What is the role of gender differences in forensic psychiatry, and do they matter?

Introduction

Women and girls comprise a minority of the patients in forensic psychiatry and in the prison population in Western countries. Women are approximately 5% of the prison and forensic psychiatric population in the UK. However, in recent years, there has been a steady increase in the number of women committing violent offences, and the female prison population has more than quadrupled between 1995 and 2016.

The vast majority of research in forensic psychiatry has investigated violence and antisocial behaviour in men and boys, and has therefore produced conceptualisations of psychopathology, assessment tools and treatment models validated almost entirely on the male population. The landmark MacArthur Violence Risk assessment study shed light on important similarities and differences in the relationship between violence and gender in the civil psychiatric system. For instance, the long-term prevalence of violence after discharge was very similar between men and women. In particular, critical differences were highlighted, including, higher violence rates immediately after discharge, higher substance abuse rates and non-compliance with psychotropic medication prior to committing violence, greater violence severity, and different victim targets in men compared to women. In another study, intellectual difficulties and severe psychiatric illness were found to have a considerably higher impact on the risk of violence in women compared to men.

Recently, there has been reasonable doubt whether the current empirical understanding of male violence, risk and protective factors, assessment tools, and treatment strategies – mostly based on populations of male patients – are sufficiently valid and applicable in female forensic patients. It is important to understand violence and antisocial behaviour in females to understand the factors that lead to their development, maintenance, and could potentially aid recovery. Although significant progress has been made on the assessment, and treatment of female offenders, our understanding of this population is limited due to the paucity of empirical research on female populations.

This paper aims to provide an overview of the current state of research and understanding on the differential nature of offending, the developmental and neurobiological pathways to offending, important risk and protective factors, and the importance of gender differences for assessments and treatments in women, as well as the implications of these gender differences for clinical practice and research.
Overview of key issues in female offending in forensic psychiatry

Prevalence of female offending

Females are markedly less likely to be arrested for violence and many other criminal acts than males.\(^8\) As aforementioned, females are a minority of the prison population, and being male is one of the biggest risk factors for violence and crime. However, recently there has been a substantial rise in female offending, particularly in violent crime, and especially in adolescent girls.\(^9\)\(^{10}\)\(^{11}\)\(^{12}\)\(^{13}\) leading to a rapid growth of the female population in prison.

Several explanations have been offered to shed light on why violent offending by females is on the rise. Policy changes, police involvement or increased societal acceptance of antisocial behaviour in women and girls may play important roles.\(^{14}\)\(^{15}\)\(^{16}\) A review concluded that certain policies and practices in the judicial system may disproportionately affect women and girls.\(^{17}\) For instance, in 1996, 10% of women convicted of an indictable offence were imprisoned, which rose to 14% in 2014, and significant increases in the severity of sentences can largely account for the higher incarceration rates.\(^{18}\)

Experts have suggested that the true rates of criminal offending in females may be higher than the official prevalence rates. Underestimation of actual rate in specific categories of crime may occur because violence from women is less publically visible, subtler, and the victims of women’s violence are most often intimate partners, children or close relatives.\(^4\)\(^8\)\(^{11}\) Despite women only representing 7.9% of defendants in domestic abuse cases in 2016,\(^{19}\) multiple studies have shown that the gender gap is virtually non-existent in intimate partner violence.\(^{20}\)\(^{21}\)\(^{22}\)\(^{23}\)\(^{24}\)\(^{25}\) This disparity of female offending between self-reported victimisation and convictions in court may be due to the aforementioned reasons, as well as underreporting of crimes due to shame and societal stigma experienced by male victims of female violence. Moreover, compared to men, the official arrest and incarceration rates may be lower for women, especially for first time offenders, because they are treated more leniently by the criminal justice system.\(^{17}\)\(^{26}\)\(^{27}\) A cross-sectional UK study found that gender influenced the outcome of homicide cases.\(^{28}\) When the homicide victim was a child or relative, sentences were more lenient for women offenders than males, perhaps due to societal perceptions and prejudices of women as victims rather than perpetrators. However, alternative explanations consider other factors relevant for women, such as greater compliance in court, and higher likelihood of first time offending and having dependent children.\(^{26}\) A Dutch study found that women were more likely to be judged to have diminished responsibility in court, and were prevented from prosecution,\(^7\)\(^{29}\) which may be due to a higher proportion of women offenders have a background of victimisation and more apparent psychiatric problems than men.
Recidivism following forensic treatment or incarceration

