Identifying Gender Differences in an Australian Youth Offender Population

Stephane M. Shepherd¹, Stefan Luebbers¹,² and Mairead Dolan¹,²

Abstract
The study examined gender differences in risk factors for violence in a sample of 213 male and female youths held in Youth Justice Centres in Victoria, Australia. Although violence risk factors are considered to be commensurate across gender, a growing body of international literature is categorizing gender-specific criminal trajectories. The study aimed to investigate this concept in an Australian juvenile context. Through the use of a widely validated youth violence risk assessment inventory, the prevalence of salient risk items was compared across gender. Young female offenders were found to present with higher levels of family dysfunction, peer rejection and self-injurious behavior reflecting international female offending pathways literature.

Keywords
gender, risk assessment, juvenile, violence, recidivism

Introduction
Youth offending rates are at least double those in adulthood and those who offend as youths are more likely to experience problematic criminal life trajectories (Australian Institute of Criminology [AIC], 2009; Chen, Matruglio, Weatherburn, & Hua, 2005; Richards, 2011). Longitudinal studies suggest that environmental and individual factors contribute to the initiation and maintenance of delinquent behaviors (Aisenberg & Herrenkohl, 2008; Farrington, 1995; Farrington & Loeber, 2000; C. A. Smith & Thornberry, 1995; Valois, MacDonald, Bretous, Fischer, & Drane, 2002). Thus, identifying key risk factors that are important for predicting recidivism and developing risk management and treatment strategies in youths is critical.

A body of research indicates that core risk factors for violence are commensurate across gender (Hare, 1991; Hubbard & Pratt, 2002; Moffitt, Caspi, Rutter, & Silva, 2001; Webster, 1999). However, proponents of gender-specific risk/needs literature propose that pertinent unique experiences play an important role in the development of female criminal trajectories (Blanchette & Brown, 2006; Bloom, Owen, & Covington, 2002; Chesney-Lind, 1997; Daly, 1992, 1994; Funk, 1999; Van Voorhis, Salisbury, Wright, & Bauman, 2008; Van Voorhis, Wright, Salisbury, & Bauman, 2010). Feminist theories of female criminality comprise contexts of familial and domestic abuse, characterized by victimization and dysfunctional relationships (Blum, Ireland, & Blum, 2003; Gavazzi, Yarcheck, & Chesney-Lind, 2006; Hubbard & Pratt, 2002; McCabe, Lansing, Garland, & Hough, 2002; Van Voorhis et al., 2010). The ensuing traumas are connected to truancy, substance abuse, economically motivated delinquency, mental illness, self-injurious behavior, prostitution, and further victimization (Chesney-Lind, 1997; Gavazzi et al., 2006; Logan & Blackburn, 2009; Loxley & Adams, 2009; Teplin, Abram, & McClelland, 1996; Timmons-Mitchell et al., 1997; Vincent, Grisso, Terry, & Banks, 2008; Wasserman & McReynolds, 2011). Reports indicate the high rates of mental illness among female offenders compared with their nonoffending female counterparts and male offenders (Australian Institute of Health and Welfare [AIHW], 2012a; Butler & Allnutt, 2003; Cauffman, Lexcen, Goldweber, Shulman, & Grisso, 2007; Loxley & Adams, 2009; Vincent et al., 2008). Female offenders are also more likely to report abusive histories and attempt suicide compared with male offenders (Gavazzi et al., 2006; Johnson, 2004; Kenny & Nelson, 2008). Furthermore, illicit drug use among female offenders is also found to be consistently higher than male offenders and linked to poorer outcomes (Forsythe & Adams, 2009; Loxley & Adams, 2009; McReynolds, Schwalbe, & Wasserman, 2010). Moreover, there is evidence that the base rate of psychopathy in females is much lower than in males (Cale & Lilienfeld, 2002; Nicholls, Ogloff, Brink, & Spidel, 2005; Weizmann-Henelius, Viemaro, & Eronen, 2004) and...

¹Monash University, Clifton Hill, Victoria, Australia
²Victorian Institute of Forensic Mental Health, Australia

Corresponding Author:
Stephane M. Shepherd, Centre for Forensic Behavioural Science, Monash University, 505 Hoddle Street, Clifton Hill, Victoria 3068, Australia.
Email: smshe2@student.monash.edu
there are gender differences across items (Bolt, Hare, Vitale, & Newman, 2004; Forouzan & Cooke, 2005; Strand & Belfrage, 2005). Feminist writers argue that current risk assessment instruments may overlook such pathways that could ultimately result in misclassifying female offenders (Brennan, 1998; Reisig, Holtfreret, & Morash, 2006; Taylor & Blanchette, 2009). The omission of crucial gender-specific factors for delinquency could also have repercussions for treatment strategies that require an understanding of the etiological issues that prompt female criminality.

There is a paucity of research exploring gender differences on adolescent risk inventories. Given that current official data indicate that young female contact with justice systems appear to be increasing in Australia (AIC, 2011; Holmes, 2010; Victoria Police, 2010), the United States (Puzzanchera & Adams, 2011; Puzzanchera, Adams, & Hockenberry, 2012), Canada (Kong & AuCoin, 2008), and the United Kingdom (Ministry of Justice [MOJ], 2009), there is a need to examine the utility of youth inventories across gender to ensure the relevant dynamics are identified for treatment targets and interventions.

The Structured Assessment of Violence Risk in Youth (SAVRY, see appendix), a violence risk inventory has been shown to predict violent recidivism for young females across custodial settings (Gammelgård, Koivisto, Eronen, & Kaltiala-Heino, 2008; Lodewijks, de Ruiter, & Doreleijers, 2008; Meyers & Schmidt, 2008; Penney, Lee, & Moretti, 2010; Schmidt, Campbell, & Houlding, 2011). In this study, the risk item scores of the SAVRY, which cover Historical, Social/Contextual, and Individual/Clinical factors, will be equated and paralleled across gender.

We anticipate comparable SAVRY total scores between male and female offenders though predict potential differences on domain and individual item scores pertaining to familial and social relationships, mental health, self-harm, and substance abuse in accordance with the literature on gender-specific risk factors for violence.

**Method**

**Participants**

A total of 215 male and female youth were recruited from the Youth Justice Centres in Victoria, Australia: Parkville Youth Justice Precinct (PYJP) and Malsmsbury Youth Justice Centre (MYJC). PYJP accommodates young men and women aged 10 to 17 years who have been remanded or sentenced by a Victorian court, and young women 18 to 20 years who have been sentenced by a Victorian Court. MYJC accommodates young men aged 18 to 20 years who have been sentenced by a Victorian Court. Two young people were excluded due to incomplete SAVRY data. The final total sample comprised 213 people (175 males, 38 females). This proportion of participants across gender is representative of Australian youth offender facilities where females consist on average 10% of prisoners (Richards & Lyneham, 2010). The mean age of the sample was 16.84 (SD = 1.83). Female offenders did not significantly differ on age (M = 16.39, SD = 1.93) compared with males (M = 16.94, SD = 1.80; U = 2,770.50, z = −1.636, p = .102). The index offenses of participants were Assault (36%), Robbery (17%), Burglary/Theft (17%), and Property Damage (7%). For males, the top three index offenses comprised Assault (37%), Robbery (16%), and Burglary/Theft (12%). For females, the top three were Burglary/Theft (38%), Assault (23%), and Robbery (23%). Approximately half the sample had previously been sentenced to custodial or community orders (48%) with male offenders having a similar number of total previous orders (M = 4.85, SD = 4.13) compared with female offenders (M = 3.30, SD = 2.75; U = 239.00, z = −1.038, p = .299). The ethnic breakdown of the sample included English-speaking background (48%), culturally and linguistically diverse (32%), and indigenous (20%). English-speaking background participants represented the Anglo-Saxon/Caucasian majority. Culturally and linguistically diverse participants included minorities from non-English-speaking backgrounds (e.g., Lebanese, Pacific Islander, and African). The indigenous ethnic group included participants with Australian Aboriginal and Torres Strait Islander heritage.

