VARIANTS OF PSYCHOPATHY AMONG KOREAN MALE OFFENDERS

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ABSTRACT

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Although psychopathy typically has been considered a relatively uniform construct, growing recent research suggests that psychopathy can be disaggregated into primary and secondary variants, and there may be a diverse expression of psychopathic traits across individuals. This research, however, has been largely limited to North American and European males. Little research has examined the variants of psychopathy among individuals from different (i.e., non-Western) ethnicities and cultural backgrounds. This study examined whether variants of psychopathy could be identified in Korean adult male offenders ($N = 451$) using latent profile analysis. The results showed that four distinctive subtypes (i.e., *general offender, sociopathy, callous-cunning, and prototypic*) of psychopathy were found in Korean male offenders when using PCL-R four factors as indicators to determine the optimal number of subtypes. This finding implies the strong replicability of a four-class solution across different cultures and ethnicities, especially when using the entire sample of offenders. Further, this study also revealed that individuals in the prototypic psychopathy group had a higher level of psychopathology and more prior criminal history and severe criminal charges compared to members of all other groups. This study suggested the importance of cross-cultural research exploring the manifestation and expression of psychopathy in other cultures and ethnicities.

KEY WORDS: Psychopathy, Variants of psychopathy, Korean offenders, PCL-R, Latent variable analysis

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CHAPTER I

Introduction

Over the last few decades, research on the development of aggressive and criminal behaviors has shed light on the importance of understanding the psychopathy construct. Despite controversy over the etiology of psychopathy, there is consensus on the definition of psychopathy. Most agree psychopathy is characterized by callousness and lack of emotion, recklessness, impulsivity, an early and persistent tendency to violate social conventions (Hare & Newmann, 2006, 2010). The most widely accepted measure of psychopathy is the Psychopathy Checklist-Revised (PCL-R: Hare, 1991), which conceptualizes psychopathy as a set of affective, interpersonal, lifestyle, and behavioral characteristics (Hare, 1991) based on Cleckley's (1941) description of psychopathy.

The use of the PCL-R has been common in various forensic and clinical settings due to its association with a variety of negative outcomes among offender samples. For example, meta-analytic data reveals Psychopathy Checklist scores are small to moderate predictors of recidivism and misconduct ($r = .24$ to $.29$; $d = .50$ to $.55$) among adults and juveniles (Guy, Edens, Anthony, & Douglas, 2005; Edens, Campbell, & Weir, 2007; Leistico, Salekin, DeCoster, Rogers, 2008; Yang, Wong, & Coid, 2010). There is, however, significant variability in the predictive effects of PCL scores across studies, with some studies reporting much larger effects than others (see Eden et al., 2007; Hawes, Boccaccini, Murrie, 2013; Leistico et al. 2008).

Historically, psychopathy has been considered a relatively uniform construct. A recent and growing body of research, however, has postulated the existence of specific variants of psychopathy. In particular, latent variable research has provided different

factor models of the PCL-R, reflecting the possibility of distinctive subgroups of criminal offenders. Specifically, the PCL-R provides scores related to two broad and intercorrelated (i.e., $r > .50$) factors—Interpersonal/Affective and Social Deviance, also referred to as Factor 1 and Factor 2, respectively (Hare et al., 1990; Harpur, Hare, & Hakstian, 1989). These factors comprise four facets, with Factor 1 including the Interpersonal and Affective facets, and Factor 2 including the Lifestyle and Antisocial facets. According to this traditional factor model, Factor 1 has "core features" of psychopathy, described as callous-unemotional traits (Benning, Patrick, Hicks Blonigen & Krueger, 2003, Hare, 1991, 2003). More recently, other researchers have proposed that psychopathy and the PCL-R may have three factors—Meanness, Boldness, and Disinhibition—rather than two factors (Cooke & Michie, 2001). Further, recent factor analyses of large samples of adult offenders suggested a four-factor model (Hare, 2003). These latent psychopathy factors are able to represent the dimensional of the psychopathy constructs (Hoppenbrouwers, Newmann, Lewis, and Johansson, 2015), and the possibility of specific variants of psychopathy.

Subtypes of Psychopathy

Historically, it was suggested there were two broad subtypes of psychopathy based on clinical studies before the emergence of sophisticated analytic tools such as structure equation modeling (SEM) and latent profile analysis (LPA; Neumann, 2017).

The first conceptualization of the variants of psychopathy was perhaps suggested by Karpman's (1941, 1948), a classic distinction between primary and secondary psychopathy. From his point of view, primary psychopathy reflects an affective deficit that is heritable while secondary psychopathy reflects affective disturbance based on

environmental factors such as parental rejection and abuse, which may result in secondary psychopathy experiencing anxiety, depression, and other character neuroses (Karpman, 1941). Through his work, Karpman (1941) suggested that secondary psychopathy is more likely to be amenable to psychotherapy than primary psychopathy due to the core etiological and affective differences between these two subtypes. This distinction has been expended by more recent researchers (Blackburn, 1975; Lykken, 1995; Mealey, 1995; Porter, 1996).

For example, on the basis of cluster analyses of Minnesota Multiphasic Personality Inventory (MMPI) profiles of forensic patients, Blackburn (1985, 1998) found that the degree of withdrawal is the main difference between the primary and secondary psychopathy. While both subtypes share extreme traits of belligerence (aggressive, hostile, impulsive), primary psychopathy is associated with extraversion, confidence, dominance, and low to average anxiety, whereas secondary psychopathy is associated with emotional disturbance, social anxiety, withdrawal, moodiness, submissiveness, and lower self-esteem (Blackburn, 1985, 1998).

Further, according to Fowles (1980) Lykken (1995) and, primary and secondary psychopathy can be differentiated by the Behavioral Inhibition System (BIS), which regulates responsiveness to aversive stimuli and is associated with the experience of negative affect (including anxiety), and the Behavioral Activation System (BAS), which regulates appetitive motivation and is associated with the experience of positive affect (and impulsivity). In their model, primary psychopathy is associated with an underactive BIS while secondary psychopathy is associated with an overactive BAS. Several other studies using various clustering strategies with adult psychopathic offenders also found

the importance of anxiety for differentiating the variants of psychopaths (Swogger & Kosson, 2007; Vincent, Vitacco, Grisso, & Corrado, 2003).

In the evolutionary perspective, the variants of psychopathy differ in terms of etiological pathways. For example, Mealey (1995a) suggested that secondary psychopathy uses an environmentally-contingent strategy in deception, leading him or her to overcome obstacles toward to survival, while primary psychopathy has a genetically based, individual difference in the use of cheating. As such, the secondary psychopathy is more likely to use the strategy of cheating and manipulation in order to overcome their environmental disadvantages (e.g., low intelligence, low SES, fewer resources). Further, Mealy (1995b) suggested that individuals high on the secondary psychopathy should have fewer heritable psychopathic traits than those high on primary psychopathy, and they come from predominantly from lower-class backgrounds and exhibit patterns of antisocial conduct that vary across the life span.

Porter (1996) proposed that the variants of psychopathy originate from two distinct etiological pathways. Specifically, he argued that fundamental psychopathy is associated with an innate incapacity for strong affect while secondary psychopathy is a form of dissociative disorder rather than a personality disorder. According to his hypothesis, the individuals high on secondary psychopathy experience a "de-activation" or dissociation of affect developed in response to repeated rejection and abuse during their childhood. This subsequently brings about a dissociation of cognition and affect and prevented them from developing a conscience (Porter, 1996).

Some scholars have suggested the presence of borderline features is the core distinction between the primary and secondary psychopathy. Meloy and Gacono (1993)

proposed that the impulsivity and patterns of instability in interpersonal relationships, self-image, and affect that characterize borderline personality disorder (BPD; American Psychiatric Association, 2000) are highly associated with the secondary psychopathy. Further, Skeem et al. (2003) noted that "this overlap may characterize impulsive, anxious, and angrily reactive secondary psychopaths (p.530). In contrast, narcissistic traits of dominance, grandiosity, egocentricity, and entitlement may be dominantly manifested by the primary psychopathy (Skeem et al., 2003).

PCL-R Instruments and Subtypes of Psychopathy

In the past decades, a variety of psychopathy measures have been used to identify the relationship between the construct of psychopathy and re-offenses in both incarcerated and non-incarcerated sample. As the SEM and LPA analytic tools become more available, there have been efforts to use systematic approaches to assessing psychopathic features, especially to identify clear common patterns across samples and psychopathy instruments. Studies with various PCL-R instruments across different settings and samples have revealed that there are traits constellations of psychopathy, which can be disaggregated into different factors. The early factor analyses reported that two distinctive factors, interpersonal and affective traits reflect the fundamental construct of psychopathy (Harpur, Hare, & Hakstian, 1989). Factor 1 reflects Cleckley's conceptualization of psychopathy (e.g., callousness and grandiosity), while Factor 2 emphasizes the social deviance and criminality (e.g., impulsivity and parasitic lifestyle) (Skeem, Poythress, Eden, Lilenfeld & Cale, 2002). More recently, Cooke and Michie (2001) proposed that the three factors in which Arrogant and Deceitful Interpersonal Style, Deficient Affective Experience, and Impulsive and Irresponsible Lifestyle well

capture the underpinned construct of psychopathy in the PCL-R. Hervé, Ling, and Hare (2000) replicated these three-factor model across other offenders/psychiatric samples, and they found the specific variants of psychopathy based on the three factors. Specifically, based on the factor elevation, the researchers suggested that "prototypical" psychopaths were higher across the board on all psychopathy factor scores. Hervé and colleagues (2000) suggested that the "manipulative" psychopaths were higher on interpersonal but lower on lifestyle as individuals in this group might be prone to crimes involving fraud and deception. In addition, the "macho" psychopaths who were lower on interpersonal but high on affective might have anger-related offenses (e.g., assault and robbery) due to their tendency to manipulate others through force and intimidation. The fourth group with the lowest score on affective factor and second lowest score on the other two factors were labeled as a pseudo-or secondary psychopath (Hervé et al., 2000). Hervé and Hare (2004) found that pseudo psychopaths engaged in as much or more antisocial and violent behavior as prototypic psychopaths, while pseudo group displayed higher elevation on lifestyle factor compared to their scores on affective and interpersonal factors.

The recent study based on 1,451 male offenders with a PCL-R score of 27 or higher revealed that three latent classes or subtypes (Morkros et al. 2015). These three classes were 'manipulative psychopaths (LC1), aggressive psychopaths (LC2), and sociopaths (LC3). Mokros et al. (2015) suggested that LC1 and LC2 represent phenotypic variants of psychopaths while LC3 represents individuals who exhibit externalize behavioral features, but with a capacity for affect, guilt, and remorse at least compared to average offenders. In several studies using LPA, researchers reported that sample selection is a key issue in studying variants and subtypes of psychopaths (Krstic,

Neumann, Roy, Robertson, Knight, & Hare, 2017). That means researchers should decide whether to use extreme cases within a given sample (i.e., individuals with the PCL-R score above a certain score) or to include the entire sample (Neumann, Vitacco, & Mokros, 2016). These two different approaches provided researchers with distinctive advantages in exploring uncovered variants and subtypes of psychopathy. For instance, using extreme, high scoring PCL-R samples for LPA allows researchers and clinicians to identify two distinctive variants of the primary and secondary psychopathy; however, this LPA analysis requires very large samples to permit selection of a reasonably large sample of extreme cases (Mokros et al., 2015).