A 2009 report by the Ministry of Justice concluded that recidivism rates for women following incarceration or treatment are considerably lower than men. According to a National Statistics publication the recidivism rates were lower for women (23.4%) compared to men (29.2%), on average, in Scotland. A recent Canadian National Trajectory project found that recidivism rates for women were lower across all types of crimes, but rates of severe violent reoffending were particularly small, at 0.6%.

A UK study following 93 women and 502 men admitted to medium-secure forensic psychiatry care found that women are more likely to have greater mental health needs and lower criminality. The average reconviction rates were lower for women, but similar between men and women for serious offences. Women were also less likely to be reconvicted for violent and arson offences. Important differences in the trajectories of men and women following discharge from forensic treatment may explain, in part, the lower recidivism rates. The study found that women were more likely to be readmitted or transferred to secure psychiatry care in the long term and less likely to be transferred to prison. However, following discharge, women had a significantly higher rate of mortality than men. Overall, this study showed that women had poorer outcomes following discharge despite having more favourable criminological characteristics at baseline.

Another UK study found that women discharged from medium-secure care, of which 32% died by suicide, have nearly a six times higher mortality rate than the general population, and twice the rate of men discharged from the same care settings. Almost half of the female patients were reconvicted, and 38% were readmitted to secure care. These finding have important implications for community psychiatry services, who need to be aware of vulnerable women discharged from medium-secure care, and plan thorough follow-ups to prevent adverse outcomes of high mortality, severe psychiatric problems and reoffending.

Nature of female offending and violence, and public perceptions

There are large differences in the nature of criminality and violent offending in females compared to males. In the UK, females are significantly less likely to be arrested for violent offending and disproportionately more for fraud and forgery, theft and handling, and criminal damage, including arson. Some criminal offenses such as neonaticide, are almost exclusively committed by women, and they are disproportionately cautioned or charged for child abuse or neglect. This may be a reflection of the fact that mothers, rather than fathers, are often the primary care givers for children. On the other hand, crimes such as familicide and sexual offenses are commonly committed by male offenders. Girls are more likely to be charged for offences that uniquely apply to children and adolescents, such as truancy and underage drinking, but also for committing assault, unlike adult females.
In the case of violent offences, the discrepancy between males and females expands even more. Research has highlighted the differential contexts, nature, severity, victims and motivations of female violent offending compared to violence in male offenders.\(^{(38)}\)

Women commit under 12% of the violent crimes in the UK,\(^{(1)}\)\(^{(39)}\) and are relatively unlikely to be imprisoned for robbery (3%), sexual assault (0.8%), and physical attacks against strangers (4.5%), compared to men.\(^{(1)}\)\(^{(26)}\)\(^{(39)}\) The most recent publication on intimate partner violence by the Office of National Statistics, based on self-reported data, found that women were twice as likely (8.2%) to report being a victim in the past year than men (4%), with the adult lifetime prevalence of victimisation being 27.1% for women and 13.2% for men.\(^{(40)}\) Moreover, multiple previous studies have concluded there is no significant gender gap in perpetrators of intimate partner violence,\(^{(20)}\)\(^{(21)}\)\(^{(22)}\)\(^{(23,24)}\)\(^{(25)}\) but this parity is not reflected in incarceration rates.\(^{(19)}\) Underreporting by men may lead to an underestimation of male victimisation, perhaps due to the previously mentioned reasons of shame and societal stigma against victimisation by female perpetrators.