**Measures**

The SAVRY is a risk inventory that adopts a Structured Professional Judgment (SPJ) paradigm. It was designed to predict violent behavior in youths 12 to 18 years old (Borum, Bartel, & Forth, 2003) and comprises 24 risk markers divided into three subscales assessing Historical, Social/Contextual, and Individual domains (see appendix). The Historical domain includes static items focusing on prior behaviors and experiences. The Social/Contextual domain considers dynamic factors relating to peer relationships and community influences while the Individual domain assesses psychological patterns and behaviors (Borum et al., 2003). The subscales are summed to generate a total risk score. As there are no assigned cutoff scores, a professional arbitration called the “SAVRY risk rating” is proposed after considering all SAVRY factors. The instrument also contains six additional protective factors that have been shown to mitigate the risk of recidivism (Lodewijks, de Ruiter, & Doreleijers, 2010; Rennie & Dolan, 2010).

Interrater reliability was measured for 28 (13%; 17 females, 11 males) cases assessed independently by two trained raters. The intraclass correlations (ICCs; single measure) suggested very high concordance—SAVRY total score: ICC = .97 (α = .98), SAVRY risk rating: ICC = .97 (α = .99), Historical domain: ICC = .96 (α = .98), Social/Contextual domain: ICC = .90 (α = .95), Individual/Clinical domain: ICC = .94 (α = .97), and Protective Factors domain: ICC = .96 (α = .98)—supporting the reliability of the SAVRY in the present sample.
Procedures

The study was approved by the Victorian Department of Human Services and the Monash University Human Research Ethics Committee. Written informed consent was obtained from all participants. Consent for participants under 18 years of age fell within the “mature minor” concept as described in local Victorian legislation where mental competency is determined by the ability of an underage participant to understand or appreciate points pertaining to their partaking in and the nature of the study.

Participants were interviewed individually in a private room allocated by youth justice custodial centre staff. SAVRY coding was completed using information from interviews and youth justice file material and was conducted by master-level researchers who had completed a SAVRY training course.

Data Handling and Analysis

Data were analyzed using SPSS Version 18. Due to unequal sample sizes, group differences in mean scores on the SAVRY domains were examined using a Mann–Whitney U test. Chi-square analysis was used to examine group differences on individual SAVRY items. Item scores were dichotomized. A risk rating of “high” denoted higher risk and a rating of “medium/low” combined represented lower risk. Chapman, Desai, Falzer, and Borum (2006) had previously employed a dichotomy of “high/medium” and “low” risk. In this study, we employed a “high” separation as we believe it enabled a clearer identification of participants who strongly presented as high risk on a particular factor.

Results

Gender Differences in SAVRY Domain Scores and Overall Risk Rating

Table 1 shows the means, standard deviations, and U-test scores for male and female clients. Overall, approximately 50% of the sample was rated as high risk on the SAVRY risk rating. Both groups had high proportions of their respective totals in the high-risk rating category as shown in Figure 1. The female group had a marginally higher SAVRY total score than the males but this did not reach significance. Females had significantly higher mean scores compared with males on the Historical and Social/Contextual domains.

Gender Differences on SAVRY Individual Items

Table 2 shows the proportions across gender who received a high score on individual SAVRY items. Both genders had large proportions of high ratings on items “History of violence,” “History of nonviolent offending,” “Peer delinquency,” “Substance abuse difficulties,” and “Anger management problems.” Comparing genders, female youth were significantly more likely than male youth to score highly on items “History of self-harm/suicide attempts,”

| Table 1. Mean and Standard Deviation of SAVRY Domain Scores by Gender. |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
|                             | Male                        | Female                      | Overall                     |                             |
|                             | M (SD)                      | M (SD)                      | M (SD)                      | U                           |
| Historical domain           | 10.34 (4.09)                | 11.84 (4.08)                | 10.61 (4.12)                | U = 2,646.00, p = .048*     |
| Social/Contextual domain    | 6.71 (2.88)                 | 7.76 (2.82)                 | 6.90 (2.89)                 | U = 2,627.00, p = .042*     |
| Individual/Clinical domain  | 9.13 (3.89)                 | 9.21 (4.59)                 | 9.15 (4.01)                 | U = 3,254.00, p = .836      |
| Protective Factors domain   | 1.82 (1.90)                 | 1.42 (1.61)                 | 1.75 (1.85)                 | U = 2,994.50, p = .323      |
| SAVRY total score           | 26.19 (9.47)                | 28.82 (10.05)               | 26.66 (9.60)                | U = 2,812.50, p = .136      |

Note. SAVRY domains and total score verified using a Mann–Whitney U test. SAVRY = Structured Assessment of Violence Risk in Youth (Borum, Bartel, & Forth, 2003).

*p < .05.
“Exposure to violence in the home,” “Early caregiver disruption,” “Peer rejection,” and “Poor parental management.”

Looking at protective factors, both genders had low percentages of their cohorts reporting the presence of items “Strong social support” and “Strong commitment to school.” Male youth were significantly more likely than female youth to report “prosocial involvement.”

**Discussion**

This study examined gender differences in risk markers of violent offending using the SAVRY in a sample of Australian youth offenders in custody. Male and female youths had similar SAVRY total scores and high portions of their respective samples receiving a high-risk rating. However, there are a number of significant differences across gender at the domain and item levels.

The mean overall SAVRY score ($M = 26.66$) of this sample was higher than previous North American and European studies, which have ranged between 18 and 24 (Dolan & Rennie, 2008; Lodewijks et al., 2008; Schmidt et al., 2011; Spice, Viljoen, Gretton, & Roesch, 2010; Vincent, Chapman, & Cook, 2011; Welsh, Schmidt, McKinnon, Chattha, & Meyers, 2008). It is possible that the comparatively high-risk scores in our sample reflect jurisdictional differences in youth diversionary policies, as only the most severe cases receive a custodial sentence in Victoria, Australia (Sentencing Advisory Council [SAC], 2012). Similarly, female criminal misconduct in Australia and particularly Victoria is more likely to result in community-based penalties compared with males (AIHW, 2012b; SAC, 2012). Therefore, the females in our custodial sample may represent more high-risk female offenders than would be found in other jurisdictions and may mask gender differences in our sample. This may account for

