

# Determinants of Importation and Deprivation Models on Committed Juvenile Offenders' Violent Misconduct: A Taiwanese Perspective

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## Abstract

This study draws on theories of importation and deprivation and relies upon self-reported survey data collected in 2015 from 1,045 committed juvenile offenders in Taiwan. Results drawn from Multinomial logistic regressions indicated that among the importation factors, gang membership, volatile temper, and precommitment victimization are significantly associated with violent misconduct. In regard to deprivation factors, longer term of commitment, higher levels of commitment stress, and victimization while committed dramatically increased the levels of violent misconduct, as expected. On the positive side, ongoing support from family and good staff relations significantly reduced the probability of engaging in violent behaviors while confined.

## Keywords

institutional misconduct, importation model, deprivation model, juvenile offenders, incarcerated adaptation, family support, violent misconduct

## Introduction

Although offenders who are less than 18 years old at admission to commitment represent a minority of all inmate populations worldwide, they are becoming a growing presence in correctional institutions (Kuanliang, Sorensen, & Cunningham, 2008; Taylor, Kemper, & Kistner, 2007). Taking the Taiwanese juvenile justice system as an

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example, the Taiwan Ministry of Justice (MOJ)'s (2016) "2015 Crime Situation and Analyses-Crime Trend Reports" showed that 11,117 juvenile criminal offenses were committed by the end of 2015, representing a 23% increase since 2006. At the same time, while the juvenile offenders housed in correctional facilities (e.g., reformatory, correctional school, and detention center) account for only 3% of the country's inmate population, the number of committed juvenile offenders has increased by 22% over the course of the past decade. Moreover, the juvenile delinquency rate in 2015 was 657 persons per 100,000 population, representing an increase of 44% since 2006 when the rate was 455 persons per 100,000 population. On any given day, approximately 1,500 juvenile offenders are being housed in correctional facilities (including in detention houses and drug abuser treatment centers).

In addition, the incidence of institutional misconduct by juveniles has also gone up from 355 in 2011 to 449 in 2015, an increase of 26% (Agency of Corrections [AOC], 2016). In recent years two violent incidents occurred in Taiwanese juvenile correctional facilities that attracted much attention on the part of scholars and practitioners alike. One incident involved a mass riot with 28 juveniles involved; the riot occurred in a juvenile correctional school and resulted in a 13-year-old committed juvenile and several duty guards being seriously injured (*Liberty Times Net*, 2013a). The other incident entailed four committed juvenile inmates in a reformatory repeatedly forcing a mildly retarded juvenile to provide sexual services, such as masturbation and oral sex over a substantial amount of time (*Liberty Times Net*, 2013b). Given the public interest in juvenile corrections management and the rising number of institutional misconduct cases among juvenile offenders in Taiwan, it is indeed worthwhile to carry out research among this rapidly growing offender population to address the problems which have been documented.

The current research adds to the literature in three noteworthy ways. First, while most previous studies were conducted in Western societies featuring male adult inmates, this study made use of a juvenile sample derived from a complete census of 1,045 adjudicated juvenile offenders. This represents the largest such survey ever done on juvenile offenders in Taiwanese society. Second, this study not only investigated the factors on institutional misconduct but also specifically focused on the impact on violent misconduct. This focus reflects the reasonable supposition that violent behaviors likely represent clear indications of maladjustment to "prisonization" (McShane & Williams, 1989; Zamble & Porporino, 1988). Third, we have applied findings from the existing literature and commonly used theoretical models to an Asian sample to draw a direct comparison to the large body of Western research. In this regard, two competing theories (*deprivation vs. importation*) have been offered to explain inmate misconduct in prison environments; these theories are introduced here, and then examined empirically. Of note, the multinomial logistic regression was employed appropriately in this study given the need to investigate the multiple factors related to violent and nonviolent misconduct among committed juvenile offenders in Taiwan.

## Literature Review

### *Taiwanese Juvenile Justice and Corrections*

Taiwanese juvenile justice was largely overlooked by researchers until the 1960s. Juvenile justice was widely regarded simply as one minor subsystem of adult prosecution and corrections processes within the broader criminal justice system. At the beginning of the 1960s, however, the Taiwan MOJ decided that the concept of “*Parens Patriae*” derived from the legal systems of Western societies represented the mainstream trend in the world and that Taiwan too should take major steps to make certain that juvenile justice was institutionally and operationally separated from the adult adjudication and commitment elements of the criminal justice system of Taiwan.

The MOJ started to regulate juvenile law and rules associated with it, and the first version of *Juvenile Accident Act* was enacted in 1962. The key features of the principal statute in this area included employment of the *client-centered approach*, the creation of *juvenile courts*, the advent of *juvenile probation officers*, the creation of a *juvenile probation system*, and the creation of juvenile reformatories. As a result, during the 1970s and on through the 1990s significant new systems were established to reflect the rehabilitative and restorative purposes of the Juvenile Accident Act. Juvenile courts were established in Taipei, Taichung, and Kaohsiung in 1970; juvenile probation officers were recruited and trained to play their critical role shortly thereafter, and in 1971 juvenile probation officers were available to help public agencies and community-based groups provide services for juvenile delinquents after their sentencing. Likewise, the jurisdiction of juvenile justice was separated from the criminal justice system due to “professionalism concerns” in 1980 (Hsu, 2009). Specifically, three Reformatories were established in Taoyuan, Changhua, and Kaohsiung counties in 1981.

Given the fact that the number of juvenile delinquents in the system was pretty high in the 1980s, the few scholars and practitioners conducting studies on juvenile justice in Taiwan generally reported that the philosophy of severe punishment dominated juvenile justice practices. A second wave of juvenile justice reform took place in the 1990s. In 1997, the current *Juvenile Accident Act* was enacted into law by the Legislative Yuan (Huang & Lai, 2015). Some specific features of the second wave of juvenile justice reform can be highlighted. The principal declared purpose of this law is to maximize the likelihood of sound growth of at-risk juveniles, to promote their adjustment to their home area environment, and to rectify their personal character. Reflecting the thinking underlying *Labeling Theory*, the criminal records (including police records) are to be totally destroyed after adjudicated juveniles offenders exit the juvenile justice system. Another major area of reform involved recruiting psychological assessment staff and psychological counselors to assist judges and probation officers doing pretrial investigations. Juvenile diversion programs as alternatives to commitment were created and designed to reflect the findings of psychological tests, health status diagnoses, and counseling service evaluations. Another element of juvenile justice reform involved expanding community corrections to permit the transfer of court-involved juvenile delinquents to community services, welfare benefit

programs, and/or cultivation institutes, private drug abuser centers, and government-regulated halfway houses (Hsu, 2009).