An international study of over 13,000 adults in 32 countries found that a third of the female and the male participants had physically assaulted a partner in the last 12 months, and the most common pattern of violence was bidirectional, i.e. both partners were violent, followed by violence perpetrated by females only, with violence by males being the least common pattern.\(^{(41)}\)

Compared to the more public settings of men’s aggression, expressions of female aggression tend to occur more often in private, interpersonal and familial based settings, for instance within the perpetrator’s home. This finding is highly consistent with the fact that women disproportionately commit domestic violence, child abuse and elder abuse,\(^{(4)}\)\(^{(42)}\) and their victims are often intimate partners, children, and relatives, and rarely strangers – a demographic commonly victimised by men. Violence by females less frequently causes serious injuries, and is therefore is less visible for public and judicial scrutiny.\(^{(8,11)}\)

Males still dominate violent criminality, as males comprised approximately of 84% of arrests for homicide in the UK.\(^{(43)}\) But the victim profiles of women offenders are very different to men. In 2017, 70% of women charged with homicide were related domestically to their victims, compared to 24% of males.\(^{(43)}\) The most common victims of female perpetrated homicide are intimate partners (30%), and children or step children (10.4%),\(^{(44)}\) rather than strangers, as for men.

Research suggests that there is a societal hesitancy to fully recognise and acknowledge the harm caused by female offenders.\(^{(22)}\)\(^{(45)}\) There is a paucity of data on victims of female offending in the UK. There seems to be a societal stigma and shame for males associated with revealing that they have been a victim of sexual or physical abuse by a female. The denial of the severity of harm caused by female violence can have important consequences both for the victims and the perpetrators.
Straus\(^{(46)}\) pointed out that tackling intimate partner violence by females is essential to minimising the risk of violent victimisation of the male partners, as well as the female perpetrators, as violent behaviour in women is a major risk factor for experiencing long-term victimisation.

The assumptions of the public, but more worryingly those of mental health professionals and the police involved in child protection, disregard the consequences of child sexual abuse by women as less severe for the victims than abuse committed by men.\(^{(47)}\) A study examining the severity of child abuse perpetrated by male and female offenders found that there was no difference in the severity of abuse perpetrated by males and females.\(^{(48)}\) A large-scale retrospective study of over 17,000 participants investigating the long-term consequences of child sexual abuse, including several health and well-being outcomes such as substance abuse, suicide attempts, and marriage dysfunction, found that the rate and severity of adverse outcomes was similar for both male and female victims, and independent of the gender of the perpetrator.\(^{(49)}\) They emphasised child abuse perpetrated by females is not only common, but has severe long term consequences for the victims.

The private and subtler nature of the form, severity, settings and victims of female violence are likely to contribute to underreporting of offences, lower arrest and incarceration rates for females committing violence, as well as the societal tendency to diminish severity of female violence.\(^{(38)}\) It is important to acknowledge the harm caused by female perpetrated violence to minimise the risk of victimisation for men, women and children.

