense of duty that I sometimes become over-committed.
46. My drive to succeed keeps me going when others have stopped.
47. If I start something I work until it is complete.
48. I pride myself on making intelligent decisions on every detail of my life.
49. The thought of throwing something away makes me nervous because I might need it again.
50. I tend to be serious around others.
51. I believe that safe and predictable beats exciting and dangerous every time.
52. I am not a person who is into how people feel about things.
53. My life is on such a schedule that others do find me a bit dull at times.
54. Morality means adhering to a strict set of rules and principles.
55. I strive for perfection, even on what other people might call minor details
56. Other people have said that I'm extremely detail oriented, almost to a fault.
57. Knowing the proper etiquette in all situations is very important for me.
58. Success is something that can only be achieved through working diligently.
59. When I put my mind to something, nothing can stop me from finishing
60. I often dwell on every possible thing that might go wrong.
61. I often worry about the future.
62. I must admit that I am not a particularly warm person.
63. While others might prefer a big, wild party, I'd prefer a quiet time at home.
64. I tend to rely on logic rather than feelings.
65. I like to keep to the "tried and true" rather than try new things.
66. There is never an excuse for deviating from a moral code.
67. I take great pride in the quality of my work.
68. I take excellent care of things so they'll stay in perfect condition.
69. People often suggest I take my responsibilities too seriously.
70. I usually find myself thinking about work, even in the middle of a vacation.
71. It is easy for me to get myself to do what I should be doing.
72. No decision is too small for me not to think through all the consequences.

73. I worry a great deal over whether I will succeed in life.
74. Warmth and intimacy are not my strengths.
75. I live a pretty steady, safe, subdued life.
76. I am a thinker, not a feeler.
77. My life is pretty much the same every week, and that's how I like it.
78. Permissiveness is essentially a break down in morality.
79. I'm something of a perfectionist.
80. I am a very methodical person; perhaps too much so.
81. I can be pretty exacting when it comes to duty and honor.
82. I am known as something of a "workaholic."
83. I sometimes have trouble getting myself to stay on task.
84. Some persons might say that I spend too much time deliberating over things.
85. I ruminate and worry over lots of different things.
86. People consider me a rather serious and reserved person.
87. I never take any unnecessary or even minimal risks.
88. How I feel about something is always much less important than how I think about it.
89. I believe there is always one 'best' way to do things.
90. I live my life by a set of tough, unyielding moral principles.
91. I take great pride in being efficient and effective.
92. I need to consider every little detail.
93. I firmly believe that you should always play strictly by the rules.
94. I get so caught up in my work that I lose time for other things.
95. I have an extremely strong sense of self-discipline.
96. I like to be really sure about things before I act.
97. I am a worrier.
98. My way of showing affection is to get things done for people.
99. My way of life might be dull to others, but at least it is safe and secure.
100. Strong emotions are not that important in my life.
101. I much prefer predictability than exploring the unknown.
102. I don't believe in excuses for violating an ethical, moral code.
103. I like my work to be flawless and unblemished.
104. I probably spend more time than is needed organizing and ordering things.
105. I take pride in being someone who is reliable, no matter what happens.
106. I don't regret working real hard because, for me, work is my pleasure.
107. I have a strong, perhaps at times even excessive, single-minded determination.
108. I think things over and over and over before I make a decision.
109. I am often concerned, even nervous, about things going wrong.
110. I don't really know my close friends that well.
111. I would always sacrifice fun and thrills for the security of my future.
112. I don't experience a particularly wide range of emotions or feelings.
113. My friends have at times said that I am much too predictable.
114. It troubles me how society is losing its strong moral core.
115. I think it's terribly important to get things just right.
116. I always make sure that my work is very well planned and organized.
117. Some persons suggest I can be excessive in my emphasis on being proper and moral.
118. While others are playing, I'm getting ahead.