In terms of juvenile institutional reforms, the second wave of reform resulted in the abolition of a juvenile prison, and the establishment of juvenile correctional *schools* in which adjudicated juvenile delinquents were required to attain remedial education and take part in vocational training courses. In due course, two new juvenile correctional schools emphasizing a combination of specific forms of foundational education and vocational training, done in concert with counseling services; these new schools were established in 1999. The dual system of reformed juvenile correctional facilities (reformatory and correctional school) became operational in 1999 (Huang, Jou, & Lai, 2005). Taoyuan, Changhwa, and Chengjheng house juvenile delinquents with minor offenses as specified in the *Juvenile Accident Act*, whereas the Mingyoung facility receives those adjudicated juveniles who violate the *Criminal Code* with more serious and violent offenses (Huang & Lai, 2015).

### *Theoretical Framework*

Scholars have endeavored to identify the factors associated with variations in inmate behavior within a confinement environment. In this regard, two classical models stand out: the *deprivation* and the *importation* models (Thomas, 1977). Proposed by Sykes (1958), the *deprivation model* was the first theory used seeking to explain how inmates tend to channel their adaptive behaviors in a “total institution” setting (Goffman, 1961). According to Sykes, the “pains of imprisonment” inherent in the prison environment are many—including such conditions as deprivation of liberty, limited goods and services available, development of unconventional heterosexual relationships, loss of autonomy, and ongoing insecurity all combine to shape inmate behavior within prison society. More precisely, the multiple “pains of imprisonment” create high levels of stress and frustration for inmates, which in turn may lead to violent misconduct by inmates engaged in an effort to adapt to prison life through the use or threat of use of force (Innes, 1997; Tasca, Griff, & Rodriguez, 2010).

At the same time, Sykes noted that inmate interactions and relations likewise lead to some forms of “inmate solidarity” which can act to reduce the level of “pains of imprisonment.” Succeeding researchers have added social deprivation factors to the mix of dynamics at play in total institutions and have argued that supportive interactions with others in the same confined institution serve to decrease the levels of stress and anxiety present and can reduce the amount of misconduct taking place (Biggam & Powers, 1997; Cesaroni & Peterson-Badali, 2010). The overall argument made by the advocates of the deprivation approach holds that inmates’ behaviors, including assault and other forms of violent misconduct, are influenced and determined primarily by prison-specific factors; inmate personal characteristics are not the major cause of misconduct (Huebner, 2003; Jiang & Fisher-Giorlando, 2002; Lahm, 2008). In the case of violent behaviors in particular, these forms of behavior would be reduced if inmates received higher levels of support from social interactions both within the institution and from the outside (Van der Laan & Eichelsheim, 2013).

The *importation model*, on the other hand, challenges the reasoning underlying the deprivation model. Developed during the 1960s, the advocates of this theory argue that predictors of crime for society in general are also predictors of institutional misconduct, specifically with respect to violent misconduct in prisons (Gover, MacKenzie, & Armstrong, 2000; Tasca et al., 2010). Irwin and Cressey (1962), for example, argued that the prison is not a truly closed system and reasoned further that preincarceration social experiences influence inmates' lives and behaviors far more than does the prison environment. Importation model advocates believe that institutional maladaptation, specifically when manifested by violence, is a direct response from inmates whose lives are characterized by dysfunction, criminal history, and resort to violence prior to incarceration (Gover et al., 2000; Poole & Regoli, 1983). Specifically, those who were a gang member before prison or came from lower class economic levels bring their own subcultural values, including those related to violent behaviors, into the prison setting (DeLisi, Trulson, Marquart, Drury, & Kosloski, 2011; Tasca et al., 2010; Trulson, 2007). Consequently, inmate violent misconduct is best understood as a direct continuation of his or her preincarceration family socialization and criminal career experiences (Huebner, 2003; Jiang & Fisher-Giorlando, 2002; Lahm, 2008). As such, prison inmates "import" anti-social norms and subcultural values into institutions, and subsequently adopt violent behaviors as a means to cope with the anxieties, frustrations, and strains that inevitably arise in the prison setting (Tasca et al., 2010).

### Previous Research

The vast majority of previous work on institutional misconduct has been conducted with samples of institutionalized adults, with the exception of a mere handful of studies that have sampled committed juveniles (Tasca et al., 2010). In an effort to contribute to the existing body of knowledge on inmate misconduct, it is important to first highlight the major findings of previous studies conducted in adult correctional systems, followed by some recent research published in literature derived from studies conducted among juvenile offenders.

*Deprivation factors* that affect adaptation to commitment can be differentiated into *experiential* and *social* factors. *Commitment stress*, *time served*, and *victimization inside the institution* are widely regarded as experiential variables affecting prison subculture assimilation (DeLisi et al., 2011; Gover et al., 2000; McReynolds & Wasserman, 2008; Shields & Simourd, 1991; Tasca et al., 2010; Van der Laan & Eichelsheim, 2013). In examining the relationship between *imprisonment stress* and institutional misconduct, Chen, Lai, and Lin (2014) found that female adults who expressed higher levels of imprisonment stress (self-assessed) engaged in more misconduct. Similarly, using data on 208 males, Hochstetler and DeLisi's (2005) study showed that imprisonment stress as associated with prison offending. In regard to duration of incarceration, Innes (1997) noted that *time served in prison* influenced serious violence and simple assault behaviors based on the disciplinary records collected by the Federal Bureau of Prisons in 1993 (see also Steiner & Wooldredge, 2009). In a recent study involving 207 juvenile delinquents, Van der Laan and

Eichelsheim (2013) found that the variable of time spent in the institution increased the levels of misconduct in Netherlands. Notably, DeLisi et al. (2011), based on data from 2,520 institutionalized male juvenile delinquents, found that time served is predictive of all forms of misconduct (assault, drugs, weapons, and gang activities) except for escape/attempted escape. Finally, prior work on inmate misconduct has confirmed that *victimization in institutions* significantly affects inmate assault (Edgar & O'Donnell, 1998; Tasca et al., 2010). For example, using data on 95 male juvenile inmates committed in adult prisons, Tasca et al. (2010) found that those who have been victimized with a weapon were 6.2 times more likely to assault another inmate as compared with nonvictimized inmates. Lahm (2008) has noted correctly that assaultive conduct is often retaliatory in nature, suggesting that inmates who assault others are often prior victims themselves (Chen et al., 2014; Edgar & O'Donnell, 1998; Tasca et al., 2010).