**Children of women in forensic psychiatry care**

Childhood trauma and abuse has been correlated with increased risk of offending and violence in later life, particularly for girls.\(^{(50)}\) Children with mothers who are antisocial and violent are at a substantial risk of developmental issues, academic failure and adverse mental health outcomes, such as substance abuse, antisocial behaviour and violence.\(^{(51})\(^{(52})\(^{(53)}\) Studies have found that children’s exposure to intimate partner violence perpetrated by their mothers predicted future intimate partner violence in girls and boys.\(^{(54})\(^{(55})\(^{(56})\(^{(57)}\) Maternal violence plays a central role in shaping the future risk of their daughters committing intimate partner violence, an effect not observed when girls were exposed to partner violence by fathers. A Dutch study investigating 275 male and 275 female psychiatric patients concluded that at the time of the index offence, most of the children, despite living with extended family, foster homes or in protection, were in contact with their mothers, whereas the men were often entirely absent from their children’s lives.\(^{(7)}\) The fact that mothers are often the primary carer and role model for their children may account for the disproportionately higher influence of maternal violence on children’s development and health, and genetic factors, unfavourable home environments, and absence of the mother as a primary care giver, may also contribute.
Female forensic psychiatric patients, many of whom struggle with substance abuse and severe psychiatric problems upon discharge, may lack the necessary skills and resources required to raise their children. Moreover, these children may be at risk of falling victims to abuse perpetrated by their mothers, which can lead to an alarming severity of future adverse life and health outcomes for children, including mental health problems, substance abuse, suffering from bullying and violent behaviour. Additionally, children who are separated from their mothers, due to incarceration or admission into forensic psychiatry, experience a burden of shame, guilt, grief, loneliness and anger. On the other hand, separation of women their children, with the resulting feelings of intense anguish and sorrow, is a significant risk factor for future violence towards children under her care. Furthermore, women with dependent children reoffend more often than women without children, an outcome amplified by concomitant poverty, poor social support and substance abuse.

In light of these results, it is essential that community forensic psychiatry services prioritise delivering care which helps female patients develop the necessary skills and strategies for coping with the demands and stresses involved in the care of their children, as well as ensuring the provision of adequate social and financial support, to yield better outcomes for women and their children.

**Overview of pathways to violence and crime**

**Developmental pathways and risk factors for violence and crime**

There is mounting evidence of “gendered developmental pathways” into violence and criminality, and findings of possible differential trajectories have arisen. Studies show the onset of criminal behaviour in girls is later in life than boys, whilst others have found a relatively earlier onset of externalising problems and criminal behaviour, approximately at the age of 14, in girls. Recently, a study investigating 754 children yielded no significant differences in the developmental trajectories and long-term outcomes, such as intimate partner violence, depression and risky sexual behaviour, and a lower baseline rate of delinquency in girls was the only significant difference.

Specific risk factors are critical in the development of criminality in females. Trauma history, substance abuse, family dysfunction and mental illness are of substantially greater importance in female offending, than male offending. Multiple studies have found a higher prevalence of trauma in female offenders. Trauma has a different impact on women, as women have a greater likelihood of developing of Post-Traumatic Stress Disorder following exposure to a traumatic event, than men. Hodgins found that having a major psychiatric disorder had a different impact on the offending characteristics of men and women. Having a major psychiatric disorder increased the risk of men being charged with a criminal offense by 21 times, whilst the
risk for women with disorders increased by 4 times, compared to individuals of their respective genders without a psychiatric disorder. Moreover, women with major psychiatric disorders were 27 times more likely to commit a violent offense, than women without a disorder, whereas having major mental disorders in men only increased the risk of violent crime by 5 times compared to men without a disorder. Moreover, female offenders consistently present with higher rates of substance abuse compared to males.(74)(75)(76) Family dysfunction, exposure to maternal inter-parental violence and sensitivity to interpersonal rejection particularly increases girls susceptibility to perpetrate violence and aggression within romantic relationships in adolescence and adulthood.(53) These results show a differential impact of important risk factors in females compared to males, the importance of which is highly pertinent in the assessment and treatment of female offenders.

**Neurobiological pathways to violence and aggression**

Researchers have attempted to shed light on the possibility of neurobiological underpinnings of gender differences in violence and aggression. Genetic studies have estimated the heritability of physical aggression to be around 50%, (11) and the variance in aggression and violence is a product of gene-environment interactions. Many genes have been implicated to increase the susceptibility for violent behaviour in a polygenic manner, with environmental factors, like socioeconomic status and familial environment, playing an important role.(77)