On the other hand, using the entire samples provides researchers with an opportunity to classify a variety of cases including psychopathic from non-psychopathic cases, which ultimately provides useful information regarding different etiological or treatment implications across different subtypes by comparison of all offenders in the sample (Krstic et al. 2018).

Recent studies using several large samples (Hare et al., in press; Neumann, Vitacco, et al., 2016) consistently have reported evidence to support the existence of four latent classes when the entire sample is examined. For instance, when using PCL-R four factors as indicators to determine the optimal number of subtypes within the total male sex offender sample (Krstic et al. 2018), the LPA analyses indicated that the four-class solution was the best model for allocating cases to subtypes with high classification accuracy. Consistent with previous studies supporting the four-class solution, Krstic, et al. (2018) also confirmed the four subtypes of psychopathic groups by LPA on the entire sex offender sample; prototypic psychopaths (C1), callous-conning (C2), sociopathic

(C3), and general offender (C4) profile. Each profile also displayed a unique endorsement on the PCL-R mean and factor scores.

Likely, Hare (2016) introduced the four-factor model as the best solution for North American male offenders. According to the finding in his research, 'psychopath' group (C1) showed the highest mean PCL-R score (M=28.4) with elevations on all four PCL-R factors whereas a 'callous-conning' group (C2) with a PCL-R score of 16.8 showed elevations mainly on the Interpersonal and Affective factor. A 'sociopath' group (C3) displayed a PCL-R score of 19.6 and elevations on the Lifestyle and Antisocial factors. The last group, a general offender group (C4) obtained the lowest PCL-R mean score (M=8.9) and a low score on all factors (Hare, 2016). The same solution was also obtained with replication of 973 Swedish male offenders (Neumann, Johansson, & Hare, 2013) and with North American Forensic Psychiatric sample (Neumann et al. 2016).

These findings have supported that there are subgroups of individuals who display different patterns among the PCL-R factors and expressions of psychopathic features.

Criminal Behaviors and Subtypes of Psychopathy

It has been reported that psychopathic traits are associated with extensive criminal history and a high recidivism rate (Hare, Kropp, & Hare, 1988). However, research exploring subtypes of psychopathy has often focused on differentiating subtypes of psychopathy based on personality and the level of anxiety. Yet, there has been a lack of studies about how their criminal behaviors and severity of offenses are different across variants of the psychopathy group. It is often assumed that given high endorsement on all factor scores, the primary psychopathy may engage in more violent and serious offenses

compared to other variant groups. This common assumption was supported by Neumann et al., (2016) in that prototypic psychopathic individuals are reportedly much more prone to violence, including sex violence, than are offenders in the other latent class groups. Another study by Vincent, Vitacco, Grisso, and Corrado (2003) showed that individuals who exclusively scored high on factor 1 on the PCL-YV (termed "callous/deceitful cluster") displayed the lowest rate of behavioral problems, violent offenses, drug use, recidivism, and prior convictions, and the highest age at first conviction compared to the other clusters.

Further, there is a finding that the primary psychopaths were charged with a greater number of violent crimes than members of all other groups and exhibited greater criminal versatility than members of non-psychopathic individuals (Vassileva, Kosson, Abramowitz, & Conrod, 2005). These results imply that understanding the variants of psychopathy may be useful in planning risk assessment strategies and treatment in clinical settings and the legal system.

Ethnic and Cultural Variations in Psychopathy

Several scholars have proposed that psychopathology, including personality disorders, manifests differently across different ethnicities and cultures. For example, Asian people tend to express their depressive symptoms through somatic symptoms (Marsella, Kinzie, & Gordon, 1973; Sue & Sue, 1987), which may be explained by the traditional cultural tendency to view mental health disorders as particularly stigmatizing and shameful to the individual and family system, whereas organic, medical problems are seen as more acceptable (Tsai & Pike, 2000). With respect to personality disorders, particularly antisocial behavior personality disorder, it is important to consider

sociocultural mediating factors such as poverty and SES, which may disproportionately contribute to ethnic differences, although there is also substantial evidence supporting the link between genetic and biological factors and behavioral abnormalities (Carey & DiLalla, 1994; Baker, Bezdjian, & Raine, 2006).

Similarly, a great deal of empirical research supports the construct of psychopathy as a personality disorder with widespread psychological, social, and political implications within Western society (Patrick, 2006). The PCL-R is considered a well-validated tool for assessing psychopathy, but it was developed and normed almost exclusively using offenders in prison in Canada and the United States. A number of cross-racial comparisons within these countries found few differences in the level of psychopathic traits among, Caucasian, African, and Hispanic Americans (Cooke, Kosson, & Michie, 2001; Kosson, Smith & Newman, 1990, Skeem, Eden, Camp, & Cowell, 2004), but there are several studies showed that the prevalence and levels of psychopathy were different across cultures. For example, Cooke and Michie (1999) found that North American inmates exhibited both higher prevalence and higher level of psychopathy compared to Scottish inmates. Further, when comparing African-American and Caucasian inmates, there was a difference between these two populations in terms of diminished ability to learn from punishment (Kosson & Newman, 1986). In particular, Kosson, Smith, and Newman (1990) found that some items (e.g. "pathological lying and deception) on the PCL-R were less indicative of psychopathy among African Americans than Caucasian was.

In the one of first research exploring psychopathic traits in East Asian samples (Lynn, 2002), it was found that East Asians obtained the lowest mean scores on

psychopathic deviant scales of MMPI when comparing to Caucasians, African Americans, and Hispanics. This study suggested the importance of understanding cultural factors affecting the assessment of the psychopathy construct in Asian samples. Recently, there have been efforts to introduce the construct of psychopathy based on Western theoretical frameworks into East Asian countries. Specifically, the PCL-R has been translated into Chinese, Japanese, and Korean which is a reflection on increasing interest in psychopathy in East Asian countries; however, there has been a lack of research supporting the cross-cultural validity of the PCL-R in these countries.

Nevertheless, research using other psychopathy measures such as the Psychopathy Personality Inventory-Revised (PPI-R; Lilienfeld & Widows, 2005) and Levenson Self-Report Psychopathy Scale (LSRP; Levenson, Kiehl, & Fitzpatric; 1995) are available to support the generalizability of psychopathy across cultures. In a study of university students, Asian international and as well as other international students reported higher levels of psychopathy measured by Psychopathy Personality Inventory (PPI; Lilienfeld, 1990), particularly factor 2, which labeled Impulsive Antisociality (Benning, Patrick, Blonigen, Hicks, & Iacono, 2005) than Caucasian American students (Collier, Lilenfeld, Brennan, & Waal, 2009). In addition, this study showed that among all Asian internationals, only those who exhibited a higher level of individualism also displayed higher level of the antisocial and behavioral attributes measured by PPI Factor 2 (Collier et al. 2009). On the other hand, the study using Japanese students found the cultural differences in the three factorial models in PPI-R, which has been widely supported in Western cultures (Yokota, 2012). Yokota (2012) explained that the fact that components of each factor in the PPI-R appeared to be different between Japanese and US samples,

suggesting that the cultural differences between social norms for interpersonal relationships and emotional expression could result in the manifestation of psychopathy traits differently.

Cooke, Hart, and Michie (2004) also argued that development and expression of psychopathy may be influenced by the variability in cultural dimensions such as collectivism, individualism, complexity, thoughts, and social structures. However, little research has explored the characteristics of psychopathy with East Asian population, particularly incarcerated offenders, especially using the PCL-R.

The contemporary explanations on the expression and etiology of psychopathy are exclusively extrapolated from North American and Western European males (Yildirim & Derksen 2015). It is, thus unclear how these findings would generalize to other ethnicities and cultures (Sullivan & Kosson, 2007). For instance, one study from Brazil found that Brazilian inmates showed much lower PCL-R scores than North American samples rather than the cutoff score of 30, and reported that psychopathy could be reliably identified using a cutoff score of only 23 (Morana, Arboleda-Flórez, & Câmara, 2005).

As the manifestation and expression of psychopathy may differ across different ethnic and cultural groups, it is important to replicate the findings obtained from North American and Western European males in other cultures. Therefore, the current study attempted to explore if the subtypes of psychopathy found in North Americans and Western European males could be identified in Korean male offenders.

CHAPTER II

Method

Participants

The current study involved 451 adult male offenders in the Korean Justice System. More than half of the sample ($n = 276$) were incarcerated in the prisons across six different districts of Korea while 113 offenders were on probation at the time of the interview. 58 offenders were incarcerated in the jails, while the rest of 4 offenders were incarcerated in juvenile prisons at the time of interview.

Procedures

The data used in this study were collected under the granted project examining the validation of PCL-R in Korean-version. This data was collected between 2005 and 2008 from six districts of Korea. Two different research teams; the Kyonggi and Hallym universities in Korea participated in this data collection under the approval of the Korean Bureau of Prisons.

All participants were informed their participation was voluntary, and they were compensated approximately $20 for their participation. Data collected from this sample were published in the Professional Manual of the PCL-R in Korean-version (Cho & Lee, 2008).

Each PCL-R was scored based on semi-structured interviews and reviews of criminal records. Interviews were conducted by graduate students trained by the two primary researchers who authored the PCL-R Korean-version (Cho & Lee, 2008). These two primary researchers completed the PCL-R training conducted by Darkstone Research

Group, and they had a number of prior experiences with risk assessment. Interviews with prison staff and probation officers were also conducted when necessary.

In the previous study using the same data (Sohn & Lee, 2016), both the three-factor model (CFI = .97, RSMSEA = .05) and four-factor model (CFI = .95, RSMSEA = .05) provided a better fit to the data, which is consistent with research in Western countries. Although there has been controversial with including antisocial behavior factor in the core construct of psychopathy, in the current study, the four-factor model was used for the analysis since the majority of the samples in this data included violent offenders (i.e., sex offenses, robbery, assaults) which are highly correlated to antisocial behavior factor.

Measures

Demographics and Criminal History Form. The researchers developed a 25-item coding form to record offenders' demographics and criminal history (see Appendix A). Data for this form was obtained through the interview with offenders and review of their criminal records. Demographics included age, gender, education levels, and mental and medical history. Data related to the criminal history of each defendant was also collected, including the age of current arrest, names of the current offense, names of a prior offense, the number of prior offenses, the history of juvenile delinquency, and age of the first arrest. In addition, based on the description of the current charges included in jail records and the interview with the offenders, the motivations of their violent behaviors were coded as instrumental, reactive, and both. Other information related to offenders' criminal behaviors was obtained by the interview with both the offenders and correctional staff. This information included the offenders' attitudes toward their

punishment, sentence, victims, and correctional staff. This information was coded with dichotomous variables (i.e., positive versus negative; see Appendix A).