As for positive influences at play, *supportive social interactions/relations* have been shown to enable inmates to deal with many stressful situations associated with commitment and can be stress-buffering for many inmates (Biggam & Powers, 1997; Cohen & Will, 1985; Van der Laan & Eichelsheim, 2013). These protective factors can be broken down into three distinct variables for closer study: *family support* (Chen et al., 2014), *staff relations* (Jiang & Winfree, 2006; Van der Laan & Eichelsheim, 2013), and *peers interactions* (Jiang & Winfree, 2006; Shields & Simourd, 1991). Using data collected from 883 Taiwanese female inmates, Chen et al. (2014) reported that *family support* not only significantly decreased the levels of depression symptoms but also reduced the amount of institutional misconduct. With regard to staff/inmate relationships, Biggam and Powers (1997) have argued convincingly that *the level of supportive staff relations* is negatively associated with feelings of anxiety and helplessness among juvenile detainees. Relatedly, Van der Laan and Eichelsheim (2013) found in their research that the specific variables of range of *interactions with staff*, perception of receipt of *support from staff*, and the experience of positive *peer interactions* were all negatively related to misconduct among juvenile offenders.

*Importation factors* that have been shown in prior research to correlate with institutional misconduct are *age at admission* (DeLisi, Beaver, et al., 2010; Gover et al., 2000; Kuanliang et al., 2008; McCreynolds & Wasserman, 2008; Shields & Simourd, 1991; Taylor et al., 2007; Van der Laan & Eichelsheim, 2013), *gender* (DeLisi, Beaver, et al., 2010; Shields & Simourd, 1991; Van der Laan & Eichelsheim, 2013), *educational attainment at admission* (Kuanliang et al., 2008; McCreynolds & Wasserman, 2008; Shields & Simourd, 1991), *parent's marital status* (Trulson, 2007), *family in poverty* (DeLisi et al., 2011; Trulson, 2007), *prior commitments/arrests* (Gover et al., 2000; McCreynolds & Wasserman, 2008; Van der Laan & Eichelsheim, 2013), *current offense type* (DeLisi, Beaver, et al., 2010; Kuanliang et al., 2008; McCreynolds & Wasserman, 2008; Tasca et al., 2010; Van der Laan & Eichelsheim, 2013), *gang membership* (DeLisi et al., 2011; Kuanliang et al., 2008; Tasca et al., 2010), and *victimization prior to commitment* (Chen et al., 2014; DeLisi et al., 2011).

The extant literature suggests that younger and the less well educated inmates are more likely to engage in acts of violence than are older and better educated juvenile

offenders (e.g., Kuanliang et al., 2008; Shields & Simourd, 1991; Taylor et al., 2007). As expected, male inmates are more likely to engage in misconduct than females (Gover et al., 2000; Van der Laan & Eichelsheim, 2013). Trulson (2007) noted that family background factors prior to commitment also impact juveniles' adjustment to the prison setting. Specifically, parents' divorces and family in poverty both increase the level of misconduct among committed juvenile offenders. For example, DeLisi et al. (2011) found that juveniles living in poverty prior to commitment reported more assault behaviors. Also, prior work has shown preincarceration arrests and type of current offense (specifically violent offense) to be significant predictors of inmate violence (e.g., DeLisi, Beaver, et al., 2010; Kuanliang et al., 2008; Shields & Simourd, 1991; Tasca et al., 2010).

Gang membership has been convincingly shown to be a predominant predictor of institutional misconduct. In the adult literature, Griffin and Hepburn (2006) found that gang members were more than twice as likely to commit an assault within the first 3 years of incarceration. Meanwhile, Cunningham and Sorensen (2007) also found a positive relationship between gang membership and inmate violence inside the prison setting. In their recent work, Tasca et al. (2010) indicated that juvenile inmates who reported prior street gang membership were about 3 times more likely to assault another inmate as none gang-involved youth. In regard to victimization prior to incarceration, most studies have centered on female offenders. For example, Slotboom, Kruttschnitt, Bijleveld, and Menting (2011) found that the long-lasting effect of victimization experiences in youth prior to prison led to a higher level of institutional maladjustment. Later, Chen et al. (2014) confirmed that preprison victimization experience is a significant predictor of both misconduct and depression symptoms among female offenders. Similarly, DeLisi et al. (2011) found sexual abuse prior to incarceration impacts virtually all forms of misconduct among male youth offenders.

*Low self-control* is a personality trait proposed by Gottfredson and Hirschi (1990) as important to understanding deviance in general. This concept has been used to predict institutional misconduct in recent studies of prison populations (DeLisi, Beaver, et al., 2010). A number of other researchers in addition to DeLisi and colleagues have likewise viewed self-control as a key personality construct and of central importance among importation factors to be considered in the study of prison adjustment (Gover et al., 2000; Hochstetler & DeLisi, 2005). To illustrate, DeLisi, Hochstetler, and Murphy (2003) performed a validation study of Grasmick, Tittle, Bursik, and Arneklev's (1993) measure of self-control using a combination of exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and structural equation modeling (SEM). They found that none of the six dimensions of the construct (i.e., temper, risk taking, impulsivity, physical activity, self-centeredness, and preference for simple tasks) were predictive of three common forms of prison offending: drug use, weapons possession, and fighting. Later, using data from confined delinquents in the California Youth Authority, DeLisi, Beaver, et al. (2010) found that two components of the "lower self-control scale"—namely, risk taking and temper—were predictive of violent misconduct (including assault against staff and aggressive behaviors toward other inmates) and total misconduct among male inmates (see also Gover et al., 2008).

## Current Study

In sum, the two models reflecting a *deprivation* logic arising from the nature of the correctional institutional environment and, alternatively, an *importation* logic of preincarceration experiences, both play major roles in predicting the incidence of institutional misconduct among prison inmates in Western societies. These types of preinstitutionalization and postinstitutionalization factors have dominated research on prison maladjustment in Western societies over the past five decades. This study applies these same concepts to a non-Western society in an effort to explore which types of risk factors at play best predict the incidence of violent misconduct among a sample of Taiwanese juvenile offenders. Such a comparative perspective allows us to determine what aspects of Western literature on juvenile institutional misconduct can—and cannot—be applied to Taiwanese juvenile offenders who become committed.