---

**Table 2. Proportions of SAVRY Items Rated High Risk by Gender.**

| SAVRY items                                      | Male (%) | Female (%) | $\chi^2$ | Significance | $\Phi$ |
|-------------------------------------------------|----------|------------|----------|--------------|--------|
| SAVRY risk rating                                | 48.0     | 60.5       | 1.960    | .162         |        |
| History of violence                              | 76.6     | 71.1       | 0.515    | .473         |        |
| History of nonviolent offending                  | 85.1     | 86.8       | 0.072    | .788         |        |
| Early initiation of violence                     | 37.1     | 36.8       | 0.001    | .972         |        |
| Past supervision/intervention failures           | 43.4     | 44.7       | 0.022    | .883         |        |
| History of self-harm/suicide attempts            | 9.1      | 23.7       | 6.373    | .012*        | .17    |
| Exposure to violence in the home                 | 21.7     | 39.5       | 5.268    | .022*        | .16    |
| Childhood history of maltreatment                | 29.7     | 42.1       | 2.206    | .138         |        |
| Parental/caregiver criminality                   | 20.6     | 23.7       | 0.182    | .670         |        |
| Early caregiver disruption                       | 34.3     | 65.8       | 12.921   | .000***      | .25    |
| Poor school achievement                          | 58.3     | 71.1       | 2.131    | .144         |        |
| Peer delinquency                                 | 69.7     | 65.8       | 0.225    | .635         |        |
| Peer rejection                                   | 18.9     | 42.1       | 9.527    | .002**       | .21    |
| Stress and poor coping                           | 44.0     | 55.3       | 1.594    | .207         |        |
| Poor parental management                         | 49.7     | 71.1       | 5.715    | .017*        | .16    |
| Lack of personal/social support                  | 31.4     | 34.2       | 0.111    | .739         |        |
| Community disorganization                        | 33.1     | 50         | 3.844    | .050         |        |
| Negative attitudes                               | 40.0     | 34.2       | 0.440    | .507         |        |
| Risk taking/impulsivity                          | 53.7     | 47.4       | 0.504    | .478         |        |
| Substance abuse difficulties                     | 76.6     | 84.2       | 1.059    | .303         |        |
| Anger management problems                        | 58.9     | 60.5       | 0.036    | .850         |        |
| Low empathy/remorse                              | 21.7     | 18.4       | 0.203    | .652         |        |
| Attention deficit/hyperactivity difficulties      | 26.3     | 31.6       | 0.441    | .506         |        |
| Poor compliance                                  | 27.4     | 31.6       | 0.266    | .606         |        |
| Low interest/commitment to school                | 37.7     | 42.1       | 0.254    | .614         |        |
| Prosocial involvement                            | 40.0     | 13.2       | 9.860    | .002***      | .22    |
| Strong social support                            | 24.0     | 18.4       | 0.549    | .459         |        |
| Strong attachments and bonds                     | 37.1     | 28.9       | 0.914    | .339         |        |
| Positive attitude toward intervention and authority | 29.1   | 31.6       | 0.089    | .766         |        |
| Strong commitment to school                      | 18.3     | 15.8       | 0.133    | .716         |        |
| Resilient personality traits                     | 33.1     | 34.2       | 0.016    | .899         |        |

Note. SAVRY = Structured Assessment of Violence Risk in Youth.

*p < .05. **p < .01. ***p < .001.
the higher female SAVRY total scores ($M = 28.82$) found in the present study compared with total scores for institutionalized female youth found by Gammelgård et al. (2008) and Lodewijks et al. (2008) at 18 and 19, respectively.

Our study found no significant difference between female and male youth on SAVRY total scores or summary risk ratings. The findings were similar to other SAVRY studies comparing gender (Lodewijks et al., 2008; Penney et al., 2010; Schmidt et al., 2011; Welsh et al., 2008). Furthermore, studies using the Youth Level of Service/Case Management Inventory (YLS/CMI), a general adolescent risk instrument designed to address criminogenic needs (Hoge & Andrews, 2006), have found comparable total scores across gender (Jung & Rawana, 1999; Luong, 2007; Olver, Stockdale, & Wong, 2012; Schmidt et al., 2011; Schmidt, Hoge, & Gomes, 2005; Welsh et al., 2008). Conversely, male offenders have presented with significantly higher total scores and risk ratings compared with females on the SAVRY (Gammelgård et al., 2008; Gammelgård, Weizmann-Henelius, Koivisto, Eronen, & Kaltiala-Heino, 2012) and the YLS/CMI (Onifade et al., 2008). In addition, an Australian study by Thompson and McGrath (2011), albeit in another jurisdiction, found female youth involved with the New South Wales (NSW) juvenile justice system had significantly higher general recidivism risk scores compared with their male counterparts. The inconsistencies between genders on total risk scores may reflect the differences in correctional samples that originate from jurisdictional variations in justice guidelines. Alternatively, these inconsistencies raise questions about the utility of total risk scores when considering gender differences in propensity for violence and the need to consider domain or specific factors.

**Domains**

Few studies have addressed differences in domain scores across gender. This study found significant gender differences on the Historical and Social/Contextual domains of the SAVRY where females presented with higher mean scores than males. This suggests that the adverse life experiences and the current criminogenic social circumstances of the females in this sample were more severe than their male counterparts. Previous studies exploring gender differences across SAVRY domains have produced inconsistent findings. Two studies found no significant gender differences across domains (Gammelgård et al., 2008; Meyers & Schmidt, 2008), conversely one study found males had significantly higher scores than females on the Individual/Contextual domain (Penney et al., 2010). Studies looking at gender differences in the YLS/CMI domains have also had inconsistent findings with some reporting no gender differences (Jung & Rawana, 1999; Schmidt et al., 2005), though others report gender differences in at least one domain (Olver et al., 2012; Schmidt et al., 2011; Thompson & McGrath, 2011).

Looking at protective factors, the domain mean totals of the present study were in line with previous SAVRY studies (Dolan & Rennie, 2008; Lodewijks et al., 2008; Schmidt et al., 2011) and no significant domain differences were discovered across gender. The quantity of protective factors displayed appears similar across gender, though there were discrepancies in individual factor occurrence. As the literature on gender differences across domain totals is meager and inconsistent, an examination of gender differentiation on the individual items contributing to the domain scores is of more benefit.

**Individual Items**

At the individual item level, both genders had over half their respective cohorts receiving a high-risk rating on a number of items. Although a history of violent and nonviolent offending was common (>70%) in males and females, rates did not significantly differ. Previous SAVRY research has found strong correlations between the Historical domain, which contains these items, and future violent recidivism for male and female youth in custody (Dolan & Rennie, 2008; Gammelgård et al., 2008; Penney et al., 2010). In addition, studies on the YLS/CMI suggest that the “Criminal history” item predicts future recidivism across gender. Previous offending is known to be a significant predictor of future recidivism (Farrington, 1995; Farrington & Loebner, 2000; Lynch, Buckman, & Krensk, 2003; Moffitt, 1993) and appears to be a consistent risk marker across the genders. The lack of gender differences in rates of prior offending in this study may reflect data suggesting that adolescent female offending is increasing more steadily than male offending. Research suggests that increases in rates of female violence are more the result of net-widening risk management policy shifts resulting in a greater number of females being processed as offenders rather than cogent changes in female behavior (Carrington, 2006; Deakin & Spencer, 2003; Steffensmeier, Schwartz, Zhong, & Ackerman, 2005). Nonetheless, in a severe sample of chronic male and female youth offenders, it is likely that both groups would share similar problematic criminal histories.

The item “Peer delinquency” was similarly prevalent (>65%) in our cohort. This is consistent with research showing that youth gang membership is often a precursor to antisocial behavior (Battin, Hill, Abbott, Catalano, & Hawkins, 1998; Thornberry, 1998) and reports that delinquent females are frequently involved in illegal gang activity (Moore & Hagedorn, 2001). While similar levels of peer delinquency are observed, the role and influence these relationships have on offending may differ across the genders. In particular, research describes the specific influence antisocial male partners and acquaintances can have on females with respect to offending behavior (Chesney-Lind, Morash, & Stevens, 2008; Foster, Hagan, & Brooks-Gunn, 2004; Heilbrun et al.,
Gender differences were noted with females receiving higher risk ratings than males on items reflecting problematic family and peer group relationships. This is consistent with reports that a high proportion of imprisoned females lack stable and supportive families (Chesney-Lind et al., 2008; Gavazzi et al., 2006; Hubbard & Pratt, 2002; McCabe et al., 2002; Van Voorhis et al., 2010). Moreover, family factors tapping caregiver–child interaction and connectedness have been found to be a better predictor of female offending than for males (Blum et al., 2003; Farrington & Painter, 2004; Funk, 1999). Previous studies using the YLS/CMI have found that females are significantly more likely to score higher than males on the “Family” domain that addresses inadequate supervision and poor relationships with parents (Olver et al., 2012; Schmidt et al., 2011, Thompson & McGrath, 2011). As inadequate parental supervision and communication is linked with future delinquency (Capaldi & Patterson, 1996; Gavazzi et al., 2006; Loebber & Stouthamer-Loebber, 1986), family-based interventions such as multisystemic therapy may be of particular value in reducing offending behavior in females (Henggeler, Melton, & Smith, 1992; Schaeffer & Borduin, 2005), who are thought to be more adversely affected than males when family and social bonds are disrupted (Cernkovich & Giordano, 1987; Funk, 1999; Gilligan, 1982; Van Voorhis et al., 2010).