Recently, Briken et al reported the increased prevalence of XYY genotype amongst male offenders of sexually motivated homicide, (78) however the link between the XYY genotype and aggression is an area of much debate. Abnormalities of neurotransmitters have also been suggested to play an important role in violence and aggression. The genes of the monoamine oxidase A (MAOA) enzyme, which metabolises serotonin, a neurotransmitter involved in aggression in violence, and the androgen receptor are on the X chromosome. A rare mutation of the MAOA gene which causes a functional knockout creates a recessive X-linked transmission of impulsive and violent behaviours in men.(79) The polymorphism has been found to predict increased rates of impulsive violence in Caucasian males in New Zealand, but this effect occurred only when they had a background of severe abuse in early life, (80) suggesting a possible epigenetic effect mediated by key gene-environment interactions. In women, the advantage of having two MAOA alleles can be challenged by random mutations or epigenetic inactivation of the MAOA gene. A protective effect against violence in women may be provided by oestrogens. Oestrogens are known to affect MAOA gene transcription, (81) and modulate it’s activity in the brain, (82) and there is an inverse relationship between MAOA brain levels and oestrogen blood levels. A study using structural and functional magnetic resonance imaging in normal individuals showed that carrying the MAOA-L polymorphism is associated with gender-differentiated morphological and functional changes of the brain that are influenced by the sex hormones, such as the amygdala, anterior cingulate cortex and
many other regions which are known to play an important role in aggression and violence.

The current knowledge available from genetic, and neuroimaging findings paint a complex picture and emphasise the role of gene-environment interactions in the pathogenesis of violence and aggression. These findings can open new avenues to develop preventative strategies for violence and give an idea of the suitable developmental windows to target individuals for optimal treatment efficacy.

**Implications for clinical practice and research: assessments and treatments**

According to the American Psychological Association\(^{(83)}\) and the World Health Organisation\(^{(84)}\) a substantial gender bias exists in the assessment, and treatment of mental disorders in clinical practice and problems affecting women may be overlooked, and misunderstood due to over or under-diagnosis. Majority of the common assessment tools in forensic psychiatry and the criminal justice system have been developed and validated almost exclusively in male populations, and it is assumed that they are valid, reliable and applicable for use female offenders.

There are important unresolved gender issues in the assessment of forensic psychiatry patients. The results of forensic assessments, such as the PCL-R, have a considerable influence on the futures of forensic psychiatry patients and inmates.\(^{(85)}\) The Psychopathy Checklist-Revised (PCL-R) is an internationally used assessment,\(^{(86)}\) and validated mainly in male samples. Recently, more research has discovered possible gender differences in the prevalence, nature and assessment of psychopathy.\(^{(87)}\) Although the PCL-R is thought to have overall relevance in female patients for violence risk assessment,\(^{(88)}\) there is reasonable doubt about whether it has adequate reliability and sensitivity for assessing the characteristics of psychopathy expressed by females.\(^{(22)45(89)(90)(91)}\) For example, antisocial behaviours are expressed less often and occur at a later onset in female psychopaths compared to men, and therefore many experts worry that PCL-R is less appropriate to assess some of the core traits of psychopathy in women, perhaps because psychopathy is expressed differently in women and studies have found that gender bias exists in the diagnosis of psychopathy, often misdiagnosed as borderline personality disorder in women.\(^{(92)}\)

Research on the predictive accuracy of common risk assessment tools, such as the Historical Clinical Risk Management-20 (HCR-20)\(^{(93)(94)(95)}\) The Brief Spousal Assault Form for the Evaluation of Risk,\(^{(96)}\) and the Spousal Assault Risk Assessment,\(^{(97)}\) in samples of women has yielded equivocal results. These assessments have also mainly been validated in male samples with little data on their value for female offenders.
Many risk factors for violence and criminality are more specific to females or have different gender-dependent relevance. For instance, females have a much higher sensitivity to relationship and familial disruption as risk factors for future violence, and factors such as trauma history, substance abuse, family dysfunction and mental illness affect the violence risk of females more strongly than males.\(^{(29)}\) The predictive value of violence risk assessments in clinical practice, is disproportionately inaccurate in females, compared to the evaluation of violence risk in males.\(^{(98)}\) There is a paucity of violence risk assessment tools specifically for females, and research validating the psychometric properties of existing assessments has been overwhelmingly validated in male populations. Therefore, it remains to be investigated the extent to which these assessments are satisfactory for accurate and reliable assessments of female’s violence risk.