119. I am to the maximum dogged, determined, and disciplined.
120. No decision I make is ever done impulsively.

Appendix D: Debriefing Form

Obsessive-Compulsive Personality Traits in Law Enforcement

Purpose

Thank you for your participation in this study. The goal of this study was to investigate different aspects of police personality, more specifically obsessive-compulsive personality traits. The purpose of the present study is to help advance knowledge in the field of psychology where information is absent.

It is predicted that rates (overall mean) of obsessive-compulsive personality traits will be higher in sworn officers when compared to members of the general population as measured by a personality questionnaire. By conducting this study, it is with hope that the study will be significant enough to identify specific personality features that can be used in future applications for pre-employment/post-offer personality screening.

Participation in the present study is completely anonymous. Participants will be identified by assigned numbers and not by identifying information. Your responses and questionnaire forms will be kept confidential and secure, with only the researcher allowed to access them. If you have any other questions or concerns about this study, or participating in this study has caused discomfort to you, please contact the primary researcher using the contact information below.

If you have questions concerning your rights in this research study, you may contact the Institutional Review Board (IRB), which is concerned with the protection of subjects in research project. You may reach the IRB office Monday-Friday by calling 312.467.2343 or writing: The Chicago School of Professional Psychology Institutional Review Board, 325 N. Wells, Chicago, Illinois, 60654.

Thank you, again, for your participation in this research study.

References and Further Reading

Samuel, D. B., Riddell, A. D. B., Lynam, D. R., Miller, J. D., & Widiger, T. A. (2012). A five-factor measure of obsessive-compulsive personality traits. *Journal of Personality Assessment*, 94(5), 456-465.

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Appendix E: Institutional Review Board (IRB) Letter of Approval



INSTITUTIONAL REVIEW BOARD

June 18, 2013

NOTICE OF EXPEDITED APPROVAL

Principal Investigator: Vanessa Holtgrave
Research Advisor: Dean Rishel, Ph.D.
Project Title: Obsessive-Compulsive Personality Traits in Law Enforcement
Risk Level: Minimum
Special Populations: N/A
Consent: Oral (Version 5/8/13)
IRB Renewal Date: 6/18/14

This notification certifies that the proposed study, as described in the revised application 6/13/13 submitted to the IRB committee, has been approved by the IRB committee and has been found to fulfill all necessary ethical requirements for human subjects research.

We have granted this approval from 6/18/13 to 6/17/14. Any proposed changes to this proposal during this approval period must be submitted to the IRB for review via the Addendum Request form located on the IRB website. Should the data collection and analysis phase of your study extend beyond the approval period indicated above please submit the Continuing Renewal form located on the IRB website no later than 5/17/14. This review is required should your *data collection and analysis phase* exceed the stipulated time limit. You need *not* submit a Continuing Renewal form if the data analysis is completed but you are still preparing a document (thesis, dissertation, or publication) based on the data.

Researchers are required to always follow the American Psychological Association's ethical principles and code of conduct, especially in regards to Section 8 of the ethical code ("research and publication"). Failure to conform to the APA ethical code may result in revocation of IRB approval.

A handwritten signature in blue ink that reads "Paul Birch".

cc: Dean Rishel, Ph.D., Dissertation Chair
IRB Assistant

Paul Birch, Ph.D. June 18, 2013
IRB Committee Chair, California Campus
The Chicago School of Professional Psychology

Appendix H: Test Results

Table H1

Multivariate Analysis of Variance (MANOVA) Results

Effect		Value	<i>F</i>	Hypothesis <i>df</i>	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.976	382.806 ^b	12.000	111.000	.000	.976
	Wilks' Lambda	.024	382.806 ^b	12.000	111.000	.000	.976
	Hotelling's Trace	41.384	382.806 ^b	12.000	111.000	.000	.976
	Roy's Largest Root	41.384	382.806 ^b	12.000	111.000	.000	.976
Occupation	Pillai's Trace	.418	6.646 ^b	12.000	111.000	.000	.418
	Wilk's Lambda	.582	6.646 ^b	12.000	111.000	.000	.418
	Hotelling's Trace	.719	6.646 ^b	12.000	111.000	.000	.418
	Roy's Largest Root	.719	6.646 ^b	12.000	111.000	.000	.418