In the present study, females had significantly higher rates of peer rejection than males. Negative developmental experiences with peers have been identified as risk factors for future delinquency (Hubbard & Pratt, 2002; Kupersmidt, Coie, & Dodge, 1990; Moffitt et al., 2001). Gender-specific literature suggests that female pathways to crime often originate from abusive, chaotic, lawless homes and relationships (Blum et al., 2003; Daly, 1992, 1994; Hoyt & Scherer, 1998; Owen & Bloom, 1995; Simpson, Yahner, & Dugan, 2008). The relatively high female SAVRY total scores from our sample are likely to reflect the presence of these “pathway” items.

Witnessing violence in the home is a risk factor for future violence and aggression, particularly as youths model their behavior on the interactions and responses of their caregivers (Elliott, 1994; Herrera & McCloskey, 2001). In this study, females were significantly more likely than males to have had exposure to violence at home. Indeed, our female sample frequently reported periods of homelessness and domestic abuse from older and often delinquent partners suggesting that they are leaving dysfunctional families and entering into disharmonious relationships with partners.

Furthermore, females were significantly more likely than males to have a history of self-harm or suicide attempts. The latter finding is consistent with previous research (Indig et al., 2010; Miller, 1994; Veysey & Hamilton, 2007) and in earlier SAVRY studies (Gammelgård et al., 2008; Lodewijks et al., 2008; Penney et al., 2010). Female prisoners are reported to have suffered high rates of physical and sexual trauma (Chesney-Lind et al., 2008; Forsythe & Adams, 2009; Indig et al., 2010; Johnson, 2004; Rettinger & Andrews, 2010; Siegel & Williams, 2003; Wasserman & McReynolds, 2011), which may in turn contribute to subsequent psychiatric symptomatology (Belknap & Holsinger, 2006; Teplin, Abram, McClelland, Dulcan, & Mericle, 2001; Timmons-Mitchell et al., 1997; Tye & Mullen, 2006; Vincent et al., 2008). Self-injury in female offenders tends to be associated with high rates of psychopathology as well as an increased risk for violent recidivism (Vollm & Dolan, 2009) making this a significant treatment target for female offenders.

Substance abuse rates were high in the cohort with more than three quarters of males and females receiving a high-risk rating for this item, indicating chronic drug and alcohol use. Although there were no gender differences in rates of substance abuse, our data are consistent with other studies noting a high prevalence of substance use among youth offenders (Prichard & Payne, 2005; Sedlak & McPherson, 2010; Wei, Makkai, & McGregor, 2003). Previous studies have found higher rates of problematic substance use among female offenders (Coid et al., 2009; Forsythe & Adams, 2009; Gately, Fleming, Morris, & McGregor, 2012; Indig et al., 2010; Loxley & Adams, 2009). Female offenders have been found significantly more likely than males to score higher on the “Substance Abuse” domain using the YLS/CMI (Olver et al., 2012; Thompson & McGrath, 2011) and its adult version, the Level of Service Inventory–Revised (LSI-R; Heilbrun et al., 2008). Furthermore, Andrews et al. (2012) found the substance abuse item on the LSI-R to be a stronger predictor of recidivism for female offenders. As drug and alcohol abuse are key situational factors that inhibit rational responses and intensify violent behavior (Farrington & Loebber, 2000; Hoaken & Stewart, 2003; Morgan & McAtamney, 2009), substance abuse needs to be a key treatment target in offense reduction programs for both genders.

In this study, the prevalence of protective factors was low in both genders and this may have contributed to our high total scores given that protective factors appear to mitigate violent recidivism (Lodewijks et al., 2010; Rennie & Dolan, 2010). There were no striking gender differences on each item other than females having significantly lower levels of prosocial involvement compared with males. This finding contrasts with that of Gammelgård et al. (2012) who found higher rates of prosocial involvement among females. The findings appear to suggest that deviant social peers may have a greater influence on offending behavior in Australian female offenders and that the development of more prosocial bonds will be critical in reducing offending behavior.
Limitations
Some limitations to the study are worth noting. The female youth cohort in this study may not truly represent the majority of female offenders outside of Victoria, particularly due to the jurisdictional policy of detaining youth as a last resort, resulting in only the most severe female youths ending up in custody. Conversely, the results may generalize to the high-risk end of young female offenders. Second, the female sample size was small and comparatively lower than the male cohort. The disparity is a reflection of the predominance of male criminality and low proportion of females in the juvenile and adult justice systems in Australia. While nonparametric analyses were conducted to account for the discrepant sample sizes, this did reduce the power of resultant analyses and the size of effects that could be detected. As such, there could potentially be further differences between males and females that went undetected. Conversely, the effects that were observed in this study are likely to be larger in the population than were observed. Nevertheless, the size of the female sample was similar to previous SAVRY studies comparing gender (Lodewijks et al., 2008; Meyers & Schmidt, 2008; Schmidt et al., 2011). Last, the predictive validity of the SAVRY instrument was not conducted. The theme of the article was to identify how the prevalence and severity of risk items may differ between male and female young offenders in a particularly violent sample. As the SAVRY instrument encompasses a concert of pertinent antecedents to youth violence, it was selected primarily as a checklist for gender comparison.

Conclusion
The study contributes to extant literature on risk factors for youth violence risk, though undertaken in a unique Australian youth justice context. Gender differences on SAVRY domains and individual items were discovered. Factors including family dysfunction/breakdown, peer rejection, and self-harming behavior were found to be overrepresented among female offenders. The findings reflect the literature on gendered pathways to offending and in particular highlight cogent female-specific risk factors that may manifest through experiences of abuse and associated trauma. The findings add to the growing base of gender-specific research highlighting a common array of risk factors shared by young and adult female offenders. Multifaceted gender responsive treatment programs focusing on connectivity and emotional guidance, empowerment, repairing relationships, and specific services providing support for trauma, abuse, child care, employment opportunities, and drug dependency could provide unique holistic support in addressing key needs. Further research is required to determine the validity of the SAVRY and other widely used youth violence risk prediction instruments across gender in Australian young offender populations.

Appendix
Structured Assessment of Violence Risk in Youth (SAVRY; Borum, Bartel, & Forth, 2003).

| Historical factors                                      | Social/contextual risk factors                        |
|---------------------------------------------------------|-------------------------------------------------------|
| History of violence                                    | Peer delinquency                                      |
| History of nonviolent offending                        | Peer rejection                                         |
| Early initiation of violence                           | Stress and poor coping                                 |
| Past supervision or intervention failures               | Poor parental management                               |
| History of self-harm or suicide attempts                | Lack of personal or social support                     |
| Exposure to violence in the home                       | Community disorganization                              |
| Childhood history of maltreatment                      | Individual/clinical risk factors                       |
| Parental or caregiver criminality                      | Negative attitudes                                     |
| Early caregiver disruption                             | Risk taking/impulsivity                                |
| Poor school achievement                                | Substance use difficulties                            |
|                                                          | Low empathy/remorse                                    |
| Protective factors                                      | Attention deficit/hyperactivity difficulties            |
| Prosocial involvement                                  | Poor compliance                                        |
| Strong social support                                  | Low interest/commitment to school                      |
| Strong attachment and bonds                            |                                                        |
| Positive attitude toward intervention and authority     |                                                        |
| Strong commitment to school                            |                                                        |
| Resilient personality traits                           |                                                        |

Acknowledgment
Thanks to the Victorian Department of Human Services and participants from the Victorian Youth Justice Centres.