Accordingly, we hypothesize as follows:

**Hypothesis 1:** While the levels of imprisonment stress, time served, and the amount of victimization inside the correctional institution increased the levels of institutional misconduct, the experience of family support, staff support, and peer interactions decrease the levels of misconduct among committed juvenile offenders.

**Hypothesis 2:** The variables of younger, male, less educated, parent in a divorced status, family in poverty, having an incarceration record, having committed a violent offense, being a gang member prior to commitment, having low self-control ability, and having had a victimization experience prior to incarceration increase the levels of institutional misconduct among committed juvenile offenders.

## Method

### *Participants and Research Procedures*

Data for this study represent a portion of a nationwide project regarding committed juvenile offenders' adaptation which have been conducted during the period from August 2014 to July 2015.<sup>1</sup> In accord with the tenets of responsible scholarship, this study was approved by the Research Ethics Committee at one academic institution (National Taiwan University-REC No.201406ES018) and the Agency of Corrections' Human Subjects Review Committee in 2014. Given that a total of 1,315 committed juvenile offenders were being confined in four juvenile correctional facilities as of January 2015 (MOJ, 2015), a census was the appropriate sampling method to be employed to assure comprehensive inclusion and sufficient number of observations to permit intensive statistical analysis. After receiving permission from the AOC and authorities managing the four juvenile correctional facilities, a research team consisting of one professor and two trained graduate students traveled to each facility between January and February in 2015 to distribute questionnaires in classroom settings. The capacity in each classroom varied, ranging from 12 to 40 persons.



Prior to distributing the printed survey questionnaires to juveniles in each research setting, the purpose of this project was explained in full, the right to refuse participation was articulated, and the promise of the protection of personal information was made. Subsequently, the research team distributed self-report questionnaires containing an enclosed notice letter guaranteeing further in written form that all respondents would remain anonymous once the data collection process was completed. Juveniles agreeing to participate in this survey were informed verbally that they were free to discontinue if they felt that they were unable to complete the questionnaire, and the youth taking part were asked to not discuss the questions on the survey with the other participants in the classroom.<sup>2</sup>

At the same time, all participants were asked to take the time they needed for filling out the questionnaires, and they were further advised that the survey instruments would be collected by the research team when survey participants raised his or her hands to indicate completion. Of note, by prior agreement no correctional officials were allowed to enter or walk around the research setting while the survey was being conducted. Through this quality control safeguard process, 1,045 out of 1,315 juvenile offenders under confinement were approached to take part in the study. Those excluded from the study were newcomers housed at intake cells, disabled youth being held in medical and/or clinic cells, and those youth who were being disciplined and being confined in separate cells away from the general population. The response rate for the survey was a robust 79%.

### *Dependent Variable*

In the current study, institutional misconduct is the sole dependent variable. The scale of institutional misconduct is comprised of four items, including “violating corresponding regulations,” “possessing contraband,” “fighting with/assaulting other inmates,” and “fighting with/assaulting staff members” over the 6 months prior to the date of the survey. Each item was coded as a dichotomous variable, where 0 represented no misconduct experience and 1 presented at least once misconduct event. While “violating corresponding regulations” and “possessing contraband” have been regarded as “nonviolent” misconduct, the other two items, “fighting with/assaulting other inmates” and “fighting with/assaulting staff members,” were treated as violent misconduct. Combining the four items, a four-level variable was created to assess the levels of misconduct among these juvenile offenders, where 0 = *no misconduct* (those reported “No” to all four items capturing the variable of “institutional misconduct”), 1 = *no violent misconduct* (those reported “Yes” to violating either corresponding regulations” or “possessing contraband”), 2 = *mixed misconduct* (those reported “Yes” to violating either nonviolent or violent misconduct), and 3 = *serious violent misconduct* (those reported to “Yes” to “fighting with/assaulting other inmates” and “fighting with/assaulting staff members”). Given the categorical nature of the data, a multinomial logistic regression was the most appropriate statistical approach to be used for the analysis of predictors of juvenile offender misconduct in Taiwan juvenile institutions.

## Deprivation Variables

Six separate variables were used to capture the deprivation model, as follows: *commitment stress*, *time served in the facility*, *family support*, *staff relations*, *peer interactions*, and *victimization inside the correctional institution*. A set of three items was created to document the juvenile offender's perception of *commitment stress* featuring the following statements: (a) The crowded conditions of cells and workshops cause me stress; (b) The poor quality of the institutional environment cause me stress; and (c) Life in this facility is too regimented and busy, causing me stress. Responses for each item were recorded on a continuum ranging from 1 = *not at all* to 4 = *all the time*; the scale was calculated as the sum of scores on three items, divided by 3. A higher score indicated that the respondent perceived greater *commitment stress*. The mean score was 1.84, with an *SD* of 0.86, and the Cronbach's alpha was 0.73 with an eigenvalue of 1.18. *Time served in the facility* was a continuous variable measured by subtracting the month of the interview from the month of arrival in the facility. A five-item scale measured the respondent's *family support* while committed by responding to the following statements: (a) Family members listen to me while visiting or writing to me; (b) Family members console and encourage me while visiting or writing to me; (c) Family members do care about my life and performance in prison; (d) Family members provide some helpful and useful ideas while visiting or writing to me; and (e) Family members provide alternatives when I encounter some problems here. Responses were recorded on a continuum ranging from 1 = *never* to 4 = *very often*. The family support scale was calculated as the sum of scores on five items, divided by 5. A higher score indicated receiving family support while committed. The mean score was 3.51, with an *SD* of 0.70, and the Cronbach's alpha was a robust 0.93 with an eigenvalue of 8.36.

The variable of *staff relations* was captured by a five-item scale featuring the following statements: (a) The staff treat me reasonably and appropriately; (b) The staff treat us equally; (c) The staff treat me in accordance to a clear method to guide me; (d) The staff respond my needs quickly; (e) The staff really care about my daily life and promote hospitality here. Responses on these five items were recorded on a continuum ranging from 1 = *never* to 4 = *very often*. The staff relations scale was calculated as the sum of scores on five items, divided by 5. A higher score indicated that the respondent reported he or she experienced good relations with staff while committed. The mean score on this scale was 3.36, with an *SD* of 0.71, and the Cronbach's alpha was a robust 0.93 with an eigenvalue of 3.89.