Table H2

Levene's Test of Equality of Error Variances

	<i>F</i>	<i>df1</i>	<i>df2</i>	Sig.
Excessive Worry	11.969	1	122	.001
Detached Coldness	.968	1	122	.327
Risk Aversion	6.585	1	122	.011
Constricted	.464	1	122	.497
Inflexible	1.442	1	122	.232
Dogmatism	.083	1	122	.774
Perfectionism	1.103	1	122	.296
Fastidiousness	7.031	1	122	.009
Punctiliousness	3.468	1	122	.065
Workaholism	.005	1	122	.945
Doggedness	1.075	1	122	.302
Ruminative Deliberation	7.689	1	122	.006

Table H3

Tests of Between Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial Eta Squared
Corrected Model	Excessive Worry	373.944 ^a	1	373.944	4.783	.031	.038
	Detached Coldness	1329.639 ^b	1	1329.639	28.198	.000	.188
	Risk Aversion	128.382 ^c	1	128.382	2.506	.116	.020
	Constricted	1342.468 ^d	1	1342.468	37.891	.000	.237
	Inflexible	198.997 ^e	1	198.997	4.464	.037	.035
	Dogmatism	562.688 ^f	1	562.688	15.509	.000	.113
	Perfectionism	45.500 ^g	1	45.500	.919	.340	.007
	Fastidiousness	8.171 ^h	1	8.171	.127	.722	.001
	Punctiliousness	136.008 ⁱ	1	136.008	3.465	.065	.028
	Workaholism	76.520 ^j	1	76.520	1.863	.175	.015
	Doggedness	91.595 ^k	1	91.595	1.999	.160	.016
	Ruminative Deliberation	.966 ^l	1	.966	.021	.885	.000
Intercept	Excessive Worry	70291.492	1	70291.492	899.101	.000	.881
	Detached Coldness	56605.639	1	56605.639	1200.450	.000	.908
	Risk Aversion	76170.059	1	76170.059	1487.063	.000	.924
	Constricted	54278.726	1	54278.726	1532.031	.000	.926

	Inflexible	60505.707	1	60505.707	1357.26 9	.000	.918
	Dogmatism	76471.591	1	76471.591	2107.77 5	.000	.945
	Perfectionism	105957.24 2	1	105957.24 2	2140.01 9	.000	.946
	Fastidiousness	91878.429	1	91878.429	1426.84 4	.000	.921
	Punctiliousness	103436.29 8	1	103436.29 8	2635.22 6	.000	.956
	Workaholism	97090.584	1	97090.584	2363.26 8	.000	.951
	Doggedness	97426.595	1	97426.595	2126.55 6	.000	.946
	Ruminative Deliberation	82184.030	1	82184.030	1781.22 3	.000	.936
Occupation	Excessive Worry	373.944	1	373.944	4.783	.031	.038
	Detached Coldness	1329.639	1	1329.639	28.198	.000	.188
	Risk Aversion	128.382	1	128.382	2.506	.116	.020
	Constricted	1342.468	1	1342.468	37.891	.000	.237
	Inflexible	198.997	1	198.997	4.464	.037	.035
	Dogmatism	562.688	1	562.688	15.509	.000	.113
	Perfectionism	45.500	1	45.500	.919	.340	.007
	Fastidiousness	8.171	1	8.171	.127	.722	.001
	Punctiliousness	136.008	1	136.008	3.465	.065	.028
	Workaholism	76.520	1	76.520	1.863	.175	.015