Declaration of Conflicting Interests
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.
**Funding**
The author(s) disclosed receipt of the following financial support for the research and/or authorship of this article: This research was supported in part by a grant from the Australian Research Council (DP1095697).

**References**
Aisenberg, E., & Herrenkohl, T. (2008). Community violence in context: Risk and resilience in children and families. *Journal of Interpersonal Violence, 23*, 296-315. doi:10.1177/0886260507312287

Andrews, D. A., Guzzo, L., Raynor, P., Rowe, R. C., Rettinger, L. J., Brews, A., & Wormith, J. S. (2012). Are the major risk/need factors predictive of both female and male reoffending? A test with the eight domains of the level of service/case management inventory. *International Journal of Offender Therapy and Comparative Criminology, 56*, 113-133. doi:10.1177/0306624X10395716

Australian Institute of Criminology. (2009). *Juvenile offenders*. Retrieved from http://www.aic.gov.au/statistics/criminaljustice/juveniles.aspx

Australian Institute of Criminology. (2011). *Selected offender profiles*. Retrieved from http://www.aic.gov.au/publications/current%20series/facts/1-20/2011/4_offender.html

Australian Institute of Health and Welfare. (2012a). *Girls and young women in the juvenile justice system 2010-11*. Available from www.aihw.gov.au

Australian Institute of Health and Welfare. (2012b). *Mental health of prison entrants*. Retrieved from http://www.aihw.gov.au/prisoner-health/mental-health/

Battin, S. R., Hill, K. G., Abbott, R. D., Catalano, R. F., & Hawkins, J. D. (1998). The contribution of gang membership to delinquency beyond delinquent friends. *Criminology, 36*, 93-115. doi:10.1111/j.1745-9125.1998.tb01241.x

Belknap, J., & Holsinger, K. (2006). The gendered nature of risk factors for delinquency. *Feminist Criminology, 1*, 48-71. doi:10.1177/1557085105282897

Blanchette, K., & Brown, S. L. (2006). *The assessment and treatment of women offenders: An integrative perspective*. Chichester, UK: Wiley.

Bloom, B., Owen, B., & Covington, S. (2002). *Gender-responsive strategies: Research, practice and guiding principles for women offenders*. U.S. Department of Justice: National Institute of Corrections. Retrieved from http://er.uqam.ca/nobel/k27114/doclucie/genderprison.pdf

Blum, J. B., Ireland, M., & Blum, R. W. (2003). Gender differences in juvenile violence: A report from add health. *Journal of Adolescent Health, 32*, 234-240. Retrieved from http://dx.doi.org.ezproxy.lib.monash.edu.au/10.1016/S1054-139X(02)00448-2

Bolt, D. M., Hare, R. D., Vitale, J. E., & Newman, J. P. (2004). A multigroup item response theory analysis of the Psychopathy Checklist–Revised. *Psychological Assessment, 16*, 155-168. doi:10.1037/1040-3590.16.2.155

Borum, R., Bartel, P., & Forth, A. (2003). *Manual for the Structured Assessment of Violence Risk in Youth*. Tampa, Florida: University of South Florida.

Brennan, T. (1998). Institutional classification of females: Problems and some proposals for reform. In R. T. Zaplin (Ed.), *Female offenders: Critical perspectives and effective interventions* (pp. 179-204). Gaithersburg, MD: Aspen.

Butler, T., & Allnutt, S. (2003). *Mental illness among New South Wales prisoners*. Matraville, Australia: NSW Corrections Health Service.

Cale, E., & Lilienfeld, S. O. (2002). Sex differences in psychopathy and antisocial personality disorder: A review and integration. *Clinical Psychology Review, 22*, 1179-1207. doi:10.1016/S0272-7358(01)00125-8

Capaldi, D. M., & Patterson, G. R. (1996). Can violent offenders be distinguished from frequent offenders? Prediction from childhood to adolescence. *Journal of Research in Crime & Delinquency, 33*, 206-231. doi:10.1177/002242789603300203

Carrington, K. (2006). Does feminism spoil girls? *Explanations for official rises in female delinquency. Australian & New Zealand Journal of Criminology, 39*, 34-53. doi:10.1375/acri.39.1.34

Cauffman, E., Lexcen, F. J., Goldsweber, A., Shulman, E. P., & Grizzo, T. (2007). Gender differences in mental health symptoms among delinquent and community youth. *Youth Violence and Juvenile Justice, 5*, 287-307. doi:10.1177/1541204007301292

Cernkovich, S. A., & Giordano, P. C. (1987). Family relationships and delinquency. *Criminology, 25*, 295-319. doi:10.1111/j.1745-9125.1987.tb00799.x

Chapman, J. F., Desai, R. A., Falzer, P. R., & Borum, R. (2006). Violence risk and race in a sample of youth in juvenile detention: The potential to reduce disproportionate minority confinement. *Youth Violence and Juvenile Justice, 4*(2), 170-184. doi:10.1177/1541204006286316

Chen, S., Matruglio, T., Weatherburn, D., & Hua, J. (2005). *The transition from juvenile to adult criminal careers* (Crime and Justice Bulletin: Contemporary Issues in Crime and Justice, No. 86). NSW Bureau of Crime Statistics and Research. Retrieved from http://www.bocsar.nsw.gov.au/

Chesney-Lind, M. (1997). *The female offender: Girls, women, and crime*. Thousand Oaks, CA: SAGE.

Chesney-Lind, M., Morash, M., & Stevens, T. (2008). Girls troubles, girls’ delinquency, and gender responsive programming: A review. *Australian & New Zealand Journal of Criminology, 41*, 162-189. doi:10.1375/acri.41.1.162

Coid, J., Yang, M., Ullrich, S., Zhang, T., Sizmur, S., Roberts, C., & Rogers, R. D. (2009). Gender differences in structured risk assessment: Comparing the accuracy of five instruments. *Journal of Consulting and Clinical Psychology, 77*, 337-348. doi:10.1037/a0015155

Daly, K. (1994). *Women’s pathways to felony court: Feminist theories of lawbreaking and problems of representation*. *Southern California Review of Law and Women’s Studies, 2*(1), 11-52. Retrieved from http://heinonline.org.ezproxy.lib.monash.edu.au/HOL/Page?handle=hein.journals/scws2&div=8&collection= journals&set_as_cursord=5&men_tab=srchresults

Daly, K. (1994). *Gender, crime, and punishment*. New Haven, CT: Yale University Press.

Deakin, J., & Spencer, J. (2003). Women behind bars: Explanations and implications. *Howard Journal of Criminal Justice, 42*, 123-136. doi:10.1111/1468-2311.00271
de Vogel, V., & de Ruiter, C. (2005). The HCR-20 in personality disordered female offenders: A comparison with a matched sample of males. *Clinical Psychology & Psychotherapy, 12*, 226-240. doi:10.1002/cpp.452

Dolan, M. C., & Remnie, C. E. (2008). The Structured Assessment of Violence Risk in Youth as a predictor of recidivism in a United Kingdom cohort of adolescent offenders with conduct disorder. *Psychological Assessment, 20*, 35-46. doi:10.1037/1040-3590.20.1.35

Elliott, D. S. (1994, March). *Youth violence: An overview*. Paper presented at the Aspen Institute’s Children’s Policy Forum “Children and Violence Conference,” Queenstown, MD.