The variable of *peer interactions* captured a juvenile offender's assessment of daily interactions with other offenders; this variable was also composed of a five-item scale featuring the following item statements: (a) Some of my peers listen to me; (b) Some of my peers console and encourage me; (c) Some of my peers provide some helpful and useful opinions; (d) Some of my peers and I take care each other; (e) I have good friendships with some of my peers here. Responses were recorded on a continuum ranging from 1 = *never* to 4 = *very often*. The peer interactions scale was calculated as the sum of scores on five items, divided by 5. A higher score indicated that the

respondent reported having good interactions with peers while committed. The mean score was 3.37, with an *SD* of 0.63, and the Cronbach's alpha was a robust 0.90 with an eigenvalue of 3.61.

Finally, *victimization inside the institution* was measured by responses made to the following statements regarding personal experience over the course of the 6 months leading up to the survey: (a) I had rumors spread about me; (b) I was made fun of/humiliated verbally; (c) I was hit or kicked by others; (d) I was extorted by others; (e) I was sexually abused/assaulted; (f) I had some personal property stolen by others; (g) I had some personal belongings borrowed by others and not returned. This variable was coded as a dichotomous variable, where 0 represented no victimization experience and 1 presented at least one victimization experience.<sup>3</sup>

### Importation Variables

Consistent with previous studies, the following 11 measures were included in the survey as importation variables: *age at interview*, *gender*, *education at admission*, *parents' marital status*, *family in poverty*, *prior commitment*, *current offense type*, *gang membership*, *volatile temper*, and *precommitment victimization*. The respondent's *age at interview* was a continuous variable measured in years. *Gender* was dichotomized, where 0 presented male and 1 presented female. In regard to *education at admission*, response categories ranged on a continuum ranging from 1 = *elementary level (including dropout)*, 2 = *junior high school level (including dropout)* to 3 = *senior high school level (including dropout)*. The nature of *current offense type* for which the juvenile offenders were sentenced to a correctional facility was coded to reflect three categories: 1 = drug offense; 2 = property and minor offense (such as violating probation regulations several times or violating court orders); and 3 = violent offense. *Current offense type* was recoded for use in the final multivariate analysis as two dummy variables, with drug offense treated as a reference group. *Parents' marital status* was measured by classification into one of three categories: 1 = married/cohabitant; 2 = separated or divorced; and 3 = widow/widower/both dead. *Family in poverty* was measured by the single item "please describe your family's economic status subjectively?" Three response categories were provided: 1 = a wealthy family; 2 = a well-off family; 3 = an impoverished family. This variable was recoded into a dichotomous variable where 0 = family not in poverty and 1 = family in poverty. *Prior commitment* was measured by a dichotomous variable, and 0 referred to no commitment experience at all and 1 referred to at least one prior commitment experience. *Gang membership* was measured as a dichotomous variable in which 0 = no and 1 = yes.

Adapted from Grasmick et al.'s (1993) low self-control scale items, a six-item scale was designed to capture a juvenile offender's *volatile temper* as judged by responses to the following six statements: (a) I lose my temper pretty easily; (b) Often, when I am angry at people I feel more like hurting them than talking to them about why I am angry; (c) When I am really angry, other people better stay away from me; (d) When I have a serious disagreement with someone, it is usually hard for me to talk calmly

about it without getting upset; (e) I often act on the spur of the moment without stopping to think; (f) If things I do upset people, it is usually their problem and not mine. Responses were recorded on a continuum ranging from 1 = *never* to 4 = *all the time*; the scale was calculated as the sum of scores on six items, divided by 6. A higher score indicated that the respondent expressed a higher level of *volatile temper*. The mean score on the scale was 2.60, with an *SD* of 0.71, and the Cronbach's alpha was a strong 0.84 with an eigenvalue of 7.30.

Finally, a six-item scale measured a juvenile inmate's *precommitment victimization* experiences, based on the following statements: (a) I have been threatened to give away valuable items to others; (b) I have received threats to my personal safety; (c) I have been beaten or assaulted by my family members (i.e., parents and/or siblings) or relatives; (d) I have been beaten or assaulted by strangers; (e) I have been sexually touched in the genitalia, sexually harassed, or raped by family members or relatives; and (f) I have been sexually touched in the genitalia, sexually harassed, or raped by strangers. This precommitment variable was coded as a dichotomous variable, where 0 represented no precommitment victimization and 1 presented at least one precommitment victimization (see Note 3).

## Results

### *Descriptive Statistics*

Table 1 presents sample characteristics for all survey participants. It is noteworthy that over four-in-ten (40.3%) survey respondents reported they had never been disciplined for misconduct, and another 44 respondents (4.2%) reported that they have only been involved in nonviolent misconduct (such as smuggling contraband, using phone or mail without authorization). In contrast, 243 (23.3%) juvenile offenders reported that they had committed at least either one nonviolent or violent misconduct (referred to as mixed misconduct). Nearly one third of respondents (32.2%), moreover, reported that they had committed at least one violent misconduct in the 6-month period prior to the survey. Notably, if someone committed both nonviolent and violent misconduct over the past 6 months prior this survey, we regard this type of misconduct as violent misconduct for the purpose of multivariate analysis. A total of 580 (55.5%) of the juvenile offenders participating in the survey fall into this classification.

The mean age of survey respondents is 17.8 years. A total of 88.8% of respondents are males. More than half (56%) of survey respondents reported that they were junior high level of educational attainment at time of admission. About 50% of the respondents reported that their parent's marital status was either separated or divorced on entry into the facility. Approximately 60% of juvenile offender survey respondents reported that their family was impoverished. Slightly more than 90% of those confined juveniles report that they have at least one precommitment experience. Involvement in drug offenses was reported by 50.4% of the survey respondents, followed in frequency by violent offense (43.3%).