	Doggedness	91.595	1	91.595	1.999	.160	.016
	Ruminative Deliberation	.966	1	.966	.021	.885	.000
Error	Excessive Worry	9537.927	1 2 2	78.180			
	Detached Coldness	5752.748	1 2 2	47.154			
	Risk Aversion	6249.061	1 2 2	51.222			
	Constricted	4322.371	1 2 2	35.429			
	Inflexible	5438.640	1 2 2	44.579			
	Dogmatism	4426.247	1 2 2	36.281			
	Perfectionism	6040.500	1 2 2	49.512			
	Fastidiousness	7855.918	1 2 2	64.393			
	Punctiliousness	4788.670	1 2 2	39.251			
	Workaholism	5012.150	1 2	41.083			

			2	
	Doggedness	5589.340	1 2 2	45.814
	Ruminative Deliberation	5628.970	1 2 2	46.139
Total	Excessive Worry	121752.00 0	1 2 4	
	Detached Coldness	76410.000	1 2 4	
	Risk Aversion	113053.00 0	1 2 4	
	Constricted	71814.000	1 2 4	
	Inflexible	88787.000	1 2 4	
	Dogmatism	106622.00 0	1 2 4	
	Perfectionism	157986.00 0	1 2 4	
	Fastidiousness	144157.00 0	1 2 4	
	Punctiliousness	150590.00	1 2	

	0	4
Workaholism	143111.00	1
	0	2
		4
Doggedness	143770.00	1
	0	2
		4
Ruminative Deliberation	125788.00	1
	0	2
		4
Excessive Worry	9911.871	1
		2
		3
Detached Coldness	7082.387	1
		2
		3
Risk Aversion	6377.444	1
		2
		3
	5664.839	1
		2
		3
	5637.637	1
		2
		3
	4988.935	1
		2
		3
	6086.000	1
		2
		3
	7864.089	1
		2

3

	1
4924.677	2
	3

1

	2
5088.669	3

1

	2
5680.935	3

1

	2
5629.935	3

Appendix I: Vita

Vanessa M. Holtgrave attended Highland High School, Highland, Illinois, graduating in 2002 with honors in Art and Spanish. In 2003 she attended Southern Illinois University (SIUE) in Edwardsville, Illinois, where she received a Bachelor of Science in psychology with a minor in sociology in 2006. During her undergraduate education at SIUE she participated in Psychology Club and was inducted into Psi Chi International Honor Society for Psychology. Vanessa was also a member of the institutional dean's list on multiple occasions. She participated as a research assistant for SIUE tenured psychology staff, contributing to the data collection of published works of cognitive psychology. Undergraduate practicum was completed at the Illinois Center for Autism working with children with diagnoses too severe for traditional academic environments. Vanessa went on to obtain a Master of Science degree in psychology (clinical track) in 2009 and two years of doctorate from Walden University. Following completion of her Master's Degree she went on to guest lecture the Master in Counseling program at Montana State University at Great Falls and worked as a contracted clinician for the prison transition system providing therapeutic services to federal and state offenders. Doctoral practica were completed at Santa Barbara County Juvenile Justice Mental Health Services (JJMHS) and Santa Barbara County Children's Mental Health Services. In 2013 Vanessa was inducted into the prestigious Edward A. Bouchet Graduate Honor Society, a society that recognizes outstanding scholarly achievement and promotes diversity and excellence in doctoral education. Vanessa works as a Board of Psychology registered Psychologist Assistant (PA) doing neuropsychological and psychodiagnostic testing for the Department of Corrections. She also volunteers at the Santa Barbara County Sheriff's Department. Vanessa will graduate in 2015 from the Chicago School of Professional Psychology as Doctor of Psychology in Clinical

Forensic Psychology. Non-published research includes (The Effect of Maximization Behaviors and Choice Set Size on Positive Affect Negative Affect and Satisfaction with Decision, Virtual Therapeutic Environments: A Complimentary Treatment for Bipolar Disorder, and Prevalence of Obsessive-Compulsive Personality Traits in Law Enforcement. Vanessa currently lives in California and plans to continue her work with the Santa Barbara County Sheriff's Department.

This dissertation was typed entirely by the author.