Korean-Language Version of Psychopathy Checklist-Revised. The current study used the Korean-language translation (Cho & Lee, 2008) of the PCL-R (Hare, 2003). The rater also assigns of 0 (*the item is not present for the individual*), 1 (*it may be present but the evidence available is not strong enough to warrant a score of 2*), or 2 (*the item is definitely present*); thus, scores on the PCL-R range from 0 to 40 with higher scores indicating more severe psychopathy (see Appendix B). The Korean-language version of PCL-R showed Cohen's Kappa values of .87 in the current study. There are conflicting data regarding the factor structure of the Korean-language version of the PCL-R. The Korean-language version of the PCL yielded two factors and four facets (i.e., interpersonal, affective, lifestyle, and behavioral) which is identical to the Hare's PCL-R, and it includes 20-item measuring each factor and facet; however, the development study (Cho & Lee, 2008) found a four-factor model that resembles the structure recommended by Hare (2003). Other research has also found the four-factor model (Sohn, & Lee, 2016) would best fit for the Korean male offenders. The scoring of PCL-R was conducted based on file reviews and interview when it is possible. Unlike the standardized cutoff-score 30 on the PCL-R, which is commonly used in North America and other European countries, the manual of Korean-Language Version of PCL-R (Cho & Lee, 2008) suggests that 25 is the optimal cutoff-score to have highest accuracy sensitivity and specificity despite the need for more research supporting the validation of this cut-off score for Korean male offenders.

Personality Assessment Inventory. The Personality Assessment Inventory (PAI:

Morey, 1991) is a 344-item self-report measure of personality and psychopathology. It

has 4 validity, 11 clinical, 5 treatment consideration, and 2 interpersonal scales. The PAI

was translated in Korean, and its reliability and validity were examined using 3,684 of

university students, inpatient, and outpatient clients (Kim, Kim, Oh, Lim, & Hong, 2001).

With the exception of Inconsistency (ICN) and Infrequency (INF) scales, the Cronbach's

alpha for other response style and clinical scales of Korean-version PAI ranged from .68

to .88. The test-retest reliability coefficient for those scale of the Korean-version PAI was

acceptable to high, ranging from .77 to .91 (Kim et al., 2001).

It is important to note that among 451 offenders, only 167 offenders' PAI scores

were available for analysis. This was because administrating PAI was not a part of

procedures for the purpose of the current data collection, and administering personality

screening measures was not a standard requirement for prison settings in Korea, and the

field data are often incomplete because of a lack of resources; however, it is believed that

even with small sample size understanding the psychopathologies among different

subtypes of psychopathy groups still provides clinicians with meaningful information. As

such, the small size of 167 offenders' PAI scores was still used for the analysis in the

current study.

Hypotheses

In this study, three hypotheses were tested. First, I examined whether or not these

empirically-derived subtypes of psychopathy could be identified among Korean male

offenders. Although most of the research regarding the subtypes of psychopathy included

offenders with a PCL-R score around 30, which is the common cut-off score of

psychopathy in North American offenders, I included all offenders for the analysis. This is because the optimal cut-off score of 25 with Korean samples has not been established well, and there is a lack of research to support the validity of using this score. Further, as the prior studies pointed out, using the entire samples would produce more informative finding in terms of identifying subtypes that have different patterns across them. Specifically, given prior studies supporting the four-factor model for LPA in variants of psychopathy, the four-factor model was used in this study to identify different latent class groups.

Further, a large number of studies have suggested the different patterns in the latent variable associations between the four-PCL factors and personality disorders. For example, it has suggested that secondary psychopaths have been distinguished by borderline and narcissistic personality features (Skeem et al., 2003) and that the level of anxiety. Using PAI clinical scales, such characteristics of each group in Korean male offenders would be explored.

Finally, given high endorsement on all factor scores of the PCL-R, the individuals in the prototypic psychopathic group are reportedly much more prone to violence, including sex violence, and engage in a greater number of serious offenses than those in the other classes (Neumann et al., 2016). As such, the correlation between criminal variables and the subtypes characterized by unique patterns of PCL-R factors was explored. In addition, using the index offense variables, the relationship between types of offenses and variants of psychopathy groups was assessed.

Data Analysis

Latent Profile Analysis (LPA) was used to estimate the possibility that an individual belongs to one of several classes on unobserved (latent) subgroups present in the data. Specifically, LPA examined latent subgroups based on each factor of the PCL-R score. Starting with a one-class model, a series of LPA model was estimated; each successive model included one additional latent class. The LPA analysis used a maximum likelihood estimation to obtain the estimated probabilities of class membership to account for probabilistic mature of a class assignment. In terms of model fit criteria and statistic, Bayesian Information Criteria (BIC), the Akaike Information Criterion (AIC), and the Sample Size Adjusted BIC and entropy were used to evaluate improvement in model fit for each successive class and select a best fitting model. After identifying classes, it was also described how personality scale scores measured by PAI items vary across latent profiles. Further, other dichotomous factors related to the nature of criminality and aggression (i.e., the number of prior offenses, the characteristics of the index offenses, and violent delinquent behaviors) were examined based on the different latent classes.

Data were analyzed with the SPSS statistic program, Version 20, structural equation model (SEM) was carried out with Mplus, Version 7. Given the ordinal nature of the PCL-R items, the robust weighted least squares (mean and variance adjusted) procedure (WLSMV) was also used for parameter estimation and assessing model fits.

CHAPTER III

Results

Demographics and Offense Characteristics.

Participants ranged from 17 to 77 years in age ($M = 38.55$, $SD = 11.33$) with an average number of 5.23 ($SD = 4.56$) prior offenses. Some of the most frequent types of index offenses committed by this sample were sex offense (44.8%), murder (14.4%), aggravated assault (13.1%), theft (7.3%), and robbery (6.9%).

Interrater Reliability

Interrater agreement for the PCL-R was evaluated by two trained graduate students who participated in the data collection. Both evaluators had completed a two-day PCL-R training workshop presented by the instrument developer (Dr. Robert Hare) before the data. Additionally, the evaluators were provided extensive training with scoring of the PCL-R by the first author of the Korean-language version of the PCL-R (Cho & Lee, 2008). To analyze the interrater agreement, the evaluators randomly chose 83 offenders. The evaluators scored the PCL-R on the basis of an independent file review and each other's interview note. The time and resources available for the study did not allow double scoring of all cases.

The values of a single rater and the absolute agreement intraclass coefficient and the correlation between the two evaluators were reported in table 1. This analysis indicated the proportion of variance attributable to differences in the evaluators' scoring tendencies and the proportion attributable to other unmeasured sources of error (e.g., random measurement error).

$ICC_{A,1}$ values were 0.92 for the PCL-R total score, 0.88 for Factor 1, 0.79 for Factor 2, 0.81 for Factor 3, and 0.91 for Factor 4, which are considered in the acceptable to high ranges. $ICC_{A,1}$ values for each item ranged from 0.43 to 0.96. The results of interrater agreement in this study were higher than or similar to those found in other studies included in the PCL-R manual (Hare, 2003).

Table 1

Interrater Reliability of Each PCL-R Item (n=83)

	Reliability Estimate		
Item	ICC_1	ICC_2	r
1. Impression management	0.59	0.74	0.61
2. Grandiose sense of self-worth	0.74	0.85	0.75
3. Stimulation Seeking	0.70	0.83	0.71
4. Pathological Lying	0.83	0.91	0.83
5. Manipulation for Personal Goal	0.86	0.92	0.86
6. Lack of Remorse	0.71	0.83	0.71
7. Shallow Affect	0.67	0.80	0.67
8. Callous/Lack of Empathy	0.88	0.93	0.88
9. Parasitic Orientation	0.78	0.88	0.78
10. Poor Anger Control	0.70	0.83	0.83
11. Impersonal Sexual Behavior	0.76	0.87	0.87
12. Early Problem Behavior	0.96	0.98	0.96
13. Lacks Goals	0.67	0.80	0.67
14. Impulsivity	0.67	0.80	0.68
15. Irresponsibility	0.44	0.62	0.44
16. Failure to Accept Responsibility	0.43	0.61	0.44
17. Unstable Interpersonal Relationships	0.93	0.96	0.92
18. Serious Criminal Behavior	0.61	0.76	0.76
19. Serious Violation of Conditional Release	0.92	0.96	0.92
20. Criminal Versatility	0.87	0.93	0.88

Note: ICC=intra class correlation coefficient for a single rating (ICC_1) and for averaged rating (ICC_2)

PCL-R Score

The mean of the total scores for 451 Korean male offenders was 19.51 (*SD* =

8.35) with a range from 1 to 39. This score is somewhat lower than the mean scores of

North American and European male offenders which were included in the PCL-R manual

(Hare, 2002, pp. 55-61). Although little research has paid attention to psychopathic traits

in Asian population, this finding is very similar to that in Lynn's (2002) study in that East

Asian group had the lowest mean score on the psychopathic deviant scale of the MMPI-2

compared to Caucasians, African Americans, and Hispanics.

With respect to each factor score reported in the table 2, the mean score of Factor

3 (lifestyle) was highest (*M* = 5.39, *SD* = 2.7), while the mean score of Factor 1

(interpersonal) was lowest (*M* = 3.97, *SD* = 2.4) in this sample.

Psychopathy Subtypes

Latent Profile Analysis (LPA) was used to identify latent classes of psychopaths.

LPA is a variant of latent class analysis that relies on continuous rather than categorical

variables (Mokros et al., 2015), and is used often to identify a set of discrete, exhaustive,

and non-overlapping classes of individuals based on individual responses to a set of

indicators. The choice of the number of classes is based on which model fits the data best.

A variety of textbooks and articles suggest the use of Akaike's Information Criterion

(AIC; Akaike, 1973, 1987) and the Bayesian Information Criteria (BIC: Schzwarz, 1978)

as a good indicator for the best classes for a specific model. The AIC and BIC are based

on the maximum likelihood estimates of the model parameters to select the most

parsimonious and accurate model (Tein, Cox, & Cham, 2013), in which

Table 2

Descriptive Statistics for PCL-R Scores for Korean and North American Samples

Score	Korean ($n = 451$)		North America[1] ($n = 5408$)	
	M	*SD*	*M*	*SD*
PCL-R Total	19.51	8.35	22.1	7.9
Factor 1	3.97	2.43	3.6	2.2
Factor 2	4.65	2.66	4.8	2.1
Factor 3	5.39	2.68	5.8	2.6
Factor 4	4.18	2.54	5.7	2.8

Note. Note. [1]Hare (2003).

lower AIC and BIC values indicate a better model fit. Adjusted BIC was also considered as the good indicator of fit index for LPA model. The entropy index is based on uncertainty in classification (Celeux & Soromenho, 1997), and also is a measure of aggregated classification uncertainty. A higher value of entropy represents a better fit, and values > 0.80 indicate that the latent classes are highly discriminable (Muthén & Muthén, 2007).