Nearly a fourth of the survey respondents (23.4%) reported that they were gang-involved and over half (53.5%) reported that they had victimization experiences prior

**Table 1.** Descriptive Statistics for All Variables ( $N = 1,045$ ).

Variables	Description; frequency (%)	M	SD	Minimum	Maximum
<b>Dependent variable</b>					
Institutional misconduct	None = 421 (40.3) Nonviolent misconduct = 44 (4.2) Mixed misconduct = 243 (23.3) Violent misconduct = 337 (32.2)				
<b>Importation variables</b>					
Age at interview	In years	17.83	1.82	12.00	23.00
Gender	Male = 928 (88.8) Female = 117 (11.2)				
Educational attainment at admission	Elementary level = 28 (2.7) Junior high level = 587 (56.1) Senior high level = 460 (41.1)	2.38	0.54	1.00	3.00
Parents' marital status	Married/cohabitant = 327 (31.1) Separated/divorced = 526 (50.3) Widow/widower/both dead = 180 (17.2)				
Family at poverty	Nonpoverty = 425 (40.7) Poverty = 617 (59.0)				
Prior commitments	None = 101 (9.7) At least one = 944 (90.3)				
Current offense type	Drug crime = 527 (50.4) Property and minor crimes = 407 (38.9) Violent crime = 453 (43.3)				
Gang membership	None = 797 (76.3) Yes = 245 (23.4)				
Volatile temper	4-item scale, Cronbach's $\alpha = 0.84$	2.60	0.71	1.00	4.00
Prior victimizations	None = 470 (45.0) At least one = 559 (53.5)				
<b>Deprivation measures</b>					
Commitment stress	3-item scale, Cronbach's $\alpha = 0.73$	1.84	0.86	1.00	4.00
Time served	In months	13.19	10.30	2.00	66.00
Family support	5-item scale, Cronbach's $\alpha = 0.93$	3.51	0.70	1.00	4.00
Staff relations	5-item scale, Cronbach's $\alpha = 0.93$	3.36	0.71	1.00	4.00
Peer interactions	5-item scale, Cronbach's $\alpha = 0.90$	3.37	0.63	1.00	4.00
Victimizations in institution	None = 594 (56.8) At least one = 448 (42.9)				

to commitment. The mean of time served was 13.19 months. Finally, 42.9% of the survey respondents reported being victimized at least 1 time in the 6 months leading up to the survey. For more information about correlations between all variables, please refer to the appendix.

### *Multivariate Analysis*

The results of the multinomial logistic regression for institutional misconduct in Taiwanese juvenile correctional facilities are displayed in Table 2. The first column

**Table 2.** Multinomial Logistic Regressions for Institutional Misconduct (*N* = 1,045).

Variable	Nonviolent misconduct			Violent misconduct		
	Coefficient	SE	OR	Coefficient	SE	OR
Intercept	-.553	2.403		.411	1.087	
Importation measures						
Age at admission	-.197	.116	.821	-.083	.051	.921
Female	-.397	.576	.672	-.244	.246	.784
Educational attainment at admission	.244	.355	1.276	.071	.151	1.074
Separated/divorced	.664	.419	1.942	.218	.171	1.243
Widow/widower/both dead	.764	.528	2.146	.252	.229	1.286
Family in poverty	-.474	.355	.623	-.100	.161	.905
Prior commitments	.060	.645	1.061	.130	.261	1.138
Property and minor crimes	.500	.365	1.649	.102	.167	1.107
Violent crime	-.084	.362	.919	-.088	.160	.915
Gang membership	.345	.413	1.412	.473*	.192	1.605
Volatile temper	.634*	.252	1.885	.617***	.114	1.853
Prior victimizations	.217	.351	1.242	.405**	.154	1.499
Deprivation measures						
Commitment stress	.097	.222	1.102	.221*	.098	1.248
Time served	.015	.019	1.015	.022**	.008	1.023
Family support	-.179	.284	.836	-.351**	.128	.704
Staff relations	-.231	.261	.794	-.309**	.120	.734
Peer interactions	.034	.321	1.035	.064	.139	1.066
Victimization in institution	-.279	.420	.757	1.296***	.163	3.653
Chi-square = 247.11***, <i>df</i> = 36, Nagelkerke <i>R</i> <sup>2</sup> = .276						

Note. The omitted reference category is no misconduct group. Table entries include multinomial logistic regression coefficients, followed by standard errors, and the log odds. OR = odds ratio. Asterisks represent statistically significant difference at the following levels: \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

reports findings for all hypothesized explanatory factors regressed on nonviolent misconduct. None of the variables produced statistically significant effects on the dependent variable with the sole exception of volatile temper, a variable derived from the importation model. Those committed juvenile offenders with elevated volatile temper scores were more likely to get involved in nonviolent misconduct by a substantial margin of 89%  $\{(1.885 - 1) \times 100\}$ .

The second column reports findings for those same hypothesized explanatory factors regressed on violent misconduct among committed juvenile offenders. Among the importation model variables, gang membership, volatile temper, and prior victimization were significantly associated with violent misconduct. Also worthy of note is that five out of the six variables featured in the deprivation model demonstrate strong impacts on violent misconduct. The variables of commitment stress, time served in the facility, family support,

staff relations, and victimization in institution were all predictive of violent misconduct. While commitment stress, time served, and victimization in institutions dramatically increased the amount of violent behaviors, those juvenile offenders who received higher levels of family support and staff relations significantly reduced violent misconduct. In terms of the magnitude of impact, the strongest predictor was victimization inside the institution  $\{(3.653 - 1) \times 100\% = 265\%\}$ , followed by volatile temper  $\{(1.853 - 1) \times 100\% = 85\%\}$ , gang membership  $\{(1.605 - 1) \times 100\% = 61\%\}$ , and prior victimization  $\{(1.499 - 1) \times 100\% = 50\%\}$ .

Most worthy of note, volatile temper was the only variable that significantly predicts nonviolent and violent misconduct in this study population. The predictive statistical model was good with respect to model fit, with a chi-square = 247.11 ( $p < .001$ ) and Nagelkerke  $R^2 = .28$ . The model is able to predict approximately 28% of the variance observed on institutional misconduct.

## Conclusion

### Discussion

Relatively little is known about the institutional misconduct of juvenile offenders in correctional facilities. Although juvenile offenders may account for only a small portion of the overall inmate population, it is important to understand the predictors of misconduct among this growing population of offenders. It is particularly important to understand the factors associated with violent misconduct because successful adjustment to prison settings of any kind tends to reduce the probability of recidivism (Zamble & Porporino, 1988). Using data collected in January and February of 2015, this study investigated institutional misconduct among Taiwanese juvenile offenders and explored its significant correlates by examining factors associated with the *deprivation model* and the *importation model*.