Farrington, D. P. (1995). The Twelfth Jack Tizard Memorial Lecture. The development of offending and antisocial behaviour from childhood: Key findings from the Cambridge Study in delinquent development. *Journal of Child Psychology and Psychiatry, 36*, 929-964. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1469-7610.1995.tb01342.x/pdf

Farrington, D. P., & Loeb, R. (2000). Epidemiology of juvenile violence. *Child and Adolescent Psychiatric Clinics of North America, 9*(4). Retrieved from http://www.wpic.pitt.edu/research/famhist/PDF_Articles/Elsevier/V%202006.pdf

Farrington, D. P., & Painter, K. (2004). *Gender differences in risk factors for offending* (Home Office Findings 196). Available from www.homeoffice.gov.uk

Forouzan, E., & Cooke, D. J. (2005). Figuring out la femme fatale: Conceptual and assessment issues concerning psychopathy in females. *Behavioral Sciences & the Law, 23*, 765-778. doi:10.1002/bsl.669

Forsythe, L., & Adams, K. (2009). *Mental health, abuse, drug use and crime: Does gender matter?* (Trends & Issues in Crime and Criminal Justice, No. 384). Canberra: Australian Government, Australian Institute of Criminology.

Funk, S. J. (1999). Risk assessment for juveniles on probation. *Criminal Justice and Behavior, 26*, 44-68. doi:10.1177/009385489902601003

Gammelgård, M., Koivisto, A., Eronen, M., & Kaltiala-Heino, R. (2008). The predictive validity of the Structured Assessment of Violence Risk in Youth (SAVRY) among institutionalised adolescents. *Journal of Forensic Psychiatry & Psychology, 19*, 352-370. doi:10.1080/14789940802114475

Gammelgård, M., Weizmann-Henelius, G., Koivisto, A., Eronen, M., & Kaltiala-Heino, R. (2012). Gender differences in violence risk profiles. *Journal of Forensic Psychiatry & Psychology, 23*, 76-94. doi:10.1080/14789949.2011.639898

Gately, N., Fleming, J., Morris, R., & McGregor, C. (2012). *Amphetamine users and crime in Western Australia, 1999-2009* (Trends & Issues in Crime and Criminal Justice, No. 437). Retrieved from http://www.aic.gov.au/publications/current%20series/tandi/421-440/tandi437.aspx

Gavazzi, S. M., Yarcheck, C. M., & Chesney-Lind, M. (2006). Global risk indicators and the role of gender in a juvenile detention sample. *Criminal Justice and Behavior, 33*, 597-612. doi:10.1177/0093854806288184

Gilligan, C. (1982). *In a different voice: Psychological theory and women’s development*. Cambridge, MA: Harvard University Press.

Gray, N. S., Taylor, J., & Snowden, R. J. (2008). Predicting violent recovisions using the HCR-20. *British Journal of Psychiatry, 192*, 384-387. doi:10.1192/bjp.bp.107.044065

Hare, R. D. (1991). *The Hare Psychopathy Checklist–Revised*. Toronto, Ontario, Canada: Multi-Health Systems.

Heilbrun, K., DeMatteo, D., Fretz, R., Erickson, J., Yasuhara, K., & Anumba, N. (2008). How “specific” are gender-specific rehabilitation needs? An empirical analysis. *Criminal Justice and Behavior, 35*, 1382-1397. doi:10.1177/00938548083263678

Henggeler, S., Melton, G., & Smith, L. (1992). Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology, 60*, 953-961. Retrieved from http://www.campbellcollaboration.org/artman2/uploads/1/henggeler-merlon.pdf

Herrera, V. M., & McCloskey, L. A. (2001). Gender differences in the risk for delinquency among youth exposed to family violence. *Child Abuse & Neglect, 25*, 1037-1050. doi:http://dx.doi.org/10.1016/S0145-2134(01)00255-1

Hoaken, P. N. S., & Stewart, S. H. (2003). Drugs of abuse and the elicitation of human aggressive behaviour. *Addictive Behaviors, 28*, 1533-1554. doi:10.1016/j.addbeh.2003.08.033

Hoge, R. D., & Andrews, D. A. (2006). *Youth Level of Service/Case Management Inventory user’s manual*. New York, NY: Multi-Health Systems.

Holmes, J. (2010). *Female offending: Has there been an increase?* (NSW Crime and Justice Statistics Issues Paper No. 46). New South Wales, Australia: Bureau of Crime Statistics and Research.

Hoyt, S., & Scherer, D. G. (1998). Female juvenile delinquency: Misunderstood by the juvenile justice system, neglected by social science. *Law and Human Behavior, 22*, 81-107. doi:10.1023/A:102578822468

Hubbard, D. J., & Pratt, T. C. (2002). A meta-analysis of the predictors of delinquency among girls. *Journal of Offender Rehabilitation, 34*(3), 1-14. doi:10.1300/J076v34n03_01

Indig, D., Topp, L., Ross, B., Mamoon, H., Border, B., Kumar, S., & McNamara, M. (2010). *2009 NSW Inmate Health Survey: Key findings report*. Sydney, Australia: Justice Health. Retrieved from http://www.justicehealth.nsw.gov.au/publications/2009_IHS_report.pdf

Johnson, H. (2004). *Drugs and crime: A study of incarcerated female offenders* (Research and Public Policy Series No. 63). Retrieved from http://www.aic.gov.au/documents/E/B/8/%7EBEB8A400C-E611-42BF-9B9F-B58E7C5A0694%7DPRP63.pdf

Jung, S., & Rawana, E. P. (1999). Risk and need assessment of juvenile offenders. *Criminal Justice and Behavior, 26*, 69-89. doi:10.1177/009385489902601004

Kenny, D. T., & Nelson, P. K. (2008). *Young offenders on community orders: Health, welfare and criminogenic needs*. Sydney, Australia: Sydney University Press.

Kong, R., & AuCoin, K. (2008). Female offenders in Canada. *Juristat: Canadian Centre for Justice Statistics, 28*(1). Retrieved from http://www.statcan.gc.ca/pub/85-002-x/85-002-x2008001-eng.htm

Kupersmidt, J. B., Coie, J. D., & Dodge, K. A. (1990). The role of peer poor relationships in the development of disorder. In
Lodewijks, H. P. B., de Ruiter, C., & Doreleijers, T. A. H. (2008). Gender differences in violent outcome and risk assessment in adolescent offenders after residential treatment. *International Journal of Forensic Mental Health*, 7, 133-146. doi:10.1080/14739870809522518

Lodewijks, H. P. B., de Ruiter, C., & Doreleijers, T. A. H. (2010). The impact of protective factors in desistance from violent reoffending: A study in three samples of adolescent offenders. *Journal of Interpersonal Violence*, 25, 568-587. doi:10.1177/0886260509334403

Loeber, R., & Stouthamer-Loeber, M. (1986). Family factors as correlates and predictors of juvenile conduct problems and delinquency. In M. Tonry, & N. Morris (Eds.), *Crime and justice* (pp. 29-150). Chicago, IL: University of Chicago Press.

Logan, C., & Blackburn, R. (2009). Mental disorder in violent women in secure settings: Potential relevance to risk for future violence. *International Journal of Law and Psychiatry*, 32, 31-38. doi:10.1016/j.ijlp.2008.11.010

Looxley, W., & Adams, K. (2009). *Women, drug use and crime: Findings from the drug use monitoring in Australia program* (AIC Reports Research and Public Policy Series 99), Canberra: Australian Government, Australian Institute of Criminology.