LPA revealed solutions with latent classes fit the data better than a unitary solution without latent classes (see Table 3). The AIC and BIC values revealed a five-class solution, which implies the existence of heterogeneity of the psychopathy construct measured with the PCL-R in Korean male offenders. Despite finding the five-class solution, the more parsimonious four-class solution is more consistent with the previous findings and theories when using the entire sample. Hence, we focused on the four-latent-class solution for interpretation and further analysis. Tentatively, the classes were labelled LC1, LC2, L3, and LC4, respectively. The highest average classification probability was observed for LC4 (35%), and LC1, L2, and L3 showed very similar average classification probabilities (23%, 21%, and 21%, respectively).

As expected, LC1 pooled as a single group and had the lowest total score on the PCL-R ($M = 9.15$, $SD = 3.83$). The total PCL-R score for LC1 was much lower than the average mean score of the total sample in this data. The mean PCL-R total scores for LC2 and LC3 were 19 and 7.4, respectively; however, these two classes had distinctive elevations in factors on the PCL-R. The last group, LC4, showed the highest PCL-R total mean score among the four groups ($M=28.22$) (see Table 4).

Notably, the pattern of subtype groups observed in the current study was similar to the findings reported by Hare (2016, see Figure 1). To facilitate comparison to this earlier research, the same nomenclature was used: the *prototypic psychopathy* group (L4), which had elevations in all four PCL-R factors; a *sociopathic* group (LC2), with elevations largely in the Lifestyle and Antisocial factors; a *callous-cunning* (LC3) group, with elevations primarily in the Interpersonal and Affective factors, and a *general offender* group (LC1), with low scores on all factors. While the total mean scores of PCL-R for *prototypic psychopathy* group and *general offender* group were significantly different, there was no significant difference between LC2 and LC3 in terms of the total mean scores of PCL-R.

Table 3

Model Fit of the Latent Profile Analyses (N = 451)

Number of latent Classes	Log-likelihood	No. of free parameters	BIC	Adjusted BIC	AIC	1-entropy
1	-4263.22	8	8575.34	8549.95	8542.45	0.80
2	-4079.72	13	8238.89	8197.64	8185.44	0.80
3	-4227.21	18	8164.42	8107.29	8090.41	0.75
4	-3988.31	23	8117.19	8044.20	8022.63	0.79
5	-3971.53	28	8114.19	8025.32	7999.06	0.80

Table 4

Means (Standard Deviations) of Four Factors of the PCL-R in the Four Latent Classes

	Latent Class			
PCL-R Score	LC1 (n = 110)	LC2 (n = 89)	LC3 (n = 94)	LC4 (n = 158)
PCL-R Total	9.15 (3.82)	19.03 (3.47)	17.43 (4.14)	28.22 (4.30)
Interpersonal	2.01 (1.77)	3.5 (1.97)	4.38 (2.33)	5.31 (2.16)
Affective	1.07 (1.12)	3.35 (1.07)	6.03 (1.23)	7.05 (0.98)
Lifestyle	2.98 (1.56)	6.17 (1.56)	3.21 (1.52)	7.93 (1.56)
Antisocial	2.45 (2.08)	4.71 (1.99)	2.56 (1.71)	6.00 (2.23)

Note. LC1 = Latent Class 1; LC2 = Latent Class 2; LC3 = Latent Class 3; LC4 = Latent Class 4
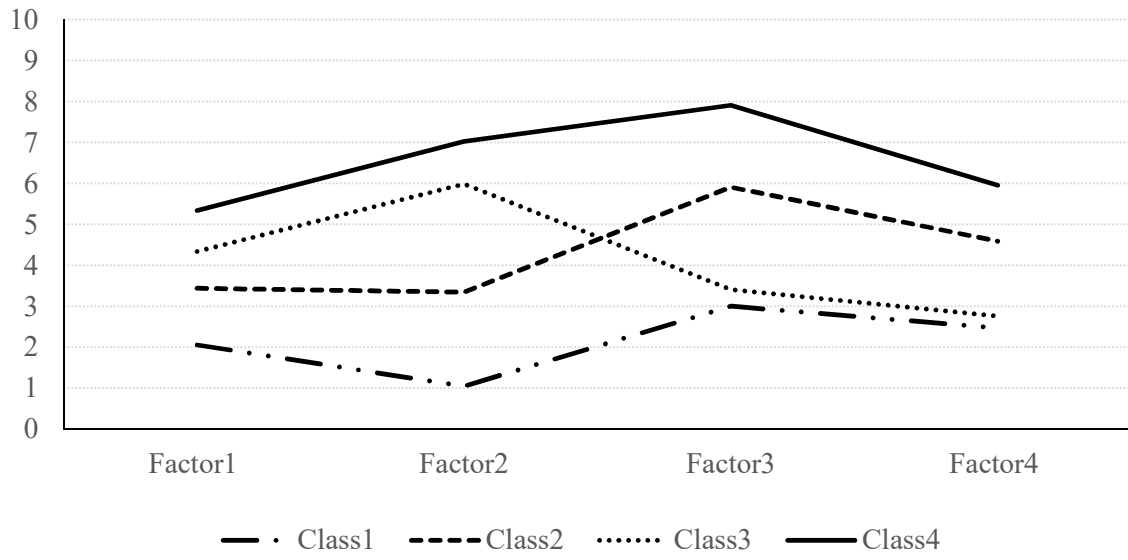
Figure 1. Mean scores of each latent class on each PCL-R factor (N = 451)

PAI and Subtypes of Psychopathy

PAI data was available for 167 offenders and were used to compare the variants of psychopathy groups with respect to psychopathology and personality pathology. We explored whether or not these four groups differ with respect to clinical scales on the PAI. See Table 5 for means, standards deviations and effect sizes for between-group comparisons.

Prior to the analyses, the Levene test for homogeneity of variance was performed to examine whether there were serious violations of the homogeneity of variance assumption across groups. Among all PAI clinical scales, only SUI ($F(3,163) = 0.02$, $p > .05$) and NON ($F(3,163) = 0.24$, $p > .05$) violated the assumption. No statistically significant violations were found in the other PAI clinical scales.

PAI Response Style Scale. Significant differences across groups were observed for the Negative Impression (NIM) scale ($F(3,163) = 2.79$, $p < .05$.). Post-hoc comparisons revealed individuals in the prototypic psychopathy group scored higher than did the other three groups on NIM scale. Significant differences across groups were also observed for the Positive Impression (PIM) scale, $F(3,163) = 2.91$, $p < .05$), with the "callous-cunning" class showed the highest scores among the four groups.

PAI Clinical Scales. Significant differences across groups were observed for the Anxiety (ANX) scale, $F(3,163) = 3.11$, $p \leq .05$. Unlike prior studies supporting that secondary psychopathy endorsed a high level of anxiety due to given affective deficits in the primary psychopathy, the current study found that individuals in the prototypic psychopathy group scored highest on this scale. One-way ANOVA revealed significant differences across subgroups for the Borderline Features (BOR) scale, $F(3,163) = 4.55$, p

$\leq$ .01, as offenders in prototypic psychopathy group scored highest on this scale

compared to other latent variant groups. Similar findings were also observed for the

Antisocial Feature (ANT; $F(3,163) = 6.61$, $p < 0.001$), Aggression (AGG; $F(3,163)=4.81$,

$p < 0.01$), and Alcohol Problems (ALC; $F(3,163) = 4.81$, $p < 0.001$), with the prototypic

psychopathy group scoring highest. However, a different pattern was observed for the

Treatment Rejection (RXR) scale. There were significant differences across groups, but

the prototypic psychopathic group scored lower than the other groups. As shown in the

table 5, the effect sizes of the differences on the PAI clinical scales between individuals

in general offender and those in the prototypic psychopathy group ranged from moderate

to large. In particular, individuals in these two groups differed significantly on the ANT

($d = -0.97$) and AGG ($d = -0.89$) scales, suggesting that individuals in prototypic

psychopathy group are more likely to engage in impulsive and aggressive behaviors than

are non-psychopathic individuals. Although individuals in both sociopathic and

prototypic psychopathy groups scored high on antisocial and lifestyle factors on the PCL-

R, the effect sizes for ANT and AGG on the PAI between these two groups ranged from,

moderate to large (ANT: $d = -0.80$, AGG: $d = -0.68$), which suggests that individuals in

the prototypic psychopathy group still exhibit higher level of and more frequent antisocial

and aggressive behaviors than sociopathic individuals do. Similarly, the effect sizes for

ANT ($d = -0.77$) and ALC ($d = -0.80$), and particularly that for AGG ($d = 1.13$) between

individuals in callous-cunning and prototypic psychopathy groups were very large,

suggesting that individuals in the callous-cunning group can be distinguished from

prototypic psychopathic offenders by their level of aggression.

Table 5

Means, Standard Deviations, and Effect Sizes for PAI Scales Across Latent Groups

PAI Scale	Latent Class (Mean and *SD*)				Effect Size and 95% Confidence Interval					
	1(n = 74)	2(n = 38)	3(n = 26)	4(n = 29)	1 vs. 2	1 vs.3	1 vs. 4	2 vs. 3	2 vs. 4	3 vs. 4
ICN	51.64 (11.07)	48.58 (13.07)	52.96 (12.33)	52.31 (9.45)	0.26 [-0.14, 0.65]	-0.12 [-0.56, 0.33]	-0.06 [-0.49, 0.37]	-0.34 [-0.84, 0.16]	-0.32 [-0.80, 0.17]	0.06 [-0.47, 0.59]
INF	49.85 (11.44)	47.16 (8.77)	51.23 (12.33)	53.69 (11.27)	0.25 [-0.14, 0.64]	-0.12 [-0.56, 0.33]	-0.34 [-0.76, 0.10]	-0.39 [-0.89, 0.12]	-0.66 [-1.14, -0.15]	-0.21 [-0.74, 0.33]
NIM[1]	51.36 (11.98)	54.36 (14.66)	50.96 (12.12)	59.07 (14.25)	-0.23 [-0.17, 0.62]	0.03 [-0.41, 0.48]	-0.61* [-1.04, -0.16]	0.25 [-0.26, 0.74]	-0.33 [-0.81, 0.16]	-0.61 [-1.14, -0.06]
PIM[1]	50.04 (10.75)	49.29 (13.03)	51.35 (13.11)	43.07 (12.27)	0.06 [-0.33, 0.46]	-0.11 [-0.56, 0.33]	0.62* [0.18, 1.05]	-0.16 [-0.65, 0.34]	0.49 [-0.01, 0.97]	0.65 [0.10, 1.19]
SOM	49.65 (10.33)	52.82 (14.42)	52.50 (13.78)	55.38 (11.14)	-0.27 [-0.66, 0.13]	-0.25 [-0.70, 0.20]	-0.54 [-0.97, -0.10]	0.02 [-0.48, 0.52]	-0.20 [-0.68, 0.29]	-0.23 [-0.76, 0.30]
ANX[1]	47.28 (8.87)	49.76 (12.51)	45.46 (11.20)	53.14 (11.02)	-0.24 [-0.63, 0.15]	0.19 [-0.26, 0.64]	-0.62 [-1.04, -0.17]	-0.62 [-1.04, 0.17]	-0.28 [-0.77, 0.21]	-0.69* [-1.23, -0.14]
ARD	48.74 (9.33)	51.84 (12.33)	50.96 (12.81)	53.03 (12.23)	-0.30 [-0.69, 0.10]	-0.21 [-0.66, 0.24]	-0.52 [-0.94, -0.07]	0.07 [-0.43, 0.57]	-0.18 [-0.66, 0.31]	-0.25 [-0.77, 0.29]
DEP	52.84 (10.48)	52.05 (13.30)	51.00 (11.88)	54.83 (11.29)	0.07 [-0.32, 0.46]	0.17 [-0.27, 0.61]	-0.19 [-0.61, 0.25]	0.08 [-0.42, 0.58]	-0.22 [-0.70, 0.27]	-0.33 [-0.86, 0.21]
MAN	48.66 (10.54)	51.47 (12.28)	49.96 (10.50)	54.45 (13.00)	-0.25 [-0.64, 0.14]	-0.12 [-0.57, 0.33]	-0.51 [-0.94, -0.07]	0.13 [-0.37, 0.63]	-0.24 [-0.72, 0.25]	-0.38 [-0.91, 0.16]
PAR	52.28 (9.41)	51.39 (10.10)	0.81 (11.01)	55.52 (9.84)	0.09 [-0.30, 0.48]	0.15 [-0.30, 0.59]	-0.34 [-0.77, 0.10]	0.06 [-0.44, 0.55]	-0.41 [-0.90, 0.08]	-0.45 [-0.98, 0.09]