New assessment tools have been developed recently for use specifically with female offenders. The Women’s Risk Needs Assessment\(^{(66)}\) uses gender neutral and gender specific factors in female offenders, and supplements existing risk assessments. The Early Assessment Risk List for Girls\(^{(99)}\) is newly developed such assessment with good reliability, validity and clinical applicability for girls that are 6-12 years old. And finally, in 2013 the Female Additional Manual (FAM) risk assessment\(^{(29)(100)}\) was developed to supplement the HCR-20 to assess females. The evidence for FAM is limited, but preliminary results how good interrater reliability and predictive validity for violence and self-harm during treatment.\(^{(100)}\)

It is important to note that although many of the risk factors for violent or antisocial behaviour are valid for both males and females,\(^{(95)(101)(102)}\) overall, experts suggest\(^{(29)(32)(95)}\) that violence risk assessments should be evaluated and validated separately in female populations to integrate the relevance of gender specific variables in the assessments, and optimise their sensitivity to assess females. Further research in female populations is required to achieve this aim.

Many of the variables important for the treatment of male offenders, are also relevant for female offenders. There is strong evidence to suggest that most well-established treatment models are applicable to male and female offenders, but to optimise treatment outcomes, the interventions should be sensitive to gender based needs.

Interventions should first prioritise addressing the criminogenic needs of girls and women in accordance with the Risk Need Responsivity (RNR) model\(^{(103)}\) and its core principles. Research has shown that the RNR model has more robust effects in women when gender-specific factors are incorporated as responsivity factors during the treatment.\(^{(104)(105)}\) Applying this model is very relevant to female offenders because studies have shown that female offenders are at risk of being detained in a level of service that is too secure, and does not match their risk of reoffending.\(^{(106)}\) especially for women who do not have complex criminogenic needs.\(^{(32)}\) It is therefore important
to be aware of the possible iatrogenic harm done to female offenders who receive interventions that are inappropriately severe for their criminogenic needs.\(^{(107)}\)

As well as addressing the specific criminogenic and mental health needs of female patients, other gender-specific factors relevant to the treatment females also need to be acknowledged. There has been an emergence of treatment models specifically for females, termed “gender responsive” approaches.\(^{(9)}\)\(^{(105)}\)\(^{(106)}\)\(^{(109)}\)\(^{(110)}\) These treatment models take into consideration important issues that strongly affect women, such as history of trauma and sexual abuse, disruptions to relationships, and family dysfunction, during treatment. In a recent literature review, Wright et al outline suggestions for better, gender-responsive treatment of female prisoners, such as using gender-sensitive assessments, educating mental health professionals on gender differences and improving training to implement gender-responsive treatments.

Various new gender specific treatment programs, such as Helping Women Recover, and Beyond Trauma, have been developed.\(^{(109)}\) Research has shown positive results for these programs,\(^{(76)}\)\(^{(111)}\) and a randomised control study of women receiving gender-responsive substance abuse treatment showed greater improvement, with reduced recidivism rates and lower drug use, than treatment as usual, a finding replicated in a larger study of over 5000 substance abusing women in 2014 that also showed positive results in response to gender-responsive treatment.\(^{(75)}\) The gender-responsive treatment programs included trauma counselling, provision of social support, meeting vocational needs and a post-treatment housing plan.