Luong, D. (2007). *Risk assessment and community management: The relationship between implementation quality and recidivism* (master’s thesis). University of Saskatchewan, Saskatoon, Canada. Retrieved from http://library2.usask.ca/theses/available/etd-09262007-163117/unrestricted/Duyen_Luong_MA_Thesis.pdf

Lynch, M., Buckman, J., & Krenske, L. (2003). *Youth justice: Criminal trajectories (Trends & Issues in Crime and Criminal Justice, No. 265)*, Canberra, Australia: Australian Institute of Criminology. Retrieved from http://www.aic.gov.au/documents/6/3/2/%7B6327DF90-1459-4D7E-9ABF-F69D7662AA6F%7D7997a265.pdf

McCabe, K. M., Lansing, A. E., Garland, A., & Hough, R. (2002). Gender differences in psychopathology, functional impairment, and familial risk factors among adjudicated delinquents. *Journal of the American Academy of Child Adolescent Psychiatry*, 41, 860-867. doi:10.1097/00004583-200207000-00020

McReynolds, L. S., Swalbe, C. S., & Wasserman, G. A. (2010). The contribution of psychiatric disorder to juvenile recidivism. *Criminal Justice and Behavior*, 37, 204-216. doi:10.1177/009385480934966

Meyers, J., & Schmidt, F. (2008). Predictive validity of the Structured Assessment for Violence Risk in Youth (SAVRY) with juvenile offenders. *Criminal Justice and Behavior*, 35, 344-355. doi:10.1177/0093854807311972

Miller, D. (1994). Exploring gender differences in suicidal behavior among adolescent offenders: Findings and implications. *Journal of Correctional Education*, 45, 134-138. Retrieved from http://web.elscohost.com.exproxy.lib.monash.edu.au/ehost/pdfviewer/pdfviewer?vid=3&hid=15&sid=85e391d3a52e-47f4ae79-0e7dddc0b5%40sessionmgr14

Ministry of Justice. (2009). *Statistics on women and the criminal justice system: A Ministry of Justice publication under Section 95 of the Criminal Justice Act 1991*. Retrieved from http://www.justice.gov.uk/downloads/statistics/mojstats/statistics-women-cjs-2010/pdf/

Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review*, 100, 674-701. Retrieved from http://www.psychology.sunysb.edu/ewaters/552-04/slide%20sets/brian_mcfarland_aggression/moffitt_aggression.pdf

Moffitt, T. E., Caspi, A., Rutter, M., & Silva, P. A. (2001). Sex differences in antisocial behavior: Conduct disorder, delinquency, and violence in the Dunedin Longitudinal Study. Cambridge, UK: Cambridge University Press.

Moore, J., & Hagedorn, J. (2001). *Female gangs: A focus on research* (Juvenile Justice Bulletin, March 2001). Retrieved from https://www.ncjrs.gov/pdffiles1/ojjdp/186159.pdf

Morgan, A., & McAtamney, A. (2009). *Key issues in alcohol-related violence* (Research in Practice No. 4). Retrieved from http://www.aic.gov.au/publications/current%20series/rip/1-10/04.aspx

Nicholls, T. L., Ogloff, J., Brink, J., & Spidel, A. (2005). *Psychopathy in women: A review of its clinical usefulness for assessing risk for aggression and criminality*. *Behavioral Sciences & the Law*, 23, 779-802. doi:10.1002/bsl.678

Olver, M. E., Stockdale, K. C., & Wong, S. C. P. (2012). Short and long-term prediction of recidivism using the Youth Level of Service/Case Management Inventory in a sample of serious young offenders. *Law and Human Behavior*, 36, 331-344. doi:10.1037/h0093927

Onifade, E., Davidson, W., Campbell, C., Turke, G., Malinowski, J., & Turner, K. (2008). Predicting recidivism in probationers with the Youth Level of Service/Case Management Inventory (YLS/CMI). *Criminal Justice and Behavior*, 35, 474-483. doi:10.1177/0093854807313427

Owen, B., & Bloom, B. (1995). Profiling women prisoners: Findings from national surveys and a California sample. *The Prison Journal*, 75, 165-185. doi:10.1177/00332865595075002003

Penney, S. R., Lee, Z., & Moretti, M. M. (2010). Gender differences in risk factors for violence: An examination of the predictive validity of the Structured Assessment of Violence Risk in Youth. *Aggressive Behavior*, 36, 390-404. Retrieved from http://onlinelibrary.wiley.com/exproxy.lib.monash.edu/doi/10.1002/ab.20352/pdf

Priehard, P., & Payne, J. (2005). *Alcohol, drugs and crime: A study of juveniles in detention* (Research and Public Policy Series No. 67). Retrieved from http://www.aic.gov.au/documents/7/3/3/7B7E372CAE-AD71-4DFF-918B-10DAA8851002%7Drpp67.pdf

Puzzanchera, C., & Adams, B. (2011). *Juvenile Arrests 2009* (Juvenile Offenders and Victims: National Report Series Bulletin). Washington, DC: Office of Juvenile Justice and Delinquency Prevention. Retrieved from http://www.ojjdp.gov/pubs/236477.pdf

Puzzanchera, C., Adams, B., & Hockenberry, S. (2012). *Juvenile Court Statistics 2009*. Pittsburgh, PA: National Centre for Juvenile Justice. Retrieved from http://www.ojjdp.gov/pubs/239114.pdf

Reisig, M. D., Holtfreter, K., & Morash, M. (2006). Assessing recidivism risk across female pathways to crime. *Justice Quarterly*, 23, 384-405. doi:10.1080/07418820600869152
Rennie, C., & Dolan, M. (2010). Predictive validity of the Youth Level of Service/Case Management Inventory in custody sample in England. *Journal of Forensic Psychiatry & Psychology, 21*, 407-425. doi:10.1080/14789940903452311

Rettinger, L. J., & Andrews, D. A. (2010). General risk and need, gender specificity, and the recidivism of female offenders. *Criminal Justice and Behavior, 37*, 29-46. doi:10.1177/0093854809349438

Richards, K. (2011). What makes juvenile offenders different from adult offenders? (Trends & Issues in Crime and Criminal Justice, No. 409). Canberra: Australian Government, Australian Institute of Criminology.

Richards, K., & Lynneham, M. (2010). *Juveniles in detention in Australia, 1981–2008*. (Monitoring report no. 12.) Canberra: Australian Institute of Criminology. Retrieved from http://www.aic.gov.au/publications/current%20series/mr-1-20/12.aspx

Robertson, K., & Murachver, T. (2007). Correlates of partner violence for incarcerated women and men. *Journal of Interpersonal Violence, 22*, 639-655. doi:10.1177/0886260506298835

Schaeffer, C. M., & Borduin, C. M. (2005). Long-term follow-up to a randomized clinical trial of multisystemic therapy with serious and violent juvenile offenders. *Journal of Consulting and Clinical Psychology, 73*, 445-453. doi:10.1037/0022-006X.73.3.445

Schaffner, L. (2006). *Girls in trouble with the law*. New Brunswick, NJ: Rutgers University Press.