The results reported here indicate that among the deprivation factors, consistent with prior work, imprisonment stress (Chen et al., 2014; Hochstetler & DeLisi, 2005), time served (DeLisi et al., 2011; Gover et al., 2008; McReynolds & Wasserman, 2008; Van der Laan & Eichelsheim, 2013), and victimization in institutions (Chen et al., 2014; Tasca et al., 2010) were all found to have a strong effect on violent misconduct, whereas social support from family visitations and staff members (Chen et al., 2014; Van der Laan & Eichelsheim, 2013) significantly reduced the amount of violent behaviors. At the same time, the effect of gang affiliation (Griffin & Hepburn, 2006; Kuanliang et al., 2008; Tasca et al., 2010), volatile temper (Gover et al., 2008; Hochstetler & DeLisi, 2005), and prior victimization (Chen et al., 2014; DeLisi et al., 2011; Slotboom et al., 2011) derived from importation model on violent misconduct to commitment were also confirmed in this study.

Several worthwhile observations can be made in light of the findings reported here. First, victimization experiences regardless of where they occurred, either prior to commitment or inside of correctional facilities, had lasting effects on institutional violent

offending. Tasca et al. (2010) noted juvenile inmates often experience upbringings where violence is prevalent in their homes and/or local communities. Similarly, Farrington and Welsh (2007) indicted that the juveniles who had been physically and sexually abused, particularly by family members, were more likely to become involved in subsequent antisocial behavior as well as take part in gang-related activities. As a direct result, they often come to view violence as an appropriate response to conflict of nearly any kind (Wolfgang & Ferracuti, 1967). Should they become victimized physically or sexually in prison, violence is often seen as an entirely appropriate means to handle those conflicts as usual. It is little wonder that “the equivalent group hypothesis” in the victimology literature points out that victims and offenders are much the same group, with victims having a high likelihood of criminal offense histories (Jensen & Brownfield, 1986). Similarly, consistent with the “cycle of violence hypothesis,” DeLisi, Drury, et al. (2010) have argued that juvenile offender inmates with greater lifetime exposure to a violent subculture such as being in danger of rape or actual rape victimization prior to prison were more noncompliant when they ended up behind bars.

Second, supportive social interactions such as active family support and nurturing staff relations showed a negative association with violent misconduct. As Goffman (1961) noted, those incarcerated are highly likely to face severe stress, ongoing anxiety, and a high degree of frustration. Family support and interactions really matter to reduce these fears and concerns, and in the process reduce the level of maladaptation to the prison setting (Biggam & Powers, 1997; Van de Laan & Eichelsheim, 2013). This is especially the case during the earlier stages of incarceration. In addition, Goodstein, MacKenzie, and Shotland (1984) have noted that inmates’ social interactions in daily life offer some opportunities for personal control. Moreover, positive experienced interactions with staff, including support, offer opportunities for inmates to moderate imprisonment-related stress.

Third, derived from the concept of low self-control, volatile temper was shown to be a significant indicator on both nonviolent and violent misconduct. This finding is consistent with Gover et al.’s (2000) findings and suggests that male juvenile inmates who commit infractions tend to be characterized as having a “hot temper” easily aroused by small frustrations and engaging in behaviors that are impulsive and risky (i.e., infractions). As Gottfredson and Hirschi (1990) have argued, “people who do not develop strong self-control are more likely to commit criminal acts, whatever the other dimensions of their personality (p. 111).” Clearly, their prediction of deviance in social settings pertains to imprisonment settings (DeList, Beaver, et al., 2010). Furthermore, “since there is considerable tendency of these traits to come together in the same people, and since the traits tend to persist through life, it seems reasonable to consider them useful in the explanation of crime” (pp. 90-91). Overall, the findings partially confirmed Gottfredson and Hirschi’s argument that once established in one’s personality, low self-control is highly resistant to being altered—even if individuals experience fortuitous changes on their life circumstances or the planned interventions of the criminal justice system.



Finally, although some family background variables such as parent's marital status and family economic status were significantly related to juveniles coming into contact with delinquent subcultures in the first place, their effects were far less pronounced for the prediction of institutional misconduct (DeLisi et al., 2011). Some findings reported here were unexpected. For example, peer interactions should be negatively related to violent offending, but this variable failed to show such a beneficial effect. On average, the juvenile offenders surveyed in this study were young, and most failed to distinguish between peers who are supportive for them and peers whom they fear and/or distrust. Likewise, violent offense has been shown to be a significant predictor in much prior work done in Western societies, but this variable is not predictive of misconduct among this study population in Taiwan. We speculate that due to a policy of maximal diversion of juvenile offenders away from commitment derived from labeling theory, the Taiwanese juvenile courts are reluctant to sweep too many juveniles into confinement. As a result, those who are locked up in facilities tend to be recidivists, chronic offenders, or more serious violent offenders (Huang & Lai, 2015). For example, violent offenders account for 43% of all committed juvenile offenders; this is a higher rate than that of 22% in adult prisons in Taiwan (MOJ, 2013).

### *Policy Implications*

With regard to practice, three specific implications for corrections practice can be offered. First, the two variables of gang involvement and volatile temper increase juvenile offenders' incidence of violent misconduct when committed. It seems wise to suggest that rapid arousal tendencies and gang-related backgrounds should be carefully assessed at intake; high-risk inmates should be identified as early in their confinement, and specific anger management and gang resistance treatments should be offered accordingly. At the same time, those who present with a personal history of physical and sexual victimization experiences, and those who are clinically assessed and found to have psychological dysfunction prior to commitment should be re-diagnosed and provided with appropriate medical services (and medication) during their period of confinement. Individual and group therapies are both warranted, depending on the nature of the risk of misconduct. In fact, many juvenile offenders who come from poor economic background have some physical and mental problems at play in their lives before entering correctional facilities. The correctional authorities are obligated to provide professional health care and services in an effort to rehabilitate juvenile offenders.