Continued

SCZ	47.24 (10.69)	48.61 (13.52)	46.04 (11.61)	53.97 (14.26)	-0.12 [-0.51, 0.28]	-0.12 [-0.51, 0.28]	-0.57 [-1.00, -0.13]	0.20 [-0.30, 0.70]	-0.39 [-0.87, 0.11]	-0.61 [-1.14, -0.06]
BOR[1]	51.76 (10.68)	54.34 (11.80)	51.69 (12.87)	60.93 (13.59)	0.23 [-0.62, 0.16]	0.01 [-0.44, 0.45]	-0.79** [-1.22, -0.34]	0.22 [-0.29, 0.71]	-0.52 [-1.01, -0.02]	-0.70* [-0.15, -0.14]
ANT[1]	56.11 (9.87)	57.13 (10.85)	56.38 (13.76)	66.76 (13.36)	-0.10 [-0.49, 0.29]	-0.02 [-0.47, 0.42]	-0.97*** [-1.41, 0.51]	0.06 [-0.44, 0.56]	-0.80** [-1.29, 0.29]	-0.77** [-1.30, -0.21]
ALC[1]	56.89 (12.29)	61.97 (14.40)	55.35 (12.34)	66.76 (15.78)	-0.38 [-0.77, 0.02]	0.12 [-0.33, 0.57]	-0.72** [-1.15, -0.27]	0.49 [-0.03, 0.98]	-0.32 [-0.80, 0.17]	-0.80* [-1.34, -0.24]
DRU	53.78 (12.57)	54.76 (14.17)	53.15 (13.29)	56.62 (13.99)	0.13 [-0.26, 0.52]	0.05 [-0.40, 0.50]	-0.22 [-0.65, 0.21]	0.12 [-0.38, 0.62]	-0.13 [-0.61, 0.35]	-0.25 [-0.78, 0.28]
AGG[1]	49.46 (10.90)	52.21 (9.52)	47.27 (9.56)	59.31 (11.55)	-0.26 [-0.65, 0.13]	0.21 [-0.24, 0.65]	-0.89*** [-1.32, 0.43]	0.52 [0.00, 1.02]	-0.68* [-1.17, -0.17]	-1.13*** [-1.68, -0.54]
SUI[1]	52.04 (11.45)	51.66 (13.68)	54.81 (14.46)	59.79 (16.17)	0.03 [-0.36, 0.42]	-0.23 [-0.67, 0.23]	-0.60* [-1.03, -0.15]	-0.23 [-0.72, 0.28]	-0.55 [-1.03, -0.05]	-0.32 [-0.85, 0.21]
STR	60.70 (11.90)	57.21 (12.77)	58.62 (12.67)	62.69 (12.80)	0.29 [-0.11, 0.67]	0.17 [-0.28, 0.62]	-0.16 [-0.59, 0.27}	-0.11 [-0.61, 0.39]	-0.43 [-0.91, 0.07]	-0.32 [-0.85, 0.22]
NON	51.23 (11.76)	51.55 (14.66)	45.08 (16.91)	56.62 (11.49)	-0.02 [-0.42, 0.37]	0.46 [0.01, 0.91]	-0.46 [-0.89, -0.02]	-0.46 [-0.89, -0.02]	-0.38 [-0.86, 0.11]	-0.81* [-1.34, -0.24]
RXR[1]	44.69 (10.34)	42.89 (10.72)	44.96 (10.42)	37.76 (11.14)	0.17 [-0.2, 0.56]	-0.03 [-0.47, 0.42]	0.66* [0.21, 1.08]	-0.20 [-0.68, 0.29]	0.47 [-0.03, 0.95]	0.67 [0.11, 1.2]
DOM	52.24 (9.61)	53.42 (10.90)	54.54 (11.04)	53.03 (8.42)	-0.12 [-0.51, 0.28]	-0.23 [-0.67, 0.22]	-0.08 [-0.51, 0.35]	-0.10 [-0.60, 0.40]	0.04 [-0.44, 0.52]	0.15 [-0.38, 0.68]
WRM	54.07 (9.74)	56.79 (11.57)	58.73 (11.62)	53.79 (8.28)	-0.26 [-0.65, 0.13]	-0.45 [-0.90, 00]	0.03 [-0.40, 0.46]	-0.17 [-0.66, 0.33]	0.29 [-0.20, 0.77]	0.49 [-0.05, 1.02]

Note. [1]One-way ANOVA significant, $p \leq .05$
*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

Other Criminal Variables and Subtypes of Psychopathy

Using a four-class solution, criminal variables such as the number of prior offenses, the age of the first arrest, a prior felony, and a history of juvenile offenses and being detained in youth were compared across latent class groups. The information regarding these variables was not available for all 451 offenders; therefore, I included the sample size for each variable in the tables below.

Because the number of prior offenses and the age of the first arrest was continuous variables, between subjects one-way ANOVA was conducted to compare the mean scores of these variables among four classes. Regarding the age of the first arrest, there was a statistically significant difference across groups, $F(3,224) = 7.25$, $p < .001$. Tukey post hoc comparisons revealed that the age of the first arrest observed among individuals in the prototypic psychopathy group was earlier than those in the non-psychopathic group and callous-cunning group. There is no significant difference between the prototypic psychopathy group and sociopath group for this variable. In terms of a number of prior offenses, one-way ANOVA showed statistically significant differences across groups, $F(3, 440) = 17.14$, $p < .001$). As table 6 shows, individuals in the prototypic psychopathy groups had more prior offenses than those in the general offender group and individuals in a callous-cunning group. Similar to the age of first arrest variable, there was no statistically significant difference between individuals in the prototypic psychopathy group and those in the sociopath group.

Table 6

Means, Standard Deviations, and Effect Sizes for Age of First Arrest and Number of Prior Offenses across Latent Groups

	Latent Class Groups (*M* and *SD*)				Effect Sizes and 95% C.I.					
Variable	1	2	3	4	1vs.2	1vs.3	1vs.4	2vs.3	2vs.4	3vs.4
Age of First Arrest	27.18 (11.13)	22.51 (7.80)	27.41 (11.68)	20.69 (8.14)	0.48* [.10,.83]	-0.02 [-.43,-.39]	0.67*** [.32, 1.0]	-.52 [-.94, -.07]	.23 [-.13,.58]	.72** [.29, 1.12]
n	66	53	34	75	--	--	--	--	--	--
Number of prior offenses	4.13 (3.37)	5.57 (4.56)	3.22 (3.36)	6.94 (5.19)	-.36 [-.64, -.07]	.27 [-.02,.55]	-.67 [-.96, -.35]	.57** [.12, 1.0]	-.27 [-.58,.05]	-.81*** [-1.06,-.53]
n	10	89	91	157	--	--	--	--	--	--

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

The psychopathy subgroups were also compared with respect to several categorical criminal variables, including a history of a felony charge, juvenile offense, and being detained in youth. Chi-square test was used to analyze group differences with Cramer's V (ϕ_C) as an index of effect size. Conventions for describing the magnitude of association by Cramer's V are the following: weak association when it is 0.1, moderate association when it is 0.3, and strong association when it is 0.5 (Rea & Parker, 1997).

As shown in table 7, the percentage of individuals that had a history of felony differed by latent groups, $\chi^2(1, N = 362) = 14.91$, $p < .01$, $\phi_c = .20$. Specifically, individuals in the prototypic psychopathy group had more felony charges in the past than individuals in other groups, although the association of the history of the felony charges across latent class groups was weak.

History of juvenile offense differed by latent groups, and the association between the frequency of juvenile offense history and latent groups was moderate, $\chi^2(1, N = 240) = 22.36$, $p < .001$, $\phi_C = .31$. More than 50% of individuals in the prototypic psychopathy group reported a history of juvenile offense (see Table 8).

Similarly, the relationship between the history of being detained in youth and latent groups was significant, $\chi^2(1, N = 277) = 27.45$, $p < .001$, $\phi_C = .30$. As shown the Table 9, individuals in the prototypic psychopathy group were more likely to have a history of being detained youth than individuals in other latent groups.

Table 7

Prior Felonies across Latent Class Groups

| Prior Felony | Latent Class Groups (n and percentages) | | | | |
	Class1	Class2	Class3	Class4	Totals
Yes	16 (11.9%)	20 (23.7%)	24 (31.8%)	74 (55.6%)	134 (100%)
No	43 (18.9%)	44 (19.3%)	62 (27.2%)	79 (34.6%)	228 (100%)
Totals	59 (16.3%)	64 (17.7%)	86 (23.8%)	153 (42.3%)	362 (100%)

Table 8

Juvenile Offenses across Latent Class Groups

Juvenile Offense	Latent Class Groups (n and percentages)				
	Class1	Class2	Class3	Class4	Totals
Yes	14(11.3%)	21(20.2%)	19(28.9%)	70(53.7%)	124(100%)
No	27(19.8%)	18(18.9%)	37(31.9%	34(50.3%)	116(100%)
Totals	41 (17.1%)	39 (16.3%)	56 (23.3%)	104 (43.3%)	240 (100%)

Table 9

History of Detention in Youth across Latent Class Groups

Detention in Youth	Latent Class (*n* and percentages)				
	Class 1	Class 2	Class 3	Class 4	Totals
Yes	5 (8.6%)	8 (13.8%)	5 (8.6%)	40 (69%)	58 (100%)
No	41 (18.7%)	36 (16.4%)	64 (29.2%)	78 (35.6%)	219 (100%)
Total	46 (16.6%)	44 (15.9%)	69 (24.9%)	118 (42.6%)	277 (100%)

Criminal Offenses across Variants of Psychopathy

Given index offense variables, I sought to explore if certain individuals across a variants of groups would be more likely to commit certain types of offenses. The types of index charges included sex offense, murder, assault, theft, robbery, substance use, and others. Among 451 index offense variables, only 6 were missing for the data analysis. Because each index charge was a categorical variable, Chi-square test was used to analyze group differences with Cramer's V (ϕ_C) as an index of effect size.