Schmidt, F., Campbell, M. A., & Houlding, C. (2011). Comparative analyses of the YLS/CMI, SAVRY, and PCL:YV in adolescent offenders: A 10-year follow-up into adulthood. *Youth Violence and Juvenile Justice, 9*, 23-42. doi:10.1177/1541204010371793

Schmidt, F., Hoge, R. D., & Gomes, L. (2005). Reliability and validity analyses of the Youth Level of Service/Case Management Inventory. *Criminal Justice and Behavior, 32*, 329-344. doi:10.1177/0093854804274373

Sedlak, A. J., & McPherson, K. S. (2010). *Youths needs and services: Findings from the survey of youth in residential placement (SYRP) Report*. Retrieved from https://www.ncjrs.gov/pdffiles1/ojjdp/grants/227660.pdf

Sentencing Advisory Council. (2012). *Sentencing children and young people in Victoria*. Retrieved from https://sentencingcouncil.vic.gov.au/sites/sentencingcouncil.vic.gov.au/files/sentencing_children_and_young_people_in_victoria.pdf

Siegel, J. A., & Williams, L. M. (2003). The relationship between child sexual abuse and female delinquency and crime: A prospective study. *Journal of Research in Crime & Delinquency, 40*, 71-94. doi:10.1177/00222780229254

Simpson, S. S., Yahner, J. L., & Dugan, L. (2008). Understanding women’s pathways to jail: Analysing the lives of incarcerated women. *Australian & New Zealand Journal of Criminology, 41*, 84-108. doi:10.1375/acrj.411.84

Smith, C. A., & Thornberry, T. P. (1995). The relationship between childhood maltreatment and adolescent involvement in delinquency. *Criminology, 33*, 451-477. Retrieved from http://web.ebscohost.com.ezproxy.lib.monash.edu.au/ehost/pdfviewer/pdfviewer?vid=3&hid=106&sid=ace7f451-7a7e-4fca-aa03-8519963e67740sessionmgr11

Smith, P., Cullen, F. T., & Latessa, E. J. (2009). Can 14,737 women be wrong? A meta-analysis of the LSI-R and recidivism for female offenders. *Criminology & Public Policy, 8*, 183-208. doi:10.1111/j.1745-9133.2009.00551.x

Spice, A., Viljoen, J. L., Grettón, H. M., & Roesch, R. (2010). Psychological assessment for adult sentencing of juvenile offenders: An evaluation of the RSTI and the SAVRY. *International Journal of Forensic Mental Health, 9*, 124-137. doi:10.1080/14999013.2010.501846

Stattin, H., & Magnusson, D. (1990). *Pubertal maturation in female development, Vol. 2: Paths through life*. Hillsdale, NJ: Lawrence Erlbaum.

Steffensmeier, D. Schwartz, J., Zhong, H., & Ackerman, J. (2005). An assessment of recent trends in girls’ violence using diverse longitudinal sources: Is the gender gap closing? *Criminology, 43*, 355-405. doi:10.1111/j.0011-1348.2005.00058.x

Stockdale, K. C. (2008). The validity and reliability of the Violence Risk Scale–Youth Version (VRs-YV) (Unpublished doctoral dissertation). University of Saskatchewan, Saskatoon, Canada.

Strand, S., & Belfrage, H. (2005). Gender differences in psychopathy in a Swedish offender sample. *Behavioral Sciences & the Law, 23*, 837-850. doi:10.1002/bsl.674

Taylor, K. N., & Blanchette, K. (2009). The women are not wrong: It is the approach that is debatable. *Criminology & Public Policy, 8*, 221-229. doi:10.1111/j.1745-9133.2009.00548.x

Teplin, L. A., Abram, K. A., & McClelland, G. M. (1996). Prevalence of psychiatric disorders among incarcerated women. *Archives of General Psychiatry, 53*, 505-512. doi:10.1001/archpsyc.1996.01830060047007

Teplin, L. A., Abram, K. A., McClelland, G. M., Dulcan, M. K., & Mericle, A. A. (2002). Psychiatric disorders in youth in juvenile detention. *Archive General Psychiatry, 59*, 1133-1143. Retrieved from http://archpsyc.ama-assn.org

Thompson, A. P., & McGrath, A. (2011, December 12). Subgroup differences and implications for contemporary risk-need assessment with juvenile offenders. *Law and Human Behavior, 36*, 345-355. doi:10.1037/h0093930

Thornberry, T. P. (1998). Membership in youth gangs and involvement in serious and violent juvenile offending. In R. Loeb, & D. P. Farrington (Eds.), *Serious and violent juvenile offenders: Risk factors and successful interventions* (pp. 147-166). Thousand Oaks, CA: SAGE.

Timmons-Mitchell, J., Brown, C., Schulz, S. C., Webster, S. E., Underwood, L. A., & Semple, W. E. (1997). Comparing the mental health needs of female and male incarcerated juvenile delinquents. *Behavioral Sciences & the Law, 15*, 195-202. doi:10.1002/(SICI)1099-0798(199721)15:2<195::AID-BSL269>3.0.CO;2-8

Tye, C. S., & Mullen, P. E. (2006). Mental disorders in female prisoners. *Australian and New Zealand Journal of Psychiatry, 40*, 266-271. doi:10.1111/j.1440-1614.2006.01784.x

Valois, R. F., MacDonald, J. M., Bretous, L., Fischer, M. A., & Stattin, H., Magnusson, D. (1990). *Pubertal maturation in female development, Vol. 2: Paths through life*. Hillsdale, NJ: Lawrence Erlbaum.

Van Voorhis, P., Salisbury, E., Wright, E., & Bauman, A. (2008). *Achieving accurate pictures of risk and identifying gender responsive needs: Two new assessments for women offenders*. Retrieved from http://www.cj-resources.com/CJ_Female%20Offenders_pdfs/Accurate%20pictures%20of%20risk%20
Van Voorhis, P., Wright, E., Salisbury, S., & Bauman, A. (2010). Women’s risk factors and their contributions to existing risk/needs assessment: The current status of gender responsive assessment. *Criminal Justice and Behavior, 37*, 261-288. doi:10.1177/0093854809357442

Veysey, B. M., & Hamilton, Z. (2007). Girls will be girls: Gender differences in predictors of success for diverted youth with mental health and substance abuse disorders. *Journal of Contemporary Criminal Justice, 23*, 341-362. doi:10.1177/1043986207309435

Victoria Police. (2010). *Crime statistics 2009/2010 official release* (Corporate Statistics, Business Services Department). Retrieved from http://www.police.vic.gov.au/content.asp?Document_ID=782

Vincent, G. M., Chapman, J., & Cook, N. E. (2011). Risk-needs assessment in juvenile justice: Predictive validity of the SAVRY, racial differences, and the contribution of needs factors. *Criminal Justice and Behavior, 38*, 42-62. doi:10.1177/0093854810386000

Vincent, G. M., Grisso, T., Terry, B. A., & Banks, S. (2008). Sex and race differences in mental health symptoms in juvenile justice: The MAYSI-2 national meta-analysis. *American Academy of Child & Adolescent Psychiatry, 47*, 282-290. doi:10.1097/CHI.0b013e318160d516

Vollm, B. A., & Dolan, M. C. (2009). Self-harm among UK female prisoners: Across-sectional study. *Journal of Forensic Psychiatry & Psychology, 20*, 741-751. doi:10.1080/14789940903174030

Welsh, J. L., Schmidt, F., McKinnon, L., Chattha, H. K., & Meyers, J. R. (2008). A comparative study of adolescent risk assessment instruments. *Assessment, 15*, 104-115. doi:10.1177/1073191107307966

Wright, E., Van Voorhis, P., Bauman, A., & Salisbury, E. (2008). *Gender-responsive risk/needs assessment* (Final Report Prepared for the Minnesota Department of Corrections). Cincinnati, OH: Center for Criminal Justice Research.

**Author Biographies**

**Stephane M. Shepherd** is a doctoral student completing his thesis on juvenile violence risk prediction at the Centre for Forensic Behavioural Science, Monash University, Australia.

**Dr. Stefan Luebbers** holds positions as a clinical and forensic psychologist at the Victorian Institute of Forensic Mental Health and is a Lecturer at Monash University, Australia.

**Mairead Dolan** is a Professor of Forensic Psychiatry at Monash University, Australia and assistant clinical director of research at the Victorian Institute for Forensic Mental Health, Australia.