Second, multiple channels should be established and maintained in order for juveniles housed in facilities to preserve their family ties to the greatest extent possible. Correctional administrators should encourage family members to be a substantial supportive force on a continuous basis. For example, regular visits by family members

must be encouraged and facilitated, with all parties being made to feel welcome. In addition, a well-developed telephone access policy, conjugal visiting program, and furloughs granted on good behavior should be expanded from adults to juvenile offenders. Moreover, staff members working with juveniles in facilities should be required to have training on best practices for facilitating family visits. As for institutional programs, education on positive coping strategies, provision for physical education, and enhanced vocational opportunities are key elements in rehabilitative treatment; they also serve to ease the tensions between staff and inmates, and among juvenile offender inmates.

Third, Bowker (1980) pointed to five factors that tend to contribute to prison violence in the United States, one of which is inadequate supervision by staff members. Similarly, DiIulio (1987) concluded that inadequate or poor management are the key points leading to inmate violent misconduct. It is likely that this same situation exists in Taiwan's juvenile justice institutions. Taiwan's correctional authorities likely need to find ways to improve inadequate supervision and/or poor management. For example, administrators can install more closed circuit televisions (CCTVs) which help correctional officers to put "blind spots" under surveillance. It is a hope here that correctional facility managers can do a good deal to create a safer commitment, placing more restraints on aggressive juveniles and more effectively protects those who are compliant inmates.

### *Limitations*

As with any other research in corrections, some limitations exist in this study which should be addressed. First, although institutional/structural level characteristics (e.g., facility type, the security level, level of program participation, etc.) are important potential predictors (Gover et al., 2000), this study did not include those variables in this analysis. Similarly, a multilevel analysis including aggregate-level variables (e.g., overcrowding rate; staff/inmate ratio) to strengthen the explanatory power of the predictive model should be undertaken in the future. Second, while the scale of "volatile temper" derived from Grasmick et al.'s (1993) "low self-control scale" was shown to be a significant predictor, this concept of "low self-control" was not fully been examined here. Third, future studies should directly examine the determinants of victimization in juvenile correctional institution among the juvenile offenders surveyed here; given the fact that juvenile bullying cases are largely ignored in this study, such research is clearly needed in future explorations of these survey data. Finally, it is likewise important that future research continue to investigate this issue via a qualitative research design to compensate for the inability of quantitative research to capture the individual-level dynamics at play for committed youth.

## Appendix

Pearson's *r* Correlation Matrix for All Variables.

	D1	D2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
D1	1																			
D2	-.234**	1																		
1	-.041	-.018	1																	
2	.016	-.055	-.115**	1																
3	.027	-.008	.356**	-.034	1															
4	.026	.044	.018	-.016	.005	1														
5	.009	.020	-.014	-.041	-.046	-.468**	1													
6	-.030	.001	.088**	-.101**	.011	.077**	.122**	1												
7	.004	.033	-.071*	.013	-.031	.013	-.017	-.014	1											
8	.042	.067*	-.218**	.058	-.045	.035	-.038	-.049	.153**	1										
9	-.016	.005	.138**	-.121**	-.018	-.024	.031	.058	-.089**	-.248**	1									
10	.007	.154**	.011	-.097**	-.026	-.005	.026	-.059	.081**	.047	.070*	1								
11	.023	.228**	.032	-.014	.013	.038	-.012	-.031	.061*	-.021	.074*	.197**	1							
12	-.013	.184**	.057	.034	.063*	.031	.019	.002	.058	.111**	.013	.085**	.138**	1						
13	-.019	.214**	.042	-.134**	.065*	.007	.002	.001	.018	-.003	.005	.123**	.227**	.080*	1					
14	-.006	.047	.418**	-.077*	-.002	.017	.051	.053	-.109**	-.107**	.208**	-.057	.026	.089**	.013	1				
15	-.007	-.096**	.053	-.015	.059	-.026	-.082**	-.141**	-.034	-.147**	.000	.027	.068*	-.112**	.000	.045	1			
16	.004	-.192**	.029	.021	.012	-.004	-.009	.024	.028	-.048	.020	-.105**	-.081**	-.045	-.340**	.018	.183**	1		
17	.014	-.111**	.118**	.116**	.030	.004	.009	-.127**	.006	-.060	-.006	.029	.030	-.062*	-.112**	.096**	.345**	.264**	1	
18	-.083**	.361**	-.103**	-.008	-.027	.066*	-.022	.177**	-.009	.085**	-.013	.144**	.127**	.159**	.248**	-.060	-.062*	-.197**	-.211**	1

Note. D1 = Nonviolent misconduct; D2 = Violent misconduct; 1 = Age; 2 = Female; 3 = Education; 4 = Separated/divorced; 5 = Widowed/widower/both dead; 6 = Family in poverty; 7 = Prior commitments; 8 = Property and minor crimes; 9 = Violent offense; 10 = Gang membership; 11 = Volatile temper; 12 = Prior victimization; 13 = Commitment stress; 14 = Time served; 15 = Family support; 16 = Staff relations; 17 = Peer interactions; 18 = Victimization in institution.

\**p* < .05. \*\**p* < .01.

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## Notes

1. This project was funded by Taiwan's Ministry of Science and Technology (MOST) in 2014 (MOST 103-2410-H-015-013-SSS). The MOST permits the university-based PIs to design their studies and report their findings AND use the data gathered to publish academic papers and books after the projects are completed. The data used in this study were one part of a large-scale MOST-funded study project.
2. In this study, we treasure each respondent's ideas and opinions, including those juveniles who have problems understanding our survey questions. When the research team came to each surveyed correctional institution setting, researchers engaged in a short discussion with classroom teachers to identify those students with limited cognitive abilities. If such students were present, one of our research assistants who had been trained to interact with students of limited cognitive capacity led those students to another classroom for individualized help. The survey process conducted in a normal classroom was adopted in this way for those disabled students. The research assistant read survey questions slowly to those students, including the response options. Their time for the survey was unlimited, and the research assistant did not leave until the last student submitted his or her questionnaire.
3. Initially, the two variables of "Previctimization" and "Victimization inside the institution" were treated as continuous variables. However, when we inspected their respective means, standard deviations and skewness, and kurtosis statistics, we found that their coefficients are very close to 0 and the skewness patterns indicated that the two variables are not normally distributed. For example, the Mean of "Previctimization" is 1.05 with a 1.25 *SD*. Moreover, the coefficient of skewness is 1.26, which is larger than 1 and suggestive of nonnormal distribution. These variables violate the assumptions of a multivariate regression analysis (Tabachnick & Fidell, 2007). As a result, the two variables were recoded into dichotomized variables in the multiple regression analysis.

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