As shown in table 10, the types of index offenses committed by Korean male offenders differed by latent groups. The percentage of individuals who committed murder differed by latent groups, $\chi^2(3, N = 445) = 8.863, p < .05, \phi_c = .141$, although the association of the number of murder charges across latent class groups was weak. Interestingly, individuals in the general offender (219%) and callous-cunning group (21.3%) were more charged with murder than those in sociopathic (12.5%) and prototypic psychopathic group (10.13%). Although the majority of offenders (44.8%) in this study were charged with sex offenses, the percentage of individuals who committed sex offenses differed by latent groups with a moderate association, $\chi^2(3, N = 445) = 26.147, p < .001, \phi_c = .242$. Compared to individuals in the general offender groups (23.8%), individuals in sociopathic (45.5%), callous-cunning (51.1%), and prototypic psychopathy (54.4%) groups were more charged with sex offenses. Unlike sex offenses, individuals in the general offender group were more likely to be charged with theft, $\chi^2(3, N = 445) = 8.612, p < .05, \phi_c = .139.$, even though the association of the number of theft charges across latent class groups was weak Similarly, individuals in the general offender group were more likely charged with fraud, $\chi^2(3, N = 445) = 24.947, p < .001, \phi_c = .237$

when compared other psychopathy groups while the association the number of fraud charges across latent class groups was moderate. In terms of other miscellaneous crimes (i.e., violation of probation, driving while license suspended, arson, causing a disturbance), the general offenders were more likely charged with these crimes than those in other variants of psychopathy groups, $\chi^2(6, N = 446) = 16.754, p < .05, \varphi_c = .136$. There was no statistically significant difference in terms of the number of assault, robbery, and substance-related crimes across latent class groups.

Table 10

Criminal Offenses across Latent Class Groups, N = 445

Offense Types	Latent Class Groups (n and percentiles)							
	Class1		Class2		Class3		Class4	
	Yes	No	Yes	No	Yes	No	Yes	No
Murder	22(21%)	83(79%)	11(12.5%)	77(87.5%)	20(21.3%)	74(78.7%)	16(10.1%)	142(89.9%)
Assault	10(9.5%)	95(90.5%)	10(11.4%)	78(88.6%)	14(14.9%)	80(85.1%)	18(11.4%)	140(88.6%)
Sex Offense	25(23.8%)	80(76.2%)	40(45.5%)	48(54.5%)	48(51.1%)	46(48.9%)	86(54.4%)	72(45.6%)
Robbery	8(7.6%)	97(92.4%)	8(9.1%)	80(90.9%)	4(4.3%)	90(95.7%)	12(7.6%)	146(92.4%)
Theft	13(12.4%)	92(87.6%)	9(10.2%)	79(89.8%)	2(2.1%)	92(97.9%)	10(6.3%)	148(93.7%)
Fraud	17(16.2%)	88(83.8%)	8(9.1%)	80(90.9%)	1(1.1%)	93(98.9%)	4(2.5%)	154(97.5%)
Substance Use	2(1.9%)	103(98.1%)	2(2.3%)	86(97.7%)	2(2.1%)	92(97.9%)	6(3.8%)	152(96.2%)
Other	8(7.3%)	98(89.1%)	0(0%)	88(98.9%)	3(3.2%)	91(96.8%)	6(3.8%)	152(96.2%)

CHAPTER IV

Discussion

The construct of psychopathy is considered a dimensional construct underpinned by four correlated factors: interpersonal, affective, lifestyle, and antisocial. Historically, psychopathic populations are divided into primary and secondary subtypes, and the existing literature has supported the crucial differences between these two groups in terms of personality and etiology. However, as structural modeling and latent profile analysis is widely used in psychopathy studies, more diverse latent class groups in psychopathy have been identified. For example, when using PCL-R four factors as indicators to determine the optimal number of subtypes, the four-class solution was often identified across different offender samples. While recent research is supporting the variants of psychopathy, most of these studies are exclusively drawn from North American and Western European male offenders. Thus, it is unclear how these findings would generalize to other ethnicities or cultures (Sullivan & Kosson, 2006).

This study sought to determine how the variants of psychopathy found in North American and Western European male offenders can be generalized to other ethnicities or cultures. To explore the generalizability of variants of psychopathy, 451 Korean male offenders were included in this study. Specifically, given previous studies' support for the four-factor model for LPA, the four-factor model was used in this study to identify different patterns in the latent class groups.

Hypothesis one, whether these empirically-derived subtypes of psychopathy could be identified in Korean male offenders, was supported. Results revealed four distinctive classes. Specifically, individuals in the LC1 (*general offender*) group class scored lowest

across four factors while individuals in LC4 (*prototypic psychopathy*) endorsed highest

scores across all four factors of the PCL-R. These two groups are significantly distinct

from each other in terms of both total and factor scores of the PCL-R. Yet, individuals in

LC2 (*sociopathic*) showed elevations largely in the lifestyle and antisocial factors

whereas individuals in the LC3 (*callous-cunning)* groups exhibited elevations primarily

on the interpersonal and affective factors. The similarity of the PCL-R total scores

observed for the sociopathic group and callous-cunning group indicated that individuals

in these groups may be difficult to be discriminated without specific information about

the patterns in their factor scores.

This finding implies the strong replicability of a four-class solution across

different cultures and ethnicities, especially when using the entire sample of offenders.

Given different endorsement on each factor, it could be assumed that individuals in each

latent group may display different psychopathology or criminal behaviors, which implies

that clinicians should consider different types of risk and treatment approaches pertaining

to an individual case with a specific factor profile on the PCL-R. Further, the finding also

suggests that depending solely on the total score of the PCL-R would provide a

misleading indicator of the risk of violence and treatment options in legal and clinical

settings.

Hypothesis Two, which examined differences across psychopathy subgroups with

respect to psychopathology and personality pathology, was only partially supported.

There were significant mean differences on PAI scales across groups. Unlike previous

studies supporting a correlation between the anxiety and secondary psychopathy, the

current study found that the individuals in the prototypic psychopathy group endorsed

highest scores on ANT compared with the other three groups, although their endorsements were not clinically significant. Further, regarding other clinical scales on PAI, individuals from the prototypic psychopathy group are distinctive from those in other three groups, particularly non-psychopathic offenders, in that prototypic psychopaths tend to exhibit more unstable emotionality, aggression, antisocial behaviors, and alcohol use. Some of their endorsement on PAI clinical scales were not high enough to indicate clinical disorders; however, the findings in the current study suggested that individuals from the prototypic psychopathy group still showed the highest levels of psychopathology. In addition, there was a meaningful difference between individuals in the sociopathic group and those in the callous-cunning group, as sociopathic individuals scored higher on ANT and AGG on the PAI than did callous-cunning individuals, even though these scores were not clinically significant.

These findings were somewhat different from previous studies regarding subtypes of psychopathy. For example, Skeem et al. (2007) reported that the secondary psychopathic inmates manifested significantly more pathological personality traits (i.e., borderline, dependent, and avoidant) while Swagger and Kosson (2007) identified that the secondary psychopathy group showed higher levels of psychopathology, including drug dependence and a high level of anxiety. The different findings could be attributed to selection of samples since these previous studies identified subtypes of psychopathy based on extreme cases (i.e., individuals who scored higher than > 30 on PCL-R) while the entire range of PCL-R scores was represented in the current sample.

Although caution must be exercised in generalizing from this small sample to all Korean offenders, the findings in the present study still suggested a possibility of

different expression of psychopathy construct across cultures. For instance, both individuals in the sociopathic and prototypic psychopathy groups scored high on both antisocial and lifestyle factors of the PCL-R, but individuals in the prototypic psychopathy group exhibit more frequent and severe antisocial behaviors than individuals in the sociopathic group, when compared effect sizes between these two groups.

Hypothesis Three, the correlation between criminal variables and variants of psychopathy was supported. Results showed that prototypic psychopaths exhibited more behavioral problems in youth (i.e., juvenile offenses) and were involved in legal systems earlier than individuals in other latent class groups. Also, the prototypic psychopaths were more likely to be charged with a felony and have more prior offenses than individuals in other groups. However, when comparing individuals in the sociopathic group, there was no significant difference between these two groups in terms of the age of first arrest and number of prior offenses. Nevertheless, the finding showed that individuals in the prototypic group exhibit a distinctive behavioral pathway as they are more frequently involved in legal systems in youth which subsequently leads them to engage in criminal offenses in adults.

With respect to types of offenses, individuals in the prototypic psychopathy group were more likely to be charged with sex offenses compared to the other three groups (i.e., sociopathic, callous-cunning, and general offender groups), whereas individuals in the general offender group were more likely to be charged with less serious crimes, such as theft, fraud, and miscellaneous offenses. However, due to unequal sample sizes in each group, it is difficult to identify statistically significant differences regarding the types of offenses across groups.

These findings have implications for intervention and management of offenders. In the case of sex offenders, the assessment of psychopathy may be important when planning strategies to reduce violence and recidivism. Conversely, psychopathy appears less common among offenders with less severe crimes (e.g., theft, fraud) and interventions that account for psychopathy may be unnecessary in these groups.

Implications

A major concern about psychopathy studies has been a lack of cross-cultural research exploring the manifestation and expression of psychopathy in other cultures and ethnicities. This study attempted to explore the variants of psychopathy in Asians, particularly Korean male offenders. The current findings supported that the four-factor model of psychopathy can represent the dimensional nature of the construct in other cultures, especially Korean male offenders. This strong replicability of the four-class solution implies the existence of variants of psychopathy across cultures, but the expression of psychopathy traits may be captured by the four-factor model. In using the entire sample, the current study provided a clear comparison between psychopathic individuals and non-psychopathic individuals, which may be informative regarding treatment approaches. Particularly, unique endorsement on each factor across the latent class groups implies that depending solely on the total score of the PCL-R would provide a misleading indicator of risk of violence and treatment options in legal and clinical settings.

Furthermore, the results from the current study confirmed that psychopathic individuals exhibit a distinctive behavioral pathway in their earlier ages, which implies the importance of early interventions for these individuals. Relatedly, a profile of

elevation on each factor across variant groups indicated that the treatment approach should target the unique risk of psychopathy subtypes. For example, the treatment approach for sociopathic individuals with a high endorsement on lifestyle and antisocial factors should be focused on managing their externalizing behaviors and violence.

The current study highlights the possibility that the structure of psychopathy may be more complex, as psychopathic individuals may differ from one another along one or continuous traits, although psychopathic individuals differ qualitatively from non-psychopathic individuals.