A multi-center study\(^{(7)}\) investigating the differences in the manifestation of psychopathy based on gender in matched forensic psychiatric patients, found many clinically significant differences. Women with psychopathy were more likely to exhibit manipulative and self-destructive behaviour during treatment, and have subtler expressions of psychopathy than males. In general, female offenders, particularly psychopaths, have much higher rates of manipulation and offences for fraud than their male equivalents. Lewis\(^{(71)}\) recommends a treatment model for female offenders that acknowledges gender specific challenges. For instance, working with women could be more difficult than male offenders due to the higher prevalence of manipulative behaviour, and the work being more emotionally demanding and time consuming. Therefore, it is important to adequately educate and train staff with appropriate skills to work effectively with female populations and address gender-specific issues, and address the frustration or countertransference the staff may feel due to these challenges.
**Conclusions and recommendations**

Despite being a minority, female offenders are the fastest growing prison population globally. Though official recidivism rates are very low for females, they may be underestimated, because of the private and subtler nature of female violence, female offenders receiving relatively lenient sentences, and more women being admitted to civil psychiatric institutions for treatment rather receiving a prison sentence. The prevalent public and professional assumptions that victimisation by a female offender is less serious than by a male offender must also be tackled to prevent the dangerous implications for both the perpetrators and the victims, and adequately protect at-risk children.

Moreover, women discharged from forensic psychiatric institutions have a high rate of adverse outcomes, including homelessness and high mortality. It is also important to consider the deleterious impact of violence/antisocial behaviour in mothers on their ability to adequately rear children, and create a safe caregiving environment. Treatment models targeted at women must aim to reduce adverse outcomes for women with timely thorough follow-ups, and provide adequate treatment, social and financial support to enable women to look after their children.

With an increasing proportion of female offenders, our knowledge and understanding of the drivers, risk factors and implications of female offenders must be increased and refined to inform evidence based practice. A recent review by Vogel et al has concluded that the gender differences in forensic psychiatry patients cannot be overlooked, and these warrant efforts from practitioners, researchers and policymakers to conduct research to improve current clinical practice in treating female offenders. They have provided excellent recommendations (Table 1) to move forward in this area:

<table>
<thead>
<tr>
<th>Table 1. Recommendations (adapted from review by Vogel et al 2016)(6)</th>
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<tr>
<td><strong>General</strong></td>
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<tr>
<td>Recognize and acknowledge gender differences in the profiles of the population, violent and antisocial behaviour, developmental pathways, risk and protective factors and treatment needs</td>
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<td><strong>Practitioners</strong></td>
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<td>Conduct gender-sensitive assessments</td>
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<tr>
<td>Provide gender-responsive treatment (e.g., focus on criminogenic needs and consider trauma, social relationships, and parenting skills)</td>
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<td>Educate staff about gender similarities and differences</td>
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### Research

Different types of studies are recommended into different topics:
- Gender differences in aetiology and developmental pathways
- Gender-specific risk and protective factors
- Predictive validity of gender-specific risk assessment variables/tools
- Value and effect of gender-responsive treatment
- Intergenerational transmission; long-term effects of female offending / violence on children
- Long-term effects of female offending on victims
- Gender-differences in policing, sentencing, pathways into and out of the criminal justice system

### Policymaking

- Acknowledge gender as a vital consideration in service delivery forensic field
- Invest in staff, monetary and technical support for the implementation of gender-sensitive assessment and gender-responsive treatment
- Promote and facilitate collaboration between different settings
- Invest in prevention strategies and research

The most common risk assessments have been established and validated in predominantly male populations, and there is limited evidence for satisfactory reliability, validity and applicability of these assessments in female populations. There is a paucity of gender-specific assessment tools, but promising data has emerged, although limited, for recently developed gender-specific assessments. It is important for mental health professionals to be educated on the limited empirical evidence for the usefulness of most risk assessment tools for females, and trained to exercise caution when interpreting the results. Further studies are needed to understand gender bias in assessment and treatment in forensic psychiatry, and explore the usefulness of gender-specific assessment tools.

Finally, clinicians and mental health professionals should prioritise addressing the specific criminogenic needs and mental health issues. Treatment models should incorporate gender specific factors, such as trauma, and parenting and social skills, to offer appropriate, effective and tailored treatment to female offenders and optimise treatment outcomes. Professionals should be aware of gender specific challenges inherent in working with female offenders, and ideally receive training to be equipped with the necessary repertoire of skills to cope with these challenges.
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