Limitations

The present study had several limitations that warrant consideration. First, the study was limited by small sample size, although LPA analysis usually requires large samples. This is because the current data for this study were initially collected to examine the validity of the PCL-R in the Korean-language version. Further, although the Korean-language version PCL-R manual considered the score of 25 or above as the optimal cut-off score, there is a lack of research to support the validity of using this score. As such, the current study included the entire sample rather than using a sample of an extreme case. As previous studies (Hare, 2016; Krstic et al., 2018) have suggested, the use of the entire sample is still informative particularly because it provides a clinically meaningful psychological picture of all offenders in the samples. As results show, the findings imply qualitative information regarding how prototypical psychopaths differ from non-psychopaths.

In addition to the entire sample, the sample size of PAI scores was also small. This is because the administration of the PAI was not a part of the data collection

procedures and the access to offenders' PAI scales was restricted according to the policies of each jurisdiction and prison. Due to this limitation, only 167 offenders' PAI scale scores were available for the current study, and ultimately the sample sizes of PAI scales in each latent variable group were not equal. This is disappointing given that the current study sought to explore different patterns in the latent variable associations between the four-PCL factors and psychopathologies. Nevertheless, the findings are informative because they provide a clinically meaningful psychological picture of the prototypic psychopath that is somewhat similar or different from findings based on North American and Western European male offenders.

Suggestions for Future Research

Although the present study adds variable new information for the strong replicability of the four-class solution across diverse types of offenders in different countries, more research is needed to explore the generalizability of the construct of psychopathy across cultures. Similar studies utilizing larger samples accessed through more diverse methods and ethnicities may be useful. Especially, as the use of psychopathy instruments has been introduced to other continents outside of North America and Europe, the first and foremost step should focus on validating the relevance of psychopathy instruments across different ethnicities and cultures. For example, in a study of university students, Asian international students reported higher levels of psychopathy measured by PPI, particularly impulsive antisociality than Caucasian American students (Collier, Lilenfeld, Brenna, & Waal, 2009) while a study using MMPI scale showed that East Asians obtained the lowest mean scores on the psychopathic deviant scale on MMPI when compared with Caucasian, African American, and

Hispanics (Lynn, 2002). Due to the scarcity of cross-cultural studies of PCL-R other than North American and European males, the validity of the psychopathy instruments in other cultures is still inconclusive. Therefore, efforts for cross-cultural research to explore the generalizability of the construct of psychopathy should be continued.

Further, future studies should explore how the unique elevations on PCL-R factors across latent class groups predict recidivism. For instance, in results from Krstic et al. (2018), affective and antisocial factors showed the greatest predictive strength in accounting for violent sexual acts, while the interpersonal factor was the only unique predictor of the Paraphilic scale. Future studies using different methodologies and more diverse offenses profiles would provide more clarity for linking psychopathy subtypes with recidivism of diverse offenses.

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- Full-time, eight-month rotation in maximum security inpatient forensic evaluation
  - Conduct forensic evaluations of competency to stand trial
  - Lead/Co-lead competency restoration groups for

- patients previously found incompetent to stand trial
- Administer score and interpret psychological assessments, malingering instruments, and neuropsychological screeners to assist in treatment planning
- Lead/Co-lead behavior specific groups for sex offenders
- Conduct risk assessment for sexually violent patients

Population: Forensic and non-forensic adults, with a variety of serious mental illnesses

Supervisors: Lee David Ph.D, Maria Murguia-Demoore, Ph.D., Karyn Gust-Brey, Ph.D., Tom De Boer, PsyD., Andrea McGlynn, Ph.D., & Kristine Jackson, Ph.D.

06/2017 – 07/2018　　**Pre-Doctoral Practicum Student Clinician**
Rusk State Hospital
Rusk, Texas

- Participated in multi-disciplinary treatment team meetings, behavioral interventions, and treatment plan review for individuals with serious mental illness
- Provided group therapy, individual therapy, and co-therapy to patients adjudicated not guilty by reason of insanity (NGRI),
- Led/Co-led competency restoration groups for patients previously found incompetent to stand trial
- Administered, scored and interpreted psychological assessments, malingering instruments, and neuropsychological screeners to assist in treatment planning
- Conducted Dangerousness Risk Assessments of patients previously found not guilty by reason of insanity

Population: Forensic and non-forensic adults, with a variety of serious mental illnesses

Supervisor: Sarah Rogers, Ph.D.

08/2013 – Present　　**Assistant Forensic Evaluator**
Psychological Services Center
Sam Houston State University
Huntsville, Texas

- Conducted court-ordered forensic evaluations (e.g., adult: competency to stand trial, mental state at the time of the offense; juvenile: fitness to proceed, criminal responsibility)
- Co-authored reports for adult and juvenile forensic

evaluations to be presented at court
- Provided treatment recommendations

Population: Adult, both incarcerated and residing in the community; juveniles in a juvenile detention facility

Supervisors: Mary Alice Conroy, Ph.D., ABPP, Wendy Elliott, Ph.D., Darryl Johnson, Ph.D.

06/2016 – 06/2017	**Pre-doctoral Practicum Student**

Montgomery County Juvenile Probation Department
Conroe, Texas

- Conducted court-and probation-order psychological assessment
- Authored integrated reports of clinical findings and recommendations to assist probation department and the court in placement and probation requirement decisions

Population: Justice-involved adolescents, either detained or no probation.

Supervisor: Darryl Johnson, Ph.D.

08/2015 – 05/2016	**Pre-doctoral Practicum Student Clinician**

Psychological Services Center
Sam Houston State University
Huntsville, Texas

- Provided individual, child, and family psychotherapy using evidence-supported treatment
- Conducted comprehensive psychodiagnostic and psychoeducational evaluations
  - Administered, scored, and interpreted measures of intellectual and achievement abilities, adaptive behavior, personality, executive functioning, memory, and behavior
  - Conducted psychodiagnostic testing for the Texas Department of Assistive and Rehabilitative Services (DARS) to determine the work readiness and psychological barriers of clients
- Formulated case conceptualization and diagnoses
- Authored integrated reports documenting clinical findings and recommendations
- Provided feedback and recommendations to clients and referral agencies
- Attended and participated in group supervision/clinical case conferences

Population: Primarily low-income, rural, ethnically diverse

population of adults, adolescents, and children

Supervisors: Jorge G. Varela, Ph.D.; Adam T. Schmidt, Ph.D.; Lisa Kan, Ph.D.; Craig E. Henderson, Ph.D.; David V. Nelson, Ph.D., ABPP, Wendy Elliott, Ph.D.

05/2014 – 05/2015   **Pre-doctoral Practicum Student Clinician**
Office of Dr. Rebecca Hamlin, Clinical and Forensic Psychologist
Spring, Texas

- Provided child, and family psychotherapy using evidence-supported treatment
- Consulted with community providers and agencies to ensure client's safety and continuity of care
- Conducted compressive psychological assessments
- Authored integrated reports documenting clinical findings and recommendations
- Assisted in planning and implementing psychological aid program through national Red Cross targeting disaster relief and crisis intervention in rural areas of Texas
  - Researched and outlined existing psychological first aid programs for people involved in natural disasters
- Conducted court- and attorney-referred forensic evaluations of competency to stand trial and mental state at the time of the offense
  - Administered testing instruments during evaluations
  - integrated findings in written reports to the courts

Population: A diverse, multi-ethnic population of adults, adolescents, and children; Justice-involved adults

Supervisor: Rebecca Hamlin, Ph.D.

SUPERVISION EXPERIENCE

09/2014 – 06/2017   **Peer Supervisor**
Capstone Practicum Course
Sam Houston State University
Huntsville, Texas

- Co-facilitated individual supervision sessions with licensed clinical psychologist
- Reviewed therapy and assessment session videos with supervisees

- Reviewed and provided feedback on clinical documentation and case presentation materials for the capstone comprehensive defense presentation

Population: Junior doctoral student clinicians conducting psychotherapy and psychoeducational evaluations in a community mental health clinic. Clients were low-income, rural, culturally diverse adults and adolescents

Supervisors: Lisa Kan, Ph.D.; Craig Henderson, Ph.D.; Darryl Johnson Ph.D., Wendy Elliott, Ph.D.

PUBLICATIONS & PRESENTATIONS

PUBLICATIONS

Jeon, H., Boccaccini, M. T., Varela, J. G., Jo, E. (2017). Rater Training and Experience in Psychopathy Checklist Research Studies. *The Korean Journal of Forensic Psychology, 8*, 61-83.

Boccaccini, M. T**.**, Rufino, K**., Jeon, H.,** & Murrie, D. C. (2017). Does the predictive validity of psychopathy ratings depend on the clinical experience of the raters? *International Journal of Forensic Mental Health*, *16*, 130-138. doi.10.1080/14999013.2016.1266421

Jo, E., **Jeon, H**., & Woo, S. (2010). Developing a risk assessment tool for sex offenders; Hallym Assessment Guide for Sex Offender Risk. *Ministry of Justice, Republic of Korea, Government Depository Library*. Issue number: 11-1270000-000635-01

Jo, E., Jang, H., & **Jeon**, H. (2008). Risk Assessment of Korean male juvenile offenders, *Journal of Juvenile Protection & Rehabilitation*, *9*, 471-503.

MANUSCRIPTS IN PREPARATION

Jeon, H., & Boccaccini, M. T., Jo, E., Jang, H., & Murrie, D., C. (2017). Rater Experience and the Predictive Validity of Psychopathy Checklist: Youth Version Scores,

CONFERENCE PRESENTATIONS

Jeon, H., Lawrence, J. M., & Varela, J. G. (2017, March). *The use of interpreters in clinical and forensic settings*. Poster presented at the annual convention of the American Psychology-Law Society, Seattle, WA.

Jeon, H., Boccaccini, M. T., & Varela, J. G. (2016, October). *The field reliability of the PCL-R and implications for practice*. Paper presented at the meeting of the East Asian Association of Psychology and Law, Jeju-do, Korea.

Jeon, H., Boccaccini, M. T., **Harris, P. B**., & Murrie, D. C. (2016, March). *Evaluators' perceptions of PCL-R item Scoring difficulty and the need for supervised practice*.

Poster presented at the annual meeting of the American Psychology-Law Society, Atlanta, GA.

Jeon, H., Boccaccini, M. T., Rufino, K. A., & Jo, E., & Jang, H. (2015, March). *Do Psychopathy Checklist scores from experienced clinicians outperform those from less experienced clinicians*? Poster presented at the annual conference of the American Psychology-Law Society, San Diego, CA.

McLaughlin, J. L., Bate, B. P., Gardner, B. O., **Jeon, H.**, Varela, J. G., & Kan, L. (2015, March). *Multicultural concerns in the assessment of response style in studies including women: A study space analysis.* Poster presented at the annual conference of the American Psychology-Law Society, San Diego, CA.

Kan, L. Tomei, J. Munoz, C. G., **Jeon, H.**, Henderson, C. Dakof, G., & Liddle, H. (2014, March). *Parent-adolescent discrepancies of parental monitoring and adolescent delinquency,* Poster presented at the annual conference of the American Psychology-Law Society, New Orleans, LA

Henderson, C., Dakof, G., Rowe, C., Mena, C., **Jeon, H.,** Colbourn, S., & Liddle, H. (2014, March). *A family-based substance abuse, delinquency and HIV prevention intervention for detained adolescents*. Poster presented at the annual conference of the American Psychology-Law Society, New Orleans, LA.

Colbourn, S., Woods, C., Tomei, J., **Jeon, H.**, Manning, J., Utely, J., Henderson, C. (2014, August). *Synthetic marijuana use among a juvenile offender sample*. Poster presented at the annual meeting of the American Psychological Association, Washington, DC.

Jeon, H., Jo, E., Jang, H., Munoz, C., & Boccaccini, M. (2013, June). *The relationship between individual traits, psychopathy, and recidivism among Korean male juvenile offenders*. Poster presented at the annual meeting of the Society for the Scientific Study of Psychopathy, Washington, DC.

Jeon, H. & Jo, E. (2010, June). *The relationship between psychopathy and violent offence in Korean adolescent offenders.* Presented at the 20th Conference of the European Association of Psychology and Law, Gothenburg, Sweden

Jo, E., & **Jeon H.** (2010, June). *Predictive validity of PCL-YV for recidivism of Korean adolescent offenders*. Presented at the 20th conference of the European Association of Psychology and Law, Gothenburg, Sweden

Jeon, H., **&** Chon, W. (2009, May). *Effect of automatic stereotypes about elders on judging the victim in a rape case*. Presented at the conference of the Korean Social and Personality Association, Seoul, Korea

Jo, E., Jang H., & **Jeon, H.** (2008). *The Voir Dire of a Korean Jury Trial from the Psychological Point of View.* Presented at the conference of the Korean Psychological Association, Seoul, Korea

RESEARCH EXPERIENCE

04/2016 – Present	**Principal Investigator**
	Multicultural Issues in Forensic Psychology Laboratory
	Sam Houston State University
	Huntsville, Texas

Title: Subtypes of Psychopathy in Korean Male Offenders
- Designed a research project
- Reviewed relevant literature
- Organized and analyzed data using various statistical software

Chair: Jorge G. Varela, Ph.D.

09/2014 – Present	**Co-Investigator**
	Department of Psychology and Philosophy
	Sam Houston State University
	Huntsville, Texas

Title: The Field Reliability of the PCL-R and Implications for Practice
- Assisted with research design
- Organized and analyzed data using various statistical software
- Present research at a national conference
- Co-authored four presentations
- Authored and co-authored articles for publication
- One first-author publication, one co-author publication

Supervisor: Marcus Boccaccini, Ph.D.

11/2015 – Present	**Co-Principal Investigator**
	Multicultural Issues in Forensic Psychology Laboratory
	Sam Houston State University
	Huntsville, Texas

Title: The Use of the Interpreters in Clinical and Forensic Settings
- Created questionnaire and distributed to mental health professionals
- Reviewed relevant literatures
- Organized and analyzed data using various statistical software

Supervisor: Jorge G. Varela, Ph. D.

08/2014 – 08/2015	**Co-Investigator**

Multicultural Issues in Forensic Psychology Laboratory
Sam Houston State University
Huntsville, Texas

Title: Measuring the Level of Understanding the Concept of Plea Bargaining among Probationers
- Collected data of probationers in Walker County Texas
- Administered Wechsler Abbreviate Scale of Intelligence, Second Edition, Woodcock-Johnson III Test of Achievement, and Inventory of Legal Knowledge

Supervisor: Lisa Kan, Ph.D.

08/2013 – 03/2014   **Co-Investigator**
Multicultural Issues in Forensic Psychology Laboratory
Sam Houston State University
Huntsville, Texas

Title: Parent-Adolescent Discrepancies of Parental Monitoring and Adolescent Delinquency
- Examined the discrepancy between child self-report and parental report measures (i.e. the BASC-2) in predicting juvenile delinquency
- Aided in statistical analyses, write up, and presentation of a study regarding

Supervisor: Lisa Kan, Ph.D.

05/2011 – 12/2011   **Co-Principal Investigator**
Institute of Psychology and Law
Hallym University
Chuncheon, Korea

Title: Developing a Risk Assessment Tool for Child Molesters and Sex Offenders
- Wrote grant for Korean Ministry of Justice, Correctional Services ($15,000)
- Reviewed Literature regarding risk factors for sexual offenders
- Developed questionnaire measuring rape myths and cognitive distortions toward children
- Administered PCL-R, Static-2002, RM 2000, and Wisconsin Card Sorting Test to incarcerated sex offenders
- Aided in statistical analyses and production of a co-authored report

Supervisor: Eunkyung Jo, Ph.D

05/2010 – 12/2010   **Principal Investigator**

Institute of Psychology and Law
Hallym University
Chucheon, Korea

Title: The Predictive Accuracy of Psychopathy Checklist - Youth Version for Korean Male Offenders
- Reviewed literature regarding risk factors for juvenile offenders
- Administered PCL-YV, PAI-A, and Korean Risk Assessment Measure for Juveniles
- Scored PCL-YV based on semi-structured interview and file review
- Produced a co-authored report

Chair/Supervisor: Eunkyung Jo, Ph.D.

05/2009 – 08/2009	**Co-Investigator**

Institute of Psychology and Law
Hallym University
Chuncheon, Korea

Title: Detecting Cues to Deception Based on Scientific Content Analysis (SCAN)
- Wrote grant for Ministry of National Defense, Korea ($10,000)
- Reviewed literature and analyzed affidavits of defendants who committed crimes during military service
- Aided in statistical analyses and production of a co-authored report

Supervisor: Eunkyung Jo, Ph.D.

08/2008 – 01/2009	**Principal Investigator**

Institute of Psychology and Law
Hallym Universtiy
Chuncheon, Korea

Title: Korean Translation of the Psychopathy Checklist-Youth Version (in press)
- Translated manual of Psychopathy Checklist Youth Version in Korean
- Administered and scored measures for psychometric research

Supervisor: Eunkyung Jo, Ph.D.

06/2008 – 03/2009	**Assistant Forensic Evaluator**

Institute of Psychology and Law
Hallym University

Chucheon, Korea

Title: Examining Credibility of Child Victim's Testimonies
- Examined credibility and validity of testimonies from sexually abused children based on Criteria-Based Content Analysis (CBCA)
- Produced co-authored report for Court

Supervisor: Eunkyung Jo, Ph.D.

05/2008 – 06/2008   **Co-Investigator**
Institute of Psychology and Law
Hallym University
Chucheon, Korea

Title: Finding Risk Factors for Recidivism among Sexual Offenders
- Conducted file-reviews of sexual offenders' criminal records and analyzed data
- Produced co-authored final government research report

Supervisor: Eunkyung Jo, Ph.D.

TEACHING EXPERIENCE

09/2008 – 12/2010   **Teaching Assistant**
Hallym University
Chucheon, Korea

- Introduction of Psychology in English Spoken
- Cognitive Psychology

09/2009 – 12/2009   **Teaching Assistant**
Hallym University
Chucheon, Korea

- Psychology of Social Problems in English Spoken

PROFESSIONAL DEVELOPMENT

SEMINARS & TRAININGS

07/2017   *Motivational Interviewing Skills Training*
Joseph Mignogna, Ph.D.
Veteran Health Administration

07/2017	*Haven Training, Working with LGBTQ+ Clients* Michelle Stone, Ph. D. SHSU Haven Organization
04/2017	*Indispensable Forensic Psychology in the Age of Neuroscience* Stephen, J. Morse, Ph.D.
11/2016	*The 50th Anniversary of the Miranda Decision* Richard Rogers, Ph.D.
04/2016	*Risk-Need-Responsivity (RNR): A Stimulation Tool* Faye Taxman, Ph.D.
09/2015	*APA Hoffman Report: Implications for the Profession* Craig Henderson, Ph.D. & Lisa Kan, Ph.D.
04/2015	*Callous Unemotional Traits in Children and the Treatment of Conduct Disorder in Juvenile Settings* Paul Frick, Ph.D.
10/2014	*The Role of Forensic Psychologists in Family Law Matters and Child Custody* Michael Gottlieb, Ph.D.
01/2014	*Clinical and Conceptual Problems in the Attribution of Malingering in Forensic Evaluations.* Richard Frederick, Ph.D. ABPP
11/2013	*The Impact of DSM-5 on Psychology Practice* Jorge G. Varela, Ph.D. & Lisa Kan, Ph.D.
08/2013 - 05/2014	*Monthly Seminar on Clinical Supervision* Mary Alice Conroy, Ph. D., ABPP & Jorge G. Varela, Ph.D.
09/2013 - 05/2014	*Weekly Seminar and Reading Group on Dialectical Behavioral Therapy* Lisa Kan, Ph.D. & Darryl Johnson, Ph.D.
10/2012	*On the Ethics and Legality of Refusing to Counsel a Client whose Values a Therapist is Not Comfortable with* Philip Lyons, J.D., Ph.D.

CERTIFICATIONS

06/2017	*Cardiopulmonary Resuscitation (CPR)* Rusk State Hospital
05/2014	*Psychological First Aid* American Red Cross Houston, Texas

11/2010	*Administration and Scoring of the Psychopathy Checklist-Revised and Youth Version* Robert Hare, Ph.D.
08/2008	*Forensic Psychology Assistant* Korean Psychological Association
05/2008	*Facial Action Coding System (FACS)* Paul Ekman, Ph.D.

HONORS, AWARDS, & SCHOLARSHIPS

12/2015	*Bertha Turner and Beulah East Scholarship* American Association of University Women Huntsville, Texas Branch
04/2015	*Outstanding Student Poster Award* American Psychology-Law Society
02/2015	*Student Travel Award* American Psychology-Law Society
08/2007	Graduated *Magna Cum Laude* Deajin University, Korea
06/2007	*Overseas Expedition Program Award Scholarship* Deajin University, Korea
03/2006	*Globalization Scholarship* Deajin University, Korea
01/2005 – 12/2005	*Exchange Student Full Scholarship* Deajin University, Korea
2002 – 2006	*The Top Grade Scholarship* Department of Social Science Deajin University, Korea

SERVICE AND LEADERSHIP ACTIVITES

09/2014 – current	**Volunteer Instructor** *Seoul Baptist Church* Houston, Texas Teaching Korean language and culture to children and adolescents raised in the United States

03/2009 – 12/2010	**President, Master's Student Association** *Department of Psychology* Hallym University, Korea
08/2005 – 12/2005	**Vice President, Korean Student Association** *University of Missouri in St. Louis* St. Louis, Missouri
01/2005 – 12/2005	**Exchange student** *University of Missouri in St. Louis* St. Louis, Missouri

PROFESSIONAL AFFILIATIONS

2016 – Present	East Asian Association of Psychology and Law
2013 – Present	American Psychology-Law Society
2012 – Present	American Psychological Association
2010 – Present	Society for the Scientific Study of Psychopathy
2008 – Present	Korean Psychological Association
2008 – Present	Korean Psychology and Law Association